GOVT. DEGREE COLLEGE
KODUR(RS), Annamayya Dt.
Affiliated to Yogi Vemana University, Re-accredited by NAAC with 'B' Grade

1.2.1 Department wise Add on /Certificate/Value added programs

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S.No	Content
1.	IQAC Resolution Model
2.	Certificate Courses conducted by the following Departments– Chemistry Zoology Computers Science Computer Applications English Commerce Statistics Mathematics Course programmes are attached rest are provided in College Website link
3	http://gdcrlykoduru.edu.in/1-2-1-certificate-programs/

PRINCIPAL
Govt. Degree College
Koduru (RS) Annamayya Dist.

GOVERNMENT DEGREE COLLEGE
KODUR(RS), Kadapa Dt.

DEPARTMENT OF COMPUTER APPLICATIONS

CERTIFICATE COURSE

ON

DIGITAL AWARENESS

Academic Year 2018-19

Dr. A. Sri Lakshmi **M.C.A.,M.Tech.,Ph.D.**
Lecturer in Computer Applications

Govt. Degree College, Kodur (RS), Kadapa Dt.
Certificate Course
IQAC -Resolution copy

The IQAC committee along with Chair person and Coordinator, convened a meeting on 20-7-2018 and resolved to conduct " Certificate/ ~~Value Add-on~~ courses " in the month of August 2018 according to the feasibility of the departments.It is also resolved to submit the details as per the checklist well in advance by the departmentswho had given their consents.

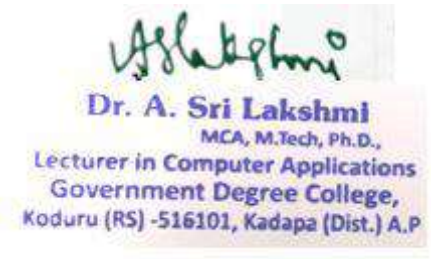
Check list:

1. **IQAC Resolution**
2. **Department wise Resolution**
3. **Course structure and planning**
    a. **Date and timing schedule**
    b. **Course out comes, Syllabus and model question papers**
    c. **Testing procedure**
    d. **Feedback form**
    e. **Model Certificate**
4. **Students' enrolment list**
5. **Attendance register for 30 hours and more (Online/ Offline)**
6. **Audio visual Aids (if available), PPTs, Handouts/ Printed material**
7. **Test(Exam) and Certificate distribution**
8. **Submission of Critical Analysis Report to IQAC**

Department Resolution Copy

Department of Computer Applications

As per the circular issued by the IQAC dated 20-7-2018 Department of Computer Applications has conducted a meeting on 21-7-2018 and unanimously resolved to conduct a Certificate / ~~Value add-on~~ course in the month of August 2018 with the duration of a minimum of 30 hours.



Notice Board

The Department of Computer Applications is going to conduct a certificate course on "Digital Awareness ", from 1-8-2018 with min 30 working hours.

Interested candidates should come and register your names in the department on and before 27-7-2018

PRINCIPAL (FAC)
Govt. Degree College
Koduru (RS), Kadapa Dt

DEPARTMENT OF COMPUTER APPLICATIONS

A Certificate Course in "Digital Awareness"

Syllabus

1. Introduction cyber space, internet
2. Need of Digitalization
3. Good things we can do on internet
4. Thing not to be done on internet
5. Netiquette

6. Thing to be aware of while using internet
7. How to indentify cyber frauds
8. How to protect you device from cyber threats
9. How to create Email account
10. Using mail groups for group communication
11. Sending attachments, searching for data in mails, creating drafts
12. How to digitalize existing hard copies, for effective store and forward
13. Creating account in Facebook
14. Communicating in Facebook
15. Dos and Don'ts while using Facebook

Outline of the course in periods:

1. Theory hours 15
2. Hands on experiment 15

Total hours allotted 30

Certificate course on Digital Awareness

Object of the course:

To generate a good sound digital awareness to the students, for safe and effective use of existing digital technologies.

COURSE OUT COME

Students will learn to make digital copies of the information, effective store, retrieve and forward techniques, use mails, creating group mails, sending and receiving group messages, creating account in Facebook and use it safely. They will also learn Netiquette

Student Enrolment list:

S.No.	Name of the Student	Group	Class/ Year	Remarks
1	B.Lakshmi prasanna	B.Com(CA)	II Year	
2	C.Prakash	B.Com(CA)	II Year	
3	C.Sateesh Kumar	B.Com(CA)	II Year	
4	K.Hari Krishna	B.Com(CA)	II Year	
5	M.Leela Kumar	B.Com(CA)	II Year	
6	N.Sukumar	B.Com(CA)	II Year	
7	S.Swathi	B.Com(CA)	II Year	
8	Y.Devamani	B.Com(CA)	II Year	
9	K.Madhuprasad	B.Com(CA)	III Year	
10	M.Guntanna	B.Com(CA)	III Year	
11	M.Ramakrishna	B.Com(CA)	III Year	
12	M.Kavitha	B.Com(CA)	III Year	
13	P.Rajeswari	B.Com(CA)	III Year	
14	S.Naresh	B.Com(CA)	III Year	
15	S.Anusha	B.Com(CA)	III Year	
16	T.Karunakar	B.Com(CA)	III Year	

Introduction

Digital literacy has become one of the most important skills of the 21st century. And we've every reason to believe that this won't change for some time—perhaps even forever.

The ability to know how to utilize digital platforms and technological devices has the potential to make your life much easier. In contrast, a lack of this knowledge is potentially hugely limiting.

Many of the skills and jobs that are in demand right now require comprehensive digital experience. This puts those without them at a distinct disadvantage.

1. **Introduction to cyberspace and the internet:**

Cyberspace and the internet: what are they?
The history of the internet and how it has evolved over time.
The benefits of the internet and how it has changed the way we live, work, and communicate.
The challenges of cyberspace and how they impact our privacy and security.

2. **Need for digitalization:**

The benefits of digitalization in various fields like healthcare, education, and business.How digitalization can improve efficiency, reduce costs, and increase accessibility.
The impact of digitalization on the economy and job market.
The challenges of digitalization and how to address them.

3. **Good things we can do on the internet:**

Online learning and educational resources.
Online shopping and e-commerce.
Connecting with friends and family through social media.
Accessing information and news from around the world.
Participating in online communities and forums.

4. **Things not to be done on the internet:**

Sharing personal information or financial details with strangers.

Cyberbullying and online harassment.
Downloading or sharing pirated content.
Engaging in illegal activities like hacking or phishing.
Spreading false information or rumors.

5. **Netiquette:**

The basic rules of online etiquette and communication.
How to write professional and effective emails.
Avoiding online conflicts and disagreements.
Respecting others' privacy and opinions.
The importance of tone and language in online communication.

6. **Things to be aware of while using the internet:**

Cybersecurity threats like malware, phishing, and hacking.
Protecting personal information and passwords.
Using secure networks and avoiding public Wi-Fi.
Identifying fake news and scams.
The impact of social media on mental health and well-being.

7. **How to identify cyber frauds:**

Recognizing phishing emails and scams.
Understanding social engineering tactics used by fraudsters.
Identifying fake websites and offers.
Checking the authenticity of online sellers and businesses.
Reporting cyber fraud to the relevant authorities.

8. **How to protect your device from cyber threats:**

Using strong passwords and two-factor authentication.
Installing antivirus and anti-malware software.
Keeping software and operating systems up-to-date.
Avoiding suspicious downloads and links.
Backing up important data and files.

9. **How to create an email account:**

Choosing a secure and reliable email provider.
Creating a username and password.
Filling in personal information and contact details.
Setting up email preferences and security settings.
Verifying the account and starting to use it.

10. **Using mail groups for group communication:**

Creating a mail group and adding members.
Sending group emails and attachments.
Replying and forwarding group emails.
Setting up group preferences and rules.
Managing group membership and removing members.

11. **Sending attachments, searching for data in mails, creating drafts:**

Attaching files and documents to emails.
Compressing large files for easier sharing.

Searching for specific emails or keywords in your inbox.
Creating and saving email drafts for later use.
Adding signatures and formatting emails for clarity.

12.How to digitalize existing hard copies for effective storage and forwarding:

Scanning and converting physical documents to digital format.
Organizing and storing digital files on a computer or cloud storage.
Sharing digital files securely with others.
Backing up digital files for safekeeping.
Destroying physical copies to protect sensitive information.

13.Creating an account in Facebook:

Signing up for a Facebook account.
Setting up a profile picture and cover photo.
Filling in personal information and interests.
Connecting with friends and family on Facebook.
Managing privacy settings and security features.

14.Communicating in Facebook:

Sending messages to individual users or groups.
Using Facebook Messenger for real-time communication.
Commenting on posts and pages.
Creating and participating in events.
Using Facebook Live for video communication.

15.Dos and Don'ts while using Facebook:

Dos:
Set privacy settings to limit access to personal information.
Use strong and unique passwords for Facebook.
Think before posting and avoid sharing sensitive or inappropriate content.
Engage in respectful and constructive discussions with others.
Use Facebook for networking and professional purposes.
Don'ts:
Share personal information like phone numbers or home addresses.
Engage in cyber bullying or online harassment.
Share fake news or rumors.
Add strangers as friends without verifying their identity.
Use Facebook for illegal or unethical activities.

Certificate Course on Digital Awareness- Attendance Sheet

S. No.	Name of the Student	Group	Year	01-08-19	01-08-19	02-08-19	02-08-19	03-08-19	03-08-19	04-08-19	04-08-19	05-08-19	05-08-19	05-08-19	05-08-19	06-08-19	06-08-19	07-08-19	72-08-19	08-08-19	08-08-19	09-08-19	09-08-19
1	B.Lakshmi prasanna	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P

2	C.Prakash	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
3	C.Sateesh Kumar	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
4	K.Hari Krishna	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
5	M.Leela Kumar	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	A	A	P	P
6	N.Sukumar	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
7	S.Swathi	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
8	Y.Devamani	B.Com(CA)	II Year	p	p	p	p	P	p	p	A	A	A	A	p	p	p	p	p	p	p	P	P
9	K.Madhuprasad	B.Com(CA)	III Year	p	p	p	p	P	p	p	A	A	A	A	p	p	p	p	p	p	p	P	P
10	M.Guntanna	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
11	M.Ramakrishna	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
12	M.Kavitha	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
13	P.Rajeswari	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
14	S.Naresh	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
15	S.Anusha	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P
16	T.Karunakar	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p	p	p	p	p	p	p	P	P

Dr. A. Sri Lakshmi
MCA, M.Tech, Ph.D.,
Lecturer in Computer Applications
Government Degree College,
Koduru (RS) -516101, Kadapa (Dist.) A.P

PRINCIPAL (FAC)
Govt. Degree College
Koduru (RS), Kadapa Dt

S.No.	Name of the Student	Group	Class/ Year	10-08-18	10-08-18	11-08-18	11-08-18	12-08-18	12-08-18	12-08-18	12-08-18	13-08-18	13-08-18	14-08-18	14-08-18

1	B.Lakshmi prasanna	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p
2	C.Prakash	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p
3	C.Sateesh Kumar	B.Com(CA)	II Year	p	p	p	p	P	p	p	p	p	p	P	p
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13	P.Rajeswari	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p
14	S.Naresh	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p
15	S.Anusha	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p
16	T.Karunakar	B.Com(CA)	III Year	p	p	p	p	P	p	p	p	p	p	P	p

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Koduru (RS), Kadapa Dt

Certificate Course on Digital Awareness

Feedback form:

Course feedback form:

1. Were objectives of the course clear to

   you1)Yes 2). No

2. The course contents met your expectations

   1) Yes 2) No

3. The level of the course was

   1) Good 2)Not Good

4. The contents were illustrated with

   1) More examples 2) Few examples

5. The course exposed you to new knowledge and practices

   1) Agree 2) Not agree

6. Will you recommend this course to your next Batch

   1) Yes 2) No

Critical Analysis Report:

The Department of Computer Applications has conducted a certificate course on "Digital Awareness " from 01-08-2018 to 31-080-2018 with the minimum duration of 30 hours. According to the IQAC and Principals instruction the course have been started the feasibility and convenient of the hours for this academic year. The total students 23were registered for this course and completed as per the schedule. The objective of the course was fulfilled by acquiring Digital Awareness, Protecting from cyber crimes, creating and managing E-Mails, how to create account on Facebook and manage the Facebook account.

Outcomes of the Course:

1. **Students understood the basic concepts and terminologies of Cyber Space and the Internet**
2. **Students have learnt significance of digitalization in modern-day society**
3. **Students have learnt the positive aspects of using the internet for social, personal, and professional purposes**
4. **They understood the potential risks and threats associated with the use of the internet**
5. **Students have learnt to identify harmful and illegal activities that should be avoided online**
6. **Students understood the basic rules of online etiquette and good behavior**
7. **Students understood the potential risks and vulnerabilities associated with online activities**
8. **Students understood the different types of cyber frauds and scams. Analyze the potential consequences of falling prey to cyber frauds**
9. **Students understood the different types of cyber threats and attacks**
10. **Students have learnt strategies for protecting personal devices and data from cyber threats**
11. **Students have learn how to create Email account, and communicate through mail**
12. **Students understood how to use mail groups for group communication**
13. **They have learnt, how to send attachments, searching for data in mails, creating drafts**
14. **Students have learn how to digitalize existing hard copies, for effective store and forward**
15. **Students have learnt the process of creating account in Facebook, and communicating**
16. **Students have learn the Dos and Don'ts while using Facebook**

Hence, the certificate course "Digital Awareness" is very useful to B.Com (CA),

Students. The feedback from students were collected and analyzed. All the students showed interest to do such type of Certificate course and to continue it for further years also.

GOVT.DEGREE COLLEGE: KODUR(RS)

IQAC -Resolution copy

The IQAC committee along with Chair person and Coordinator, convened a meeting on 20/06/2022 and resolved to conduct . Certificate/ Value Add-on courses " in the month of June 2022 according to the feasibility of the departments.

It is also resolved to submit the details as per the checklist well in advance by the departments who had given their consents.

Check list:

1. **IQAC Resolution**
2. **Department wise Resolution**
3. **Course structure and planning**
    a. **Date and timing schedule**
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6. **Audio visual Aids (if available), PPTs, Handouts/ Printed material**
7. **Test(Exam) and Certificate distribution**

8. Submission of Critical Analysis Report to IQAC

Department Resolution Copy

Department of Statistics

As per the circular issued by the IQAC dated 20/06/2022 the department of Statistics has conducted a meeting on 20/06/2022 and unanimously resolved to conduct a Certificate / Value add-on course in the month of June 2022 with the duration of a minimum of 30 hours.

Notice Board

The department of statistics is going to conduct a certificate course on "Statistics: A do it yourself on EXCEL", from 01/07/2022 with min 30 working hours.

Interested candidates should come and register your names in the department on and before 27/06/2022

DEPARTMENT OF STATISTICS:: GDC, KODUR

A Certificate Course in "Statistics: A Do It Yourself on EXCEL"

Syllabus

1. Introduction on Statistical Packages
2. EXCEL screen
3. Entering Data
4. Create Graph
5. Line chart
6. Bar chart
7. Pie chart
8. Scatter plot
9. Straight lines
10. Descriptive Statistics
11. Statistical functions
12. t- test
13. F-test
14. ANOVA
15. Model Test

Outline of the course in periods:

1.	Theory hours	15
2.	Hands on experiment	15
Total hours allotted		30

Object of the course:

To generate a good sound knowledge on using Statistical functions in EXCEL for all Mathematical Students in the institution with free of cost.

COURSE OUT COME

Students will learn to understand the statistical concepts and apply them in MS- EXCEL easily. They should know the EXCEL concepts well in advance. After completion of this certificate course, all the students should get familiar knowledge in using MS- EXCEL commands and functions like min, max, count, average, median, mode, range, standard deviation, correlation, regression, t-test, F-test, ANOVA test, Diagrams and Charts etc.,

Student Enrolment list:

SNO	Roll No	Name of the Student	Group
1	216028054001	C. REDDY GANESH	I B.Sc(M.S.Cs)
2	216028054002	G. SIVA KUMAR	I B.Sc(M.S.Cs)
3	216028054003	J. BALAJI	I B.Sc(M.S.Cs)
4	216028054004	J. SUPRAJA	I B.Sc(M.S.Cs)
5	216028054006	K. SWATHI	I B.Sc(M.S.Cs)
6	216028054008	L. YUVA TEJA	I B.Sc(M.S.Cs)
7	216028054009	M.PALLAVI	I B.Sc(M.S.Cs)
8	216028054011	S. NOOR MOHAMMAD	I B.Sc(M.S.Cs)
9	216028054012	S. VISHNU	I B.Sc(M.S.Cs)
10	216028054013	S. SUSMITHA	I B.Sc(M.S.Cs)
11	216028054014	U. SOWMYA	I B.Sc(M.S.Cs)

Total No of Registered Students:11

Introduction

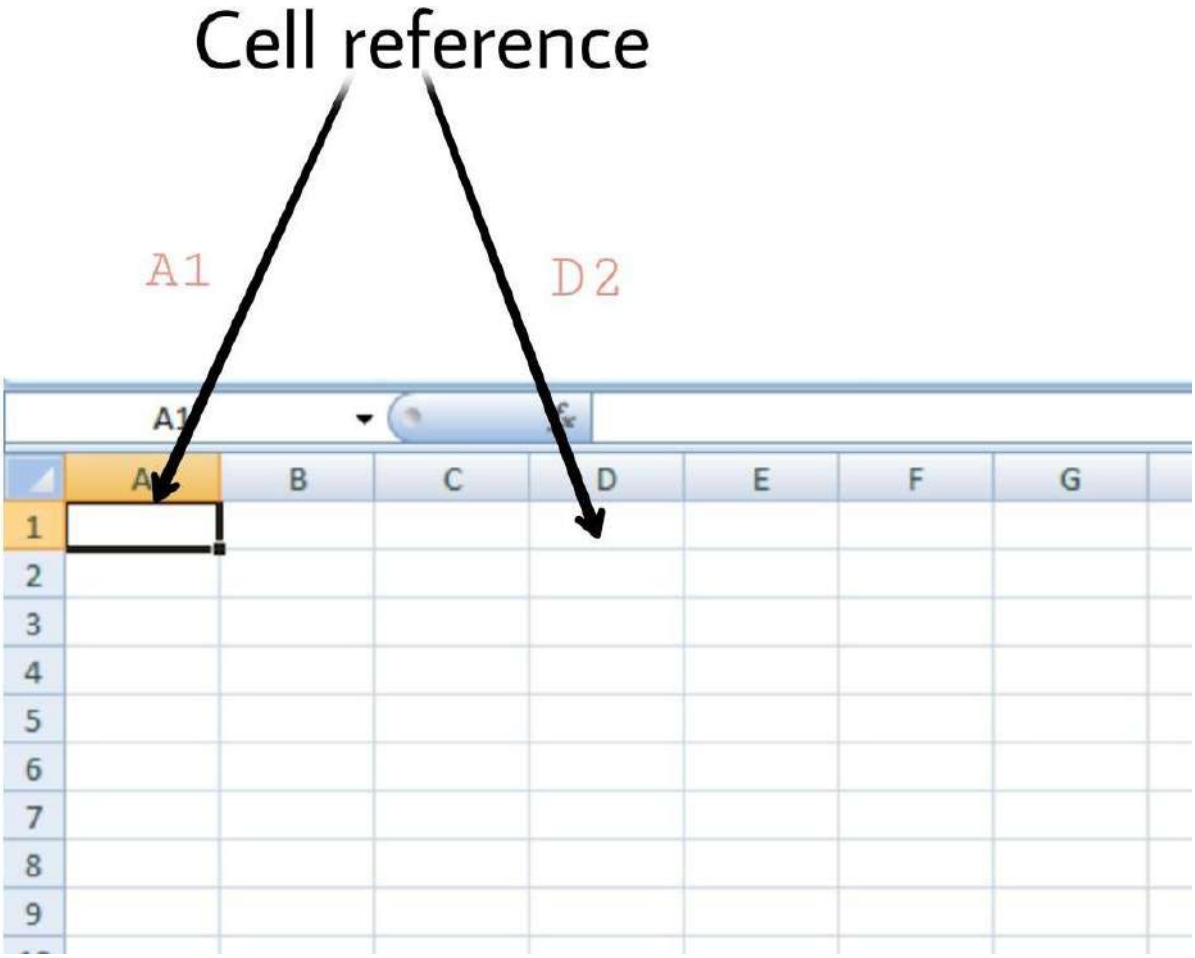
MS-EXCEL is a part of Microsoft Office suite software. It is an electronic spreadsheet with numerous rows and columns, used for organizing data, graphically represent data(s), and performing different calculations. It consists of 1048576 rows and 16384 columns, a row and column together make a cell. Each cell has an address defined by column name and row number example A1, D2, etc. this is also known as a cell reference.

Cell references: The address or name of a cell or a range of cells is known as Cell reference. It helps the software to identify the cell from where the data/value is to be used in the formula. We can reference the cell of other worksheets and also of other programs.

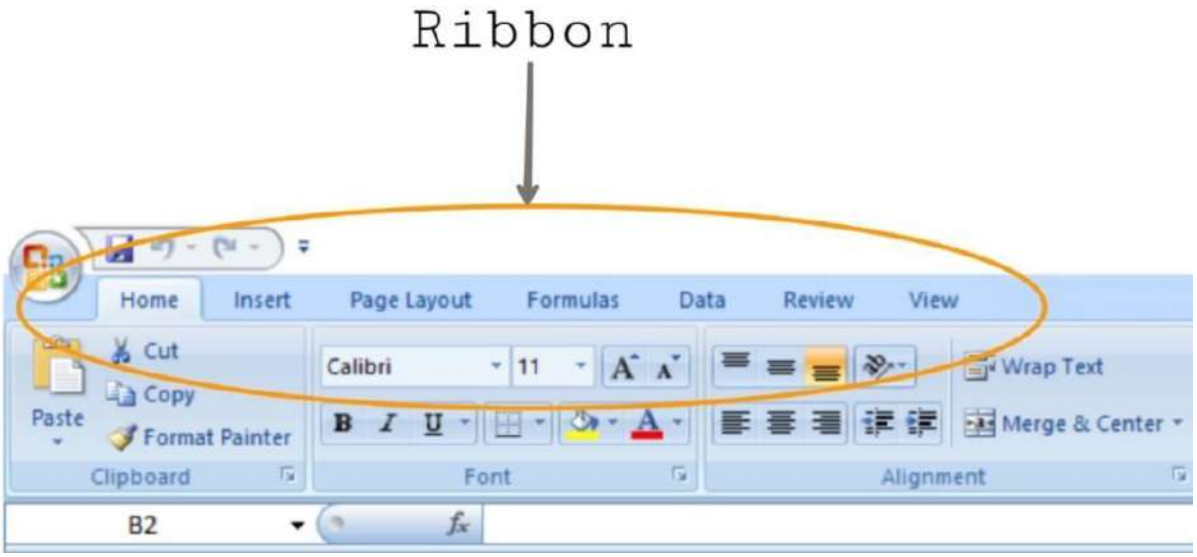
- Referencing the cell of other worksheets is known as External referencing.
- Referencing the cell of other programs is known as Remote referencing.

There are three types of cell references in Excel:

1. Relative reference.
2. Absolute reference.
3. Mixed reference.



The Ribbon in MS-Excel is the topmost row of tabs that provide the user with different facilities/functionalities. These tabs are:



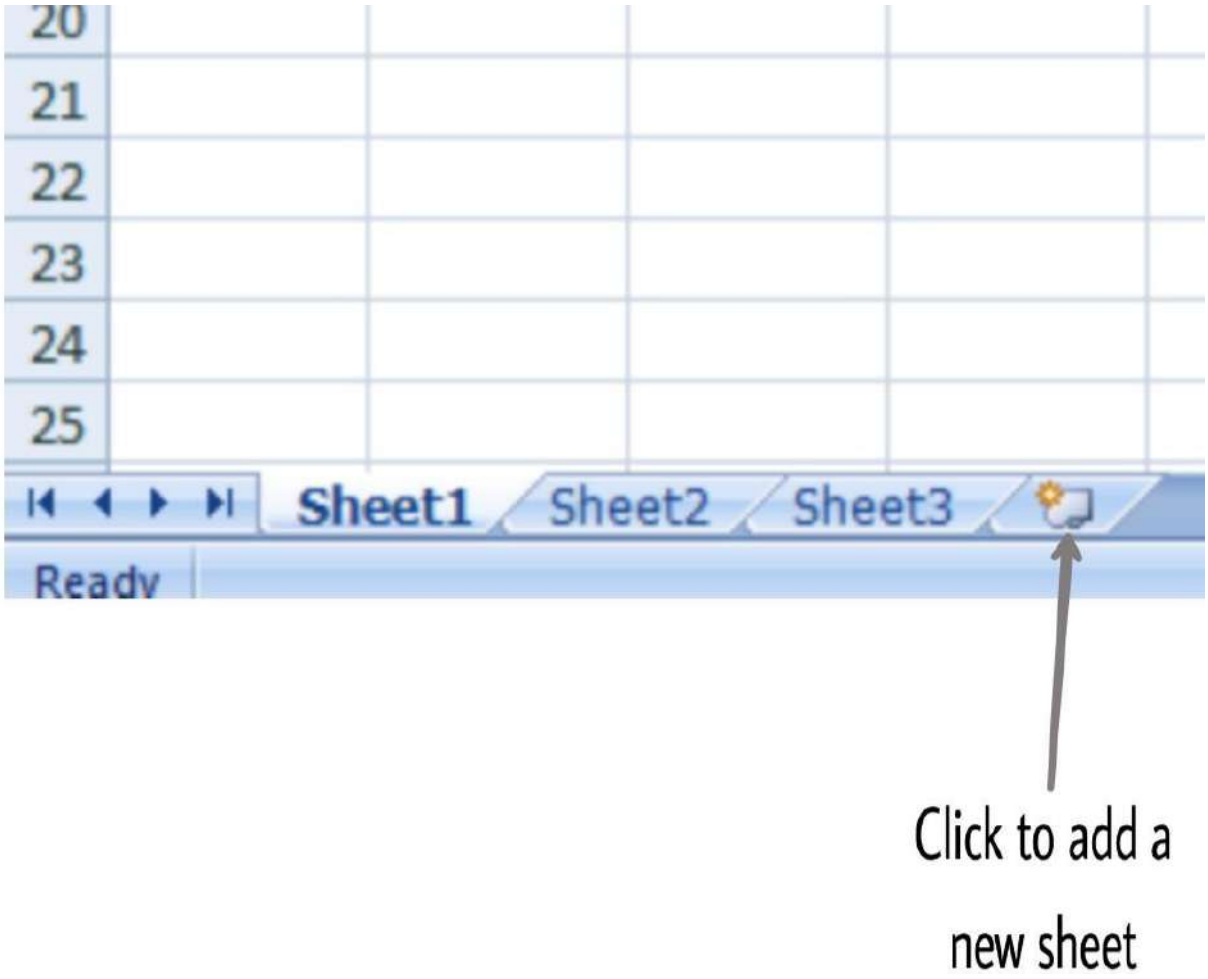
1. **Home Tab:** It provides the basic facilities like changing the font, size of text, editing the cells in the spreadsheet, autosum, etc.

2. **Insert Tab:** It provides the facilities like inserting tables, pivot tables, images, clip art, charts, links, etc.
3. Page layout: It provides all the facilities related to the spreadsheet-like margins, orientation, height, width, background etc. The worksheet appearance will be the same in the hard copy as well.
4. **Formulas:** It is a package of different in-built formulas/functions which can be used by user just by selecting the cell or range of cells for values.
5. **Data:** The Data Tab helps to perform different operations on a vast set of data like analysis through what-if analysis tools and many other data analysis tools, removing duplicate data, transpose the row and column, etc. It also helps to access data(s) from different sources as well, such as from Ms-Access, from web, etc.
6. **Review:** This tab provides the facility of thesaurus, checking spellings, translating the text, and helps to protect and share the worksheet and workbook.
7. **View:** It contains the commands to manage the view of the workbook, show/hide ruler, gridlines, etc, freezing panes, and adding macros.

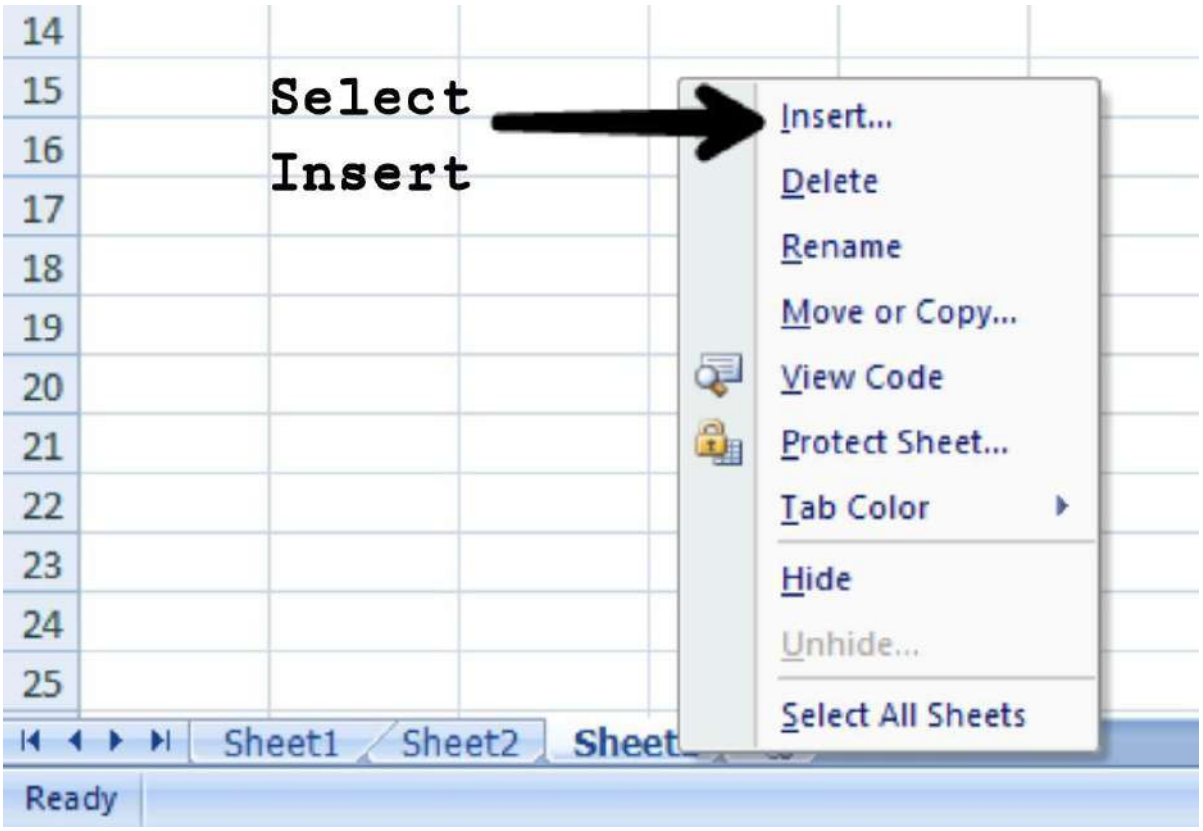
Creating a new spreadsheet:

In Excel 3 sheets are already opened by default, now to add a new sheet :

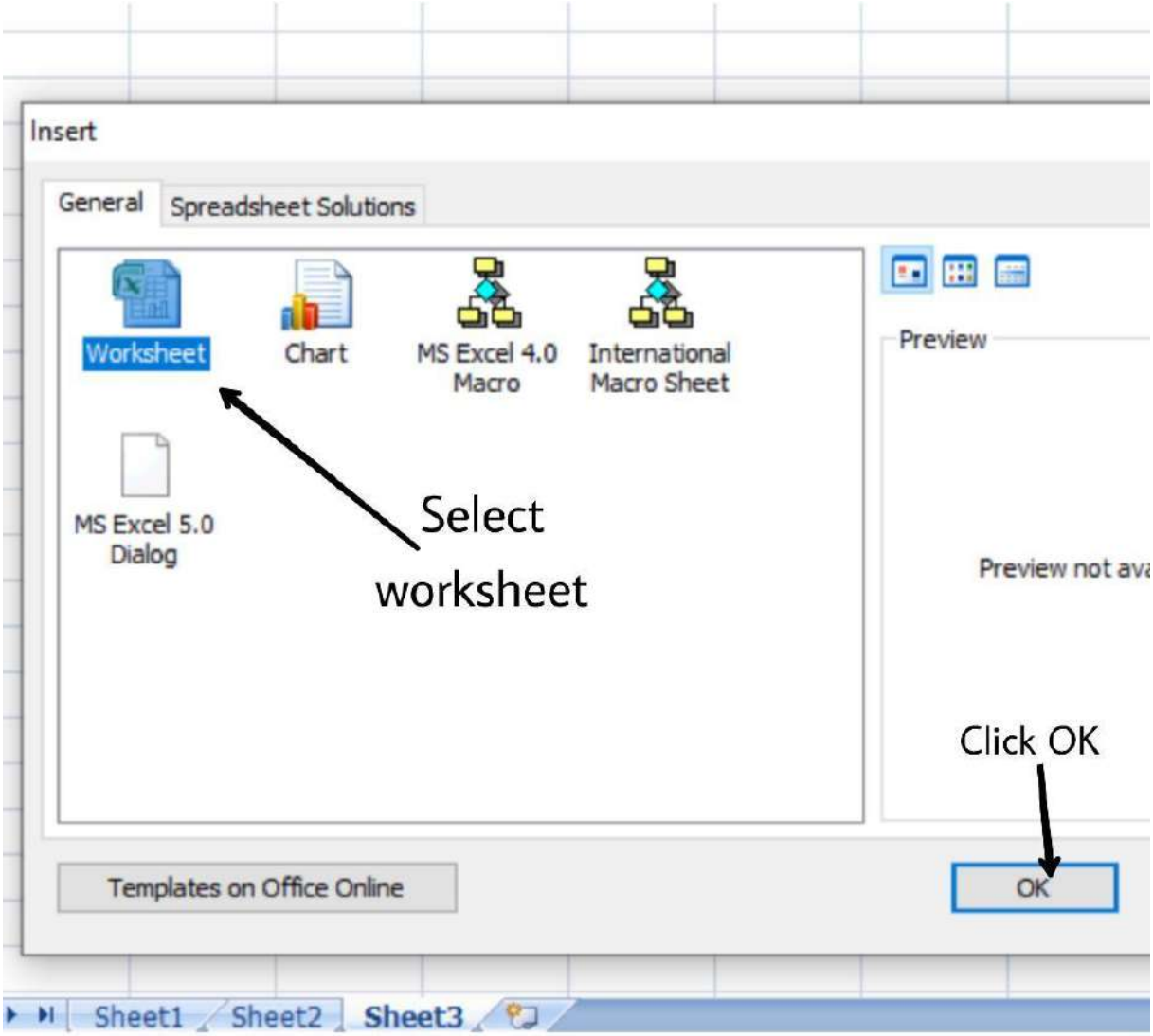
- In the lowermost pane in Excel, you can find a button.
- Click on that button to add a new sheet.



- We can also achieve the same by Right-clicking on the sheet number before which you want to insert the sheet.
- Click on Insert.



- Select Worksheet.
- Click OK.

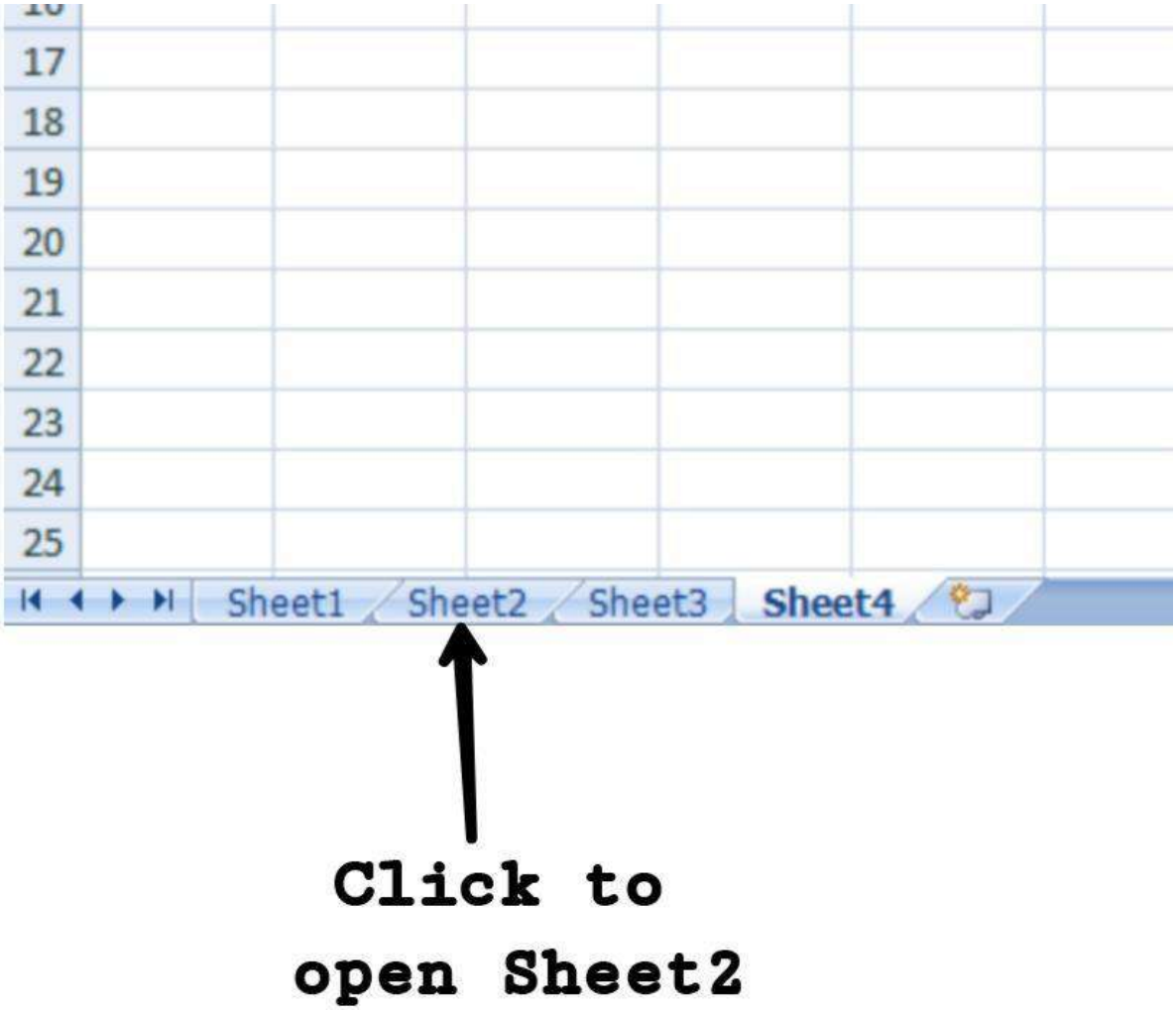


Opening previous spreadsheet:

On the lowermost pane in Excel, you can find the name of the current sheet you have opened.

On the left side of this sheet, the name of previous sheets are also available like Sheet 2, Sheet 3 will be available at the left of sheet4, click on the number/name of the sheet you want to open and the sheet will open in the same workbook.

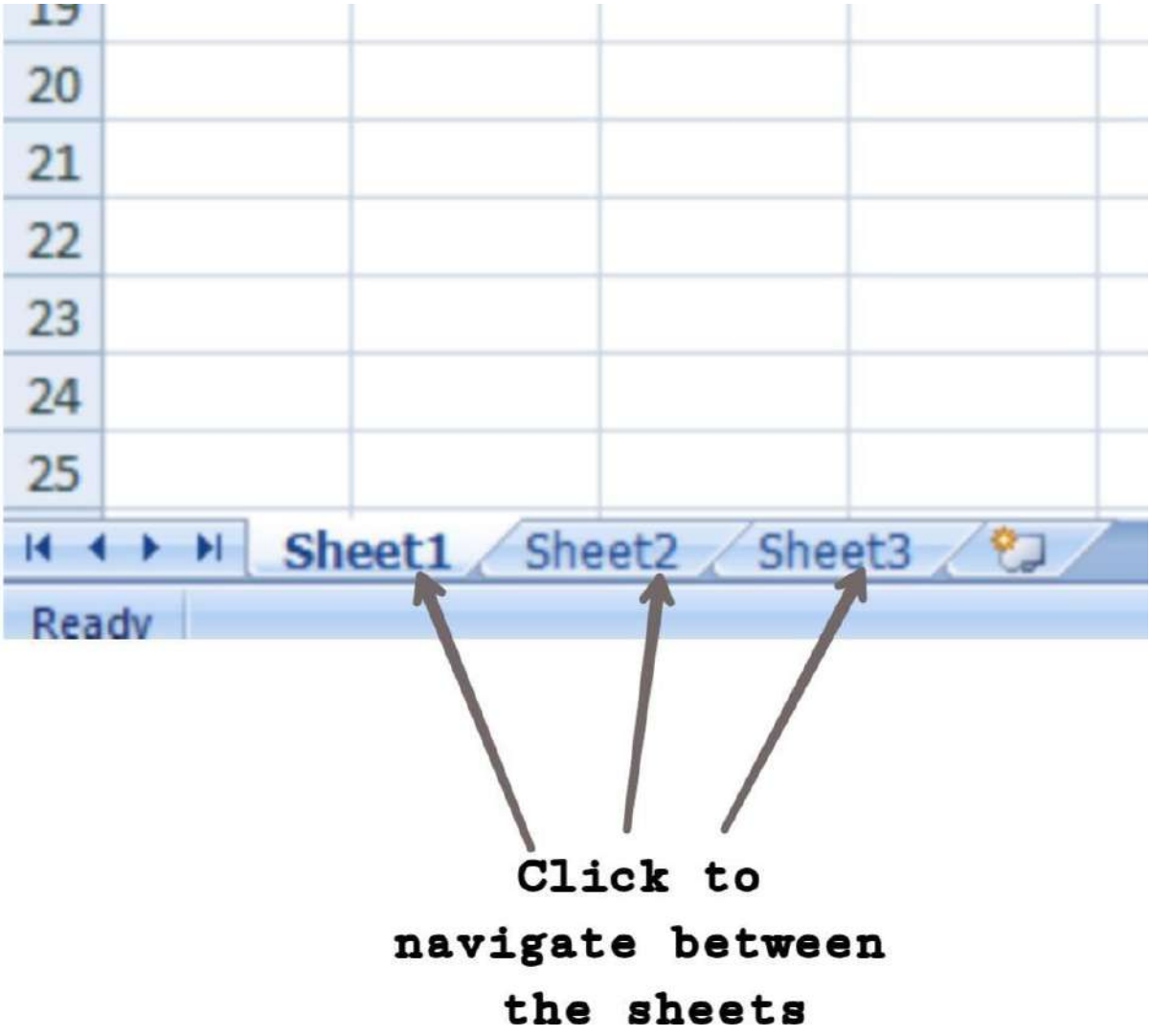
For example, we are on Sheet 4, and we want to open Sheet 2 then simply just click on Sheet2 to open it.



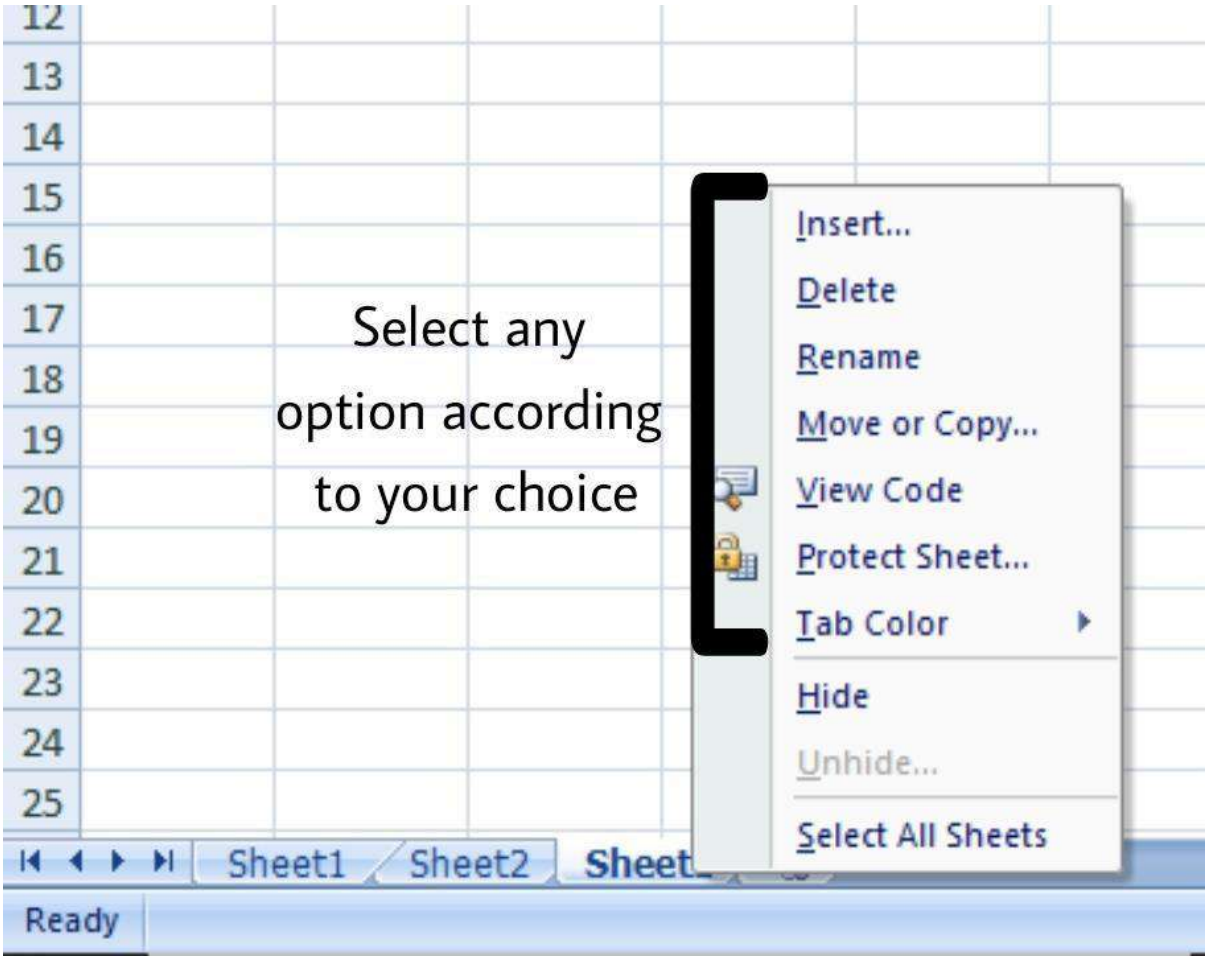
Managing the spreadsheets:

You can easily manage the spreadsheets in Excel simply by :

- Simply navigating between the sheets.



- Right-clicking on the sheet name or number on the pane.
- Choose among the various options available like, move, copy, rename, add, delete etc.
- You can move/copy your sheet to other workbooks as well just by selecting the workbook in the *To workbook* and the sheet before you want to insert the sheet in *Before sheet.*



To save the workbook:

1. Click on the Office Button or the File tab.
2. Click on Save As option.
3. Write the desired name of your file.
4. Click OK.

To share your workbook:

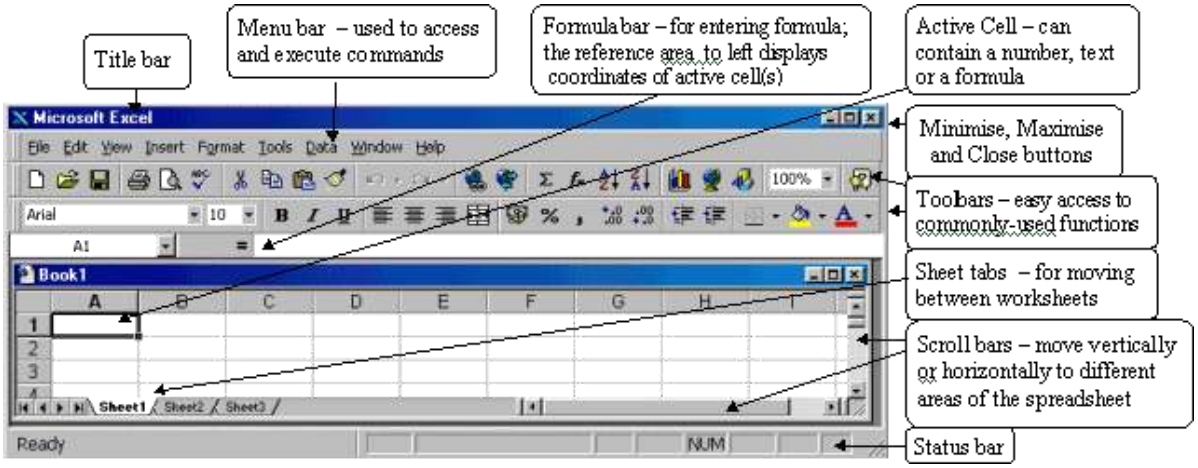
1. Click on the Review tab on the Ribbon.
2. Click on the share workbook (under Changes group).
3. If you want to protect your workbook and then make it available for another user then click on Protect and Share Workbook option.
4. Now check the option "*Allow changes by more than one user at the same time. This also allows workbook merging"* in the *Share Workbook* dialog box.
5. Many other options are also available in the Advanced like track, update changes.
6. Click OK.

Ms-Excel shortcuts:

1. **Ctrl+N:** To open a new workbook.
2. **Ctrl+O:** To open a saved workbook.
3. **Ctrl+S:** To save a workbook.

4. **Ctrl+C:** To copy the selected cells.
5. **Ctrl+V:** To paste the copied cells.
6. **Ctrl+X:** To cut the selected cells.
7. **Ctrl+W:** To close the workbook.
8. **Delete:** To remove all the contents from the cell.
9. **Ctrl+P:** To print the workbook.
10. **Ctrl+Z:** To undo.

Excel screen



Entering Data

A new worksheet is a grid of rows and columns. The rows are labelled with numbers, and the columns are labelled with letters. Each intersection of a row and a column is a cell. Each cell has an address, which is the column letter and the row number. The arrow on the worksheet to the right points to cell A1, which is currently highlighted, indicating that it is an active cell. A cell must be active to enter information into it. To highlight (select) a cell, click on it.

To select more than one cell:

Click on a cell (e.g. A1), then hold the shift key while you click on another (e.g. D4) to select all cells between and including A1 and D4.

Click on a cell (e.g. A1) and drag the mouse across the desired range, unclicking on another cell (e.g. D4) to select all cells between and including A1 and D4.

To select several cells which are not adjacent, press "control" and click on the cells you want to select. Click a number or letter labelling a row or column to select that entire row or column.

One worksheet can have up to 256 columns and 65,536 rows, so it will be a while before you run out of space.

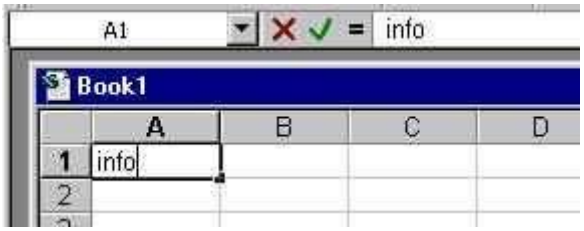
Each cell can contain a label, value, logical value, or formula.

Labels can contain any combination of letters, numbers, or symbols.

Values are numbers. Only values (numbers) can be used in calculations. A value can also be a date or a time

Logical values are "true" or "false."

Formulas automatically do calculations on the values in other specified cells and display the result in the cell in which the formula is entered (for example, you can specify that cell D3 is to contain the sum of the numbers in B3 and C3; the number displayed in D3 will then be a function of the numbers entered B3 and C3).



To enter information into a cell, select the cell and begin typing.

Note that as you type information into the cell, the information you enter also displays in the formula bar. You can also enter information into the formula bar, and the information will appear in the selected cell.

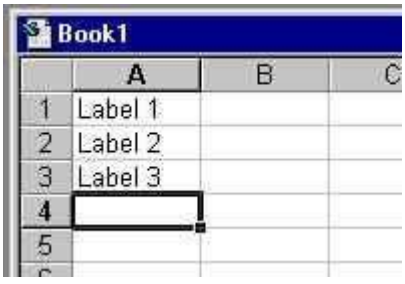
When you have finished entering the label or value:

Press "Enter" to move to the next cell below (in this case, A2)

Press "Tab" to move to the next cell to the right (in this case, B1)

Click in any cell to select it

Entering Labels



Unless the information you enter is formatted as a value or a formula, Excel will interpret it as a label, and defaults to align the text on the left side of the cell.

If you are creating a long worksheet and you will be repeating the same label information in many different cells, you can use the AutoComplete function. This function will look at other entries in the same column and attempt to match a previous entry with your current entry. For example, if you have already typed "Wesleyan" in another cell and you type "W" in a new cell, Excel will automatically enter "Wesleyan." If you intended to type "Wesleyan" into the cell, your task is done, and you can move on to the next cell. If you intended to type something else,
e.g. "Williams," into the cell, just continue typing to enter the term.

To turn on the AutoComplete function, click on "Tools" in the menu bar, then select "Options," then select "Edit," and click to put a check in the box beside "Enable AutoComplete for cell values."

Another way to quickly enter repeated labels is to use the Pick List feature. Right click on a cell, then select "Pick From List." This will give you a menu of all other entries in cells in that column. Click on an item in the menu to enter it into the currently selected cell.

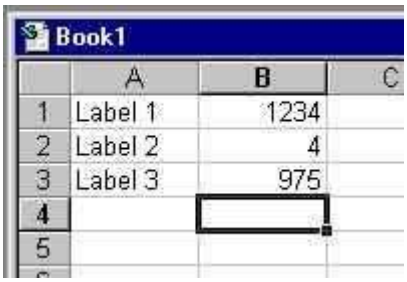
Entering Values

A value is a number, date, or time, plus a few symbols if necessary to further define the numbers [such as: . , + - ( ) % $ /].

Numbers are assumed to be positive; to enter a negative number, use a minus sign "-" or enclose the number in parentheses "()".

Dates are stored as MM/DD/YYYY, but you do not have to enter it precisely in that format. If you enter "jan 9" or "jan-9", Excel will recognize it at January 9 of the current year, and store it as 1/9/2002. Enter the four-digit year for a year other than the current year (e.g. "jan 9, 1999"). To enter the current day's date, press "control" and ";" at the same time.

Times default to a 24 hour clock. Use "a" or "p" to indicate "am" or "pm" if you use a 12 hour clock (e.g. "8:30 p" is interpreted as 8:30 PM). To enter the current time, press "control" and ":" (shift-semicolon) at the same time.



An entry interpreted as a value (number, date, or time) is aligned to the right side of the cell, to reformat a value.

Rounding Numbers that Meet Specified Criteria: To apply colours to maximum and/or minimum values:

Select a cell in the region, and press Ctrl+Shift+* (in Excel 2003, press this or Ctrl+A) to select the Current Region.

From the Format menu, select Conditional Formatting.

In Condition 1, select Formula Is, and type =MAX($F:$F) =$F1.

Click Format, select the Font tab, select a colour, and then click OK.

In Condition 2, select Formula Is, and type =MIN($F:$F) =$F1.

Repeat step 4, select a different colour than you selected for Condition 1, and then click OK.

Note: Be sure to distinguish between absolute reference and relative reference when entering the formulas.

Rounding Numbers that Meet Specified Criteria

Problem: Rounding all the numbers in column A to zero decimal places, except for those that have "5" in the first decimal place.

Solution: Use the IF, MOD, and ROUND functions in the following formula: =IF(MOD(A2,1)=0.5,A2,ROUND(A2,0))

To Copy and Paste All Cells in a Sheet

Select the cells in the sheet by pressing Ctrl+A (in Excel 2003, select a cell in a blank area before pressing Ctrl+A, or from a selected cell in a Current Region/List range, pressCtrl+A+A). OR
Click Select All at the top-left intersection of rows and columns.

Press Ctrl+C.

Press Ctrl+Page Down to select another sheet, then select cell A1.

Press Enter.

To Copy the Entire Sheet

Copying the entire sheet means copying the cells, the page setup parameters, and the defined range Names.

Option 1:

Move the mouse pointer to a sheet tab.

Press Ctrl, and hold the mouse to drag the sheet to a different location.

Release the mouse button and the Ctrl key.

Option 2:

Right-click the appropriate sheet tab.

From the shortcut menu, select Move or Copy. The Move or Copy dialog box enables one to copy the sheet either to a different location in the current workbook or to a different workbook. Be sure to mark the Create a copy checkbox.

Option 3:

From the Window menu, select Arrange.

Select Tiled to tile all open workbooks in the window.

Use Option 1 (dragging the sheet while pressing Ctrl) to copy or move a sheet.

Sorting by Columns

The default setting for sorting in Ascending or Descending order is by row. To sort by

columns: From the Data menu, select Sort, and then Options.

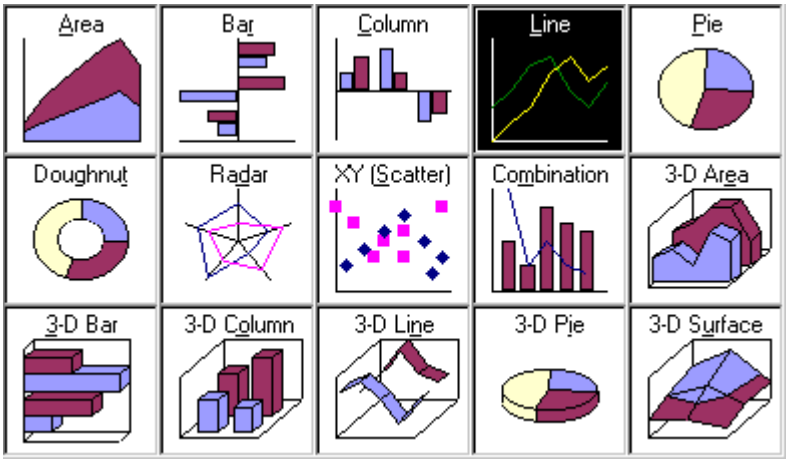
Select the Sort left to right option button and click OK.

In the Sort by option of the Sort dialog box, select the row number by which the columns will be sorted and click OK.

Descriptive Statistics

The Data Analysis Tool Pak has a Descriptive Statistics tool that provides you with an easy way to calculate summary statistics for a set of sample data. Summary statistics includes Mean, Standard Error, Median, Mode, Standard Deviation, Variance, Kurtosis, Skewness, Range, Minimum, Maximum, Sum, and Count. This tool eliminates the need to type individual functions to find each of these results. Excel includes elaborate and customisable toolbars, for example the "standard" toolbar shown here:

Some of the icons are useful mathematical computation:  is the "Autosum" icon, which enters the formula "=sum()" to add up a range of cells.  is the "FunctionWizard" icon, which gives you access to all the functions available.  is the "GraphWizard" icon, giving access to all graph types available, as shown in this display:



Excel can be used to generate measures of location and variability for a variable. Suppose we wish to find descriptive statistics for a sample data: 2, 4, 6, and 8.

Step 1. Select the Tools *pull-down menu, if you see data analysis, click on this option, otherwise, click on add-in.. option to install analysis tool pak.

Step 2. Click on the data analysis option.

Step 3. Choose Descriptive Statistics from Analysis Tools list.

Step 4. When the dialog box appears:

Enter A1:A4 in the input range box, A1 is a value in column A and row 1, in this case this value is 2. Using the same technique enter other VALUES until you reach the last one. If a sample consists of 20 numbers, you can select for example A1, A2, A3, etc. as the input range.

Step 5. Select an output range, in this case B1. Click on summary statistics to see the results. Select OK.

When you click OK, you will see the result in the selected range.

As you will see, the mean of the sample is 5, the median is 5, the standard deviation is 2.581989, the sample variance is 6.666667, the range is 6 and so on. Each of these factors might be important in your calculation of different statistical procedures.

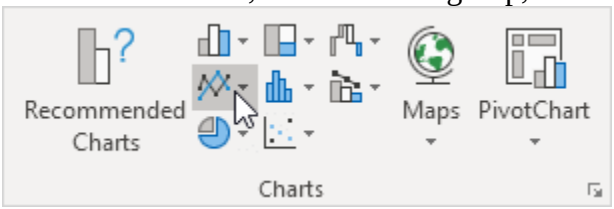
Create a Chart

To create a line chart, execute the following steps.

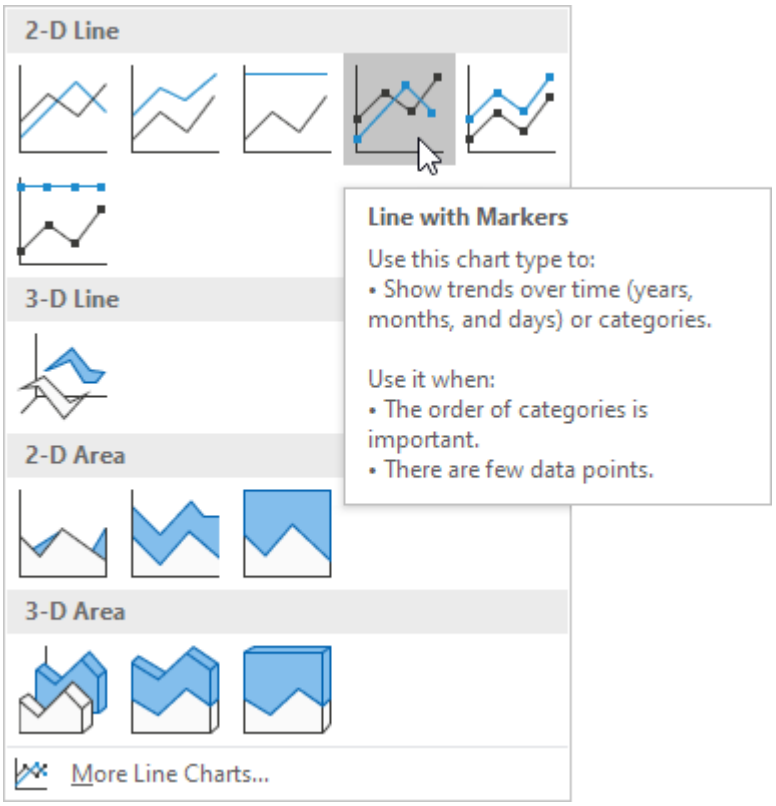
1. Select the range A1:D7.

	A	B	C	D	E
1	Month	Bears	Dolphins	Whales	
2	Jan	8	150	80	
3	Feb	54	77	54	
4	Mar	93	32	100	
5	Apr	116	11	76	
6	May	137	6	93	
7	Jun	184	1	72	
8					

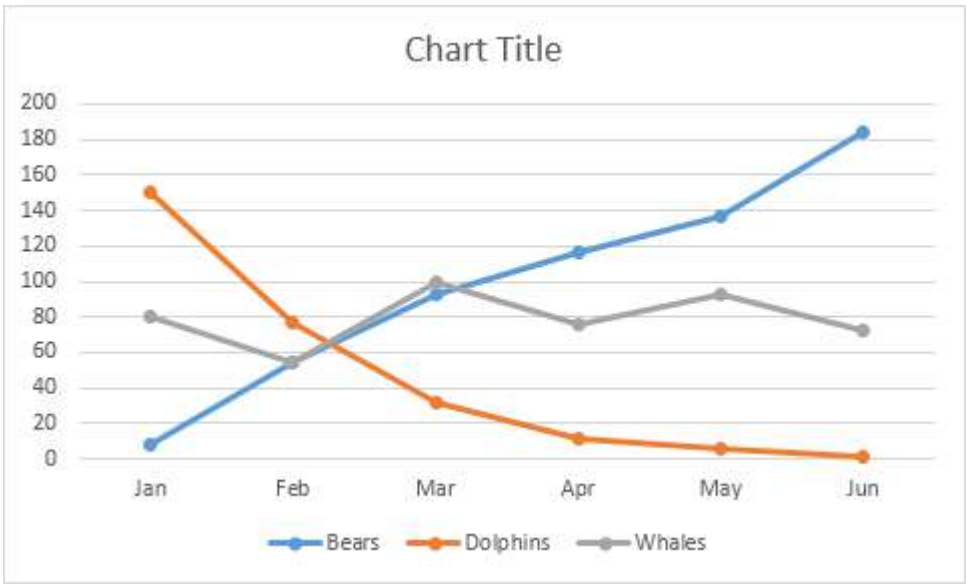
2. On the Insert tab, in the **Charts** group, click the Line symbol.



3. Click Line with Markers.



Result:



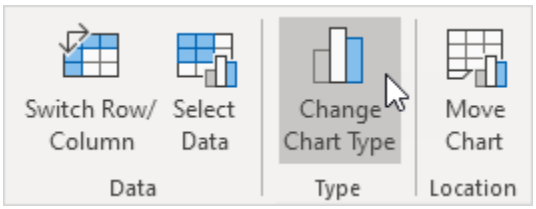
Note: enter a title by clicking on Chart Title. For example, Wildlife Population.

Change Chart Type

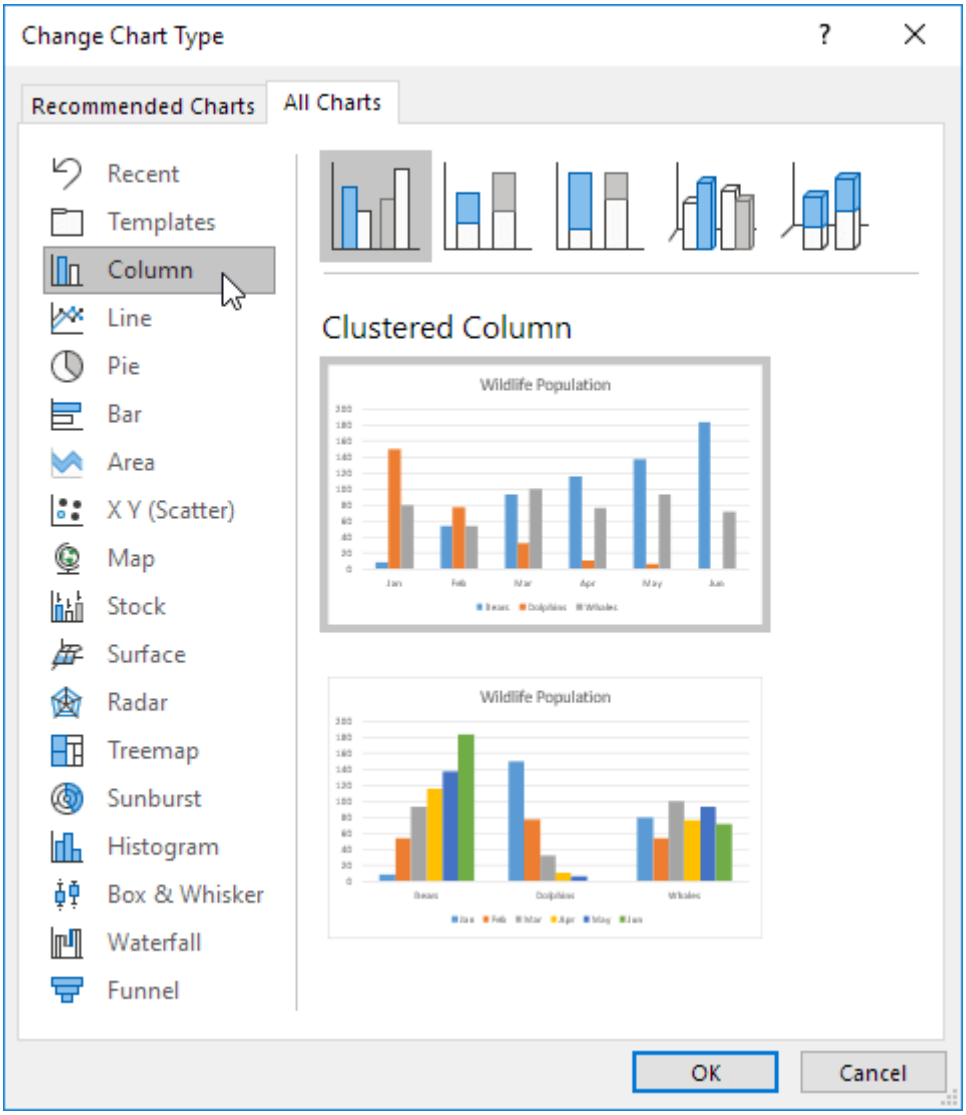
You can easily change to a different type of chart at any time.

1. Select the chart.

2. On the Chart Design tab, in the Type group, click Change Chart Type.

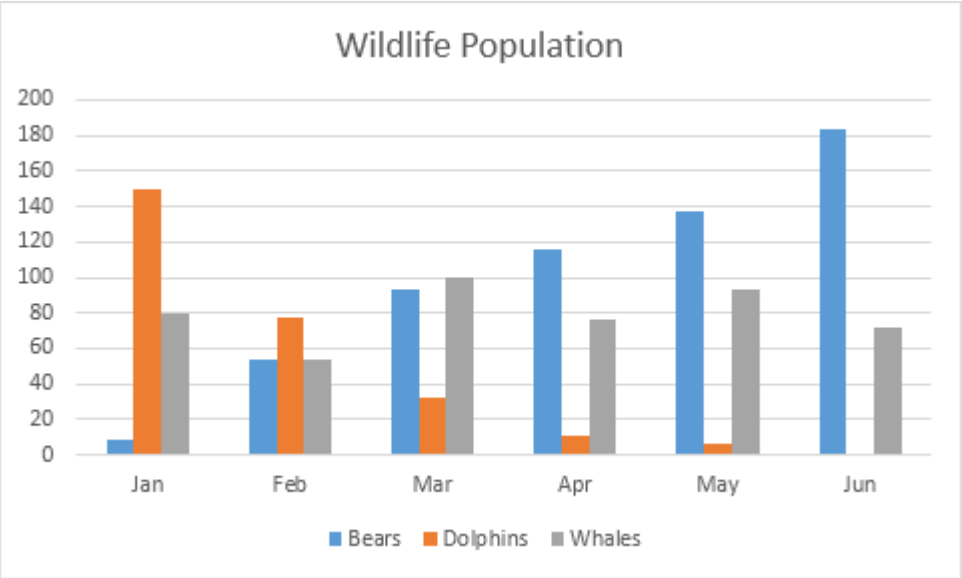


3. On the left side, click Column.



4. Click OK.

Result:

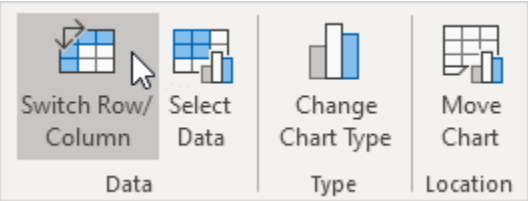


Switch Row/Column

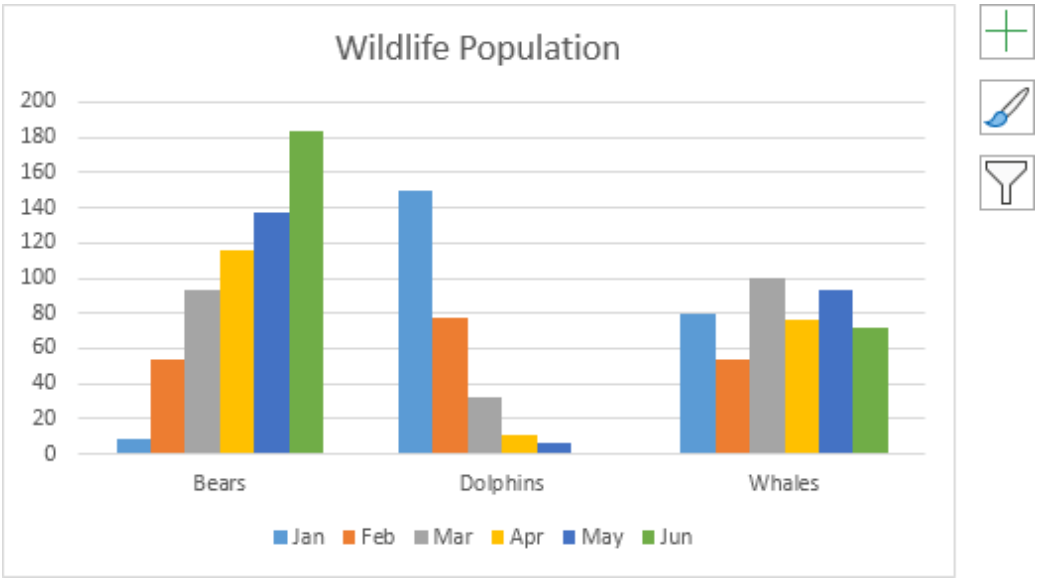
If you want to display the animals (instead of the months) on the horizontal axis, execute the following steps.

1. Select the chart.

2. On the Chart Design tab, in the Data group, click Switch Row/Column.



Result:

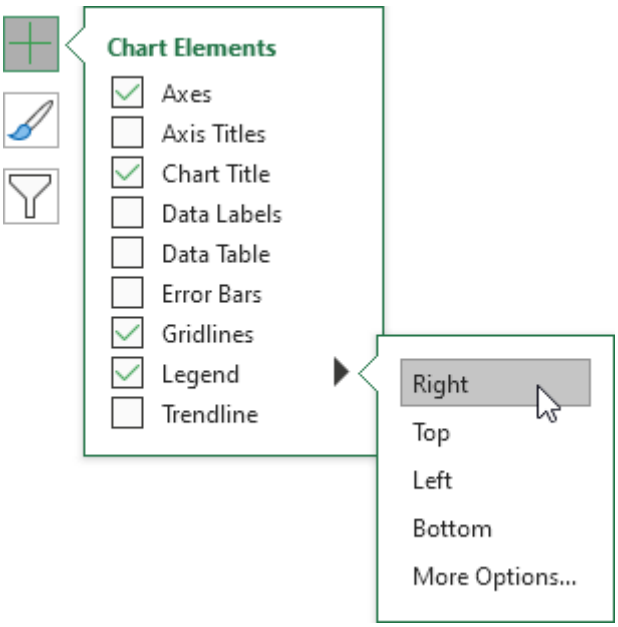


Legend Position

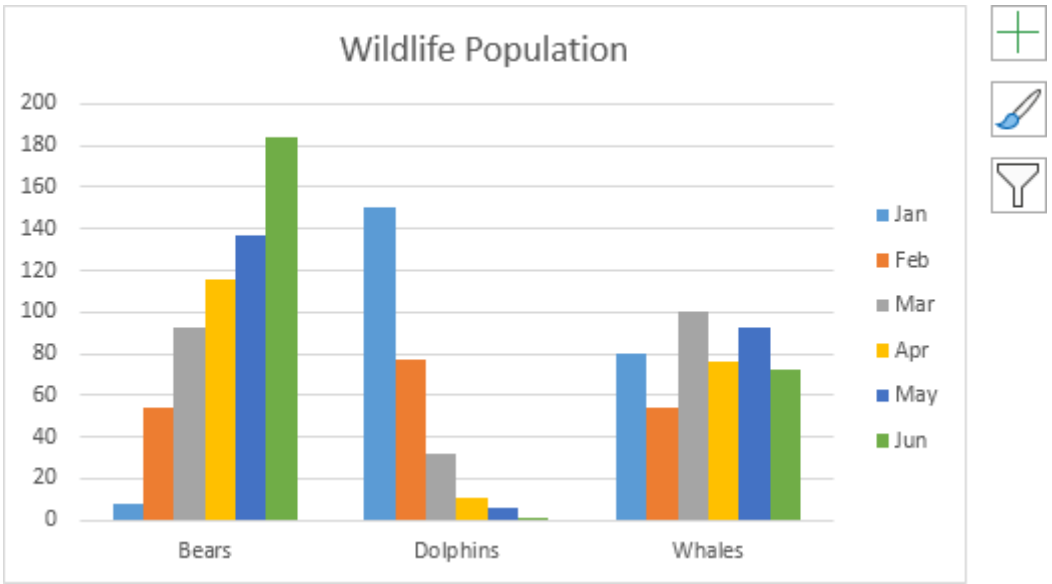
To move the legend to the right side of the chart, execute the following steps.

1. Select the chart.

2. Click the + button on the right side of the chart, click the arrow next to Legend and click Right.



Result:



Data Labels

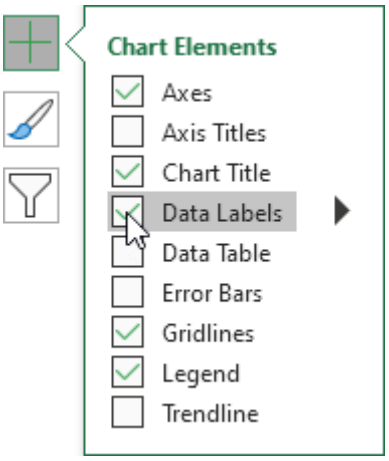
You can use data labels to focus your readers' attention on a single data series or data point.

1. Select the chart.

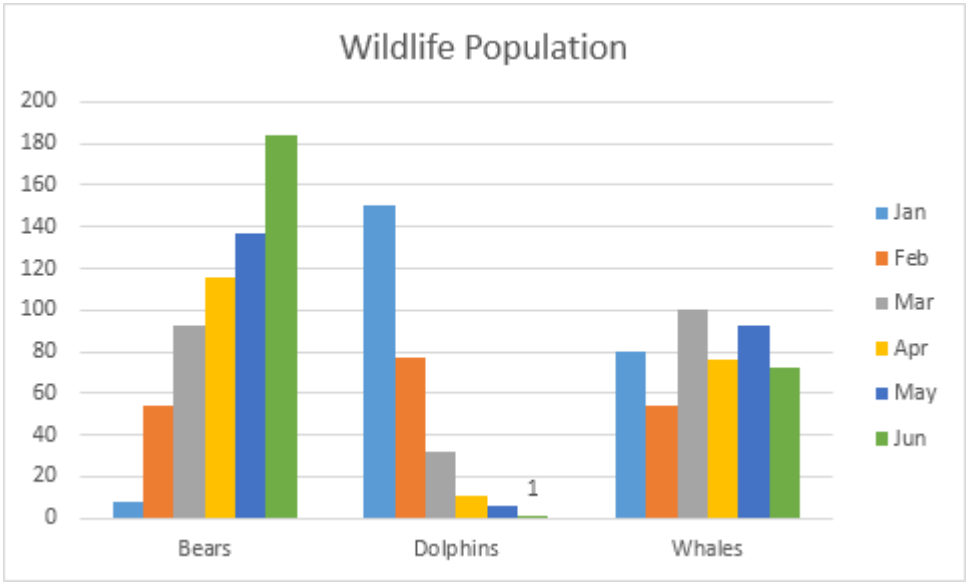
2. Click a green bar to select the Jun data series.

3. Hold down CTRL and use your arrow keys to select the population of Dolphins in June (tiny green bar).

4. Click the + button on the right side of the chart and click the check box next to Data Labels.



Result:



Pie Chart

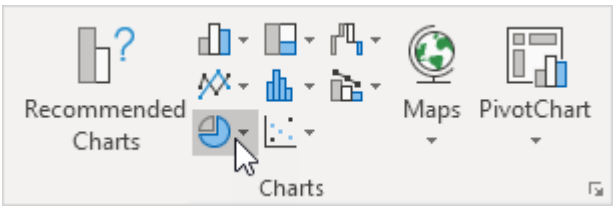
Pie charts are used to display the contribution of each value (slice) to a total (pie). Pie charts always use one data series.

To **create a pie chart** of the 2017 data series, execute the following steps.

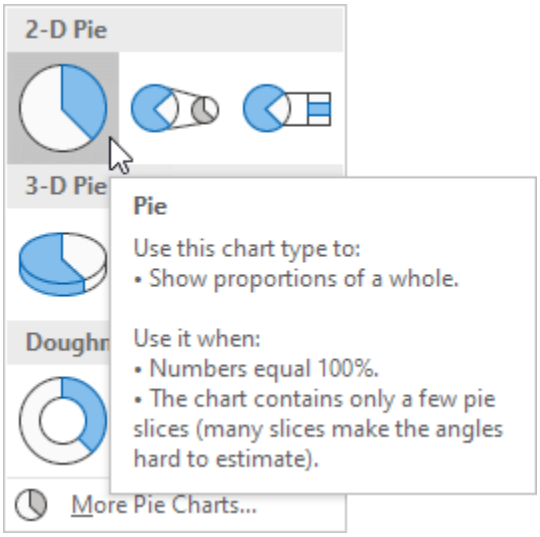
1. Select the range A1:D2.

	A	B	C	D	E
1		Bears	Dolphins	Whales	
2	2017	8	150	80	
3	2018	54	77	54	
4	2019	93	32	100	
5	2020	116	11	76	
6	2021	137	6	93	
7	2022	184	1	72	
8					

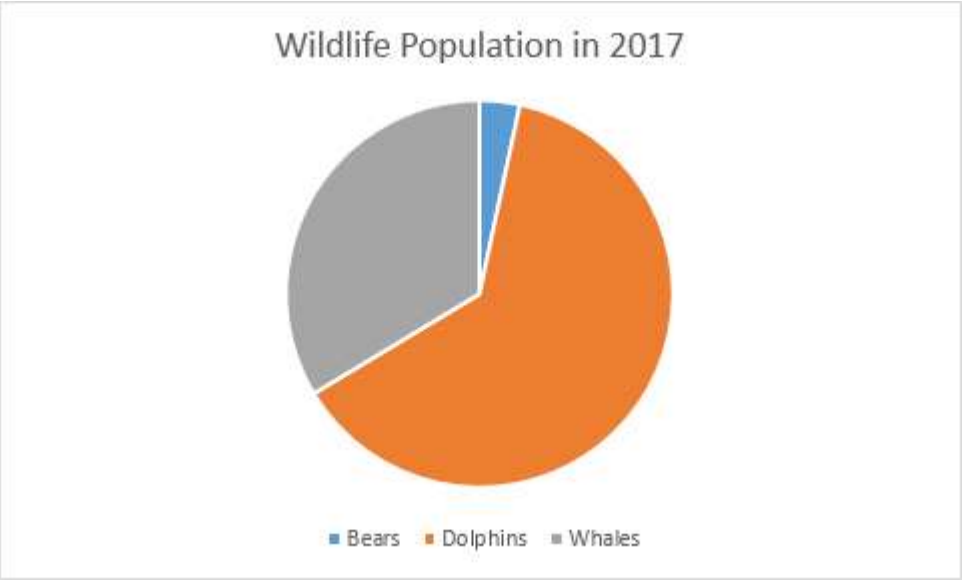
2. On the Insert tab, in the Charts group, click the Pie symbol.



3. Click Pie.

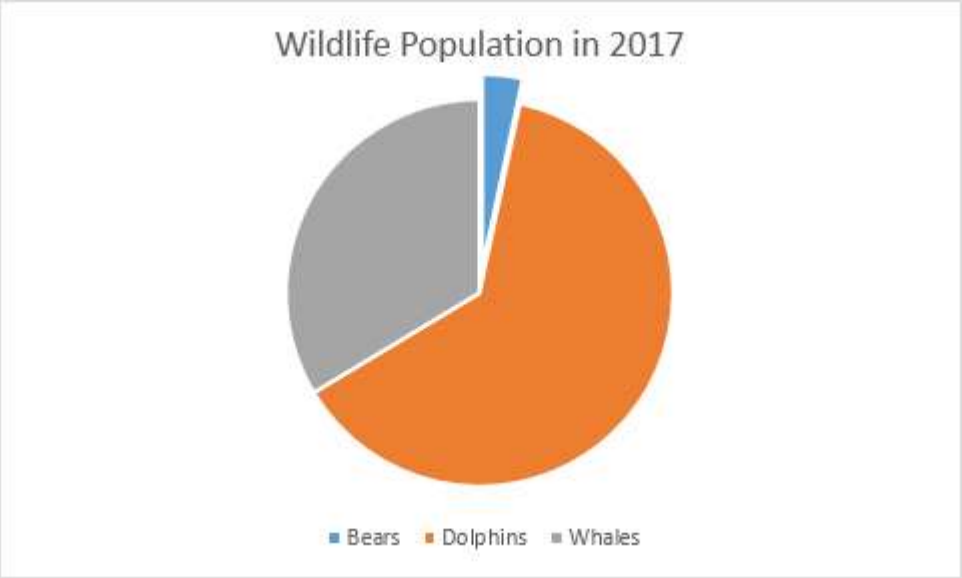


Result:



4. Click on the pie to select the whole pie. Click on a slice to drag it away from the center.

Result:



Note: only if you have numeric labels, empty cell A1 before you create the pie chart. By doing this, **Excel** does not recognize the numbers in column A as a data series and automatically creates the correct chart. After creating the chart, you can enter the text Year into cell A1 if you like.

Let's create one more cool pie chart.

5. Select the range A1:D1, hold down CTRL and select the range A3:D3.

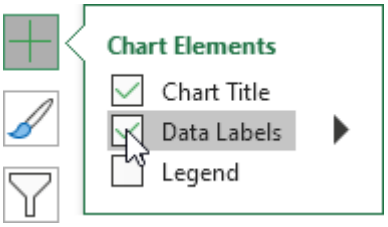
	A	B	C	D	E
1		Bears	Dolphins	Whales	
2	2017	8	150	80	
3	2018	54	77	54	
4	2019	93	32	100	
5	2020	116	11	76	
6	2021	137	6	93	
7	2022	184	1	72	
8					

6. Create the pie chart (repeat steps 2-3).

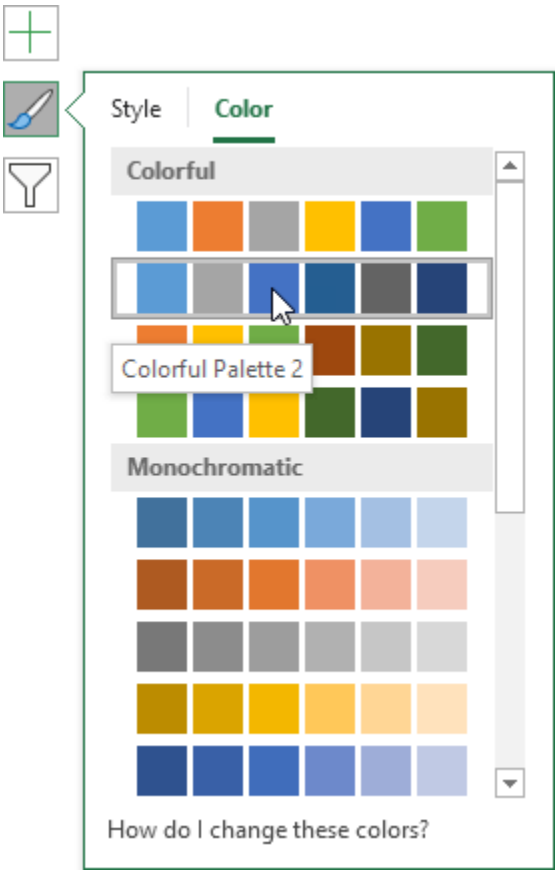
7. Click the legend at the bottom and press Delete.

8. Select the pie chart.

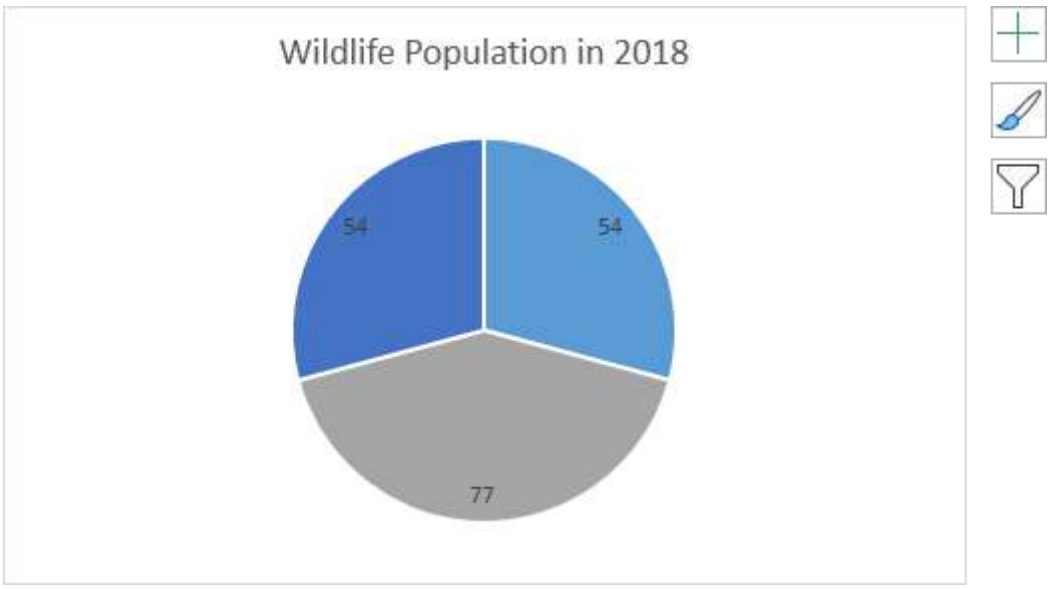
9. Click the + button on the right side of the chart and click the check box next to Data Labels.



10. Click the paintbrush icon on the right side of the chart and change the color scheme of the pie chart.

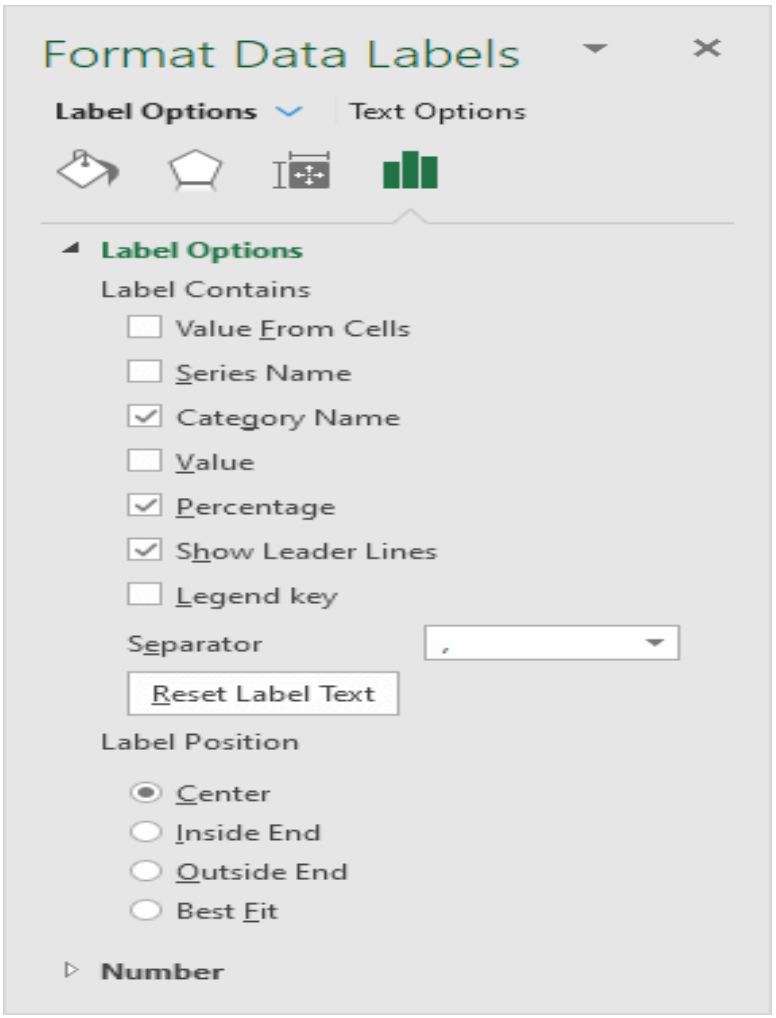


Result:

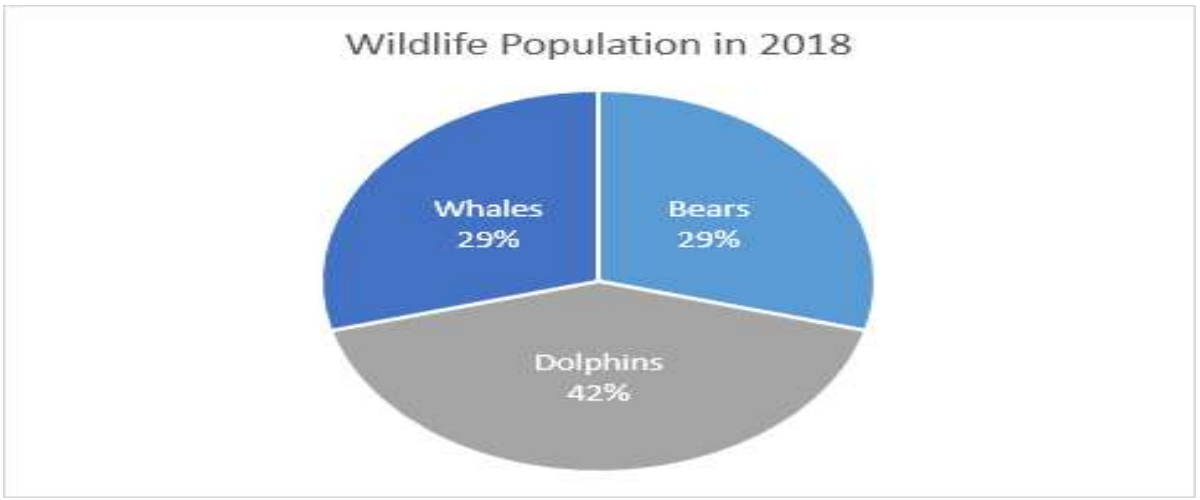


11. Right click the pie chart and click Format Data Labels.

12. Check Category Name, uncheck Value, check Percentage and click Center.



Result:



Note: right click the data labels and click Font to change the font size and font colour of the data labels.

Scatter Plot

Use a **scatter plot** (**XY chart**) to show scientific XY data. Scatter plots are often used to find out if there is a relationship between variable X and Y.

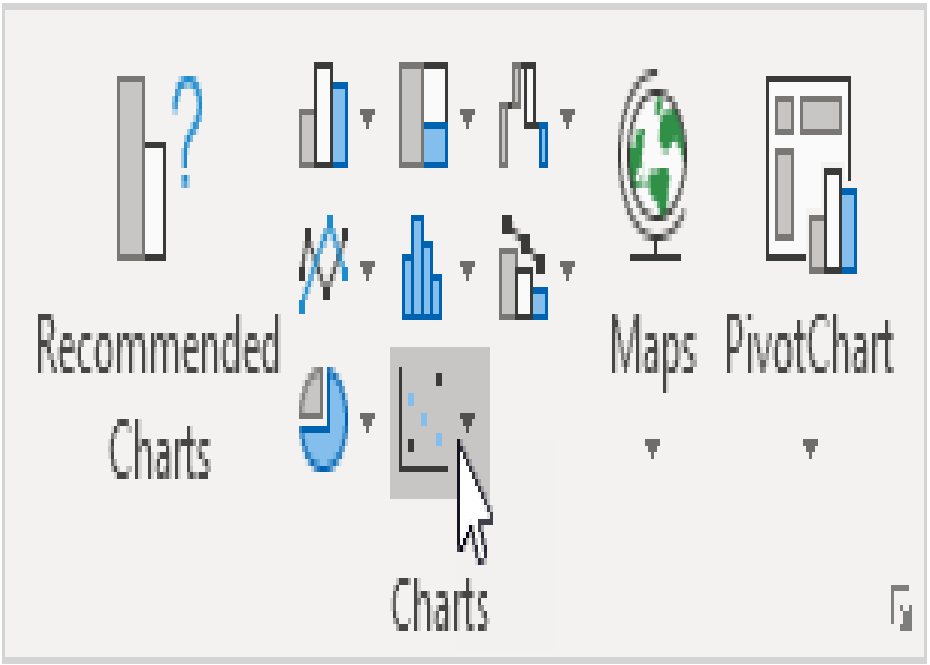
Only Markers

To find out if there is a relationship between X (a person's salary) and Y (his/her car price), execute the following steps.

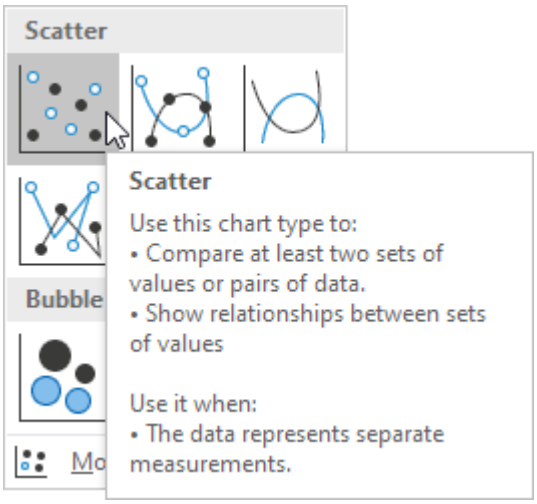
1. Select the range A1:B10.

	A	B	C
1	X (Salary)	Y (Car Price)	
2	$42,763	$19,455	
3	$195,387	$93,965	
4	$35,672	$20,858	
5	$217,637	$107,164	
6	$74,734	$34,036	
7	$130,550	$87,806	
8	$42,976	$17,927	
9	$151,132	$91,518	
10	$54,936	$29,479	
11			

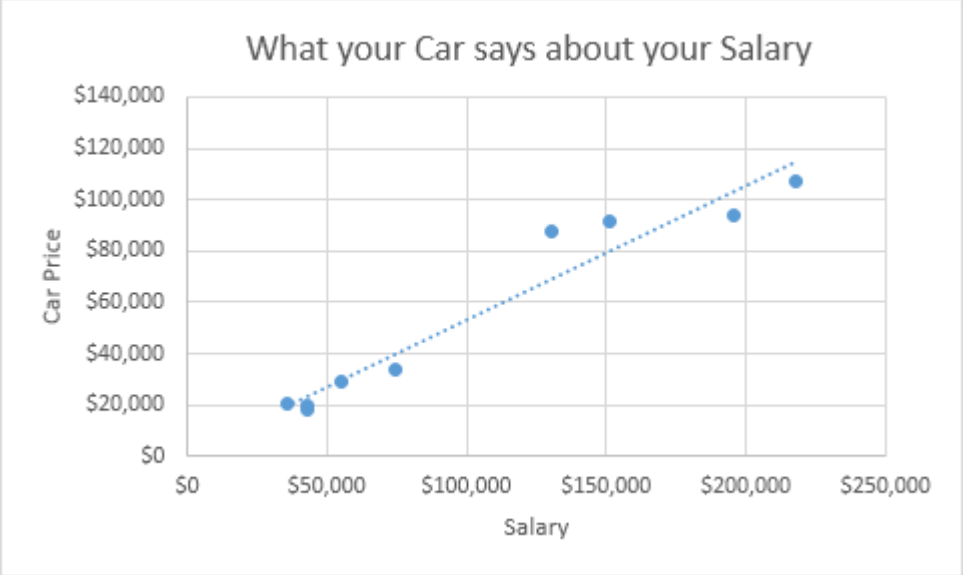
2. On the Insert tab, in the Charts group, click the Scatter symbol.



3. Click Scatter.



Result:



Note: we added a trendline to clearly see the relationship between these two variables.

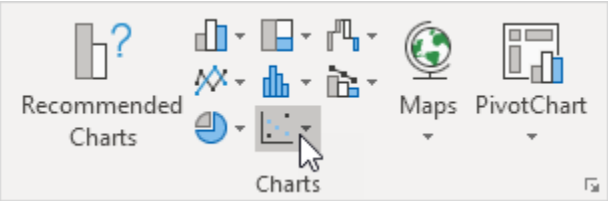
Straight Lines

To create a scatter plot with straight lines, execute the following steps.

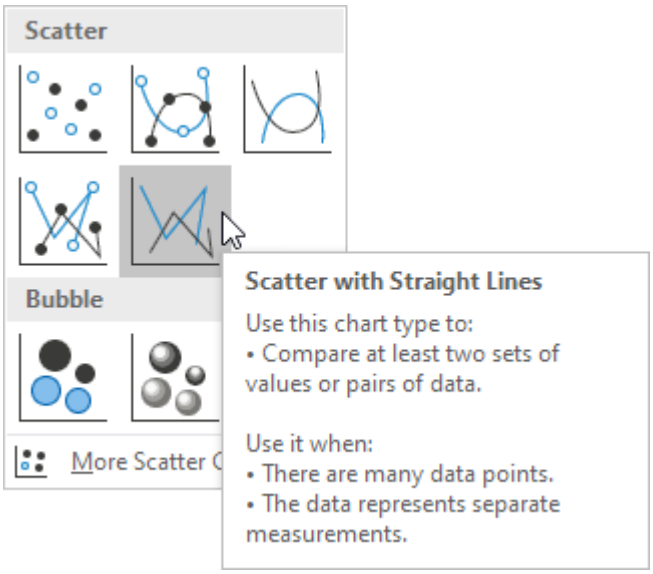
1. Select the range A1:D22.

	A	B	C	D	E
1	Period	Zantedeschia	Celosia	Calendula	
2	0	0	0	0	
3	1	2	0	1	
4	2	6	0	2	
5	3	6	0	2	
6	4	10	0	2	
7	5	11	0	2	
8	6	13	1	3	
9	7	14	1	4	
10	8	15	2	5	
11	9	16	2	7	
12	10	17	3	9	
13	11	25	3	11	
14	12	27	4	12	
15	13	30	8	13	
16	14	32	10	14	
17	15	34	13	15	
18	16	36	16	15	
19	17	37	20	15	
20	18	39	23	15	
21	19	40	25	15	
22	20	40	25	15	
23					

2. On the Insert tab, in the Charts group, click the Scatter symbol.

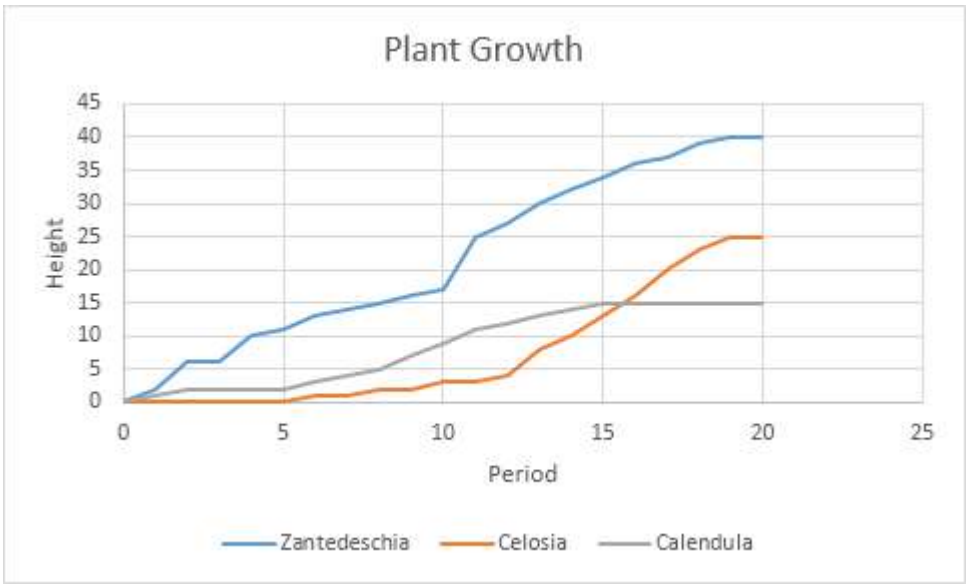


3. Click Scatter with Straight Lines.



Note: also see the subtype Scatter with Smooth Lines.

Result:



Note: we added a horizontal and vertical axis title. The horizontal axis of a scatter plot is a value axis, so you have more axis scaling options (the same as a vertical axis which always is a value axis).

Column Chart

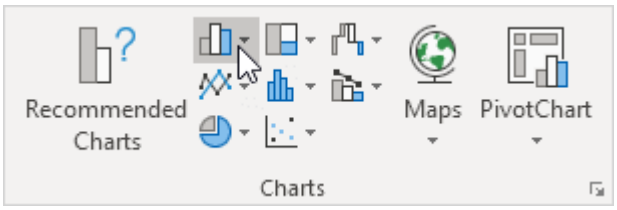
Column charts are used to compare values across categories by using vertical bars.

To create a **column chart**, execute the following steps.

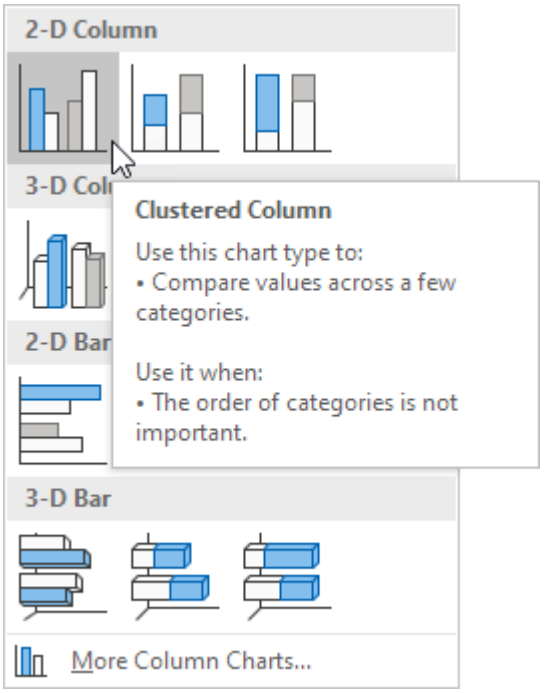
1. Select the range A1:A7, hold down CTRL, and select the range C1:D7.

	A	B	C	D	E
1		Bears	Dolphins	Whales	
2	2017	8	150	80	
3	2018	54	77	54	
4	2019	93	32	100	
5	2020	116	11	76	
6	2021	137	6	93	
7	2022	184	1	72	
8					

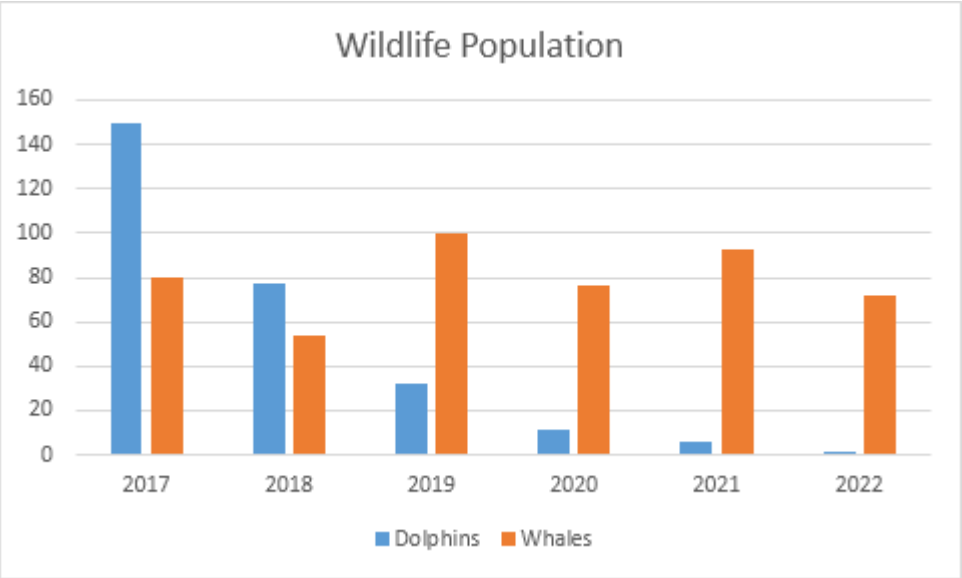
2. On the Insert tab, in the Charts group, click the Column symbol.



3. Click Clustered Column.



Result:



Note: only if you have numeric labels, empty cell A1 before you create the column chart. By doing this, **Excel** does not recognize the numbers in column A as a data series and automatically places these numbers on the horizontal (category) axis. After creating the chart, you can enter the text Year into cell A1 if you like.

Line Chart

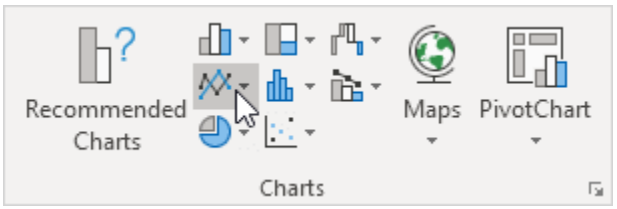
Line charts are used to display trends over time. Use a **line chart** if you have text labels, dates or a few numeric labels on the horizontal axis. Use a scatter plot (XY chart) to show scientific XY data.

To create a line chart, execute the following steps.

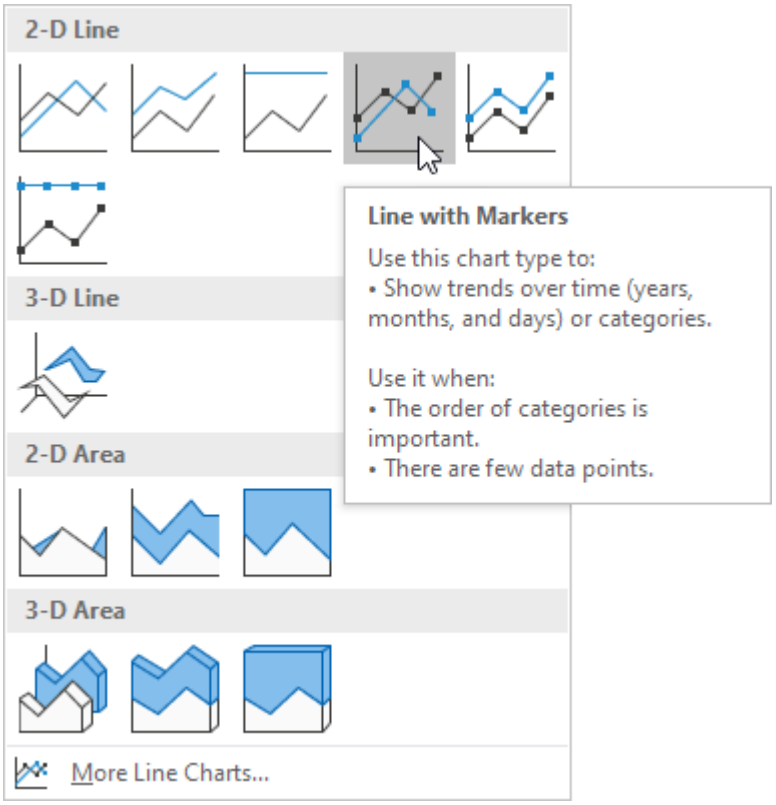
1. Select the range A1:D7.

	A	B	C	D	E
1		Bears	Dolphins	Whales	
2	2017	8	150	80	
3	2018	54	77	54	
4	2019	93	32	100	
5	2020	116	11	76	
6	2021	137	6	93	
7	2022	184	1	72	
8					

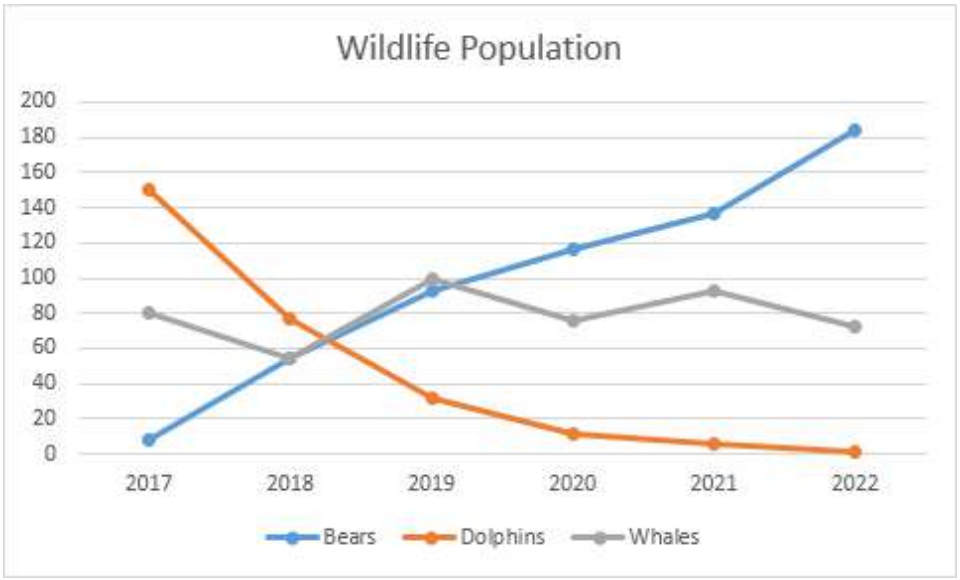
2. On the Insert tab, in the Charts group, click the Line symbol.



3. Click Line with Markers.



Result:

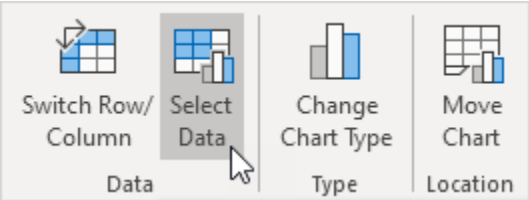


Note: only if you have numeric labels, empty cell A1 before you create the line chart. By doing this, **Excel** does not recognize the numbers in column A as a data series and automatically places these numbers on the horizontal (category) axis. After creating the chart, you can enter the text Year into cell A1 if you like.
Let's customize this line chart.

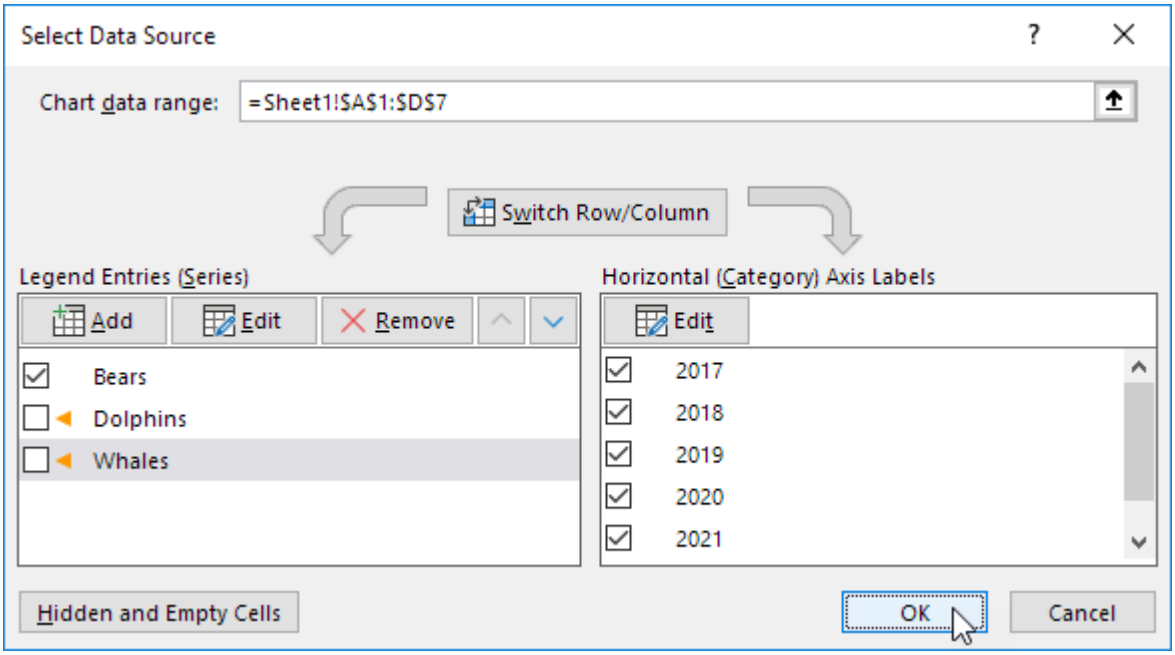
To change the data range included in the chart, execute the following steps.

4. Select the line chart.

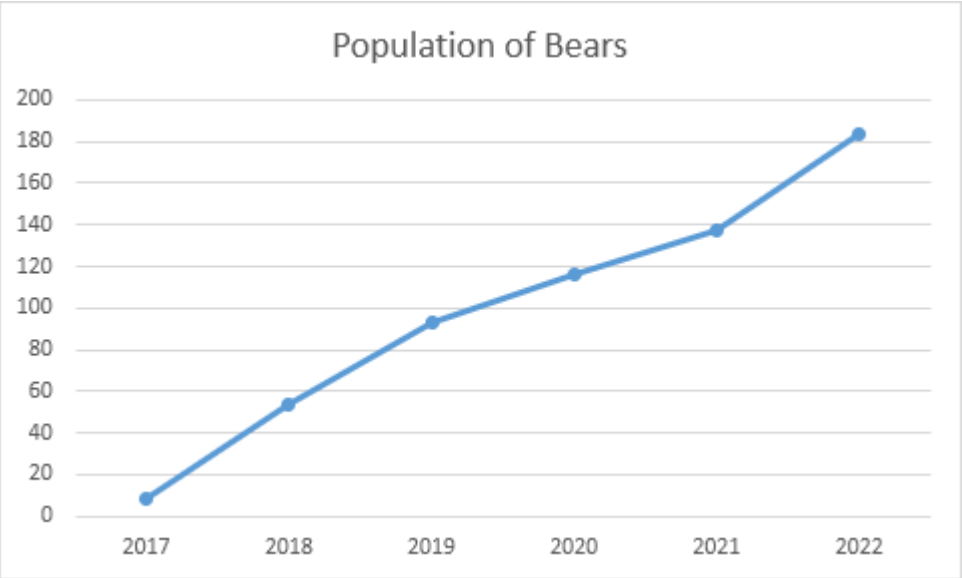
5. On the Chart Design tab, in the Data group, click Select Data.



6. Uncheck Dolphins and Whales and click OK.

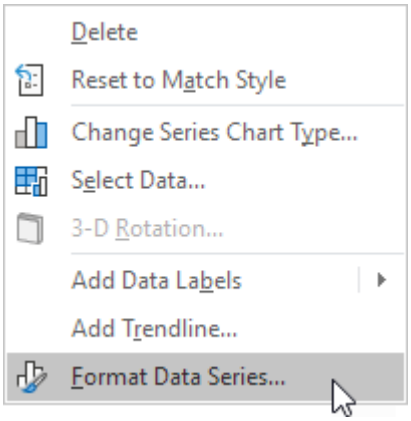


Result:



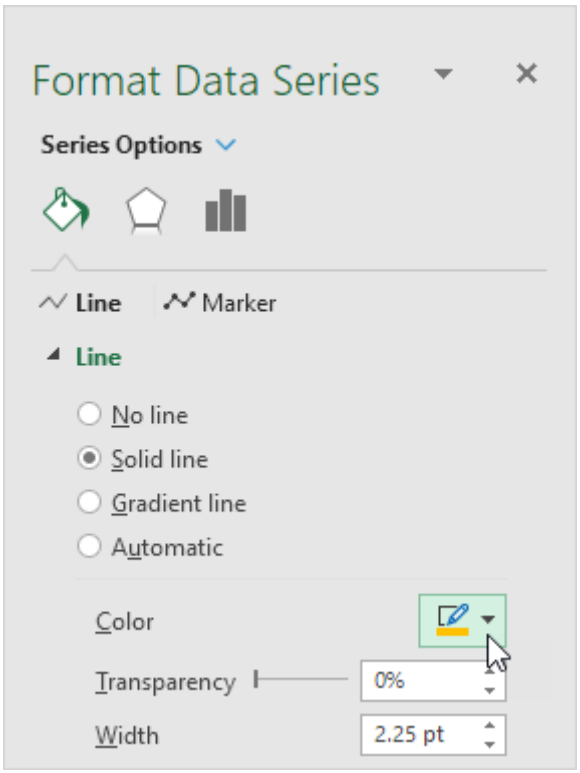
To change the color of the line and the markers, execute the following steps.

7. Right click the line and click Format Data Series.



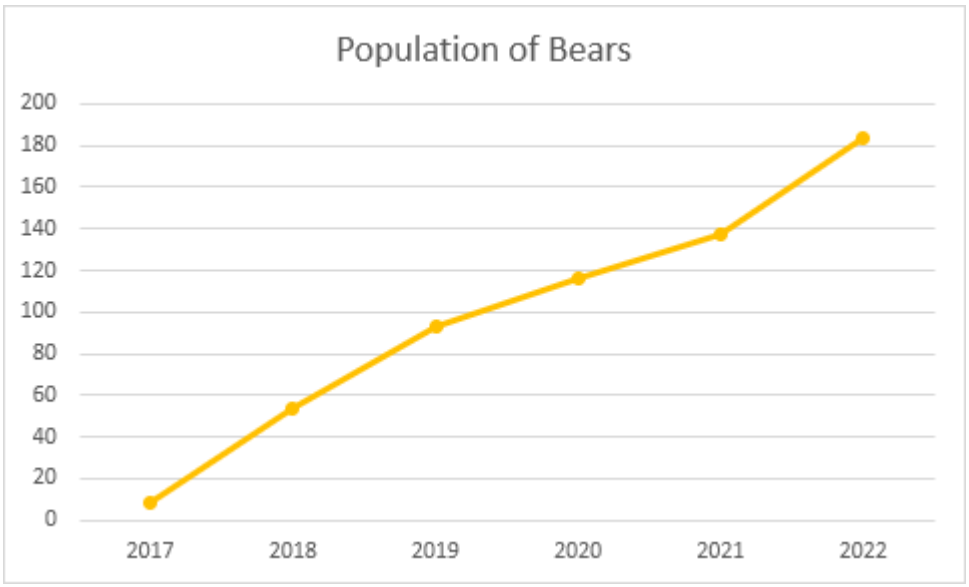
The Format Data Series pane appears.

8. Click the paint bucket icon and change the line color.



9. Click Marker and change the fill color and border color of the markers.

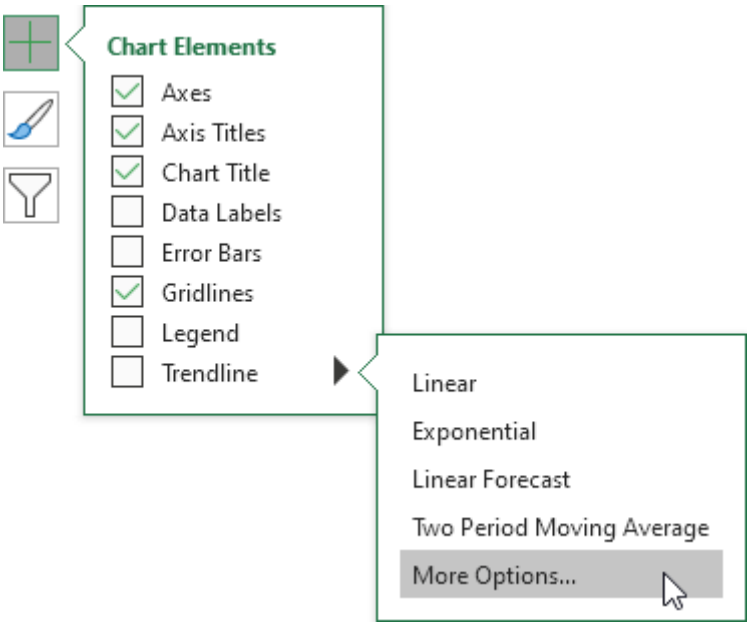
Result:



To add a trendline, execute the following steps.

10. Select the line chart.

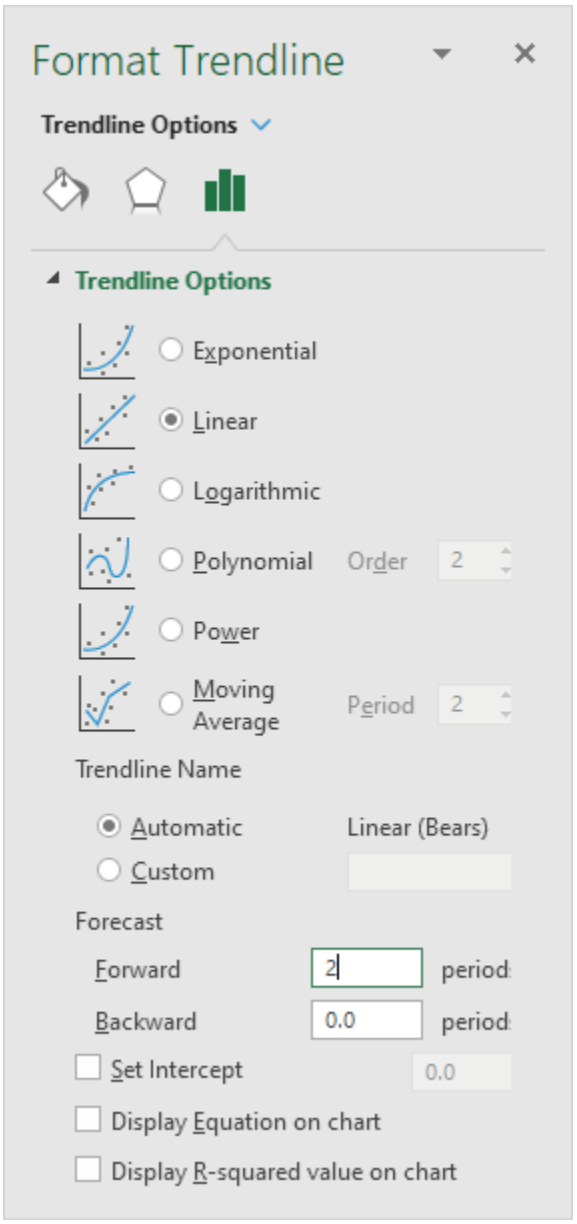
11. Click the + button on the right side of the chart, click the arrow next to Trendline and then click More Options.



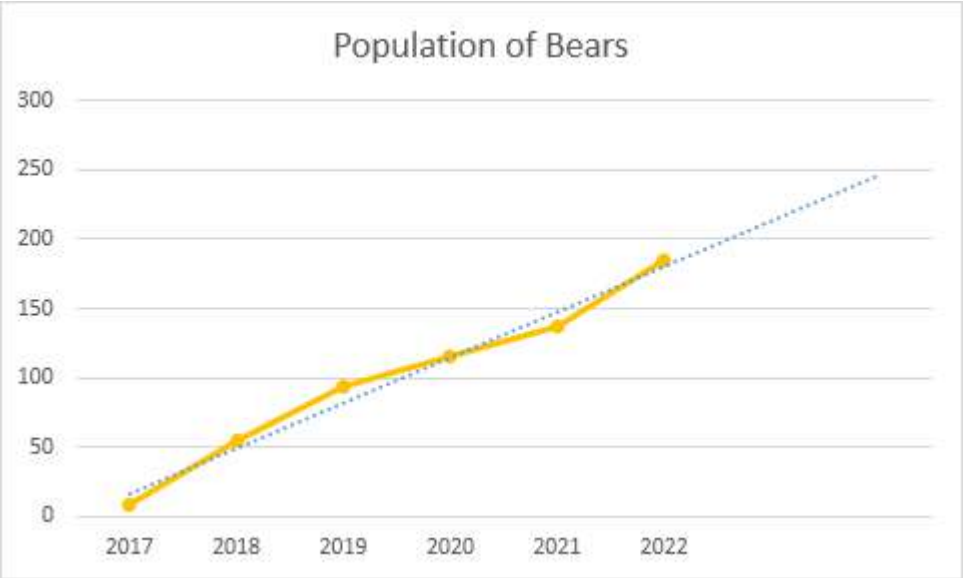
The Format Trendline pane appears.

12. Choose a Trend/Regression type. Click Linear.

13. Specify the number of periods to include in the forecast. Type 2 in the Forward box.

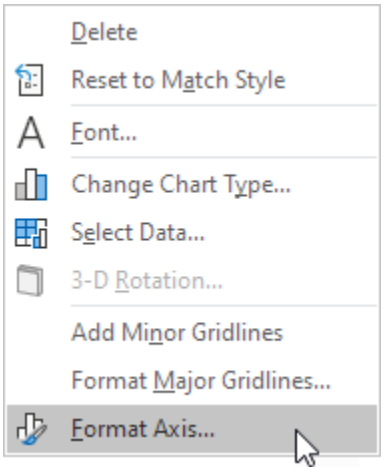

Format Trendline
Trendline Options
Trendline Options
Exponential
Linear
Logarithmic
Polynomial
Order
2
Power
Moving Average
Period
2
Trendline Name
Automatic
Linear (Bears)
Custom
Forecast
Forward
2
period
Backward
0.0
period
Set Intercept
0.0
Display Equation on chart
Display R-squared value on chart

Result:



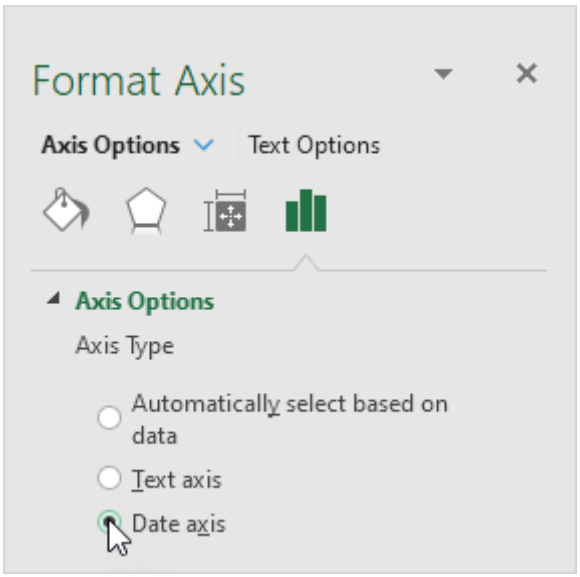
To change the axis type to Date axis, execute the following steps.

14. Right click the horizontal axis, and then click Format Axis.

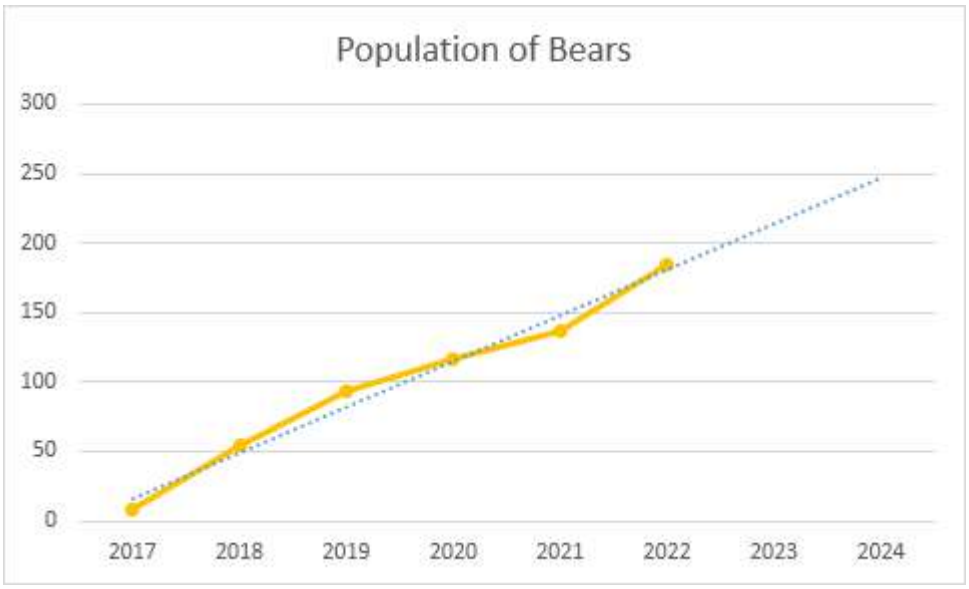


The Format Axis pane appears.

15. Click Date axis.



Result:



Conclusion: the trendline predicts a population of approximately 250 bears in 2024.

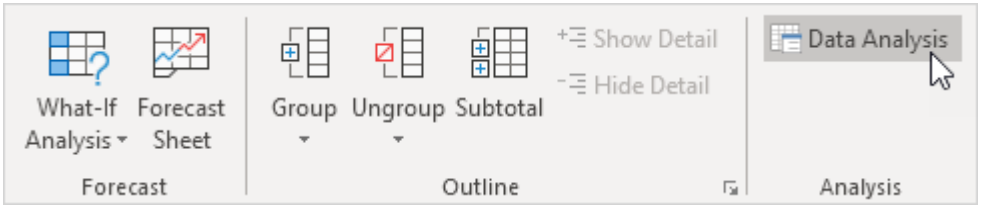
Histogram

This example teaches you how to make a **histogram** in **Excel**.

1. First, enter the bin numbers (upper levels) in the range C4:C8.

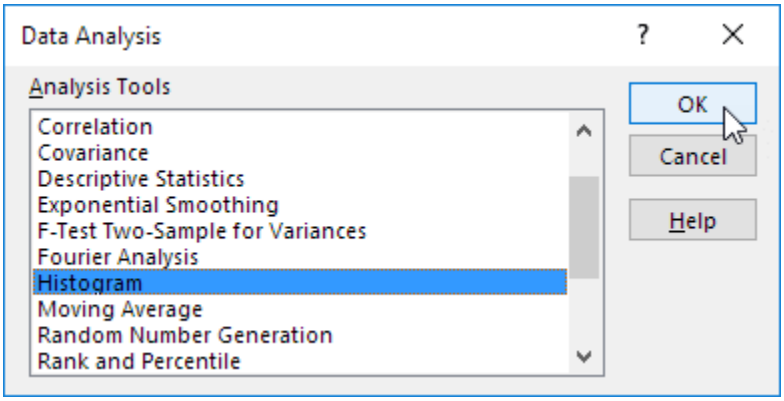
	A	B	C	D
1	Number of students			
2	22			
3	29			
4	40		20	
5	30		25	
6	48		30	
7	24		35	
8	21		40	
9	19			
10	24			
11	22			
12	25			
13	52			
14	35			
15	40			
16	31			
17	37			
18	21			
19	23			
20				

2. On the Data tab, in the Analysis group, click Data Analysis.



Note: can't find the Data Analysis button? Click here to load the Analysis ToolPak add-in.

3. Select Histogram and click OK.

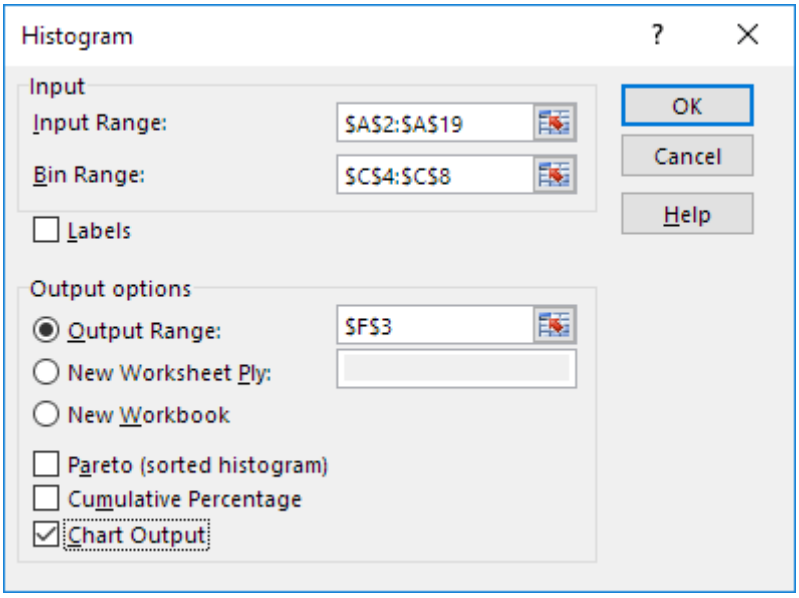


4. Select the range A2:A19.

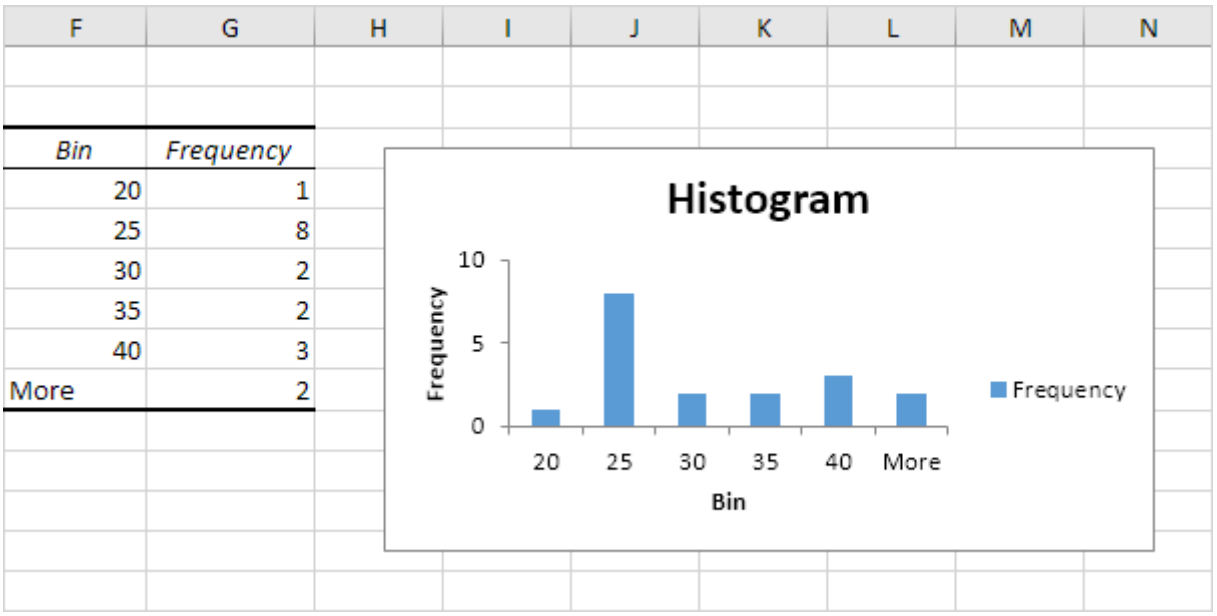
5. Click in the Bin Range box and select the range C4:C8.

6. Click the Output Range option button, click in the Output Range box and select cell F3.

7. Check Chart Output.



8. Click OK.



Bin	Frequency
20	1
25	8
30	2
35	2
40	3
More	2

9. Click the legend on the right side and press Delete.

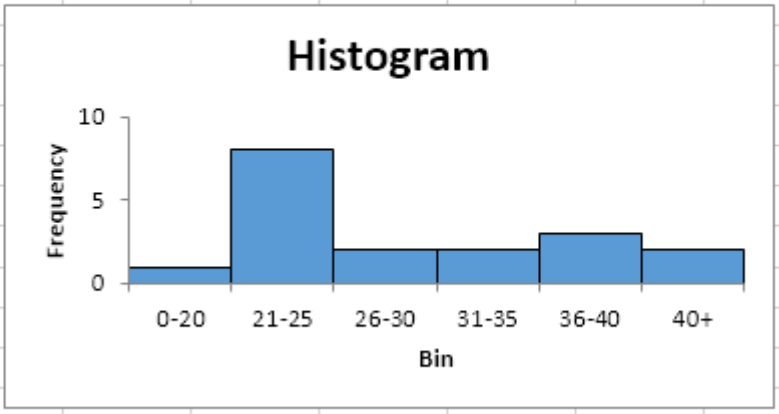
10. Properly label your bins.

11. To remove the space between the bars, right click a bar, click Format Data Series and change the Gap Width to 0%.

12. To add borders, right click a bar, click Format Data Series, click the Fill & Line icon, click Border, and select a colour.

Result:

Bin	Frequency
0-20	1
21-25	8
26-30	2
31-35	2
36-40	3
40+	2

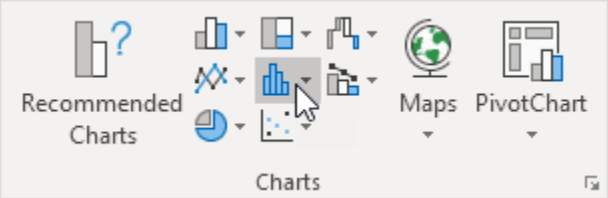


If you have Excel 2016 or later, simply use the Histogram chart type.

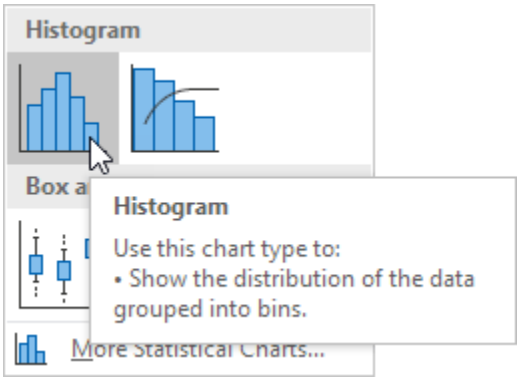
13. Select the range A1:A19.

	A	B
1	Number of students	
2	22	
3	29	
4	40	
5	30	
6	48	
7	24	
8	21	
9	19	
10	24	
11	22	
12	25	
13	52	
14	35	
15	40	
16	31	
17	37	
18	21	
19	23	
20		

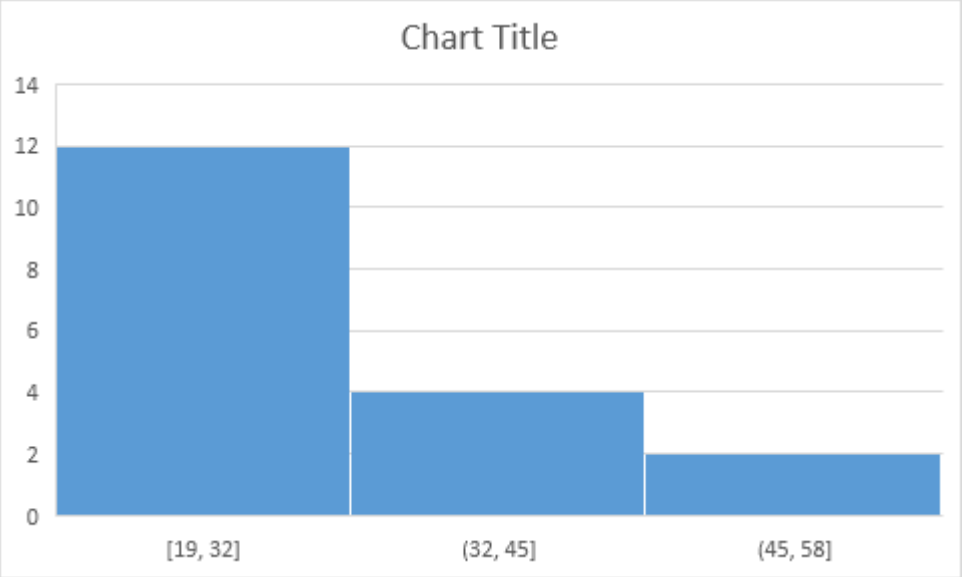
14. On the Insert tab, in the Charts group, click the Histogram symbol.



15. Click Histogram.

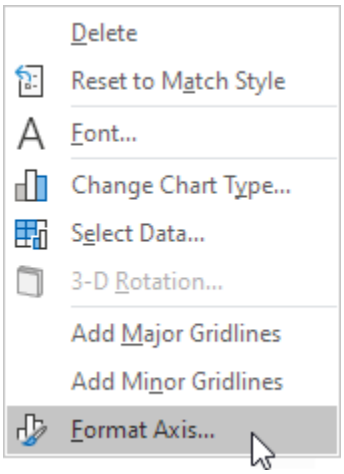


Result. A histogram with 3 bins.



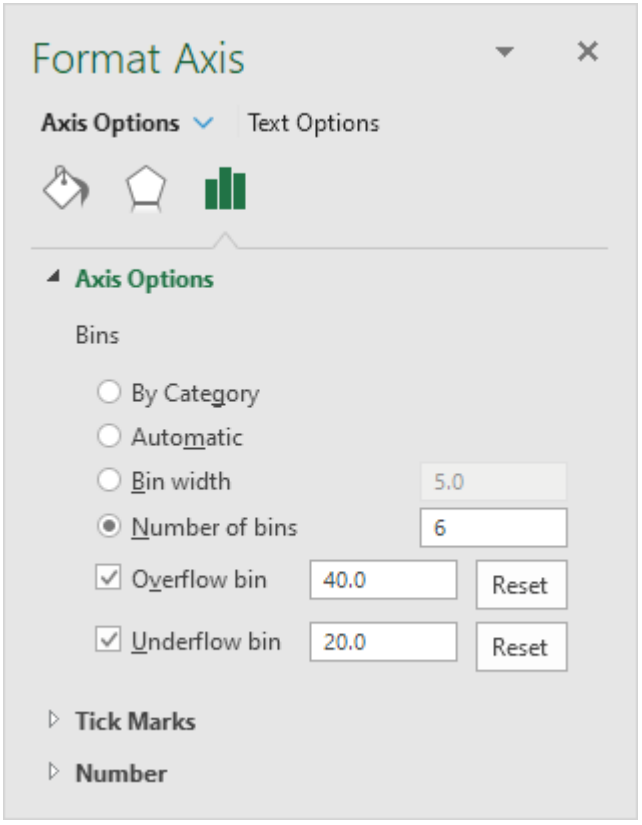
Note: Excel uses Scott's normal reference rule for calculating the number of bins and the bin width.

16. Right click the horizontal axis, and then click Format Axis.

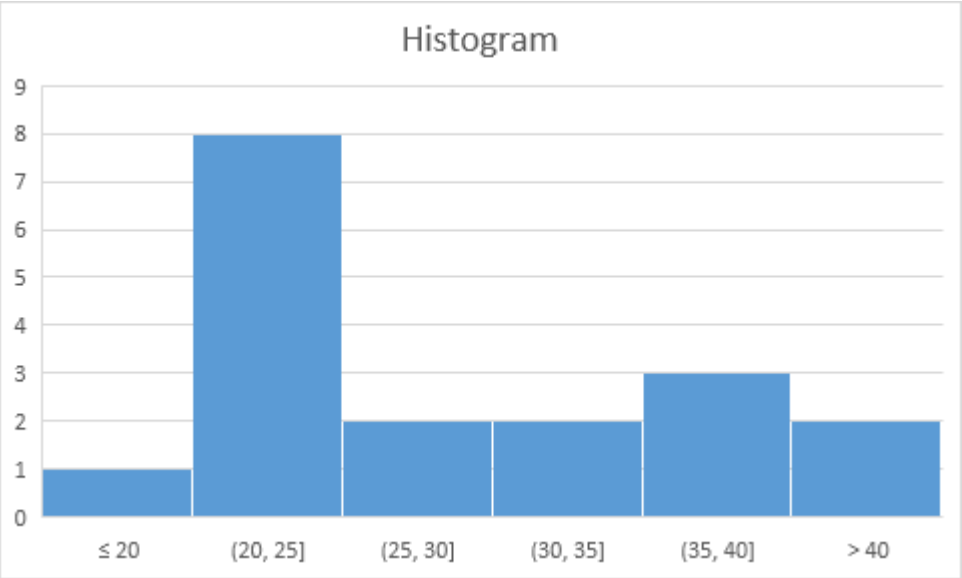


The Format Axis pane appears.

17. Define the histogram bins. We'll use the same bin numbers as before (see first picture on this page). Bin width: 5. Number of bins: 6. Overflow bin: 40. Underflow bin: 20.

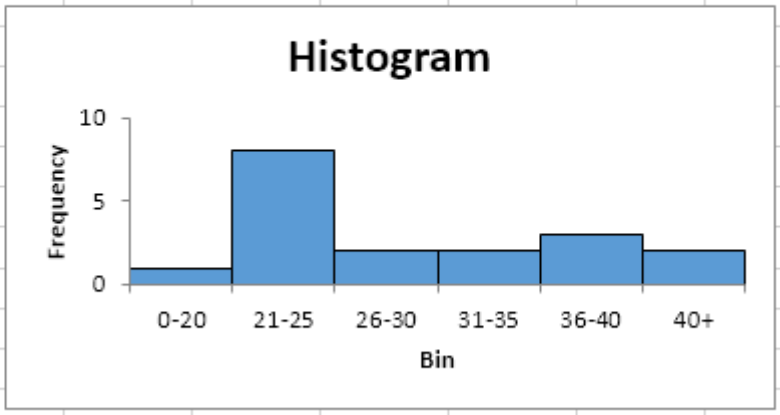


Result:



Recall, we made the following histogram using the Analysis ToolPak (steps 1-12).

Bin	Frequency
0-20	1
21-25	8
26-30	2
31-35	2
36-40	3
40+	2



Conclusion: the bin labels look different, but the histograms are the same. ≤20 is the same as 0-20, (20, 25] is the same as 21-25, etc.

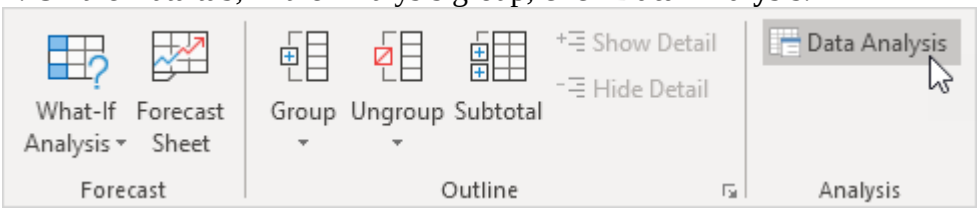
Descriptive Statistics

You can use the Analysis Tool pak add-in to generate **descriptive statistics**. For example, you may have the scores of 14 participants for a test.

	A	B
1	Scores	
2	82	
3	93	
4	91	
5	69	
6	96	
7	61	
8	88	
9	58	
10	59	
11	100	
12	93	
13	71	
14	78	
15	98	
16		

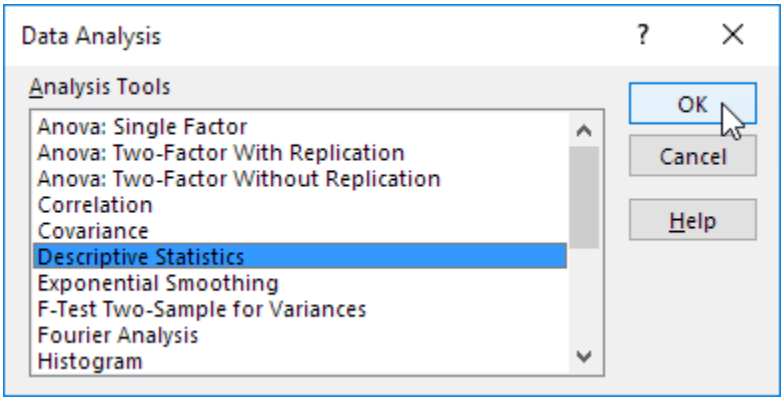
To generate descriptive statistics for these scores, execute the following steps.

1. On the Data tab, in the Analysis group, click **Data Analysis**.



Note: can't find the Data Analysis button? Click here to load the Analysis ToolPak add-in.

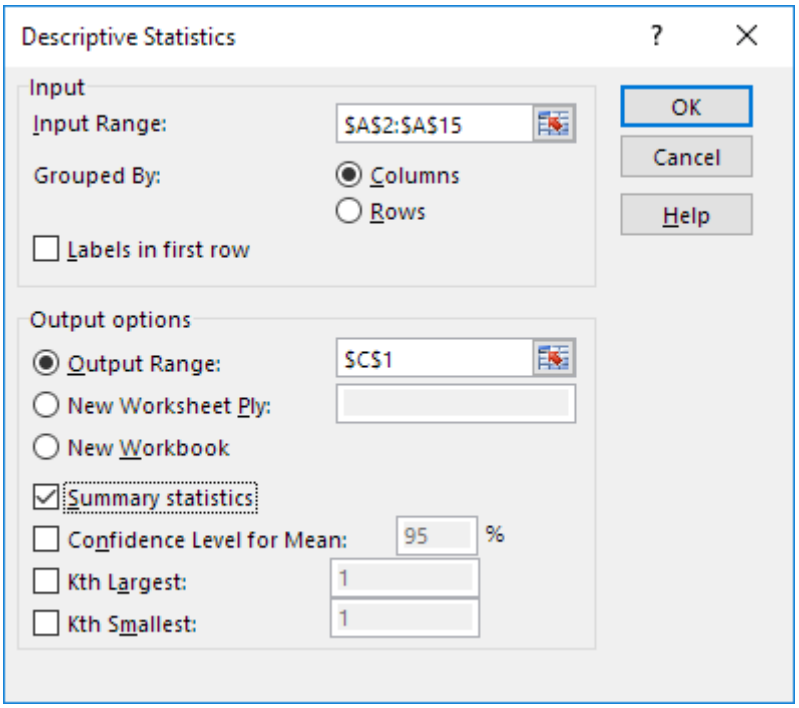
2. Select Descriptive Statistics and click OK.



3. Select the range A2:A15 as the Input Range.

4. Select cell C1 as the Output Range.

5. Make sure Summary statistics is checked.



6. Click OK.

Result:

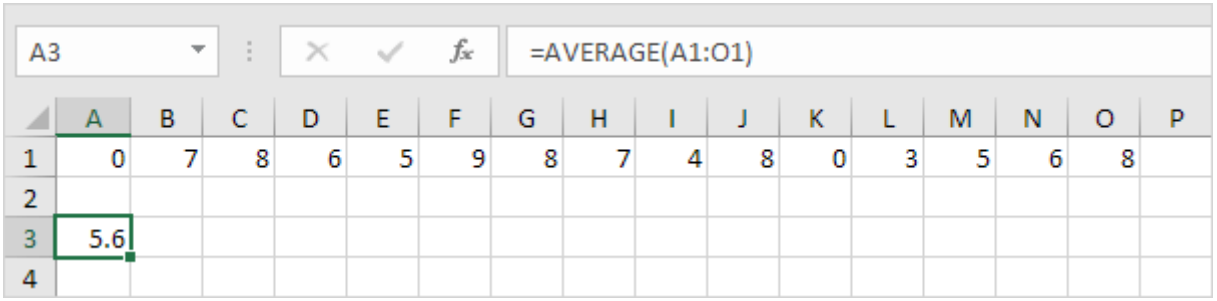
	A	B	C	D	E
1	Scores		*Column1*		
2	82				
3	93		Mean	81.21428571	
4	91		Standard Error	4.045318243	
5	69		Median	85	
6	96		Mode	93	
7	61		Standard Deviation	15.13619489	
8	88		Sample Variance	229.1043956	
9	58		Kurtosis	-1.426053506	
10	59		Skewness	-0.402108004	
11	100		Range	42	
12	93		Minimum	58	
13	71		Maximum	100	
14	78		Sum	1137	
15	98		Count	14	
16					

Statistical Functions

This chapter gives an overview of some very useful **statistical functions** in **Excel**.

Average

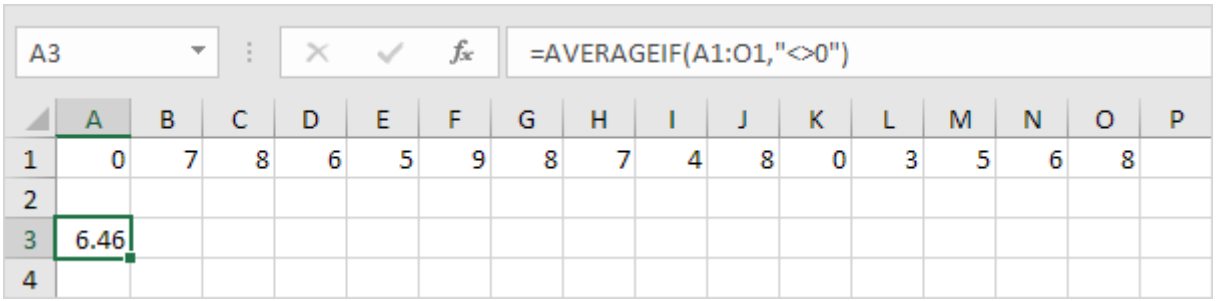
To calculate the average of a group of numbers, use the AVERAGE function.



Note: visit our page about the AVERAGE function for many more examples.

Average if

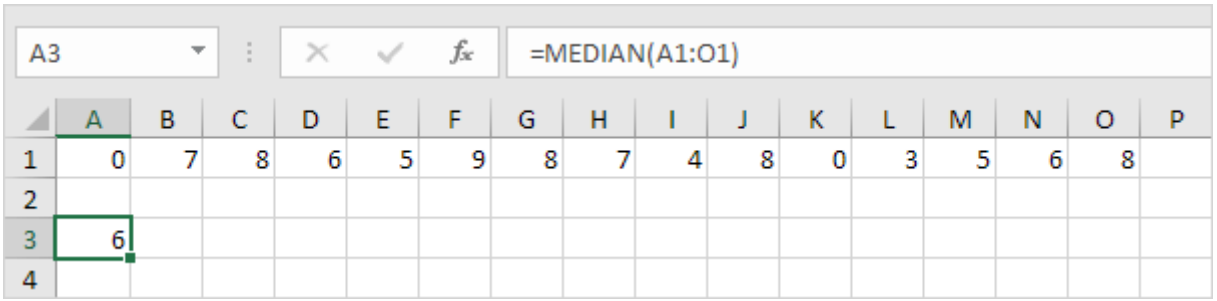
To average cells based on one criterion, use the AVERAGEIF function. For example, to calculate the average excluding zeros.



Note: visit our page about the AVERAGEIF function for many more examples.

Median

To find the median (or middle number), use the MEDIAN function.

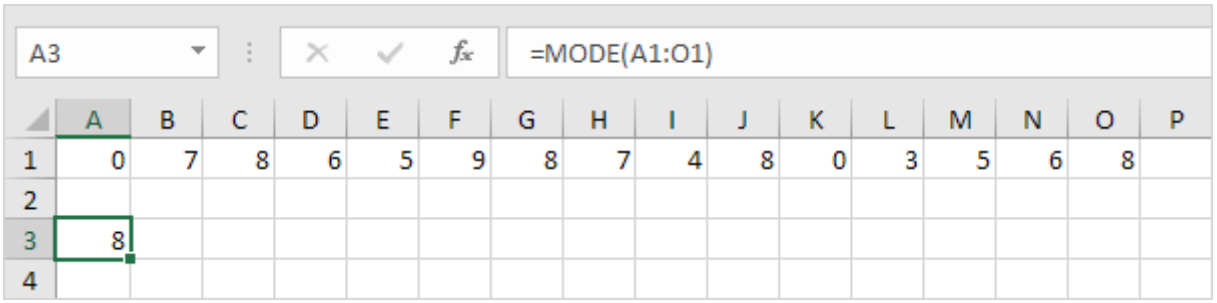


Check:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	0	3	4	5	5	6	6	7	7	8	8	8	8	9	

Mode

To find the most frequently occurring number, use the MODE function.

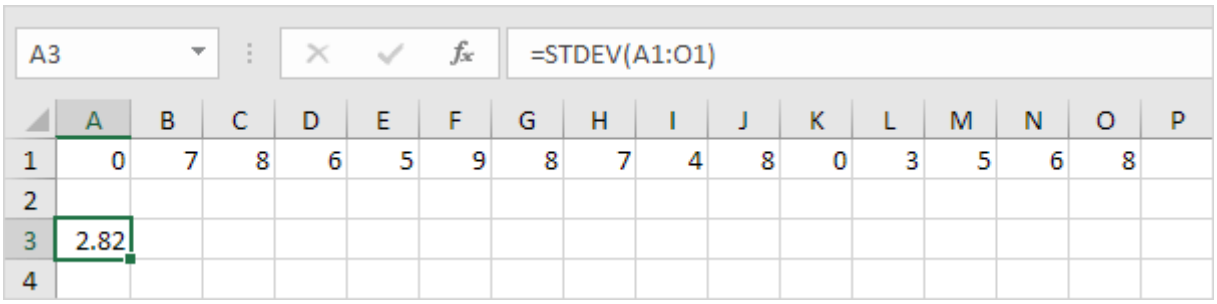


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	8															
4																

Note: visit our page about the MODE function to learn more about this Excel function.

Standard Deviation

To calculate the standard deviation, use the STEDV function.

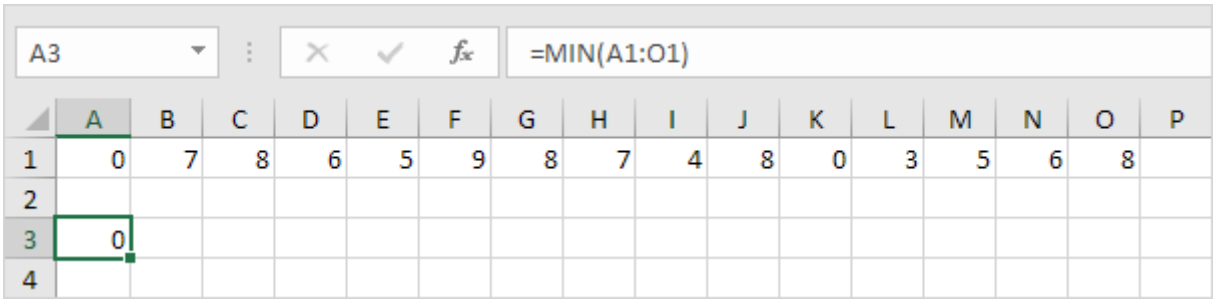


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	2.82															
4																

Note: standard deviation is a number that tells you how far numbers are from their mean. Learn more about this topic on our page about standard deviation.

Min

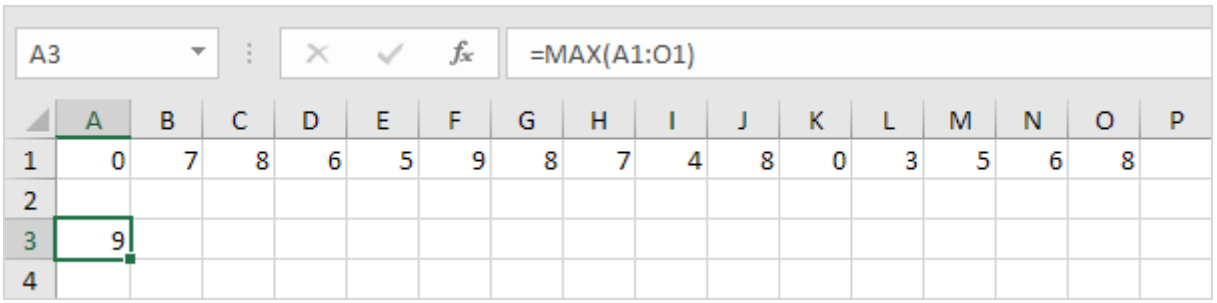
To find the minimum value, use the MIN function.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	0	7	8	6	5	9	8	7	4	8	0	3	5	6	8	
2																
3	0															
4																

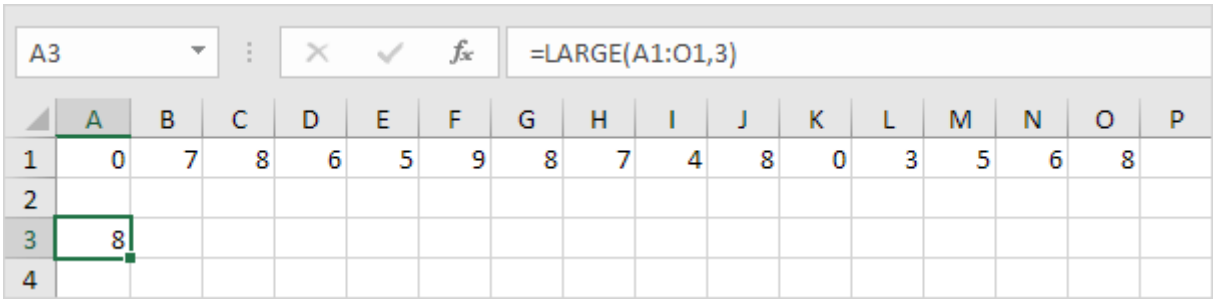
Max

To find the maximum value, use the MAX function.

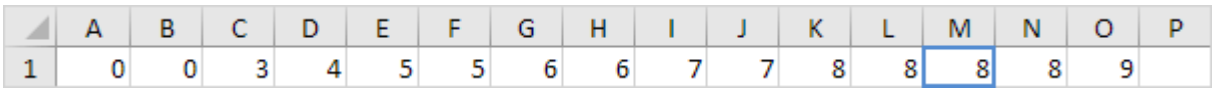


Large

To find the third largest number, use the following LARGE function.

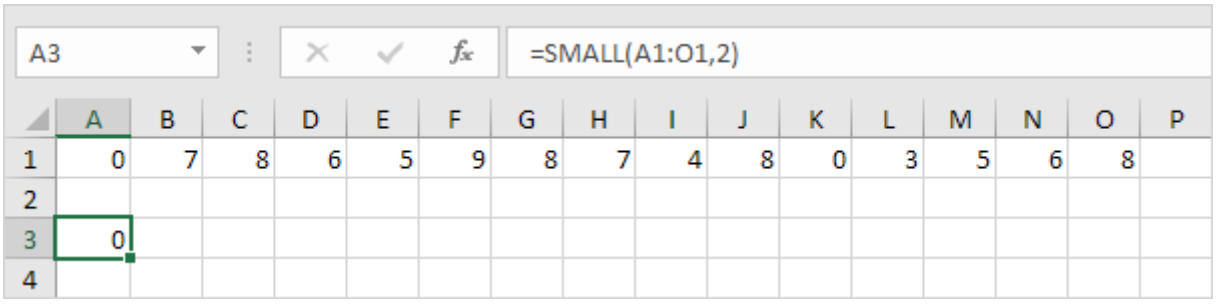


Check:

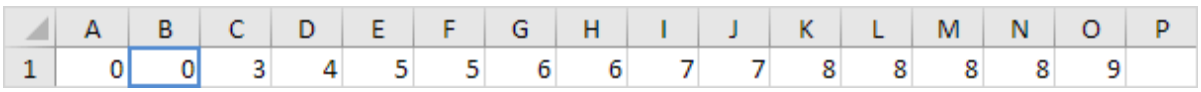


Small

To find the second smallest number, use the following SMALL function.



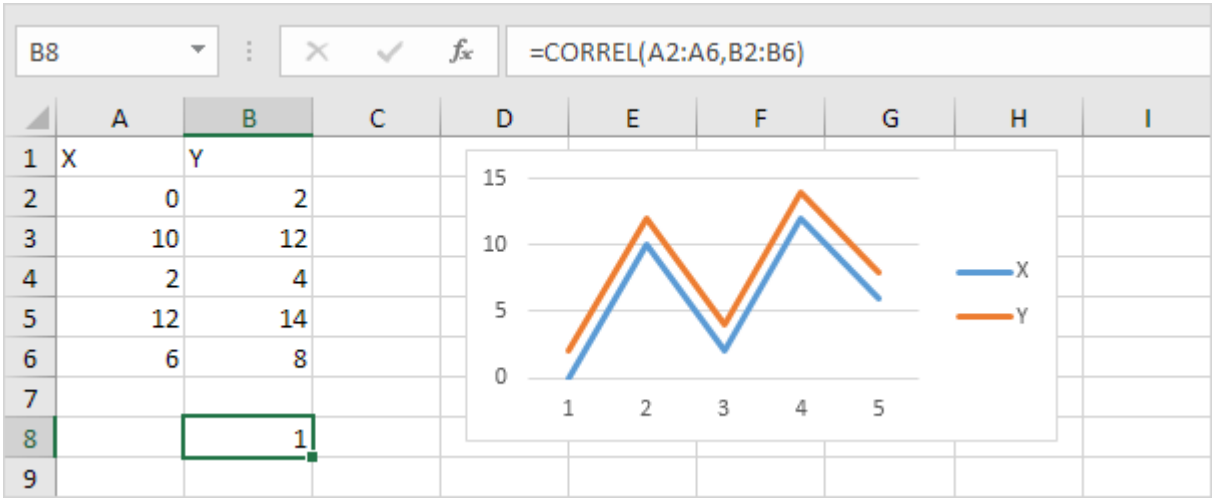
Check:



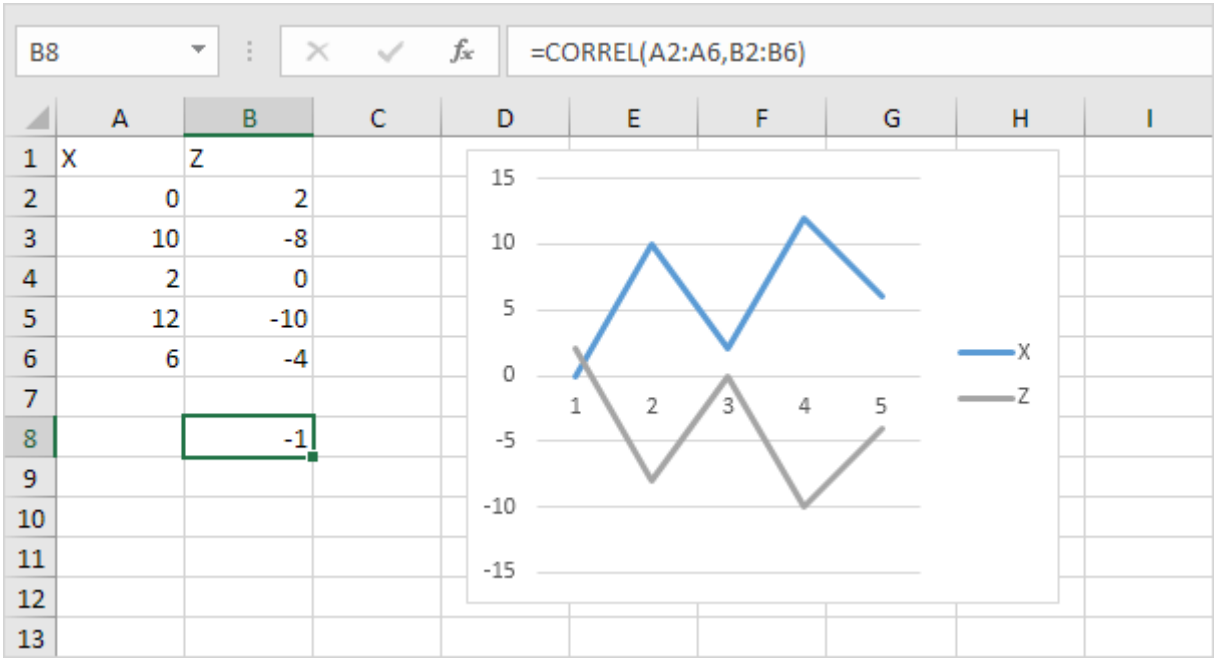
Correlation

The **correlation** coefficient (a value between -1 and +1) tells you how strongly two variables are related to each other. We can use the **CORREL function** or the **Analysis Toolpak add-in** in **Excel** to find the correlation coefficient between two variables.

- A correlation coefficient of +1 indicates a perfect positive correlation. As variable X increases, variable Y increases. As variable X decreases, variable Y decreases.



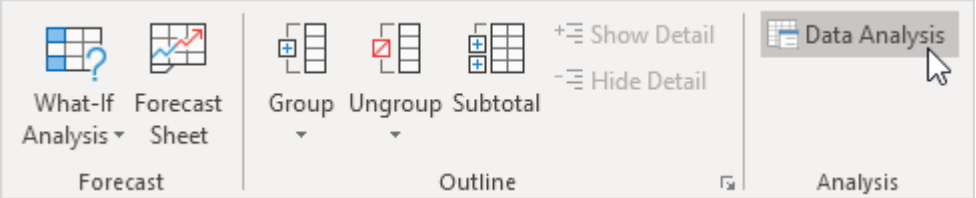
- A correlation coefficient of -1 indicates a perfect negative correlation. As variable X increases, variable Z decreases. As variable X decreases, variable Z increases.



- A correlation coefficient near 0 indicates no correlation.

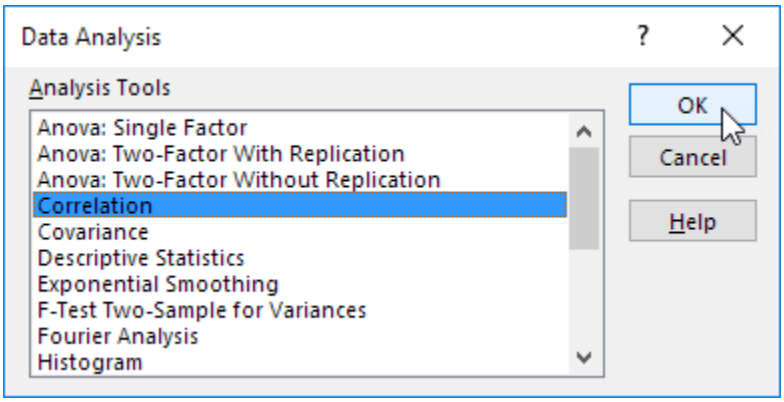
To use the Analysis Toolpak add-in in Excel to quickly generate correlation coefficients between multiple variables, execute the following steps.

1. On the Data tab, in the Analysis group, click Data Analysis.

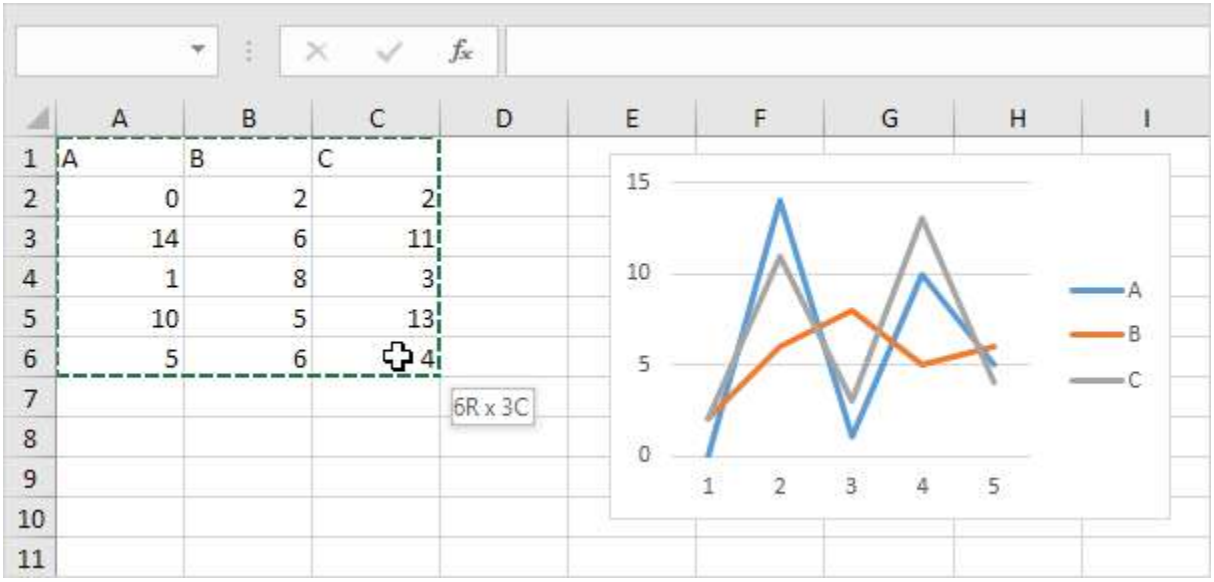


Note: can't find the Data Analysis button? Click here to load the Analysis ToolPak add-in.

2. Select Correlation and click OK.



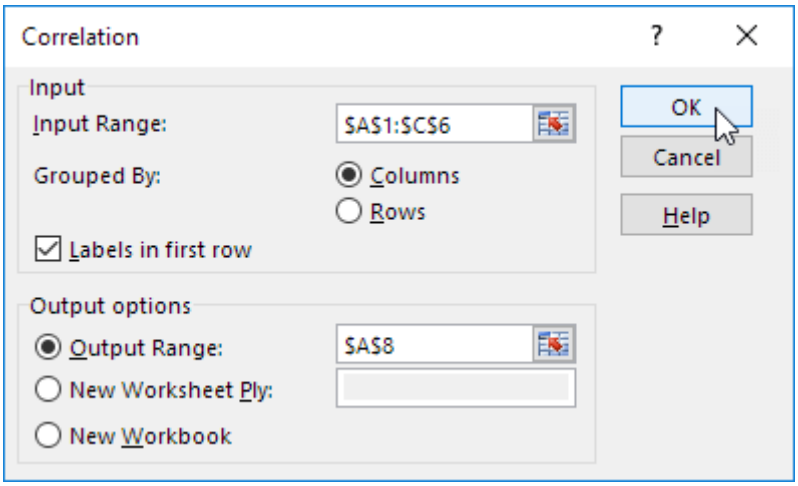
3. For example, select the range A1:C6 as the Input Range.



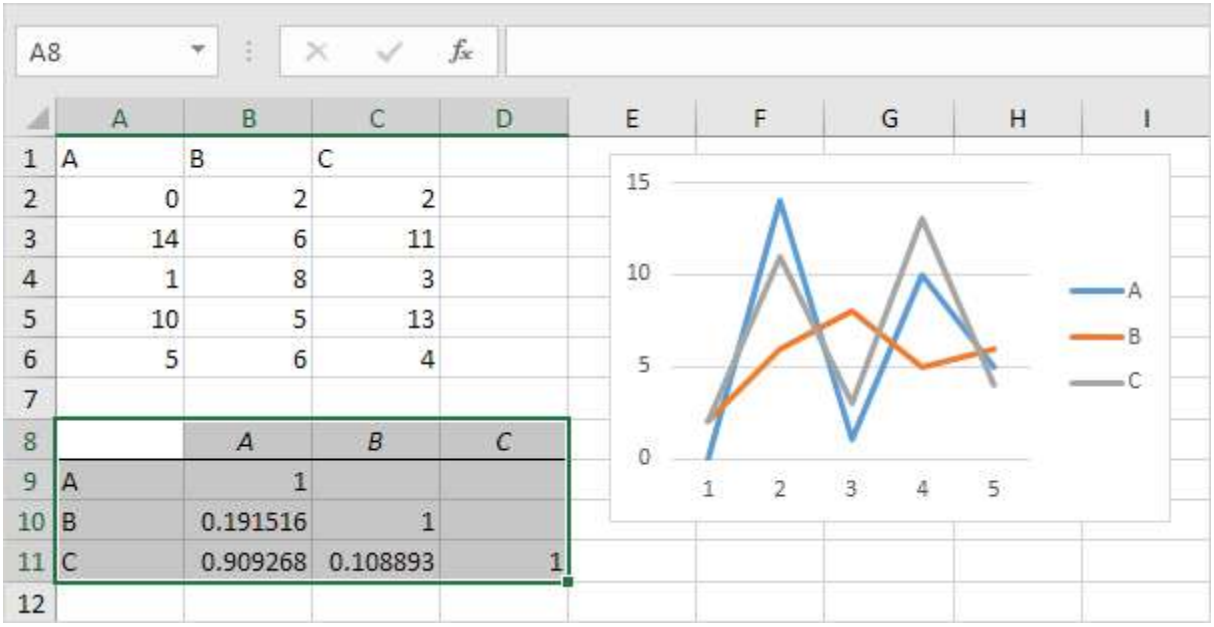
4. Check Labels in first row.

5. Select cell A8 as the Output Range.

6. Click OK.



Result.



Conclusion: variables A and C are positively correlated (0.91). Variables A and B are not correlated (0.19). Variables B and C are also not correlated (0.11) . You can verify these conclusions by looking at the graph.

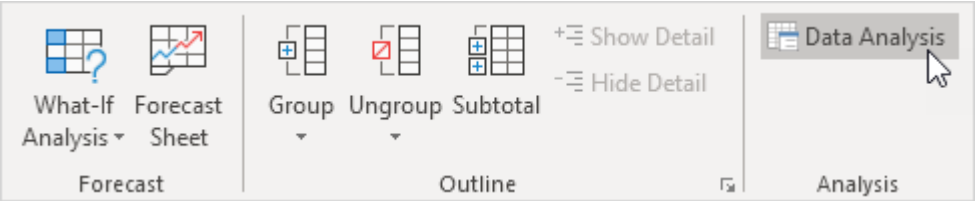
Regression

This example teaches you how to run a **linear regression analysis** in **Excel** and how to interpret the Summary Output.

Below you can find our data. The big question is: is there a relation between Quantity Sold (Output) and Price and Advertising (Input). In other words: can we predict Quantity Sold if we know Price and Advertising?

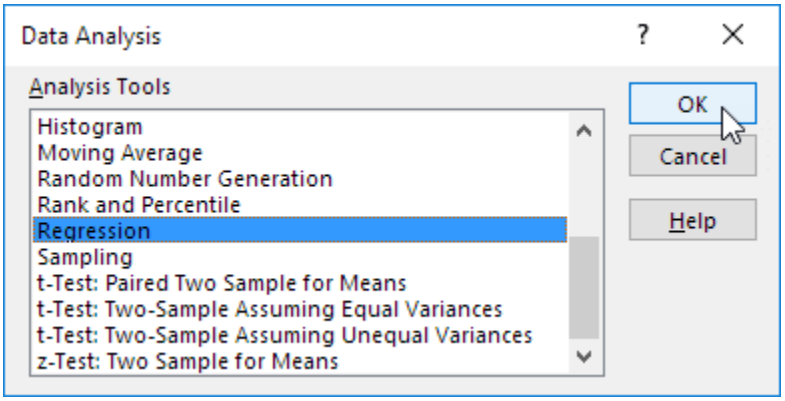
	A	B	C	D
1	Quantity Sold	Price	Advertising	
2	8500	$2	$2,800	
3	4700	$5	$200	
4	5800	$3	$400	
5	7400	$2	$500	
6	6200	$5	$3,200	
7	7300	$3	$1,800	
8	5600	$4	$900	
9				

1. On the Data tab, in the Analysis group, click Data Analysis.



Note: can't find the Data Analysis button? Click here to load the Analysis ToolPak add-in.

2. Select Regression and click OK.



3. Select the Y Range (A1:A8). This is the predictor variable (also called dependent variable).

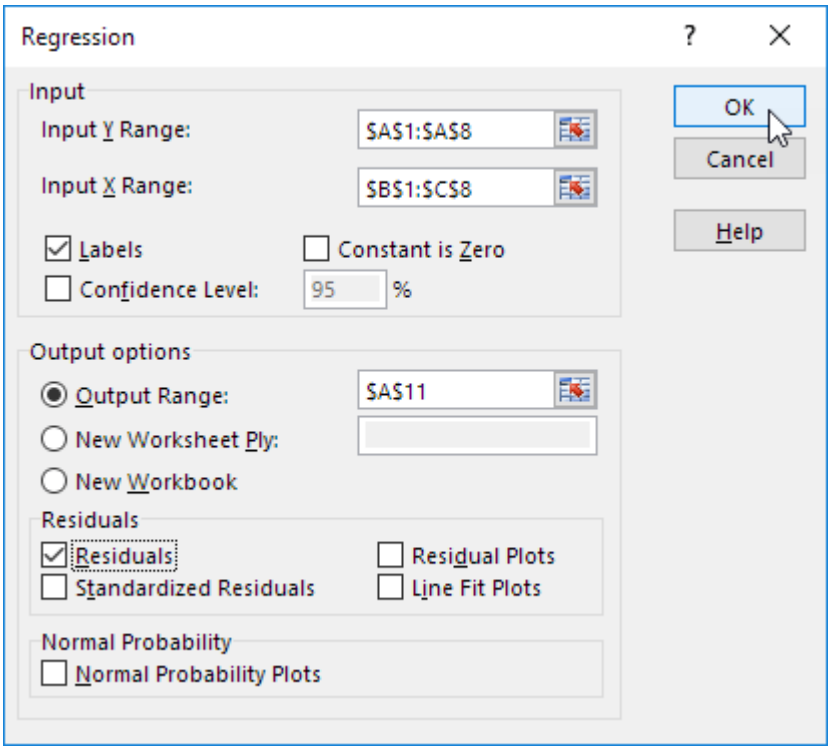
4. Select the X Range(B1:C8). These are the explanatory variables (also called independent variables). These columns must be adjacent to each other.

5. Check Labels.

6. Click in the Output Range box and select cell A11.

7. Check Residuals.

8. Click OK.



Excel produces the following Summary Output (rounded to 3 decimal places).

R Square

R Square equals 0.962, which is a very good fit. 96% of the variation in Quantity Sold is explained by the independent variables Price and Advertising. The closer to 1, the better the regression line (read on) fits the data.

11	SUMMARY OUTPUT	
12		
13	*Regression Statistics*	
14	Multiple R	0.981
15	R Square	0.962
16	Adjusted R Square	0.943
17	Standard Error	310.524
18	Observations	7
19		

Significance F and P-values

To check if your results are reliable (statistically significant), look at Significance F (0.001). If this value is less than 0.05, you're OK. If Significance F is greater than 0.05, it's probably better to stop using this set of independent variables. Delete a variable with a high P-value (greater than 0.05) and rerun the regression until Significance F drops below 0.05.

Most or all P-values should be below below 0.05. In our example this is the case. (0.000, 0.001 and 0.005).

20	ANOVA						
21		*df*	*SS*	*MS*	*F*	*Significance F*	
22	Regression	2	9694299.568	4847149.784	50.269	0.001	
23	Residual	4	385700.432	96425.108			
24	Total	6	10080000.000				
25							
26		*Coefficients*	*Std Error*	*t Stat*	*P-values*	*Lower 95%*	*Upper 95%*
27	Intercept	8536.214	386.912	22.062	0.000	7461.975	9610.453
28	Price	-835.722	99.653	-8.386	0.001	-1112.404	-559.041
29	Advertising	0.592	0.104	5.676	0.005	0.303	0.882
30							

Coefficients

The regression line is: y = Quantity Sold = 8536.214 -835.722 * Price + 0.592 * Advertising. In other words, for each unit increase in price, Quantity Sold decreases with 835.722 units. For each unit increase in Advertising, Quantity Sold increases with 0.592 units. This is valuable information.

You can also use these coefficients to do a forecast. For example, if price equals $4 and Advertising equals $3000, you might be able to achieve a Quantity Sold of 8536.214 -835.722

* 4 + 0.592 * 3000 = 6970.

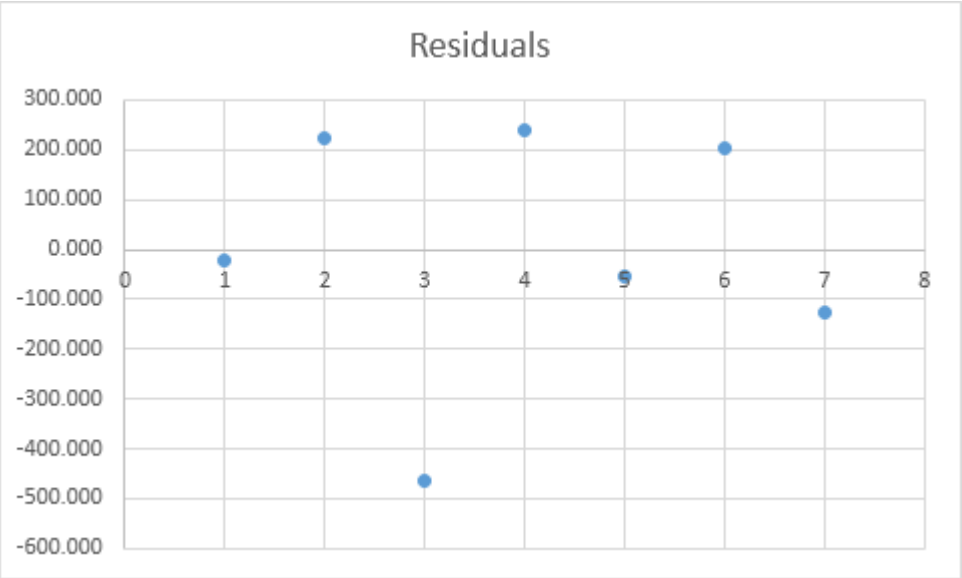
Residuals

The residuals show you how far away the actual data points are fom the predicted data points (using the equation). For example, the first data point equals 8500. Using the equation, the predicted data point equals 8536.214 -835.722 * 2 + 0.592 * 2800 = 8523.009, giving a residual

of 8500 - 8523.009 = -23.009.

33	RESIDUAL OUTPUT		
34			
35	*Observation*	*Predicted Quantity Sold*	*Residuals*
36	1	8523.009	-23.009
37	2	4476.048	223.952
38	3	6265.938	-465.938
39	4	7160.883	239.117
40	5	6252.733	-52.733
41	6	7095.058	204.942
42	7	5726.330	-126.330
43			

You can also create a scatter plot of these residuals.



t-Test

This example teaches you how to perform a **t-Test** in **Excel**. The t-Test is used to test the null hypothesis that the means of two populations are equal.

Below you can find the study hours of 6 female students and 5 male students.

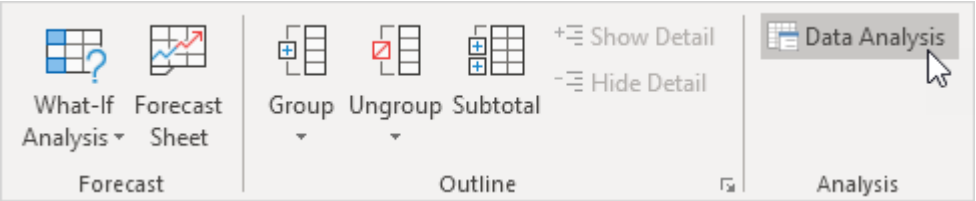
H_0: $\mu_1 - \mu_2 = 0$

H_1: $\mu_1 - \mu_2 \neq 0$

	A	B	C
1	Female	Male	
2	26	23	
3	25	30	
4	43	18	
5	34	25	
6	18	28	
7	52		
8			

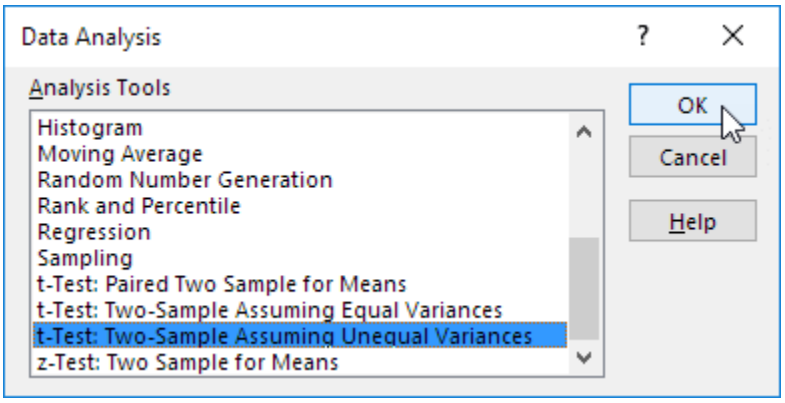
To perform a t-Test, execute the following steps.

1. First, perform an F-Test to determine if the variances of the two populations are equal. This is not the case.
2. On the Data tab, in the Analysis group, click Data Analysis.



Note: can't find the Data Analysis button? Click here to load the Analysis ToolPak add-in.

3. Select t-Test: Two-Sample Assuming Unequal Variances and click OK.

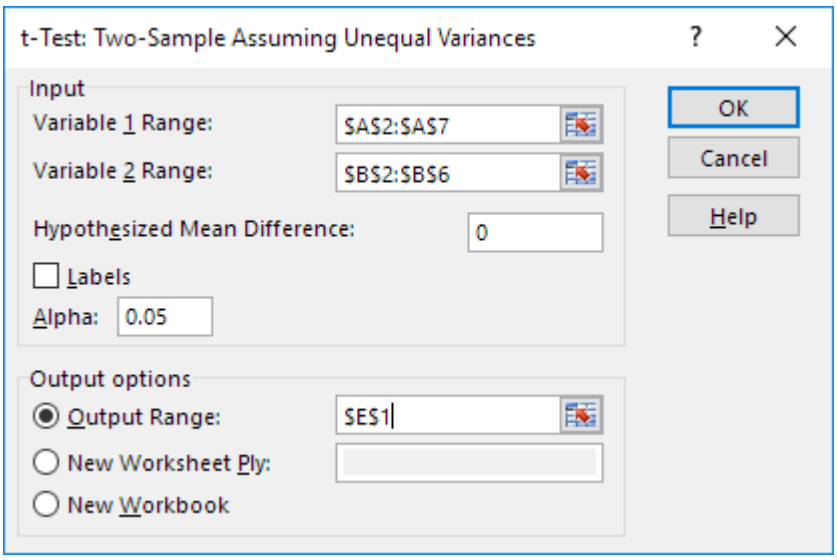


4. Click in the Variable 1 Range box and select the range A2:A7.

5. Click in the Variable 2 Range box and select the range B2:B6.

6. Click in the Hypothesized Mean Difference box and type 0 (H_0: $\mu_1 - \mu_2 = 0$).

7. Click in the Output Range box and select cell E1.



8. Click OK.

Result:

E	F	G
t-Test: Two-Sample Assuming Unequal Variances		
	Variable 1	*Variable 2*
Mean	33	24.8
Variance	160	21.7
Observations	6	5
Hypothesized Mean Difference	0	
df	7	
t Stat	1.47260514	
P(T<=t) one-tail	0.092170202	
t Critical one-tail	1.894578605	
P(T<=t) two-tail	0.184340405	
t Critical two-tail	2.364624252	

Conclusion: We do a two-tail test (inequality). lf t Stat < -t Critical two-tail or t Stat > t Critical two-tail, we reject the null hypothesis. This is not the case, -2.365 < 1.473 < 2.365. Therefore, we do not reject the null hypothesis. The observed difference between the sample means (33 - 24.8) is not convincing enough to say that the average number of study hours between female and male students differ significantly.

F-Test

This example teaches you how to perform an **F-Test** in **Excel**. The F-Test is used to test the null hypothesis that the variances of two populations are equal.
Below you can find the study hours of 6 female students and 5 male students.

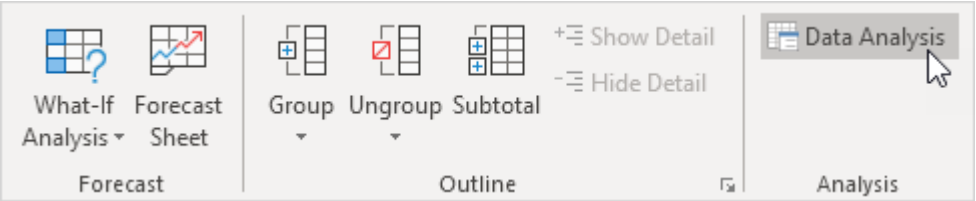
H_0: $\sigma_1^2 = \sigma_2^2$

H_1: $\sigma_1^2 \neq \sigma_2^2$

	A	B	C
1	Female	Male	
2	26	23	
3	25	30	
4	43	18	
5	34	25	
6	18	28	
7	52		
8			

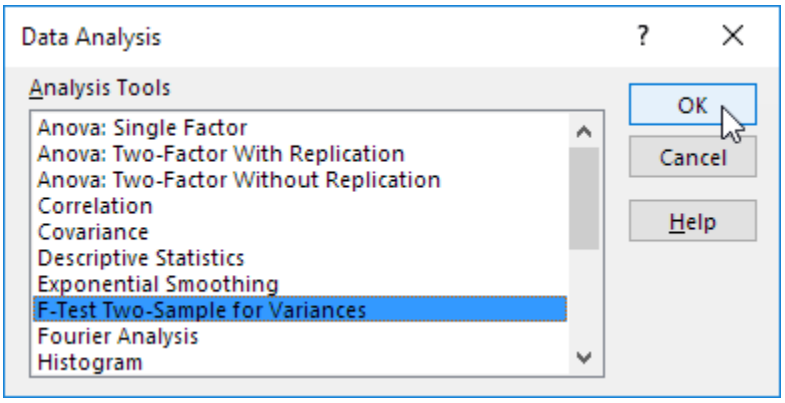
To perform an F-Test, execute the following steps.

1. On the Data tab, in the Analysis group, click Data Analysis.



Note: can't find the Data Analysis button? Click here to load the Analysis ToolPak add-in.

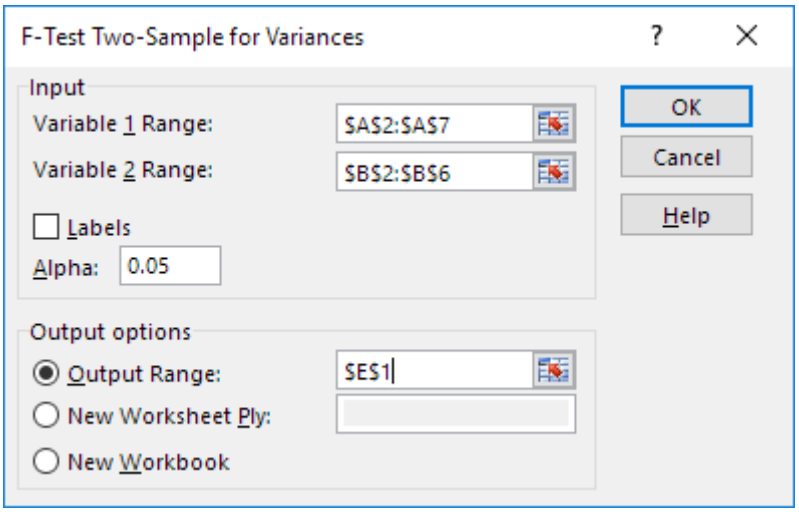
2. Select F-Test Two-Sample for Variances and click OK.



3. Click in the Variable 1 Range box and select the range A2:A7.

4. Click in the Variable 2 Range box and select the range B2:B6.

5. Click in the Output Range box and select cell E1.



6. Click OK.

Result:

E	F	G
F-Test Two-Sample for Variances		
	Variable 1	*Variable 2*
Mean	33	24.8
Variance	160	21.7
Observations	6	5
df	5	4
F	7.373271889	
P(F<=f) one-tail	0.037888376	
F Critical one-tail	6.256056502	

Important: be sure that the variance of Variable 1 is higher than the variance of Variable 2. This is the case, 160 > 21.7. If not, swap your data. As a result, Excel calculates the correct F value, which is the ratio of Variance 1 to Variance 2 (F = 160 / 21.7 = 7.373).

Conclusion: if F > F Critical one-tail, we reject the null hypothesis. This is the case, 7.373 > 6.256. Therefore, we reject the null hypothesis. The variances of the two populations are unequal.

Test:

Model Question Paper:

Q.The function to calculate the Range of data in Excel is:

- RANGE.S()
- RANGE()
- MAX() - MIN ()
- RANGE.P()

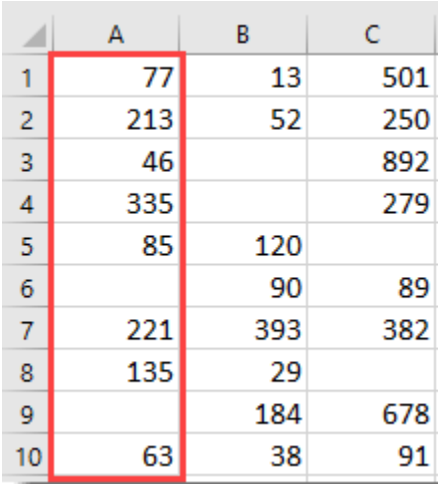
Q.The following Excel function is used to find the mean of a number of items:

- =Average()
- =FindAverage()
- =Mean()
- =sum()

Q.Which function returns the most frequently occurring number in a data set?

- ○ COUNT()
- ○ MEDIAN()
- ◉ MODE()
- ○ Don’t know

Q.Which formula returns the arithmetic mean of the numbers in a data set?



	A	B	C
1	77	13	501
2	213	52	250
3	46		892
4	335		279
5	85	120	
6		90	89
7	221	393	382
8	135	29	
9		184	678
10	63	38	91

- ○ =AVERAGE(A1:A10)
- ◉ =MEDIAN(A1:A10)
- ○ =SUM(A1:A10)/COUNT(A1:A10)
- ○ Don’t know

Q. What is the intersection of a column and a row on a worksheet called ?

A. Column

B. Value

C. Address

D. Cell

Answer : Cell [Option : D]

Q. What type of chart is useful for comparing values over categories ?

A. Pie Chart

B. Column

Chart C.Line

Chart

D. Dot Graph

Answer : Column Chart [Option : B]

Q. Which function in Excel tells how many numeric entries are there ?

A. NUM

B. COUNT

C. SUM

D. CHKNUM

Answer : COUNT [Option : B]

Q. A features that displays only the data in column (s) according to specified criteria

A. Formula

B. Sorti

ng

C.Filteri

ng

D. Pivot

Answer : Filtering [Option : C]

Q. Statistical calculations and preparation of tables and graphs can be done using

A. Adobe Photoshop

B. Excel

C. Notepad

D. Power Point

Answer : Excel [Option : B]

Q. Which one is not a Function in MS Excel ?

A. SUM

B. AVG

C. MAX

D. MIN

Answer : AVG [Option : B]

Q. Functions in MS Excel must begin with ___

A. An () sign

B. An Equal Sign

C. A Plus Sign

D. A > Sign

Answer : An Equal Sign [Option : B]

Q. Which function in Excel checks whether a condition is true or not ?

A. SUM

B. COUNT

C. IF

D. AVERAGE

Answer : IF [Option : C]

Q. In Excel, Columns are labelled as ___

A. A, B, C, etc

B. 1,2,3 etc

C. A1, A2, etc.

D. A1, A2, etc.

Answer : A, B, C, etc [Option : A]

Q. It is a collection of data that is stored electronically as a series of records in a table.

A. spreadsheet

B. presentation

C. database

D. MS Word

Answer : database [Option : C]

Q. What type of chart will you use to compare performance of sales of two products ?

A. Column Chart

B. Line Chart

C. Pie Chart

D. Both A and B

Answer : Column Chart [Option : A]

Q. In Excel, Rows are labelled as _____

A. A, B, C, etc

B. 1,2,3 etc

C. A1, A2, etc.

D. A1, A2, etc.

Answer : 1,2,3 etc [Option : B]

Q. What do you use to create a chart?

A. Pie Wizard

B. Excel Wizard

C. Data Wizard

D. Chart Wizard

Answer : Chart Wizard [Option : D]

Q. How will you graphically represent expenditure in different departments ?

A. Column Chart
B. Line Chart
C.Pie Chart

D. Dot Chart

Answer : Pie Chart [Option : C]

Q. What type of chart is good for single series of data ?

A. Column Chart

B. Line Chart

C. Pie Chart

D. Cone Chart

Answer : Pie Chart [Option : C]

Q. The basic unit of a worksheet into which you enter data in Excel is called a

A. cell

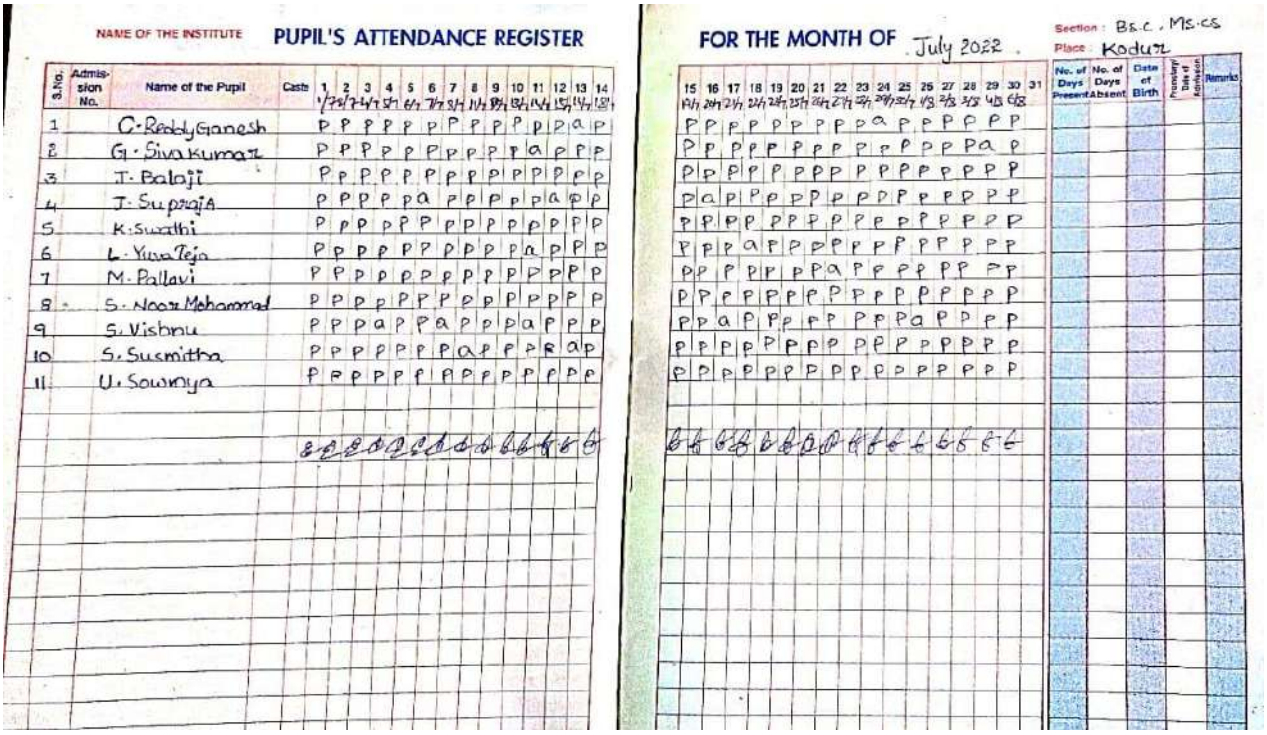
B. table

C. box

D. column

Answer : cell [Option : A]

Attendance Register:



NAME OF THE INSTITUTE

PUPIL'S ATTENDANCE REGISTER

FOR THE MONTH OF July 2022

Section : BS.C, MS.CS

Place : Kodur

S.No.	Admission No.	Name of the Pupil	Caste	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	No. of Days Present	No. of Days Absent	Date of Birth	Previous Class of Admission	Remarks
1		C. Reddy Ganesh		P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P							
2		G. Sivakumar		P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P						
3		J. Balaji		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P						
4		J. Supraja		P	P	P	P	P	a	P	P	P	P	P	a	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P						
5		K. Swathi		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P						
6		L. Yuva Teja		P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P						
7		M. Pallavi		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P						
8		S. Noor Mohammad		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	P						
9		S. Vishnu		P	P	P	a	P	P	a	P	P	P	a	P	P	P	P	P	P	P	a	P	P	P	P	P	P	P	a	P	P	P						
10		S. Susmitha		P	P	P	P	P	P	P	a	P	P	P	a	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P						
11		U. Sowmya		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P						

Feedback form:

Course feedback form:

1. Were objectives of the course clear to you

    1)Yes 2). No

2. The course contents met your expectations

    1) Yes 2) No

3. The level of the course was

    1) Good 2)Not Good

4. The contents were illustrated with

    1) More examples 2) Few examples

5. The course exposed you to new knowledge and practices

    1) Agree 2) Not agree

6. Will you recommend this course to your next Batch

    1) Yes 2) No

Critical Analysis Report:

The Department of Statistics has been conducted a certificate course (Institutional Permission) on "Statistics - A do it yourself on EXCEL" from 01/07/2022 to 06/08/2022 with the minimum duration of 30 hours. According to the IQAC and Principals instruction the course have been started the feasibility and convenient of the hours for this academic year. The total students ____were registered for this course and completed as per the schedule. The objective of the course was fulfilled by acquiring of computing skills and problem-solving algorithms in EXCEL.

Outcomes of the Course:

1. Students can able to understand the statistical packages
2. Students can able to maintain EXCEL sheets
3. Students can able to Entering Data
4. Students can able to Create Graphs like Line chart, Bar chart, Pie chart, Scatter plot, Straight lines
5. Students can able to calculate Descriptive Statistics like Mean, median, mode, standard deviation, skewness and kurtosis in EXECEL
6. Students can able to perform t- test, F-test, ANOVA
7. Finally, students attended for test to know their acquiring skills in EXCEL

Hence, the certificate course is very useful to B.Sc., Students on computing the problems easily in MS-EXCEL. The feedback from students were collected and analysed. All the students from Statistics showed interest to do such type of Certificate course and to continue it for further years also.

Thankyou

PHOTOS

GOVT.DEGREE COLLEGE, KODURU(RS),

KADAPA (DISTRICT)

Department Resolution copy

The department of Commerce arranged a meeting on 07-01- 2019 and resolved to conduct a **Certificate course** from the 19th January 2019 according to the feasibility of the Department of Commerce. It is also resolved to submit the details as per the check list given below well in advance by the department as per the requirements to run the proposed Certificate Course.

Notice Board

The department of Commerce is going to conduct a certificate course on **Tally** from 19/01/2019 to 26/02/2019 with minimum 30 working hours. Interested candidates are informed to register your names in the department on or before 18/01/2019.

ACERTIFICATE COURSE ON TALLY

Vision

The vision of this Certificate course in Tally gives a comprehensive study of basic functionalities of finance and accounts. This course encompasses all critical aspects of an organization, including pay roll, inventory, manufacturing and banking to name a few. "Tally" is comprehensive ERP software that goes far beyond the basic functionalities of finance and accounts. True to its spirit, Tally optimization organization's various operations and divisions, streamline sever aspect, and brings together its functioning into a cohesive whole. Over the years, Tally has become synonymous with accounting and accounting is nothing but maintaining different books of accounts. Thus, this certificate program is envisaged and is being delivered for the benefit of aspiring accounting professionals and students in the Finance and Accounting streams.

Mission

The Mission of the Certificate course in Tally is to:

(i) Empowering the learners by giving the basic knowledge on the usage of Tally software;

(ii) Train the students on Tally;

(iii) Assist the students with the in academic needs and helping them to improve the knowledge for allied subjects also;

(iv) Provide quality programs for learners with specialized skills sets in the develop and conducting the quality proficiency assessment ; and

(v) Contribute to the growth and progress of the learners.

Objectives of the course:

It is an industry oriented training program, designed to competently prepare candidates in the fine aspects to make a suitable entry into the corporate world. Fresh Graduates are molded to analytically think and skillfully communicate which translates into a perfect and job profile match to the expectation of Organization. Tally certification enables the students to become a seasoned accounting professional in the shortest possible time. And, since Tally is currently used across diverse segments like MNCs, government & local businesses, job opportunities with the best companies in the country are immensely enhanced.

Course Outcomes:

After Completion of the subject student should able to

- Certified Recognition from Tally Academy.
- Thorough understanding of Electronic Accounting.
- Multi location with Multi disciplines.
- Competent, qualified and experienced Trainers.
- Training customization option.
- Flexible & Responsive Approach.
- Pre and Post training assessments.
- Skills required for selection processes.
- Ability to demonstrate skills and competence in the most effective manner during interview.
- Experience a major progressive overall change in self positive enhancement of knowledge, efficiency and productivity through best of practices.

Course Structure:

The structure of the proposed Certificate Course in **Tally** is a basic level certificate on course in the area of Accounting Software using in the domain of Accounting and Finance. Primarily, the certificate program in Tally is aimed at imparting basic knowledge and skills of several applications using in the Tally. It is evident that the landscape of the today's business world is changing very drastically due to the advent of science and technology, particularly internet and internet enabled things. Hence, It is need to update the required skills in the area Accounting and Finance by using Accounting Software's like Tally. Thus, the course is designed to address the immediate needs of the students after graduation in their attempt to go for further studies or to seek employment.

Syllabus:

Getting started with Tally:
What is Tally? Using Tally Software: introduction and installation/Required Hardware/Preparation for installation of tally software/installation.

Items on Tally Screens:
Menu options/creating New Company/Base Currency information/ New Company/ Other information/ Company features and inventory features.

Configuring Tally:
General/Number symbols/accts/voucher entry/invoice/orders entry and printing/ security issue.

Reports in Tally: Output reports/ basic features of displaying reports/ printing reports/other printing options/ display account books and statements/ viewing cash/ bank books/ configure balance sheet.

Preparation of Trail Balance:
Accounts books/ Cash Book/Bank Books/Ledger Accounts/Group Summary/ Sales Register and Purchase Register/ Journal Register/ Statement of Accounts/ &Balance Sheet.

Study Material/ Notes

Introduction Tally 9.0

Tally Solutions has released a new version of its Tally 9 software. It is most popular software for accounts and inventory management. It offers different feature forming accounts. Tally 9 is integrated with a lot of advanced feature like better data migrating, fast data speed, payroll management, TDS, TCS, job costing and point- of sale invoicing etc.

Tally 9, a synchronized multi lingual integrated business accounting software, enables to maintain accounts in any Indian language, view it in other and printing other language of their choice. Targeted at SMBs, Tally 9 offers greater reliability, scalability, accuracy and speed. It supports Unicode data which helps companies maintain data in any of the Unicode supported languages.

Tally 9 program also has features including tax compliance features for value added tax(VAT),service tax and excise for traders.

FEATURESINTALLY9

1. **Easy calculation of TDS(Tax Deducted at Source)**

   Using Tally9 you can calculate TDS appropriately.

2. **Negative Stock Warning in Journal Voucher**

Create a stock item with an opening balance of considerable units and pass a delivery note against it .using a Journal Voucher to record a sales transaction tracking the delivery note would display a warning message of negative stock even through a considerable amount of stock was left over. The same has been addressed appropriately in Journal voucher.

3. **Performance in Networking Environment**

Tally 9 can work efficiently in a networking environment, if the Server has Windows XPand Clients have Windows 98 as the operating system, Tally performs efficiently with improved data stability.

4. **Interest calculation in Forex**

A Sales transaction created using Forex currency and Interest calculation, calculates the Outstanding Forex Interest accurately.

5. **Ledger Account**

Tally now prints the address of the Sundry Debtor/Creditor ledgers, while printing a ledger account.

6. **Ratio Analysis**

If the Net Profit is lesser than the Return on Investment % or Return on Working Capital, Tally displays the values with a negative sign.

7. **Maintain balances bill by bill**

Altering a ledger created under Sundry Debtors or Sundry Creditors, by setting Maintain balances bill to bill only the selected ledger and not the Group.

8. Migration Tool

Users may now migrated to Tally9, using the Tally Data Migration Tool on Tablet PCs and Desk top computers of higher processor speed.

9. Stock Journal

The value in the rate field of a Stock Journal(Transfer of Materials)appears appropriately.

10. Purchase/Sales Order

The list of Party or Customer ledgers is displayed appropriately, while creating a Purchase/Sales order respectively.

11. Inventory Report

The Godown–wise Inventory reports move displays accurate balance values where as multiple godowns are maintained.

12. VAT(Value Added Tax)

You can calculate value added tax in tally9.

13. FIFO Perpetual

Tally introduces a new method of inventory valuation FIFO Perpetual, which is similar to LIGO Perpetual. The Normal FIFO treats the opening balance of the financial year as the terminating rate to apply for residual stock. FIFO Perpetual takes all existing past data. Both LIFO and FIFO Perpetual are capable of changing the valuation when the company is split unlike their‘ Annual’ versions, which are consistent.

14. Payroll

It has been integrated with accounts in order to simplify Payroll processing. Payroll can be configured to suit the requirements of various types of organization.

15. POS Invoicing

POS Invoicing in Tally is equipped with ease of use and advanced capability to simplify your retail operations. It efficiently automates the‘ check–out’ process, and allows you to create invoices and collect payments from customers, in a matter of moments.

16. Multilingual Support

Tally comes with the World’s First Concurrent Multilingual Business Accounting & Inventory Management Software for small and medium businesses. The user interface for the software is available in Hindi, Marathi, Gujarati, Bengali, Kannada, Tamil, Telugu, Malayalam, Hinglish(colloquial English) and Punjabi, and in Bahasa Melayu and Bahasa Indonesia allowing you to interact with Tally, in a language of your choice.

INSTALLING TALLY9

When you install Tally, a folder named Tally is created by default, where the program files will reside. You can specify a different folder name, if you wish.

System Requirements

To install Tally, your system must meet the following minimum requirements.

Processor	Intel Pentium IV and higher or equivalent
Memory	256MBRAMormore
Free Hard Disk Space	40MBMinimum(excluding the data)_
Monitor Resolution	Recommended1024*768orhigher

Note: For better performance Tally Multilingual needs more memory(about 40MB of Free Hard Disk Space)

To install Tally in Windows NT/2000/XP/2003/XPSP2/VISTA Work station,

1. You need to have administrator/all rights(to create, write, update, modify and delete) on the Application. Data, Configuration and Language directory.
2. Ensure that the Operating System you use supports Tally for Multilingual support. You can install Tally using one of the given methods.

Method1:

- Double click install.exeformtheCD.

Method2:

- Click STARTfromWindows.
- SelectRUN.
- TYPE<CDdrive>:/INSTALL.
- Press ENTER key.

Follow the instructions on your screen to install Tally.

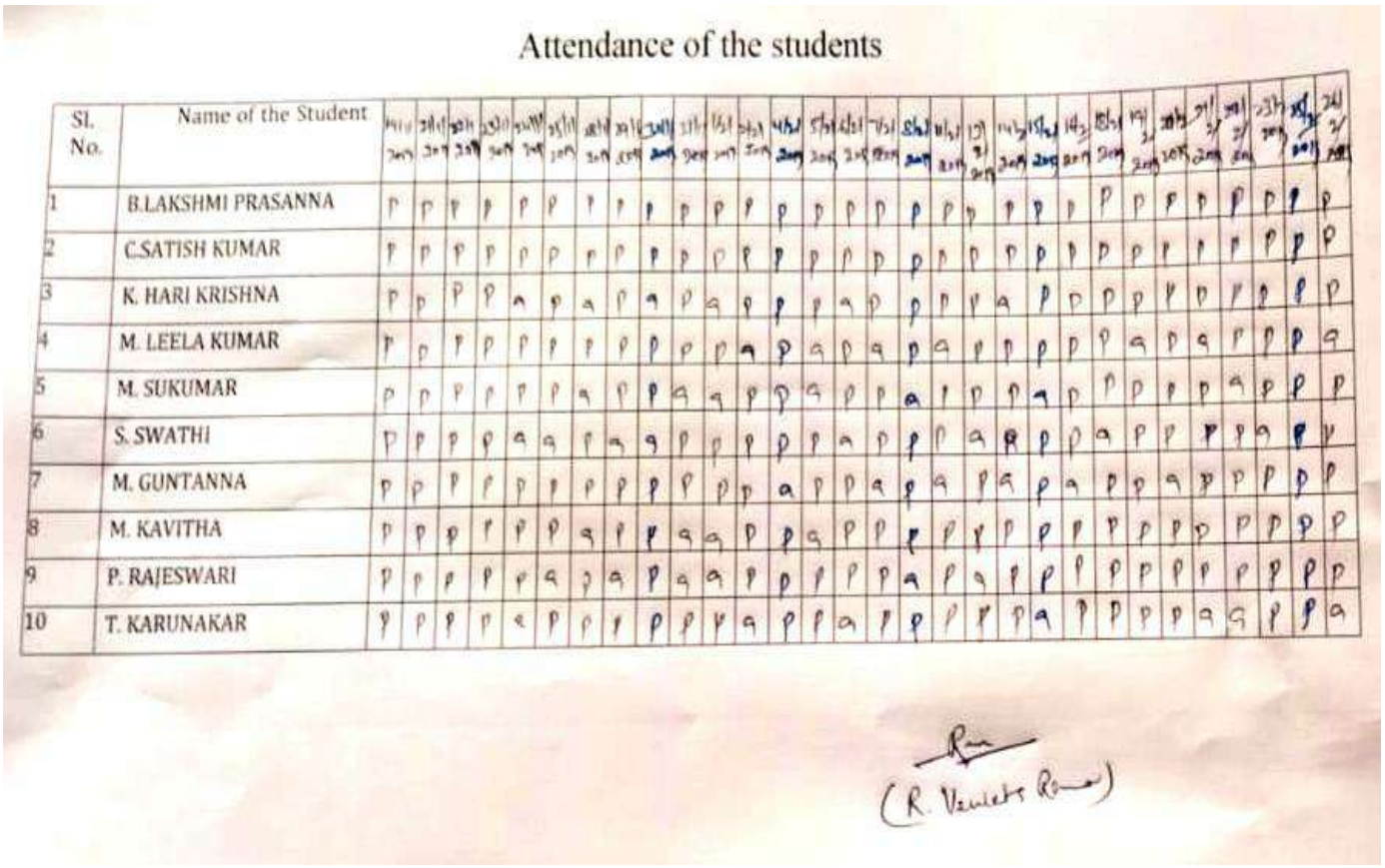
1. The Tally Setup Wizard is displayed.

2. Click Next to continue

3. The Installation wizard displays the License Agreement. Read the license agreement before you proceed. Click I Agree to continue. Click I Decline to stop setup or click Back to go to the previous screen.

4. In the Installation screen, you may accept the suggested directories. Else click Change Application Directory or Change data Directory or Change Configuration Directory or Change Language Directory the change the respective directory paths. Use Tab or the mouse to change the path in any of the directories.

Sl. No.	Name of the Student	Group	Class/ Year	Remarks
1	B.LAKSHMI PRASANNA	B.Com	II	
2	C.SATISH KUMAR	B.Com	II	
3	K. HARI KRISHNA	B.Com	II	
4	M. LEELA KUMAR	B.Com	II	
5	M. SUKUMAR	B.Com	II	
6	S. SWATHI	B.Com	II	
7	M. GUNTANNA	B.Com	III	
8	M. KAVITHA	B.Com	III	
9	P. RAJESWARI	B.Com	III	
10	T. KARUNAKAR	B.Com	III	



Photos

FEEDBACKFORM

1. Were the objectives of the course clear to you?

(i) Yes

(ii) No

2. Did the course contents meet your expectations?

(i) Yes

(ii) No

3. The level of the course was

(i) Good

(ii) Not Good

4. The contents were illustrated with

(i) More examples

(ii) Few examples

5. The course exposed you to new knowledge and practices

(i) Agree

(ii) Not agree

6. Will you recommend this course to your next batch

(i) Yes

(ii) No

TEST

1.WhatisTally?

a)Asoftwareusedforaccountingpurposesb)Asoftwareusedforvideoediting
c)A soft ware used for graphic design

2.What is the full form of VAT?

a)Value Added Tax b)Variable Annual Turnover)Virtual Account Tracker

3.Which is the right choice from the following?

a)Purchase Order
b)Sales Order c)Receipt Voucher

4.Which key is used for selecting a company in Tally?

a)Alt+F1 b)Alt+F2 c)Alt+F3

5.What is the short cut key for creating a new voucher in Tally?

a)F5

b)F6 c)F7

6.Which report in Tally shows the profit and loss of a company?

a)Balance Sheet b)Trial Balance c) Profit and Loss A/C

7.Which feature in Tally allows you to create a backup of your data?

a)Export b)Import c)Backup

8.What is the short cut key for selecting a company in Tally?

a)Ctrl+A b)Ctrl+F1 c)Ctrl+F2

9.Which voucher in Tally is used to record a payment made to a supplier?

a)Payment Voucher b)Receipt Voucher c)Sales Voucher

10.Which Tally feature allows you to maintain inventory levels?

a)Stock Summary b)Balance Sheet c)Profit and Loss A/C

Critical Analysis Report

The Department of Commerce has conducted a certificate course (Institutional Permission) on **Tally** from 02/08/2017 to 13/09/2017 with the minimum duration of 30 hours. According to the IQAC and Principal's instruction, the course has been conducted as per the feasibility and convenience of the Department of Commerce and availability of the students during this academic year. 16 students were registered and completed the course as per the schedule. The objectives of the course that were specified in the beginning of the course were fulfilled to the core.

Outcomes of the Course

- Students could come to know the basics Tally and its applications.
- Students could use the Tally application on their own.
- Students could work on the present business environment with the help of tally software.
- Students could fill the gap between the academia and industry with their expertise knowledge in the area of accounting and finance.

Hence, the certificate course on **Tally** is very useful to all the Students. The feed back from the students was collected and analyzed. All the students from across the streams showed interest to do this Certificate course and requested to continue the same course further for the successive batches.

GOVERNMENT DEGREE COLLEGE- KODUR(RS)

KADAPA (Dist.) –516101

DEPARTMENT OF COMMERCE

CERTIFICATE COURSE

IN

RETAILING

COURSE CO –ORDINATOR

S.Viswanatha

Lecturer in Commerce

Govt. Degree College, KODUR(RS)

KADAPA(Dist.), A.P., 516101

Department Resolution copy

The department of Commerce arranged a meeting on 23-08- 2019 and resolved to conduct a **Certificate course on "Retailing"** from the 3rd September 2019 according to the feasibility of the Department of Commerce. It is also resolved to submit the details as per the check list given below well in advance by the department as per the requirements to run the proposed Certificate Course.

Notice Board -- 26-08-2019

The department of Commerce is going to conduct a certificate course on "**Retailing"** from 03/09/2019 to 26/02/2019 with minimum 30 working hours. Interested candidates are informed to register your names in the department on or before 03/09/2019.

CERTIFICATE COURSE IN RETAILING

Certificate Course in Retailing is focused on fundamental retail topics and provides students with the ability to choose electives based on broad interests or specific areas such as buying operations, or management. Certificate Course in Retailing explains of retail category management, retail store operations, performance metrics and designing marketing and promotional strategies.

Certficate Course in Retailing Syllabus

1. **Introduction to Retailing**: Concept of retailing, Functions of retailing, Terms & Definition, Retail formats and types, Retailing Channels, Retail industry in India, Importance of retailing.
2. **Retail Framework and Retail Strategy**: Market Segmentation and its benefits, Kinds of markets, Definition of Retail strategy, Strategy for effective market segmentation, Strategies for penetration of new markets, Growth strategies, Retail value chain.
3. **Trends in Retailing**: Changing nature of retailing, Organised Retailing, Modern retail formats, E-Retailing, Challenges faced by the retail sector
4. **Merchandise Management**: Meaning of Merchandising, Factors influencing Merchandising, Functions of Merchandising Manager, Merchandise planning, Merchandise buying, Analysing Merchandise performance
5. **Technology in Retail** : E-Commerce, Friendly POS System, Machine Learning for Demand Forecasting, Data Science – Based on Personal Interaction, Staff – Free and Cashier- Less Stores, Voice Commerce, Robotic.

Objectives of Certificate Course in Retailing:

- Certificate Course in Retailing is the right course for aspirants who would like to become retail professionals at supervisory levels and those who own or management a retail business.
- The course also equips the participants with the tools and terminology that will be required to survive and grow in this ever-growing sector.

Course Outcomes:

- After passing the course they can go for further higher degrees for enhancing their educational qualifications and for promotions.
- Certificate Course in Retailing gives real-world understanding of what does in the complete retail sector and prepare the participants to get ready for the rewarding career in the retail in the course sector.
- They can have so many jobs in the transportation and logistics sectors.

Certificate Course in Retailing Employment Areas

- Advertising Agencies
- Colleges & Universities
- Departmental Stores
- Movie Theatres
- Super markets
- Supply Chains

Certificate Course in Retailing Job Types

- Brand Manager
- Category Manager
- Department Manager
- Project Manager
- Retail Buyer
- Sales Manager
- Stores Manager
- Supply Chain and Logistics Manager.

Course Duration: 30 Hours.

SUMMARY REPORT

ACADEMIC YEAR: 2019-2020

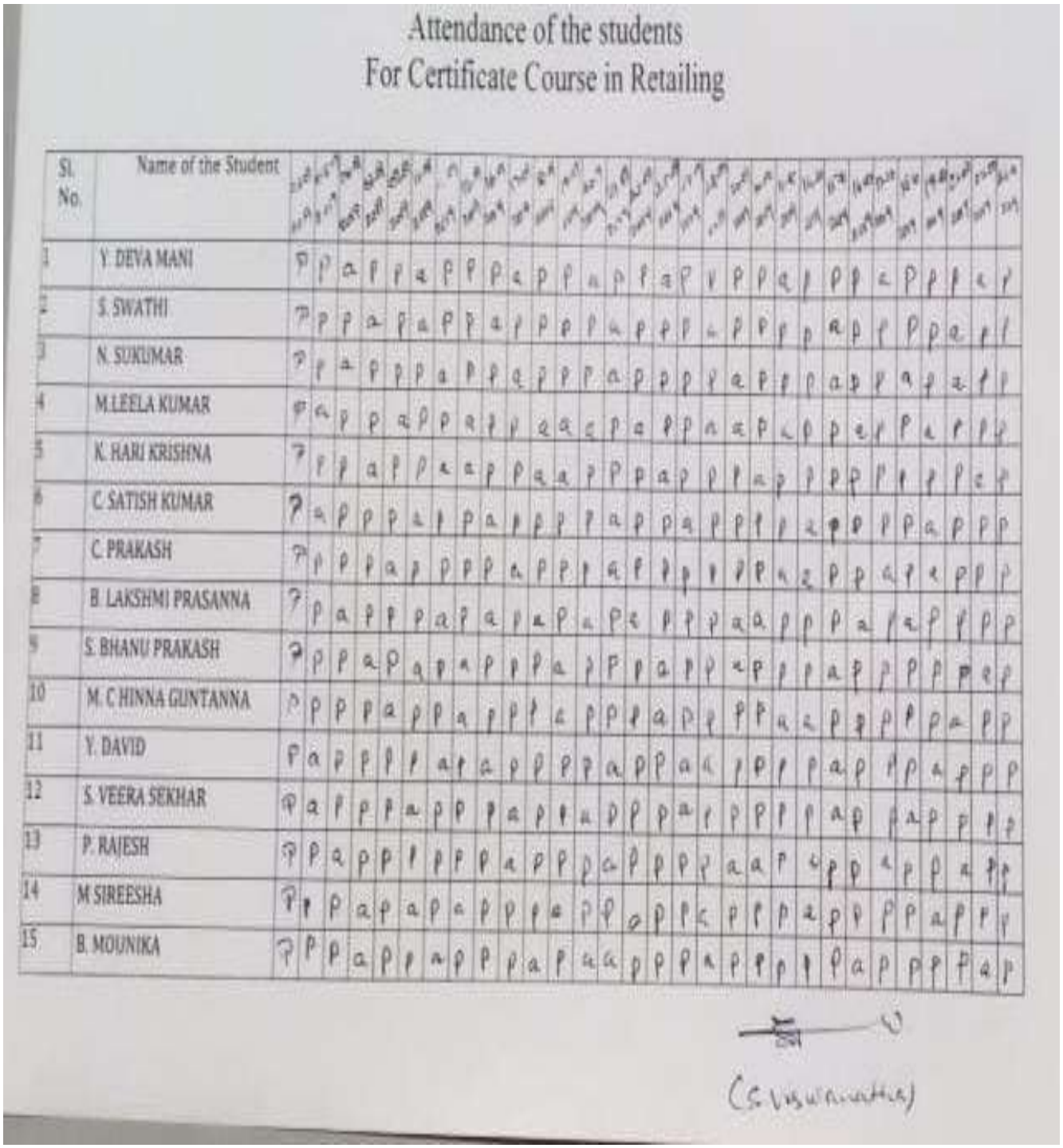
The Certificate Course student has made significant progress in Retailing. Seminars were conducted all the students on the topics of Retail formats and types, Retailing Channels, Retail industry in India. In addition to theory classes students are visited some of the retail stores in Kodur in the month of November 2022.

Assessment of students was carried out on the basis of internal evaluations which include Attendance, Assignments, and Viva during training. Twenty two students are completed the Certificate course on “Retailing”.

List of the Students

For certificate course in Retailing

Sl. No.	Name of the Student	Class	Signature of the Student
1	Y. DEVA MANI	III B.Com(CA)	
2	S. SWATHI	III B.Com(CA)	
3	N. SUKUMAR	III B.Com(CA)	
4	M.LEELA KUMAR	III B.Com(CA)	
5	K. HARI KRISHNA	III B.Com(CA)	
6	C. SATISH KUMAR	III B.Com(CA)	
7	C. PRAKASH	III B.Com(CA)	
8	B. LAKSHMI PRASANNA	III B.Com(CA)	
9	S. BHANU PRAKASH	II B.Com(General)	
10	M. C HINNA GUNTANNA	II B.Com(General)	
11	Y. DAVID	II B.Com(General)	
12	S. VEERA SEKHAR	II B.Com(General)	
13	P. RAJESH	III B.Com(CA)	
14	M SIREESHA	III B.Com(CA)	
15	B. MOUNIKA	III B.Com(CA)	



Attendance of the students
For Certificate Course in Retailing

Sl. No.	Name of the Student
1	Y. DEVA MANI
2	S. SWATHI
3	N. SUKUMAR
4	M.LEELA KUMAR
5	K. HARI KRISHNA
6	C. SATISH KUMAR
7	C. PRAKASH
8	B. LAKSHMI PRASANNA
9	S. BHANU PRAKASH
10	M. C HINNA GUNTANNA
11	Y. DAVID
12	S. VEERA SEKHAR
13	P. RAJESH
14	M SIREESHA
15	B. MOUNIKA

(C. Vasu Naidu)

Photos

GOVT DEGREE COLLEGE KODUR(RS)

ANNAMAYYA, DIST. AP.

Affiliated to Yogi Vemana University, Re-accredited by NAAC with 'B' Grade

CERTIFICATE

This is to certify that _____, ____ year B.Com(CA or General), GDC KODUR(RS), Kadapa Dist. has successfully Completed Certificate Course on "Retailing". Organised by Department of Commerce, Government Degree College, KODUR(RS) from 03-09-2019 to 23-10-2019

Coordinator

HOD of Commerce

PRINCIPAL

GOVT. DEGREE COLLEGE, KODUR(RS), KADAPA DT

ACCREDITED BY NAAC WITH 'B' GRADE

DEPARTMENT OF COMPUTER SCIENCE

CERTIFICATE COURSE

"MS OFFICE(WORD & POWER POINT)"

2018-2019

Department of Computer Science

Resolution Copy

As per the circular issued by the IQAC dated **24-01-2019** the Department of **Computer Science** has decided to conduct a Certificate course **from 28-01-2019 to 28-02-2019** and duration of course is 30 hours.

K. Uma maheswari

LECTURER INCHARGE
DEARTMENT OF COMPUTER SCIENCE
GDC, KODUR(RS)
KADAPA(DT)

Kodur
25-01-2019.

From

K.Uma Maheswari,
Contract Lecturer in Computer Science ,
Govt. Degree College, Kodur(RS),
Kadapa(Dt).

To

The Principal,
Govt. Degree College, Kodur(RS),
Kadapa(Dt).

Respected Sir,

Sub: Request permission for conducting Certificate Course on

" MS-OFFICE(WORD & POWERPOINT)" – Reg,.

This is bring to your kind consideration that Department of Computer Science is planning to conduct a Certificate Course for all group students in **"MS-OFFICE(WORD & POWER POINT)"** with minimum of 30 hours during the Academic Year 2018-2019. Hence I request you to grant permission to start the Certificate Course **from 28-01-2019 to 28-02-2019.** This is for your kind information.

Thanking you Sir,

Yours faithfully,

K. Uma Maheswari

(K.Uma Maheswari)

GOVERNMENT DEGREE COLLEGE, KODUR(RS), KADAPA(DT)
DEPARTMENT OF COMPUTER SCIENCE

Circular

The Department of Computer Science is going to conduct a certificate course on **"MS-OFFICE(WORD & POWERPOINT)"** wiith min 30 working hours **from 28-01-2019 to 28-02-2019.** Interested candidates should come and register your names in the Department of Computer Science on or before **28-01-2019.**

K. Uma maheswari

LECTURER INCHARGE
DEPARTMENT OF COMPUTER SCIENCE
GDC, KODUR(RS)
KADAPA(DT)

PRINCIPAL
GDC, KODUR(RS)
KADAPA(DT)

About the Course

Context and Significant of Course:

SNO	Content	Details of the Content
1	Name of the Course	**"MS-OFFICE(WORD&POWER POINT)"**
2	Duration	30 days
3	Conducted by	Department of Computer Science
4	Number of students Registered	23
5	Resource person	K. Uma Maheswari
6	Date	from 28-01-2019 to 28-02-2019

MS-OFFICE is a Package which contains Word, Power point, Excel and Access and so on.

Ms-Word

- Microsoft Word or MS Word is a popular word-processing program used mainly for creating documents, such as brochures, letters, learning activities, quizzes, tests, and students' homework assignments.
- It was first released in 1983 and is one of Microsoft Office suite's applications.
- The file extension of a saved document is ".doc".

Ms-Powerpoint

- MS-Powerpoint was created in a software company named Forethought, Inc. by Robert Gaskins and Dennis Austin.
- It was released on April 20, 1987, and after 3 months of its creation, it was acquired by Microsoft.
- It is a presentation-based program that uses graphics, videos, etc. to make a presentation more interactive and interesting.
- The file extension of a saved Power point presentation is ".ppt".
- A PowerPoint presentation comprising slides and other features is also known as PPT.

Course Objectives:

Ms-Word is used to

- Create, edit, save, and print documents to include documents with lists and tables.
- Format text and to use styles.
- Add a header and footer to a document.
- Add a footnote to a document.
- Add a graphic to a document.
- Use the Spelling and Grammar Checker as well as Microsoft Help.
- Manipulate documents using functions such as find and replace; cut, copy, replace.

Ms-Power point is used to

- Create Presentations with different themes
- Prepare Seminar topics with colorful fonts and images
- Prepare animations effectively and so on

LECTURER INCHARGE
DEPARTMENT OF COMPUTER SCIENCE
GDC, KODUR(RS), KADAPA(DT)

Certificate Course Syllabus(Word & Power point)

Unit-I

- New, Open, Close, Save, Save As
- Text Formatting and saving file
- Formatting Text: Font Size, Font Style Font Color, Use the Bold, Italic, and Underline

Unit-II

- Text Basics Alignment of text
- Editing Text: Cut, Copy, Paste, Select All, Clear
- Find & Replace

Unit-III

- Change the Text Case
- Line spacing, Paragraph spacing
- Shading text and paragraph
- Working with Objects Shapes, Clipart and Picture, Word Art, Smart Art

Unit-IV

- Creating Presentation
- Adding New slides– Adding Text in Boxes-Adding New Text
- Deleting Existing Slide
- Arranging slides
- Rearranging Slides

Unit-V

- Adding Cliparts, Pictures, Images, Objects and so on
- Custom Animations
- Inserting Audio/Video files
- Slide transition

Outline of the course in periods:

1. Theory hours 15
2. Hands on experiment 15 Total -30 hours

K. Uma maheswari

LECTURER INCHARGE
DEPARTMENT OF COMPUTER SCIENCE
GDC, KODUR(RS), KADAPA(DT)

Microsoft Word or MS-WORD is a graphical word processing program that users can type with. Its purpose is to allow users to type and save documents. Similar to other word processors, it has helpful tools to make documents.

This notes is useful for a beginner to learn the operations of MS word (version 2007) through practice.

Exercise : 1. Typing a document.

Any printed matter is referred to as a document. Ex. A research paper, Leave letter etc. Thefollowing points are useful to prepare a document

To Open MS- WORD : Click at the menu items as shown below

Start	Programs	MS- Office	Word

Now a document is opened.

Points to remember :

1. Start typing a paragraph after leaving a tab space by pressing the key TAB
2. Type Continuously till the end of the paragraph. Press ENTER key to go to the next para.

3. **Selection of a text:** Take the Cursor to the beginning of the line- Click the mouse and drag till the end of line. The selected portion will appear in the reverse video (Black background and white letters). Now apply the following for special appearance

B	*Bold space*
I	*Italic*
U	Underline the text

4. **Font**: Selecting different Fonts may change the style of the text. To apply a font, select the portion of the text and then do the following

Times New Roman → Click here and select a font

Example : **Arial Black** Tahoma Comic Sans MS

Similarly the size of the text may also be selected : 12 18 24

5. **Text alignment:** A line or a paragraph may be aligned in the following manner.

Left justified	Center justified	Right justified

Take the cursor to the line or para by clicking on it, and press any one of the justification buttons

Normally paragraphs are left justified and the Headings are Center justified.

6. *Line Space :*

The line space is adjusted by pressing the following keys together

Ctrl + 1 Ctrl + 5

7. *Spell Check :*

Press F7 key to begin the spell check. Once the checking is going on the computerwould suggest some corrections. You may accept by pressing Change or Press Ignore

(Or) Right Click at the wrong word – The suggestions are displayed – Click at the chosen word.

8. *To Save :*  Save

Give the file name and press Save

9. *To Print :*  Print

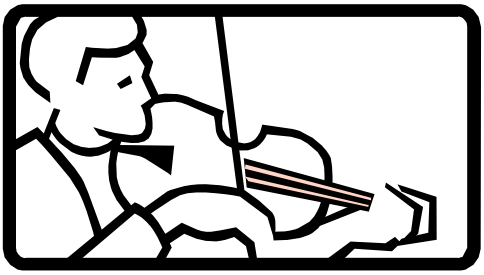
Specify the page numbers to be printed and press OK

10. *To open a Previously Created document*  Open

Exercise : Re type the following text with all the effects displayed in this Text, including font, font size, font effects like Bold, italic and underline (though the text is not a professional presentation)

Exercise : 2. Preparing a Greeting Card using Word

Prepare a card as shown below



Wishes for a
Happy e Learning

Sahaya Baskaran

Steps :

1. **Open a new Document**  New → Blank Document → OK

2. **Insert a Picture** : Insert → Clip Art → Organise Clips

Select a picture from the Clip art gallery. Right Click the mouse → Copy

Minimize the clip art menu – Go to document: → Paste

Now the clip art is inserted. Right click the mouse, on the clip and press

Text Wrapping → Behind Text

Now the size of the picture may be modified and moved to any position by click and drag method.

3. **To get a border :** Page Layout → Page Borders → Page border → BOX

Select the desired border style and size and press OK

Note : Page Colour, Water mark options are also available in this menu

4. **Word Art :** Word art is used to get attractive style of letters. It is under INSERT menu

Exercise : 3 . Typing a document –Additional features

1. **Page Set up :** This is used to set the size of the paper to be used for printing, as well as margins for the page.

Open a New Document.  → New → Blank Document → OK

Now a new document is created

Page Layout → Size → More Paper Sizes

Set the width and height of the paper (in inches) and press OK

To Set the Page Margins:

Page Layout → Margins

Select a predefined style. (OR) click at Custom Margins

Set the **Top, Bottom, Left** and **Right margins** (in inches)

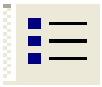
and press OK -- *The margins selected are left blank while printing.*

NB : The menu is used to change the orientation of the paper for printing. (Landscape / Portrait)

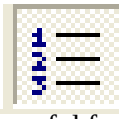
2. Bullets : Bullets are used to fix bullet symbols to each line of the text.

Example:

- Solids
- Liquids
- Gases

Go to Home menu; press  button and then type the text.

The bullets are given automatically to every line. Press ENTER key to go to next line. To stop thebullets : Press BACKSPACE key in a new line.

NB : Automatic Numbering may also be given to the document in a similar way. To get automaticnumbering Press 

This type of Auto Numbering is very useful for typing references to the Research paper/ Thesis. Whenwe add / delete some references from the text, the line numbers are automatically adjusted.

3. Indent : Indentation is used to type some quotations.
There are two buttons to Decrease / Increase indent

Example: The following lines are indented from left margin. All the lines start after leaving some space from left margin.

The use of indentation is get the text pushed inside. The indented text is automatically pushed till we press ENTER key. After pressing ENTER key press Decrease indent key once.

MS-POWERPOINT 2007

Power Point is used for creating presentations (Seminar presentation, Quiz, Animated Shows, Photo Shows, etc). It is a part of the package MS-Office. This presentation puts forward a simple and easy way to learn the package.

Open PowerPoint — START | Program | PowerPoint

The title layout of the PowerPoint will be displayed. Click and type the title of the presentation.

To Get a new slide : — Home | New slide

- Select a layout from the available list. Layout refers to the outline of the slide.
- Select the title and Content layout : This layout has Table, Chart, Smart art graph, Picture, Clip art and Movie clip.
- Select a suitable layout and fill the required items. *Example* : Select a picture lay out- by clicking at the picture icon, insert a new picture.

By using the previous steps, create more number of slides (say 7 slides).

To View the Slide Show :

View | Slide Show (or) Press F5 key

- Now the slides are displayed one after another by pressing **Enter** key/ Mouse click.
- Use **arrow keys** to go to previous / next slide.
- Press **ESC** key to stop the slide show.

To Change the background :

This option is used to get beautiful backgrounds for the presentation. Design

Choose a design and select it by clicking on it. We may change the slide orientation, colours, effects,fonts and background graphics at this level.

Animation :

The display can be made more impressive by introducing special effects like displaying the textwith some visual effects. Animation can be done at two levels

1. Slide level transition
2. Object level Effects

1. **Slide level transition :** This will effect the slides being displayed

Animations — Select a transition style for the slide. Apply to all

Now all the slides will appear according to the chosen transition.

We can give sound effect also by selecting a proper sound clip from the **TRANSITION SOUND** list box. The speed of transition can be controlled by selecting an option from the **TRANSITION SPEED** list box.

2. **Object Level :** This is used to produce special effects to various objects in the slide (Text, Picture,Chart .. etc)

Animations | Custom animation

Select an object in the slide by clicking at it, and then click at

Add Effect | **Entrance**

Select the animation style from the list box by clicking on it.

It also has **speed control, direction control** and options for changing / removing animation.

Slide View options

- Normal View : Used for designing the slides.
- Slide sorter View : All the slides are displayed. This view is used to change the order of the slide, delete a slide etc.
- Note Page view : To add some notes to the slide. This may be useful to the presenter and will not be displayed.

To save :  type a file name Save

To **Open** a previously saved presentation :  Select the file Open

Inserting a Header / Footer for all pages :

Open the slide in NORMAL view. Insert | Header and Footer | Slide

Select the FOOTER. Type the text to be added as footer. Apply to All

Some tips for effective presentations

There should be a good contrast between the foreground (letters) and the background. It is advisable touse default designs. (Example : black letters with white background has the maximum contrast. Black letters with a blue background is to be avoided)

1. Font size : 22- 40 . Smaller fonts will not be visible to the audience.
2. The line space for text may be 1.5 / 2 for better visibility.
3. To break the overcrowded text in to two slides: Click at the slide (ctrl+D). Now you get a duplicate slide. Remove the second part from the first slide. Remove the first part from the second slide, and readjust thefont size.

Avoid hyperlinks from the text copied from internet. (Right click, REMOVE HYPERLINK)

Details of Students joined in the Course

	ll No	e of the Student	Group
1	180280111001	G.Tarun	B.A(H.E.P)
2	180280111002	K.HariKrishna	B.A(H.E.P)
3	180280111003	T.Mallikarjuna	B.A(H.E.P)
4	180280111004	J.Hari	B.A(H.E.P)
5	180280111005	K.Anil kumar	B.A(H.E.P)
6	180280111006	N.Dilip kumar	B.A(H.E.P)
7	180280111007	N. Sai Shankar	B.A(H.E.P)
8	180280111008	T.Koteswar	B.A(H.E.P)
9	180280111009	G.Naveen kumar	B.A(H.E.P)
10	180280422005	B.Mounica	I B.Com(CA)
11	180280422006	M.Sireesha	I B.Com(CA)
12	180280422007	P.Rajesh	I B.Com(CA)
13	180280422001	S. Veera Sekhar	I B.Com(G)
14	180280422002	Y. David	I B.Com(G)
15	180280422003	M.Chinna Guntanna	I B.Com(G)
16	180280422004	S.Bhanuprakash	I B.Com(G)
17	180280633001	N.Subramanyam	I B.Sc(B.Z.C)
18	180280633002	T.Bujjamma	I B.Sc(B.Z.C)
19	180280633003	T.Keerthi	I B.Sc(B.Z.C)
20	180280633004	P.Mohan	I B.Sc(M.S.Cs)
21	180280633005	S.Satheesh Kumar	I B.Sc(M.S.Cs)
22	180280633006	Y.Vijay	I B.Sc(M.S.Cs)
23	180280633007	Y.Srihari	I B.Sc(M.S.Cs)

Assessment of Certificate Course:2018-2019

Name of the Student:
Class & Group :

1)MS-Word is used to create _____

(A) Worksheet(B) Document(C) Slide(D) None of the above

2)Microsoft word is ____ software.

(A) Application (B) Compiler(C) System(D) Programming

3)The ___ works with the standard Copy and Paste commands.

(A) View tab(B) Paragraph dialog box(C) Office Clipboard(D) All of these

4)Which of the following is an example of page orientation?

(A) Landscape(B) Subscript(C) Superscript(D) A4

5)Short cut for saving the document

(A) Ctrl+P (B)Ctrl+O (C) Ctrl+S (D)None of the above

6)Which of the following software is used for making resume?

(A) MS Excel(B) MS Word(C) Dev C(D) Java

7)Power Point is used to create _____

(A) Slides (B)Document (C) Text (D) Worksheet

8)Power Point is used to prepare Seminar Topics

(A) True(B)False

9)Power Point is used to prepare the following

A) Cliparts (B)Pictures (C) Objects (D) All the Above

10)Which application is most suitable to prepare animations

A) Ms-word(B)Ms-Powerpont(C) Excel (D) Access

Photos