

B.Sc. IN  
COMPUTER SCIENCE LAB MANUAL  
1st Semester



Prepared By  
**Pure and Applied Science Dept.**  
Computer Science

**MIDNAPORE CITY COLLEGE**



## INSTRUCTIONS TO STUDENTS

- Before entering the lab, the student should carry the following things (MANDATORY)
  1. Identity card issued by the college.
  2. Class notes
  3. Lab observation book
  4. Lab Manual
  5. Lab Record
- Student must sign in and sign out in the register provided when attending the lab session without fail.
- Come to the laboratory in time. Students, who are late more than 10 min., will not be allowed to attend the lab.
- Students need to maintain 80% attendance in lab if not a strict action will be taken.
- All students must follow a Dress Code while in the laboratory.
- Foods, drinks are NOT allowed.
- All bags must be left at the indicated place.
- Refer to the lab staff if you need any help in using the lab.
- Respect the laboratory and its other users.
- Workspace must be kept clean and tidy after experiment is completed.
- Read the Manual carefully before coming to the laboratory and be sure about what you are supposed to do.
- Do the experiments as per the instructions given in the manual.
- Copy all the programs to observation which are taught in class before attending the lab session.
- Students are not supposed to use floppy disks, pen drives without permission of lab- in charge.
- Lab records need to be submitted on or before the date of submission.

***Minor-1: PC SOFTWARE LABORATORY  
MANUAL  
(Course: BCAMI01P)***

**List of Assignments:****Module – I Using Office with MS-Word**

<b>SL. No.</b>	<b>Experiments</b>
1.	<b>Bio-Data</b>
2.	<b>Leave letter</b>
3.	<b>To create a simple news letter</b>
4.	<b>Visiting Card</b>
5.	<b>To create a memo for the employee in the company</b>
6.	<b>Crte a document on the topic water pollution set the margin, orientation, page color, page border and watermark</b>
7.	<b>To create company letter head.</b>
8.	<b>Mail Merge</b>

**Module — II Working with MS-Excel**

<b>SL. No.</b>	<b>Experiments</b>
1.	<b>To Create a MS-Excel worksheet to illustrate sorting.</b>
2.	<b>Create a suitable examination data base and find the sum of the marks(total) of each Student and respective class secured by the student</b>
3.	<b>Create an electronic spread sheet which shows the sales of different products for 5 years. Create column chart for the following data</b>
4.	<b>Create an electronic spread sheet which shows the sales of different products for 5 years. Create pie chart for the following data</b>
5.	<b>Create an electronic spread sheet which shows the sales of different products for 5 years. Create bar chart for the following data</b>
6.	<b>To Create an employee's salary statement worksheet using MS-Excel</b>

***Module – III Working with MS-PowerPoint******SL. No.******Experiments***

1. ***Make a Power point presentation of all the details of the books that you had studied in B.Sc. First Year.***

***Module – IV Working with MS-Access******SL. No.******Experiments***

1. ***Create an Employee database with table Emp (Eno, Ename, Esal, Edept Eloc) and insert any five records. Create a report for the above Emp table of Employee database.***

## ***Module – I Using Office with MS-Word***

### **Word Processing Software:**

The word “word processor” means it processes words with pages and paragraphs.

Word processors are of 3 types which are *electronic, mechanical, and software*.

The word processing software is used to apply the basic *editing and design* and also helps in manipulating the text to your pages whereas the word processor, is a device that provides editing, input, formatting, and output of the given text with some additional features.

It is a type of computer *software application or an electronic device*.

### ***Examples or Applications of a Word Processing Software:***

- *WordPad*
- *Microsoft Word*
- *Lotus word pro*
- *Notepad*
- *WordPerfect (Windows only),*
- *AppleWorks (Mac only),*
- *Work pages*
- *OpenOffice Writer*

### ***Features:***

1. They are stand-alone devices that are dedicated to the function.
2. Their programs are running on general-purpose computers
3. It is easy to use
4. Helps in changing the shape and style of the characters of the paragraphs
5. Basic editing like headers & footers, bullets, numbering is being performed by it.
6. It has a facility for mail merge and preview.

### ***Functions:***

- It helps in Correcting grammar and spelling of sentences
- It helps in storing and creating typed documents in a new way.

- It provides the function of Creating the documents with basic editing, saving, and printing of it or same.
- It helps in Copy the text along with moving deleting and pasting the text within a given document.
- It helps in Formatting text like bold, underlining, font type, etc.
- It provides the function of creating and editing the formats of tables.
- It helps in Inserting the various elements from some other types of software.

**Advantages:**

- It benefits the environment by helping in reducing the amount of paperwork.
- The cost of paper and postage waste is being reduced.
- It is used to manipulate the document text like a report
- It provides various tools like copying, deleting and formatting, etc.
- It helps in recognizing the user interface feature
- It applies the basic design to your pages
- It makes it easier for you to perform repetitive tasks
- It is a fully functioned desktop publishing program
- It is time-saving.
- It is dynamic in nature for exchanging the data.
- It produces error-free documents.
- Provide security to our documents.

**Disadvantages:**

- It does not give you complete control over the look and feel of your document.
- It did not develop out of computer technology.

**MS Word Basics:**

1. Create New File- [Ctrl + N]
2. Open File- [Ctrl + O]
3. Save a File- [Ctrl + S]
4. Close a File- [Alt + F4]
5. Navigate in a File – [F6]
6. Word Interface

**Create New File**

**Method 1:** To open Microsoft Word → click on the Windows Start Button at the bottom left-hand side of the screen or bottom left-hand side on your keyboard.  → Select Word from list → *Select* Blank document → *Create*

**Method 2:** Once Word has opened → Go to the **File** menu (top left) → Select New → *Select* Blank document → *Create*

**Method 3:** To Create a new file short cut key [**Ctrl + N**].

**Method 4:** Windows key + R → Open Run dialog box → Type “winword” → Click Ok → *Select* Blank document → *Create*

**Open File**

**Method 1:** Click the **File** tab → Click **Open** → Select the file you want to open → Click **OK**.

**Method 2:** To Open an existing file shortcut key [**Ctrl + O**] → Select the file you want to open → Click **OK**.

**Save a File**

**Method 1:** Click the **File** tab → Click **Save/Save As** → Select the location where you want to save → Type your file name (.docx) → Click **OK**.

**Method 2:** To Save your file shortcut key [**Ctrl + S**] → Select the location where you want to Save → Type your file name → Click **OK**.

**Method 3:** The shortcut key for Save As is **F12**.

**Close a File**

**Method 1:** To close a document click "X" in the upper right corner of window.

**Method 2:** Click the **File** tab → Click **Close**

**Method 3:** The shortcut key for close file is [**Alt + F4**]

### *Navigate in a File*

**Method 1:** Click *F6* or *Alt* key to navigate your word file.

### *Home Tab:*

#### *Formatting Text: (Under Font Group)*

1. Font
2. Font Style
3. Font Color
4. Font Size
5. Text Highlight Color
6. Clear Formats
7. Change Case
8. Subscript
9. Superscript

#### *Sample Text:*

My college name is Midnapore City College- Font

#### **Font Style (Bold):**

- i) Select the text → Home Tab → Font Group → Select **B**
- ii) Shortcut key is [Ctrl + B]

Example: **My college name is Midnapore City College.**

#### **Font Style (Italic):**

- i) Select the text → Home Tab → Font Group → Select *I*
- ii) Shortcut key is [Ctrl + I]

Example: *My college name is Midnapore City College.*

#### **Font Style (Underline):**

- i) Select the text → Home Tab → Font Group → Select U
- ii) Shortcut key is [Ctrl + U]

Example: My college name is Midnapore City College.

#### **Font Color:**

Select the text that you want to change Colour → **Home** tab → **Font** group choose the arrow next to **Font Color** → Select a Color.

Example: **My college name is Midnapore City College.**

**Font size:**

My college name is Midnapore City College.

My college name is Midnapore City College- Text Highlight Color

My college name is Midnapore City College- Change Case

***Subscript:*** shortcut key (***Ctrl*** + =)                       $X_2$

***Superscript:*** shortcut key (***Ctrl*** + ***shift*** ++ )               $X^2$

## 1. *Bio-Data*

### ***Procedure:***

***Step 1:*** Open MS Office-MS Word – File – New

***Step 2:*** Go to View- Header and Footer- Type name, mobile number inside the Header

***Step 3:*** Go to Insert- Page Number-select the position bottom of the page and Alignment to Center – Click Ok.

***Step 4:*** Go to Table-Insert-Table- chose Number of Columns 2 and Rows to 1.

***Step 5:*** Enter the name, format it (bold and increase the font size via standard tool Bar). And in the second column type the whole address.

***Step 6:*** Whenever you want to increase the number of columns in the existing row, select that row and go to Table-click Split Cells- enter number of columns- click Ok.

***Step 7:*** In order to decrease the existing column numbers, select that columns and Go to Tables click Merge cells.

***Step 8:*** Finally type the declaration outside the table with your name aligning right side and date to the left side.

### ***Output:***

**Curriculum Vitae****SUBHAM PRATI HAR**

**ADDRESS:** Vill: Ramchandrapur, P.O: Kaithore  
 Dist: Purba Medinipur, Pin: 721429  
**Mob.:** 9020489600  
**Email ID:** subham21@gmail.com

**PERSONAL PROFILE**

**Father Name** : Suman Pratihar  
**Date of Birth** : 12/11/1994  
**Gender** : Male  
**Marital Status** : Single  
**Religion** : Hindu  
**Nationality** : Indian

**CAREER OBJECTIVE**

Develop and promote creativity and high-order thinking skills that increase the performance of the students. To secure a position as a teacher and utilize my dedication to foster quality education required for a student's development.

**ACADMIC QUALIFICATION**

SL. No.	Examination	BOARD/UNIVERSITY	YEAR	PERCENTAGE
1.	M.Sc. in Computer Science	Vidyasagar University	2020	84.75
2.	B.Sc. in Computer Science	Vidyasagar University	2018	65.25
3.	Higher Secondary	W.B.C.H.S.E.	2013	76.40
4.	Secondary	W.B.B.S.E.	2011	70.62

**COMPUTER SKILLS**

**Software Languages:** C, C++, Java, Html, CSS, PHP, Python, R, MATLAB  
**Utility Package:** MS-office

**LANGUAGES**

**English** (Read, Write, Speak), **Bengali** (Read, Write, Speak), **Hindi** (Read, Speak)

**DECLARATION**

I do hereby declare that the statements made in this document are true to the best of my knowledge and belief.

**Place :** Ramchandrapur

**Date :** 02-05-2022

Subham Pratihar  
 Signature

## 2. Leave letter

**Procedure:**

**Step 1:** Open MS-Word by click on START button; go to All Programs, then select Microsoft Office Word 2007.

**Step 2:** To open a new document, Click on Office Button then select New - > Blank Document then click on create option.

**Step 3:** Then select TEXT AREA, and then write Leave Letter as a heading, Select the text, click on bold button to make it bold as “**LEAVE LETTER**”, and change the font size to 16.

**Step 4:** Then write date and place in a format as follows

DATE: 19/10/2015,

Bhimavaram.

Then Select the text and make it right by clicking on right alignment button



**Step 5:** Then write To address as follows and select this text and make it left by clicking on left alignment button 

To

The Principal,

B V Raju College,

Vishnupur,

Bhimavaram.

**Step 6:** Then write Subject according to your letter. And select this text and press tab button for two times.

**Step 7:** Then write the body of the letter according to your letter. And select this text and make it justification by clicking on justify alignment button 

**Step 8:** Then write “Thanking you Sir,” select this text and make it to center by clicking on center alignment button 

**Step 9:** Now write the “From address” as follows

Yours Faithfully,

T.Rambabu.

Then make it right by clicking on Right alignment button 

**Step 10:** This is the final step in writing leave letter. In this step, we have to save the letter as “leave letter.docx” by selecting “Save” option from Office button. Then a prompt window will ask you to write a file name. Now you have to give the file name and press the save button.

**Output:**

Date:15/10/2015,  
Bhimavaram.

To,

The Principal,  
B V Raju College,  
Vishnupur,  
Bhimavaram.

Sub: Requesting for 5 days leave-Reg

Respected Sir,

I T.Shirisha studying B.Tech I year in IT department in your college. As I am going to my home on the occasion of Ugadi festival and also to celebrate my birthday on the next day. So I kindly request you to grant me leave for 5 days i.e., 24/3/2012-28/3/2012.

Thanking You Sir,

Yours Faithfully,  
T.Rambabu,  
B.Sc, I year.

### 3. *To create a simple news letter*

**Procedure:**

**Step 1:** Open MS Office-MS Word – File – New - Type the heading

**Step 2:** Whenever you want to change the number of columns then go to

**Step 3:** Insert – Break - Select the section break type as continuous - Click OK

**Step 4:** Go to Format – Column - select the number of columns u want and click ok. Type news and whenever you need curser in the next column then go to Insert - Break- now select Column Break – click Ok.

**Step 5:** If you want picture to be inserted then go to Insert- Picture-From file- and browse for the required picture/file-then click Insert

**Step 6:** Format the text by changing the font size and color by selecting the required text and chose font size, style and color in the formatting tool bar below the menu.

**Step 7:** Formatting text can also be done by selecting the text and applying the Wordart. For that go to Insert- Picture-Wordart- then chose the style you Want and click Ok.

**Step 8:** To change the color of the wordart text, right click on the text and go to Format Wordart.

**Output:**

## October Second, Celebration of Gandhi Jayanti

Gandhi Jayanti is a National Holiday celebrated in India to mark the occasion of the birthday of Mahatma Gandhi, the "Father of the Nation". He was born on October 2, 1869. Hence Gandhi Jayanti is celebrated every year on the 2nd of October. It is one of the three official declared National Holidays of India and is observed in all Indian states and union territories. The United Nations General

Assembly announced on 15 June 2007 that it adopted a resolution which declared that the 2nd of October will be celebrated as the International Day of Non-Violence.[1]

On this day, in India, liquor is neither sold nor consumed in his honour.

Some of the famous quotes by Mahatma Gandhi have been listed below :



Live as if you were to die tomorrow. Learn as if you were to live forever.

Fear is not a disease of the body; fear kills the soul.

## Computers have Become the part of Life



Computers have come a long way spanning all work areas and influencing every one to become computer literate irrespective of the profession they are in. A thorough knowledge of computer has become a prerequisite for any job. Computers are now being used in each and every field of science, engineering

and technology. On an average almost every day an organization or a company is being computerized!

Computers are being used in banks, transport corporations, Finance Institutions, Schools, Colleges, Factories, Grocery shops, Post offices and at many other organization.

### New DTE website

Director of technical Education, Bangalore has launched a new website for its users.

Users are requested to go through the following website for more information.  
<http://dte.karrn.in>.

#### 4. Visiting Card

**Create a Visiting Card of your college using page size as follows**

- **Page width="3.2"**
- **Page height="2.2"**

**And use different font styles, sizes, alignments.**

**Procedure:**

**Step 1:** Open MS-Word by click on START button; go to All Programs, then select Microsoft Office Word 2007.

**Step 2:** To open a new document, Click on Office Button then select New - > Blank Document then click on create option.

**Step 3:** Now click on "Page Layout" from the Menu bar. Then click on Margins then click on Custom Margins option. Then the "Page Setup" dialog box appears. In this you find three tabs namely "Margins", "Paper", "Layout". Then in the 'Margins' tab, make all the parameters like Top, Bottom, Left, Right, and Gutter to zero and make Gutter Position to Left. Then in the Page tab, change the width and height options to 3.2 and 2 respectively. Then in the Layout tab, make the Header and Footer to zero. Now this page is set to the visiting card as follows.



**Step 4:** In this step we have to enter the telephone number and Fax number on the top part of the paper. It can be done as follows:

- First go to Insert menu, then select Symbol option.
- Then change Font to "Windings".
- Then select the appropriate to your need i.e., to the telephone option select  , and to the Fax option select .

**Step 5:** Now write your institution name and make it to the center alignment button .

**Step 6:** Now write all the details you want to put in your visiting card as your needs. And select the text and make it to center .

**Step 7:** Now change the background color by selecting Page color option from Page Layout menu.

**Step 8:** This is the final step in creating Visiting Card. In this step, we have to save the letter as “Visiting Card.docx” by selecting “Save” option from Office button. Then a prompt window will ask you to write a file name. Now you have to give the file name and press the save button.

***Output:***



### 5. To create a memo for the employee in the company

#### Procedure:

- Step 1.** Open MS Office-MS Word – File – New
- Step 2.** Go to View- Header and Footer- Insert the Institution name/code in the Header.
- Step 3.** Go to Insert- Page Number-select the position bottom of the page and Alignment to Center – Click Ok.
- Step 4.** Type the content. Go to File- Page Setup- Margin tab- adjust left, right, top, bottom margins – click ok.
- Step 5.** Use Standard tool bar to align the text to the left, right and center of the page.
- Step 6.** Place the cursor where you want to insert the date then go to Insert- Date and Time Chose in the Available Formats- Click Ok.

CPCP

GOVERNMENT OF KARNATAKA  
DEPARTMENT OF TECHNICAL EDUCATION

No: cpcp/est/2010-2011/156

office of the principal Or II  
Govt Polytechnic,  
Gulbarga Dated: 5-Oct-10

**MEMO**

All the staff members and students of the polytechnic are hereby informed to participate and celebrate the "INDEPENDENCE DAY" at 8:00 am on 15<sup>th</sup> Aug 2010 without fail.

Sd  
PRINCIPAL OR II

To  
All the staff Members  
All the Students

1

**6. *Crate a document on the topic water pollution set the margin, orientation, page color, page border and watermark***

**Step 1. *Open Microsoft Word:*** Launch Microsoft Word on your computer.

**Step 2. *Create a New Document:***

- ✓ Click on "File" in the upper left corner.
- ✓ Select "New" to create a new blank document.

**Step 3. *Set Page Margins:***

- ✓ Click on the "Layout" tab in the top menu.
- ✓ Click on "Margins" and select one of the preset options (e.g., "Narrow" for smaller margins, or "Wide" for larger margins) or choose "Custom Margins" to set your own margins.

**Step 4. *Set Page Orientation:***

- ✓ Still in the "Layout" tab, click on "Orientation."
- ✓ Choose either "Portrait" for vertical orientation or "Landscape" for horizontal orientation.

**Step 5. *Set Page Color:***

- ✓ Click on the "Design" tab in the top menu.
- ✓ Select "Page Color" and choose a color from the palette, or click "More Colors" to pick a custom color.

**Step 6. *Set Page Border:***

- ✓ While still on the "Design" tab, click on "Page Borders."
- ✓ In the "Page Borders" dialog box, you can set various border options, such as line style, color, and width.
- ✓ Once you've configured your border, click "OK" to apply it to the document.

**Step 7. *Add Watermark:***

- ✓ In the "Design" tab, click on "Watermark."

- ✓ You can select a pre-designed watermark from the gallery (e.g., "Confidential" or "Do Not Copy"), or you can create a custom watermark by clicking "Custom Watermark."
- ✓ Configure the watermark settings, such as text, font, size, and color.
- ✓ Click "OK" to insert the watermark into your document.

***Step 8. Start Writing:***

- ✓ Begin typing your content on the document, focusing on the topic of water pollution.

***Step 9. Save Your Document:***

- ✓ Click on "File" and then select "Save" or "Save As" to save your document with a relevant name and location on your computer.

***Step 10. Continuing Editing and Formatting:***

- ✓ You can continue editing and formatting your document as needed, including adding headings, images, bullet points, and more to make it informative and visually appealing

***Output:***

## **7. To create company letter head.**

### **Procedure:**

- Step 1.** Open MS Office-MS Word – File – New.
- Step 2.** Go to View- Header and Footer- Type the complete address of a company.
- Step 3.** Select the Text and click align right on the standard tool bar.
- Step 4.** In order to insert the company logo (create a logo using paint software and save
- Step 5.** it or use the existing one) inside the header go to Insert- Picture- From File-and browse for the required Picture/file/logo where you have saved – click Insert.
- Step 6.** After inserting the logo/image resize the logo to fit the top left corner of the page by right clicking on the logo, go to Format Picture – select Layout tab –select the Wrapping Style to Infront of text- click ok.
- Step 7.** To insert a Line, go to Insert- picture- Auto shapes- Select the line and draw below the Logo and the address inside the header.
- Step 8.** Format the line by Right clicking and selecting Format Auto shape- select the Color and Line tab- chose your style- click ok.
- Step 9.** Then go to the footer- Insert and format a line as did for header.
- Step 10.** Type the text inside the footer and below the line.
- Step 11.** Go to Format-Background-Printed Watermark-Picture Mark-Click Select Picture- Browse for the required background- click Washout Apply.

**Output:**

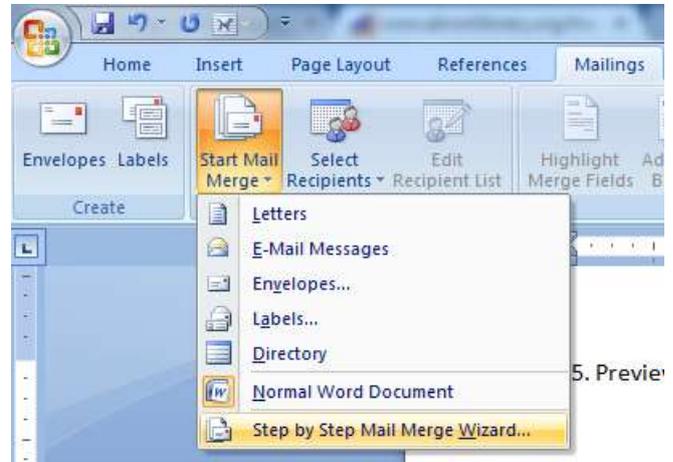
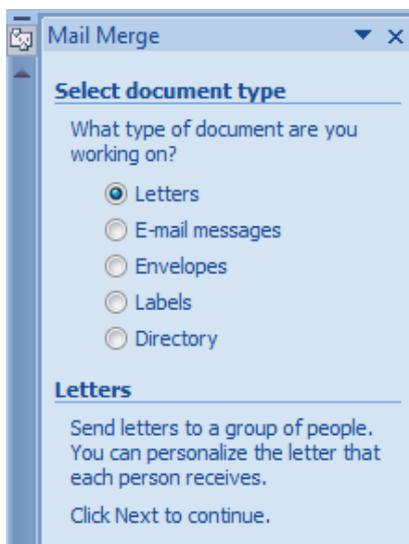


## 8. Mail Merge

### Mail Merge in MS Word

#### To get started:

- Click on the **Mailings** tab, then the **Start Mail Merge** button, and then **Step by Step Mail Merge Wizard...**

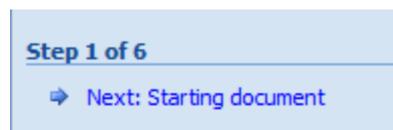


- The wizard will open in the task pane to the right. Select your document type.

#### To create the letters

##### Step 1: Select Document Type

1. Select **Letters** from the Mail Merge task pane and click on next to start the document.
2. Click Next: **Starting document**



##### Step 2: Starting Document

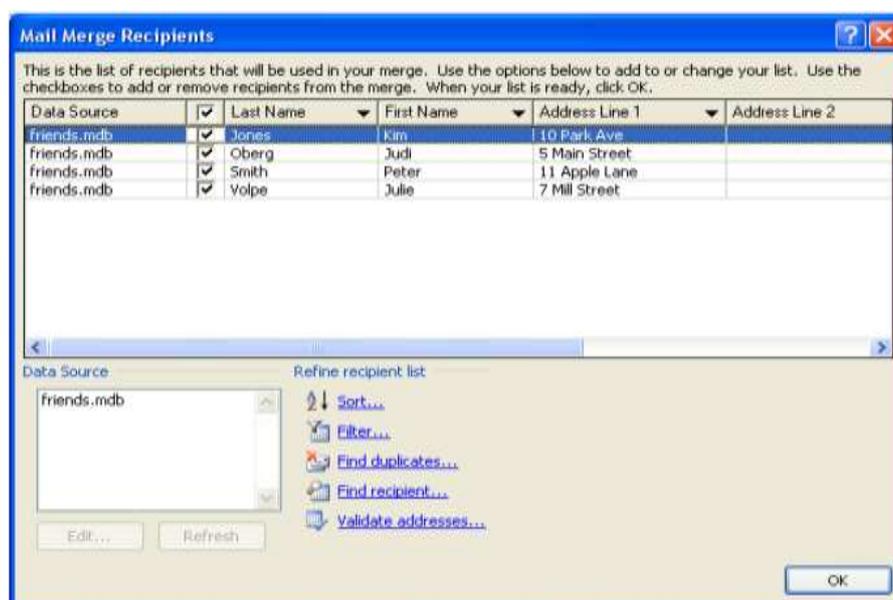
1. Click Use the **Current Document** under Select starting document
2. Click Next: **Select recipients**

**Step 3: Select recipients**

The recipients can come from either an existing Excel file, or Access table or you can create a new list.

***If Using an Existing List:***

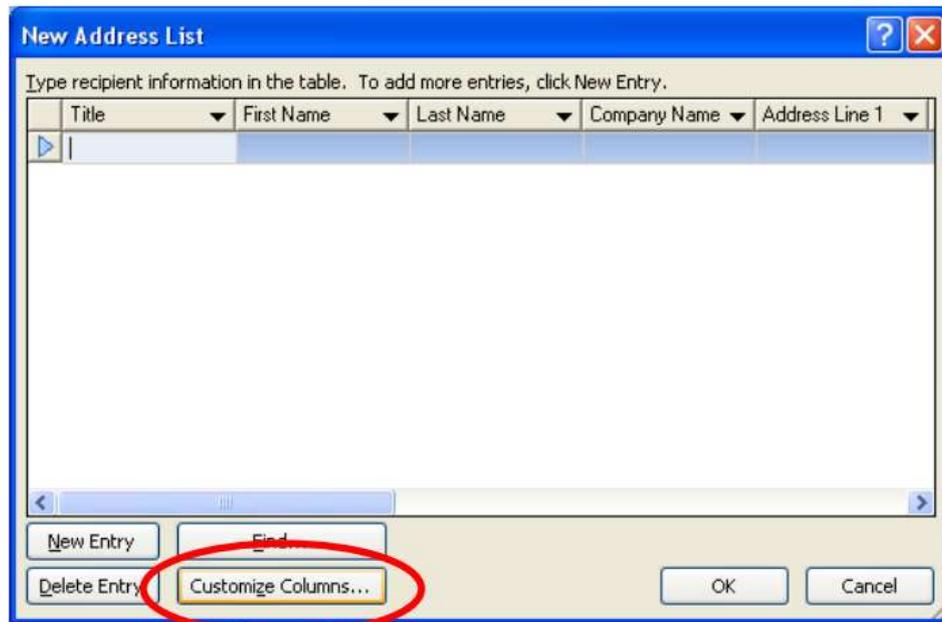
1. Click Use an existing list under Select recipients
2. Click Browse
3. Select the file
4. Click Open Mail Merge Recipients opens showing the names and addresses from your file
5. Click OK



6. Click Next: ***Write your letter***

***To Type a New List:***

- Click **Type a new list** under Select recipients
- 2) Click **Create**
- Click **Customize Columns** to modify the list of fields



- Delete any unnecessary field names and/or add new ones
- Click OK
- Type records here hitting TAB to advance to the next field and to continue adding new records
- Click OK
- Click Save

The recipients list will be saved as a separate file as a Microsoft Access file type. It is saved in the My Data Sources folder. It is recommended to save the file in this folder.

- Click Next: *Write your letter*

#### ***Step 4: Write your letter***

- 1) Click the location in your document where the data from the mail merge fields need to be inserted
- 2) Insert the fields using ***Insert Merge Field*** from ***Mailings*** tab.



The field name will look like this: <<Name>>

- 3) Repeat this step until all fields have been inserted. Remember to put spaces and punctuation where needed.
- 4) Click Next: Preview your letters

#### ***Step 5: Preview your letters***

- Here is where you can preview the first page with the fields filled in.
- Click Next: Complete the merge

#### ***Step 6: Complete the merge***

##### ***To Complete the Merge:***

- Click Print to send directly to the printer
- Click Edit individual letters to create a new file

**Output:**

D: 20/05/2012,  
Karimnagar.

To,  
Gopinath,  
XXXXXXXXXX,  
James Street,  
Kurnool,  
Kurnool.

Dear Gopinath,

Hai! How are you? Am fine here. How are your studies going on? What about the mid exams. Am happy to say that our college has conducted FRESHERS PARTY for us in the last week at our college premises. Many competitions such as sports, food competition and funny games were conducted before the Fresher's Day. We enjoyed a lot up to the last second of the party and our college has provided food and transportation facility also. Ok bye and "ALL THE BEST" for your exams.

Yours Lovingly,  
A.Ravi kum ar.

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D:20/05/2012  
Karimnagar.

To,  
Shiva,  
YYYYYYYYYY,  
Geetha Bhavan,  
Karimnagar,  
Karimnagar.

Dear Shiva,

Hai! How are you? Am fine here. How are your studies going on? What about the mid exams. Am happy to say that our college has conducted FRESHERS PARTY for us in the last week at our college premises. Many competitions such as sports, food competition and funny games were conducted before the Fresher's Day. We enjoyed a lot up to the last second of the party and our college has provided food and transportation facility also. Ok bye and "ALL THE BEST" for your exams.

Yours Lovingly,  
A.Ravi Kumar.

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D:20/05/2012,  
karimnagar.

To,

Shilpa,

zzzzzzzzzzzz,

Thimmapur,

Karimnagar,

Karimnagar.

Dear Shilpa,

Hai! How are you? Am fine here. How are your studies going on? What about the mid exams. Am happy to say that our college has conducted FRESHERS PARTY for us in the last week at our college premises. Many competitions such as sports, food competition and funny games were conducted before the Fresher's Day. We enjoyed a lot up to the last second of the party and our college has provided food and transportation facility also. Ok bye and "ALL THE BEST" for your exams.

Yours lovingly,  
Ravi Kumar

## ***Module — II Working with MS-Excel***

### ***1. To Create a MS-Excel worksheet to illustrate sorting.***

#### **Procedure :-**

To Sort the Data:

1. Type the data in the excel sheet.

2 Select data on list to be sorted.

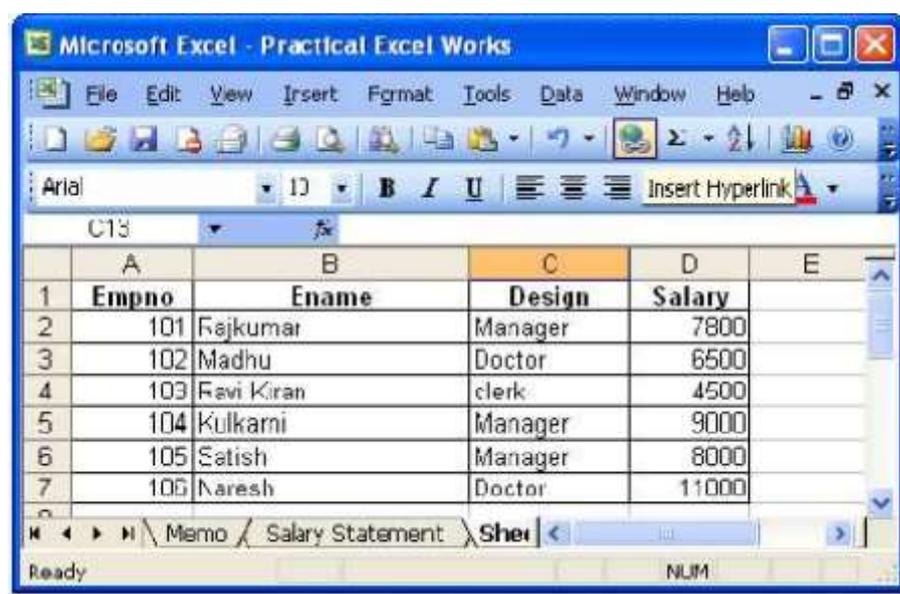
For example salary in the above figure.

To Sort the Data:

3. Click the *Data Menu* and select the sort option. The sort dialog box appears.

4. Select the ascending and descending option in the *Sort by section*

5. Click the *OK* button

**Output:-**

The screenshot shows a Microsoft Excel window titled "Microsoft Excel - Practical Excel Works". The spreadsheet contains a table with 7 rows and 5 columns. The columns are labeled "Empno", "Ename", "Design", and "Salary". The data is as follows:

	A	B	C	D	E
1	Empno	Ename	Design	Salary	
2	101	Rajkumar	Manager	7800	
3	102	Madhu	Doctor	6500	
4	103	Ravi Kiran	clerk	4500	
5	104	Kulkarni	Manager	9000	
6	105	Satish	Manager	8000	
7	106	Naresh	Doctor	11000	



The screenshot shows the "Sort" dialog box in Microsoft Excel. The "Sort by" dropdown is set to "Salary" with "Ascending" selected. The "Then by" dropdown is empty with "Ascending" selected. The "My data range has" section has "Header row" selected. The "Options..." button is visible at the bottom left.

**2. Create a suitable examination data base and find the sum of the marks(total) of each Student and respective class secured by the student**

**Rules**

- Pass if marks in each subject  $\geq 35$ ,
- Distinction if average  $\geq 70$ ,
- First class if average  $\geq 60$  but  $< 70$ ,
- Second class if average  $\geq 50$  but  $< 60$ ,
- Third class if average  $\geq 35$  and but  $< 50$ ,
- Fail if marks in any subject is  $< 35$ .

Display average marks of the class, subject wise and pass percentage

**Solution:**

To find the grade of a student we need to follow the following steps

**Step 1: Typing Student database in Excel 2007**

Type the student database with the required fields starts from A1 cell as follows

	A	B	C	D	E	F	G	H	I	J	K
1	Name of the Student	Maths	Physics	Chemistry	English	Sanskrit	Total	Average	P/F	Grade	
2	Ravi	45	75	64	48	98					
3	Vamsi	65	74	85	85	86					
4	Rao	35	95	48	74	82					
5	Satya	32	48	78	76	79					
6	Siva	46	31	86	78	75					
7	Ramesh	89	45	45	82	72					
8	Ramu	75	56	73	74	81					
9											
10											
11											
12											

**Step 2: To find Total Marks of Student**

To find the total marks of a student click on the cell “G2” and type the following formula

=SUM(B2:F2)

To find the total marks for the remaining students select “G2” cell and drag down to the remaining students.

	A	B	C	D	E	F	G	H	I	J	K
1	Name of the Student	Maths	Physics	Chemistry	English	Sanskrit	Total	Average	P/F	Grade	
2	Ravi	45	75	64	48	98	330				
3	Vamsi	65	74	85	85	86	395				
4	Rao	35	95	48	74	82	334				
5	Satya	32	48	78	76	79					
6	Siva	46	31	86	78	75					
7	Ramesh	89	45	45	82	72					
8	Ramu	75	56	73	74	81					
9											
10											
11											

### Step 3: To find Average marks

To find the average marks of the student click on the cell “H2” and type the following formula

$$=G2/500*100$$

To find the average marks for the remaining students select “H2” cell and drag down to all the students.

	A	B	C	D	E	F	G	H	I	J
1	Name of the Student	Maths	Physics	Chemistry	English	Sanskrit	Total	Average	P/F	Grade
2	Ravi	45	75	64	48	98	330	66		
3	Vamsi	65	74	85	85	86	395	79		
4	Rao	35	95	48	74	82	334	66.8		
5	Satya	32	48	78	76	79	313			
6	Siva	46	31	86	78	75	316			
7	Ramesh	89	45	45	82	72	333			
8	Ramu	75	56	73	74	81	359			
9										

### Step4: To Check Pass or Fail

To check whether the student is Pass or Fail select the cell “I2” and type the following formula

$$=IF(AND(B2>=35,C2>=35,D2>=35,E2>=35,F2>=35),"Pass","Fail")$$

To check the remaining students are Pass/Fail select the cell “I2” and drag down to all the students

	A	B	C	D	E	F	G	H	I	J
1	<b>Name of the Student</b>	<b>Maths</b>	<b>Physics</b>	<b>Chemistry</b>	<b>English</b>	<b>Sanskrit</b>	<b>Total</b>	<b>Average</b>	<b>P/F</b>	<b>Grade</b>
2	Ravi	45	75	64	48	98	330	66	Pass	
3	Vamsi	65	74	85	85	86	395	79	Pass	
4	Rao	35	95	48	74	82	334	66.8	Pass	
5	Satya	32	48	78	76	79	313	62.6	Fail	
6	Siva	46	31	86	78	75	316	63.2	Fail	
7	Ramesh	89	45	45	82	72	333	66.6	Pass	
8	Ramu	75	56	73	74	81	359	71.8		
9										
10										

### Step 5: To find Grade

To find the grade of a student click on the cell "J2" and type the following formula

```
=IF(AND(B2>=35,C2>=35,D2>=35,E2>=35,F2>=35),IF(H2>=75,"Distinction",IF(H2>=65,"First Class",IF(H2>=50,"Second Class",IF(H2>=35,"Third Class")))),IF(H2>=35,"Third Class")))),"Fail")
```

To find the grade for the remaining students select "J2" cell and drag down to the all the students

	A	B	C	D	E	F	G	H	I	J
1	<b>Name of the Student</b>	<b>Maths</b>	<b>Physics</b>	<b>Chemistry</b>	<b>English</b>	<b>Sanskrit</b>	<b>Total</b>	<b>Average</b>	<b>P/F</b>	<b>Grade</b>
2	Ravi	45	75	64	48	98	330	66	Pass	First Class
3	Vamsi	65	74	85	85	86	395	79	Pass	Distinction
4	Rao	35	95	48	74	82	334	66.8	Pass	First Class
5	Satya	32	48	78	76	79	313	62.6	Fail	Fail
6	Siva	46	31	86	78	75	316	63.2	Fail	
7	Ramesh	89	45	45	82	72	333	66.6	Pass	
8	Ramu	75	56	73	74	81	359	71.8	Pass	
9										

Finally we get the following student database with total, average and grade

**Output:**

	A	B	C	D	E	F	G	H	I	J	K
1	<b>Name of the Student</b>	<b>Maths</b>	<b>Physics</b>	<b>Chemistry</b>	<b>English</b>	<b>Sanskrit</b>	<b>Total</b>	<b>Average</b>	<b>P/F</b>	<b>Grade</b>	
2	Ravi	45	75	64	48	98	330	66	Pass	First Class	
3	Vamsi	65	74	85	85	86	395	79	Pass	Distinction	
4	Rao	35	95	48	74	82	334	66.8	Pass	First Class	
5	Satya	32	48	78	76	79	313	62.6	Fail	Fail	
6	Siva	46	31	86	78	75	316	63.2	Fail	Fail	
7	Ramesh	89	45	45	82	72	333	66.6	Pass	First Class	
8	Ramu	75	56	73	74	81	359	71.8	Pass	First Class	
9	Raju	64	78	84	65	87	378	75.6	Pass	Distinction	

**3. Create an electronic spread sheet which shows the sales of different products for 5 years. Create column chart for the following data**

Year	Product_1	Product_2	Product_3	Product_4
2010	1000	800	900	1000
2011	800	80	500	900
2012	1200	190	400	800
2013	400	200	300	1000
2014	1800	400	400	1200

**Creating the spread with different products of 5 year**

Before you can make a chart, you must first enter data into a worksheet. To create the spread sheet with 5 years different products follow the below steps

**Step1:**

Click on the cell B1 and type “Product\_1” and go to the next cell by clicking the Tab key on the keyboard.

**Step 2:**

In the cell C1 type “Product\_2” and click on tab key to activate next cell. Repeat the above to steps to enter “Product\_3”, “Product\_4”

**Step3:**

Click on cell “A2” and type “2010” then press on tab key to activate the next cell.

**Step 4:**

Repeat the above procedure to enter the details of four products for five years. Finally we have the data of products as follows

	A	B	C	D	E	F
1		Product_1	Product_2	Product_3	Product_4	
2	2010	1000	800	900	1000	
3	2011	800	80	500	900	
4	2012	1200	190	400	800	
5	2013	400	200	300	1000	
6	2014	1800	400	400	1200	
7						

### Creating a Column chart for the above data

#### Definition of Chart:

Charts allow you to present data entered into the worksheet in a visual format using a variety of graph types.

Following steps are given to draw a Chart

1. Enter data in the work sheet: Suppose you entered data as given in below

	A	B	C	D	E	F
1		Product_1	Product_2	Product_3	Product_4	
2	2010	1000	800	900	1000	
3	2011	800	80	500	900	
4	2012	1200	190	400	800	
5	2013	400	200	300	1000	
6	2014	1800	400	400	1200	
7						

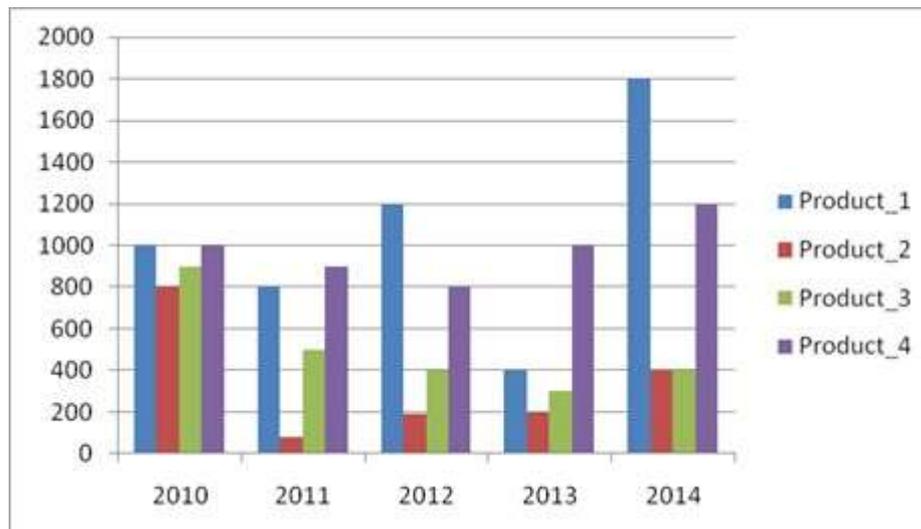
2. Now select data range: By using the mouse high light the range of data you want to take

	A	B	C	D	E	F
1		Product_1	Product_2	Product_3	Product_4	
2	2010	1000	800	900	1000	
3	2011	800	80	500	900	
4	2012	1200	190	400	800	
5	2013	400	200	300	1000	
6	2014	1800	400	400	1200	
7						

3. Click Insert Tab and select a chart type from the chart group and Select the sub type of chart ( In this example selected a 2D Column chart)

Insert --> Chart Group --> Select Column Chart

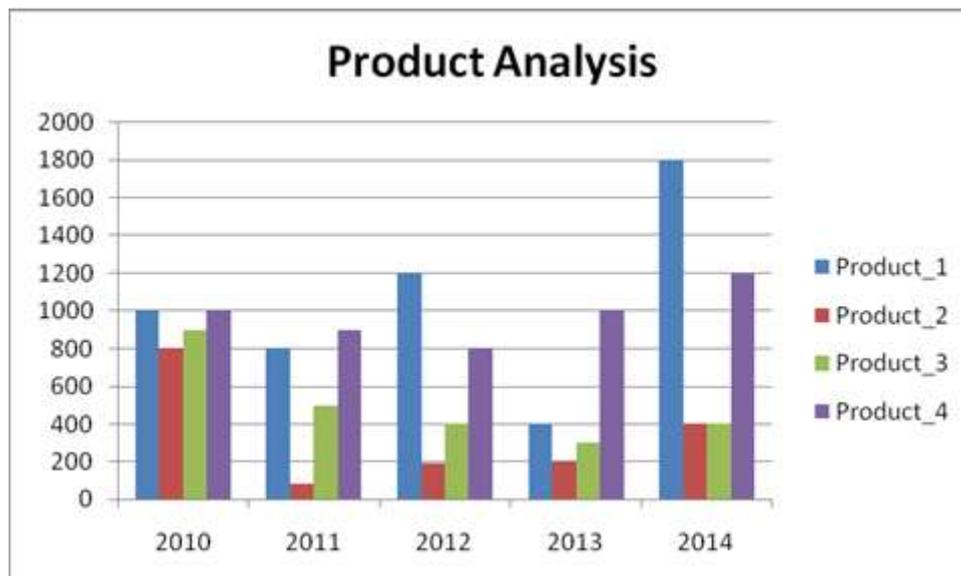
4. The Chart will be displayed as follows



5. Select the Title of the chart

- To give a title to a chart, click on the chart. Now you can see layout tab available. Click on Layout tab.
- Choose(click) on chart title option available in the Label group
- Click on the chart title and write a title “Product Analysis”.

Select Chart--> Layout-->Chart Title

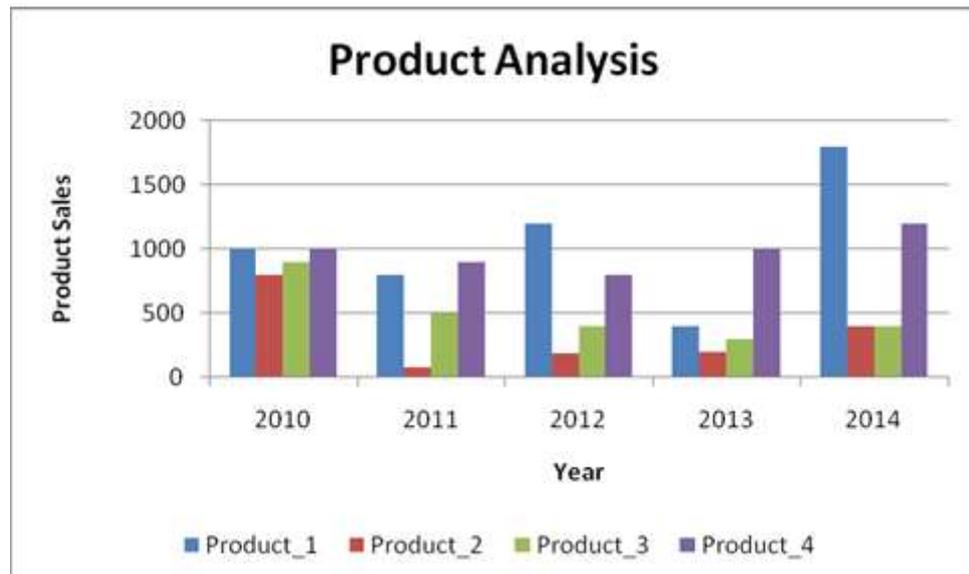


6. Give a name to X-Axis

- Click on Layout tab.
- Then select Axis Titles from Labels Group.
- Select Primary Horizontal Axis Title, as shown below.

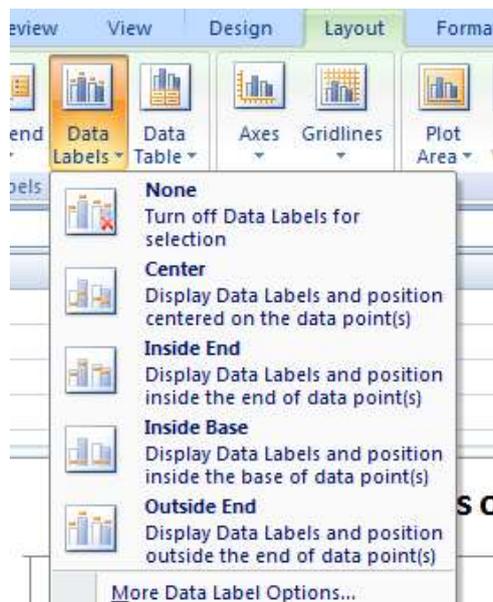
- Now, click on the Axis Title and write an X-axis title “Year”.
- Follow the same steps to give a title to Y-axis “Product Sales”.

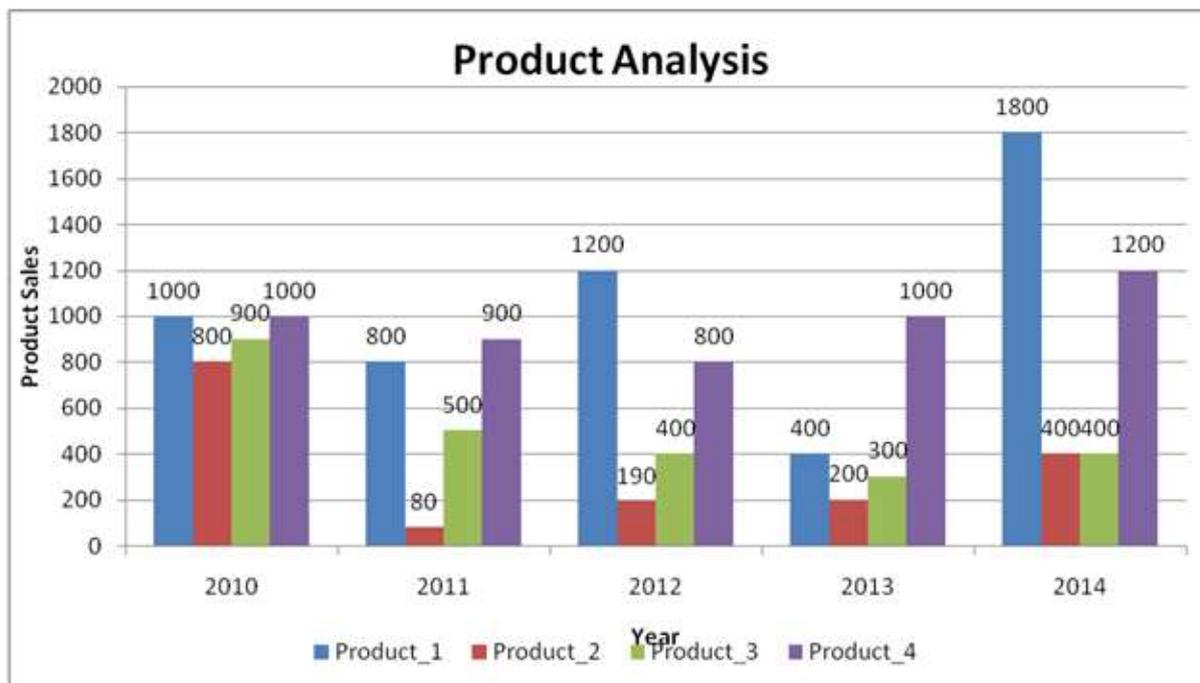
**Select Chart-->Layout-->Axis Title-->Primary Horizontal Axis Title**



#### 7. Adding Data Labels to the chart

- Click on Layout tab.
- Then click on Data Label option available in Labels Group.
- Now choose a format to display data labels



**Output:**

**4. Create an electronic spread sheet which shows the sales of different products for 5 years. Create pie chart for the following data**

Year	Product_1	Product_2	Product_3	Product_4
2010	1000	800	900	1000
2011	800	80	500	900
2012	1200	190	400	800
2013	400	200	300	1000
2014	1800	400	400	1200

**Creating the spread with different products of 5 year**

Before you can make a chart, you must first enter data into a worksheet. To create the spread sheet with 5 years different products follow the below steps

**Step1:**

Click on the cell B1 and type “Product\_1” and go to the next cell by clicking the Tab key on the keyboard.

**Step 2:**

In the cell C1 type “Product\_2” and click on tab key to activate next cell. Repeat the above to steps to enter “Product\_3”, “Product\_4”

**Step3:**

Click on cell “A2” and type “2010” then press on tab key to activate the next cell.

**Step 4:**

Repeat the above procedure to enter the details of four products for five years. Finally we have the data of products as follows

	A	B	C	D	E	F
1		<b>Product_1</b>	<b>Product_2</b>	<b>Product_3</b>	<b>Product_4</b>	
2	<b>2010</b>	1000	800	900	1000	
3	<b>2011</b>	800	80	500	900	
4	<b>2012</b>	1200	190	400	800	
5	<b>2013</b>	400	200	300	1000	
6	<b>2014</b>	1800	400	400	1200	
7						

**Creating a Pie chart for the above data****Definition of Chart:**

Charts allow you to present data entered into the worksheet in a visual format using a variety of graph types.

Following steps are given to draw a Chart

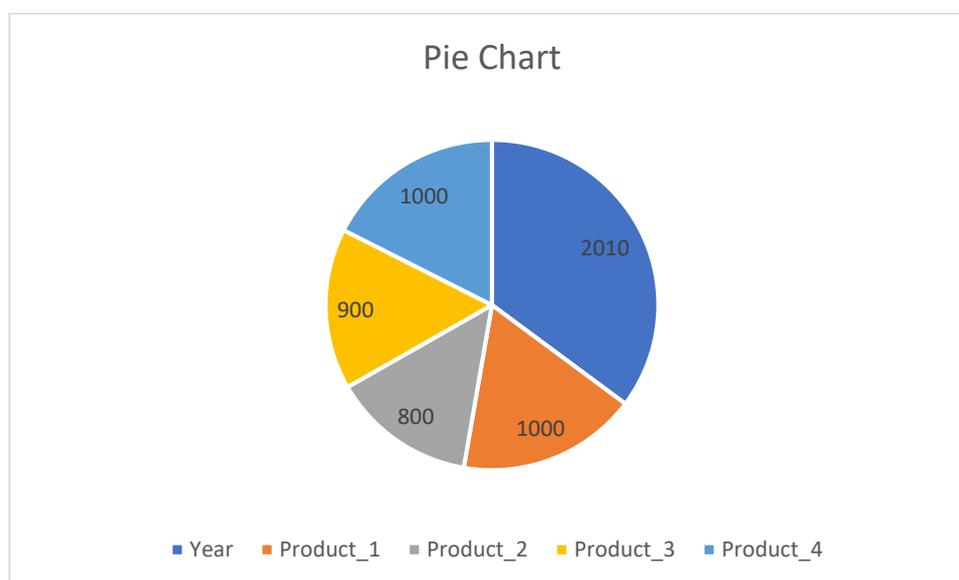
1. Enter data in the work sheet: Suppose you entered data as given in below

	A	B	C	D	E	F
1		<b>Product_1</b>	<b>Product_2</b>	<b>Product_3</b>	<b>Product_4</b>	
2	<b>2010</b>	1000	800	900	1000	
3	<b>2011</b>	800	80	500	900	
4	<b>2012</b>	1200	190	400	800	
5	<b>2013</b>	400	200	300	1000	
6	<b>2014</b>	1800	400	400	1200	
7						

2. Now select data range: By using the mouse high light the range of data you want to take

	A	B	C	D	E	F
1		<b>Product_1</b>	<b>Product_2</b>	<b>Product_3</b>	<b>Product_4</b>	
2	<b>2010</b>	1000	800	900	1000	
3	<b>2011</b>	800	80	500	900	
4	<b>2012</b>	1200	190	400	800	
5	<b>2013</b>	400	200	300	1000	
6	<b>2014</b>	1800	400	400	1200	
7						

**Output:**



**5. Create an electronic spread sheet which shows the sales of different products for 5 years. Create bar chart for the following data**

Year	Product_1	Product_2	Product_3	Product_4
<b>2010</b>	1000	800	900	1000
<b>2011</b>	800	80	500	900
<b>2012</b>	1200	190	400	800
<b>2013</b>	400	200	300	1000
<b>2014</b>	1800	400	400	1200

**Creating the spread with different products of 5 year**

Before you can make a chart, you must first enter data into a worksheet. To create the spread sheet with 5 years different products follow the below steps

**Step1:**

Click on the cell B1 and type “Product\_1” and go to the next cell by clicking the Tab key on the keyboard.

**Step 2:**

In the cell C1 type “Product\_2” and click on tab key to activate next cell. Repeat the above to steps to enter “Product\_3”, “Product\_4”

**Step3:**

Click on cell “A2” and type “2010” then press on tab key to activate the next cell.

**Step 4:**

Repeat the above procedure to enter the details of four products for five years. Finally we have the data of products as follows

	A	B	C	D	E	F
1		Product_1	Product_2	Product_3	Product_4	
2	2010	1000	800	900	1000	
3	2011	800	80	500	900	
4	2012	1200	190	400	800	
5	2013	400	200	300	1000	
6	2014	1800	400	400	1200	
7						

**Creating a Pie chart for the above data****Definition of Chart:**

Charts allow you to present data entered into the worksheet in a visual format using a variety of graph types.

Following steps are given to draw a Chart

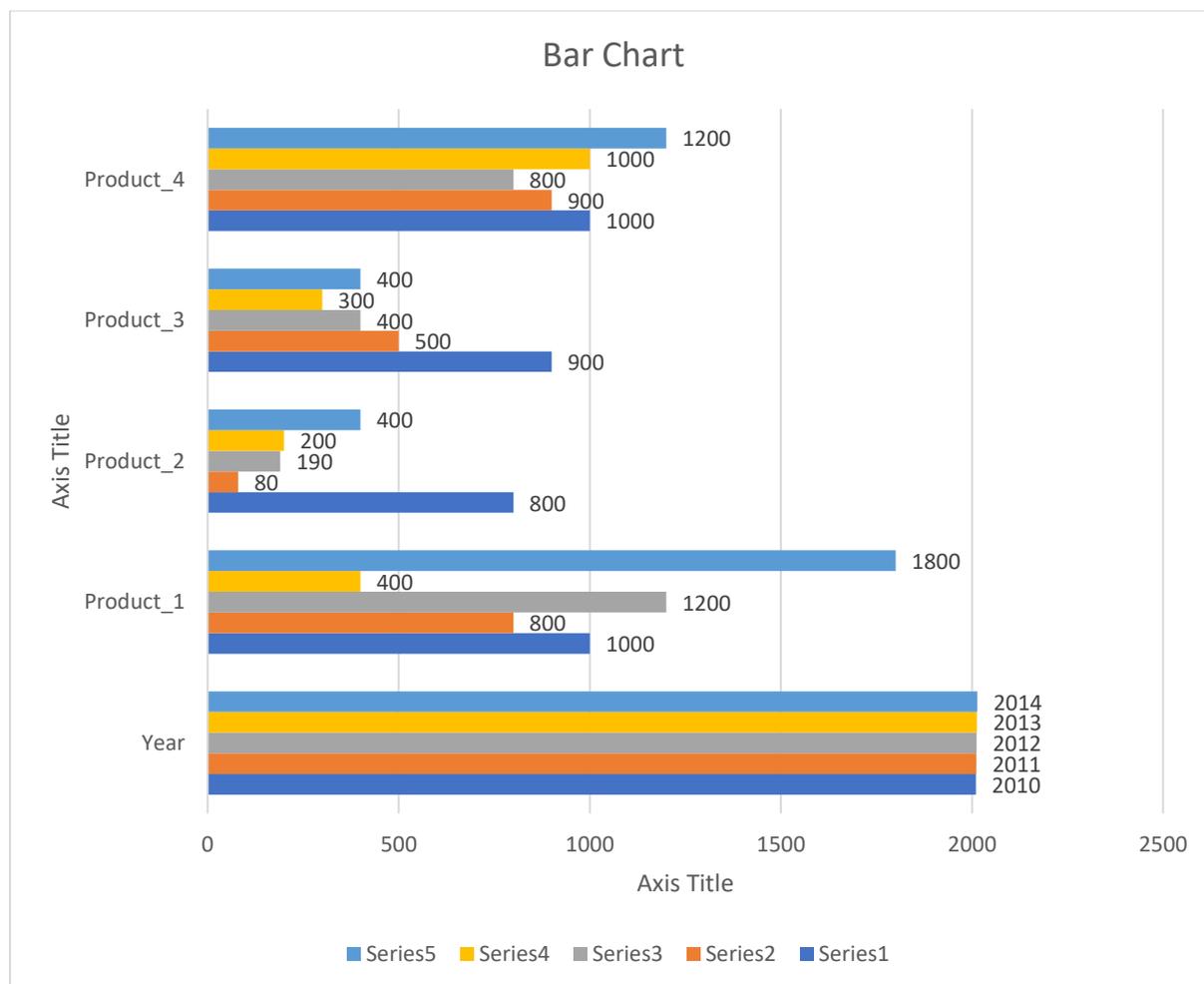
1. Enter data in the work sheet: Suppose you entered data as given in below

D15		fx			
	A	B	C	D	E
1		<b>Product_1</b>	<b>Product_2</b>	<b>Product_3</b>	<b>Product_4</b>
2	<b>2010</b>	1000	800	900	1000
3	<b>2011</b>	800	80	500	900
4	<b>2012</b>	1200	190	400	800
5	<b>2013</b>	400	200	300	1000
6	<b>2014</b>	1800	400	400	1200
7					

2. Now select data range: By using the mouse high light the range of data you want to take

A1		fx				
	A	B	C	D	E	F
1		<b>Product_1</b>	<b>Product_2</b>	<b>Product_3</b>	<b>Product_4</b>	
2	<b>2010</b>	1000	800	900	1000	
3	<b>2011</b>	800	80	500	900	
4	<b>2012</b>	1200	190	400	800	
5	<b>2013</b>	400	200	300	1000	
6	<b>2014</b>	1800	400	400	1200	
7						

**Output:**



**6. To Create an employee’s salary statement worksheet using MS-Excel**

**Aim: -**

To create worksheet with following fields Empno, Ename, Basic pay(BP), Travelling Allowance(TA), Dearness Allowance(DA), House Rent allowance(HRA), Income Tax(IT), Provident Fund(PF), Net Pay(NP)

Given: DA= 30% of BP, HRA=20% of BP, TA=17.5% of BP, IT=15% of BP, PF=12.5% of BP

**Procedure: -**

1. Create an Excel Worksheet for an employee pay roll system.
2. Enter the details of Employee as given and calculate the DA, TA, HRA, IT, PF as a percentage on the basis of Basic Pay.
3. Calculate the Net Pay by using the formulae.

**Gross Pay= DA+TA+HRA+BP**

**Deductions=IT+PF**

**Net Pay= Gross Pay-Deductions**

Employees Salaries Statement											
Empno	Ename	Basic Pay	TA	DA	HRA	Gross Sal	Deductions			Net Sal	
							I.T	PF	Ded. Totals		
101	Anil Kumar	5500	962.5	1350	1100	9212.5	825	687.5	1512.5	7700	
102	R.Madhu	6000	1050	1300	1200	10050	900	750	650	8400	
103	Ravi Kiran	7500	1312.5	2250	1500	12562.5	1125	937.5	2062.5	10500	
104	R.Naresh	4500	787.5	1350	900	7537.5	675	562.5	1237.5	6300	
105	Sunil	3500	612.5	1050	700	5862.5	525	437.5	962.5	4900	

**Module – III Working with MS-PowerPoint**

**SL. No.**

**Experiments**

1. **Make a Power point presentation of all the details of the books that you had studied in B.Sc. First Year.**

PowerPoint is presentation software that can be used to create slide shows for printing, on-screen projection, or Web-based display.

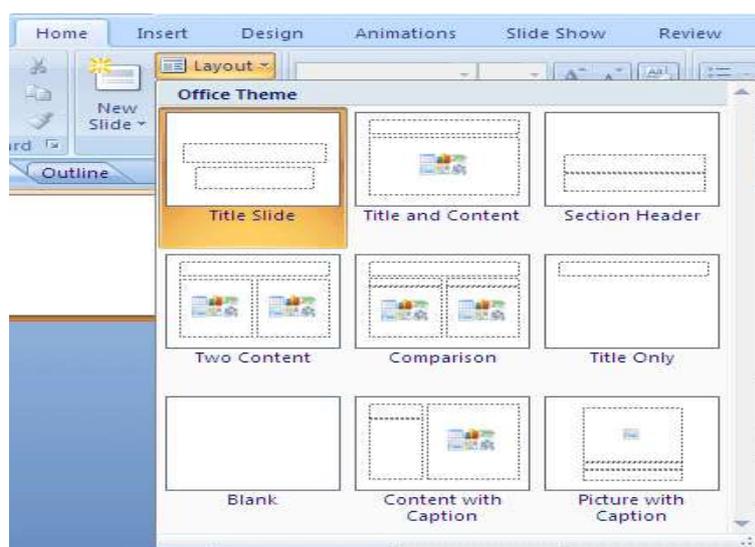
## Opening PowerPoint

**NOTE: The procedure for opening PowerPoint may vary depending on the setup of your computer.**

To open PowerPoint in Windows, click on the Start button --> Programs --> Microsoft PowerPoint

When **PowerPoint 2007** is opened, a blank *Title* slide appears by default as the first slide in your new presentation. You can start a new presentation when you first open PowerPoint or after PowerPoint is already open.

To change the **layout** of an open slide, click on the **Layout** button in the **Home** tab.



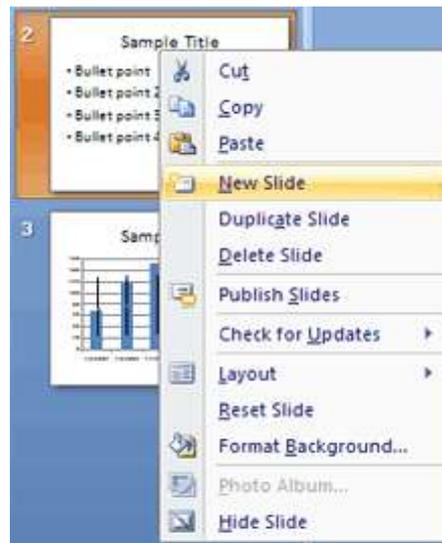
## Inserting Slides

There are two ways to add new slides to your presentation.

- Quick Menu Option
- Ribbon Option

### Quick Menu Options

To insert a new slide using the Quick Menu, in the Slides panel **right click** the slide after which you want a new slide inserted and select **New Slide**.



To change the layout of the slide, **right click** the new slide in the Slides panel, select **Layout** and select the desired theme.

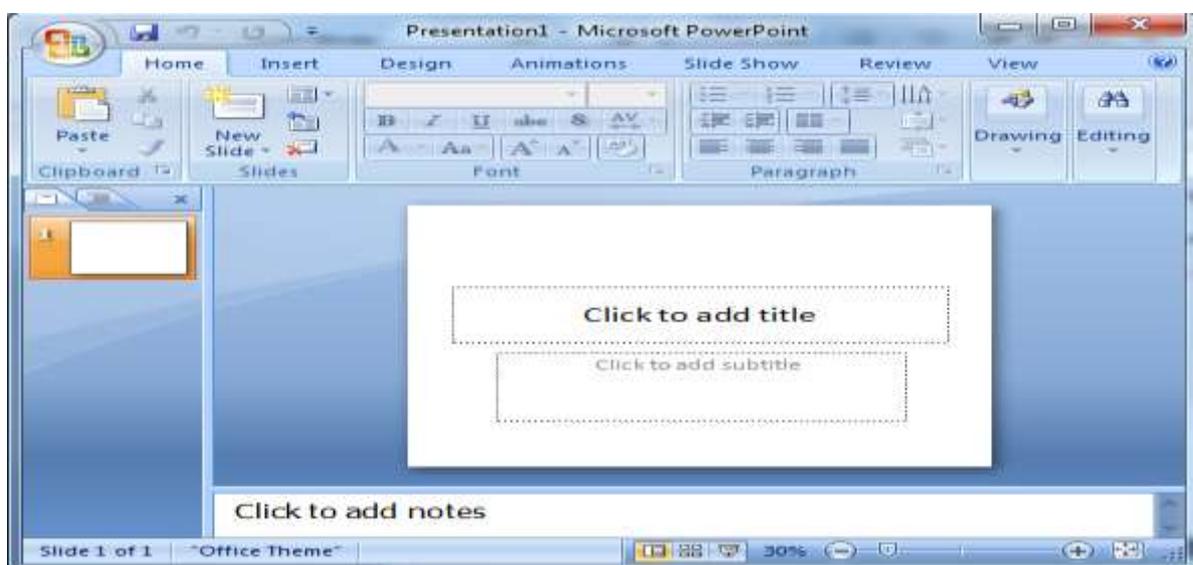
### Ribbon Option

From the **Home tab** in the Slides group, click on **New Slide**. A blank slide will be inserted after your active slide.



If you wish to choose the layout while creating your new slide, click the ▼ on the **New Slide** button and choose a theme.

Select the new slide from Quick menu option or Ribbon Option:



### Apply a new layout to a slide

To change the layout of an existing slide, do the following:

1. On the **Slides** tab, click the slide that you want to apply a new layout to.
2. On the **Home** tab, in the **Slides** group, click **Layout**, and then click the new layout that you want.

### Copy a slide

To copy a slide does the following

1. On the **Slides** tab, right-click the slide that you want to copy, and then click **Copy** on the shortcut menu.
2. Still on the **Slides** tab, right-click where you want to add the new copy of the slide, and then click **Paste** on the shortcut menu.

You can also insert a copy of a slide from one presentation into another presentation.

### Rearrange the order of slides

- On the **Slides** tab, click the slide that you want to move, and then drag it to the location that you want.

To select multiple slides, click a slide that you want to move, and then press and hold CTRL while you click each of the other slides that you want to move.

### Delete a slide

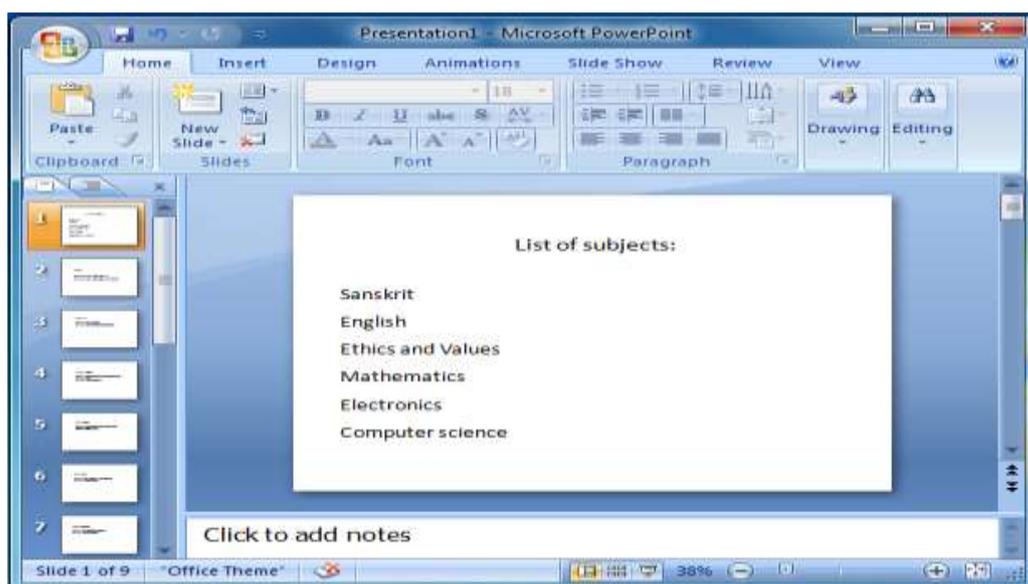
- On the **Slides** tab, right-click the slide that you want to delete, and then click **Delete Slide** on the shortcut menu.

### Adding text to a slide

The Title Slide layout contains text boxes for a title and a subtitle. Try typing text into these boxes.

1. Click in the Title text box. A dashed line border with a circle in each corner and a square box at each midpoint appears around the text box indicating that it is selected.

Adding list of subjects that studying in B.Sc. First Year into the slides:



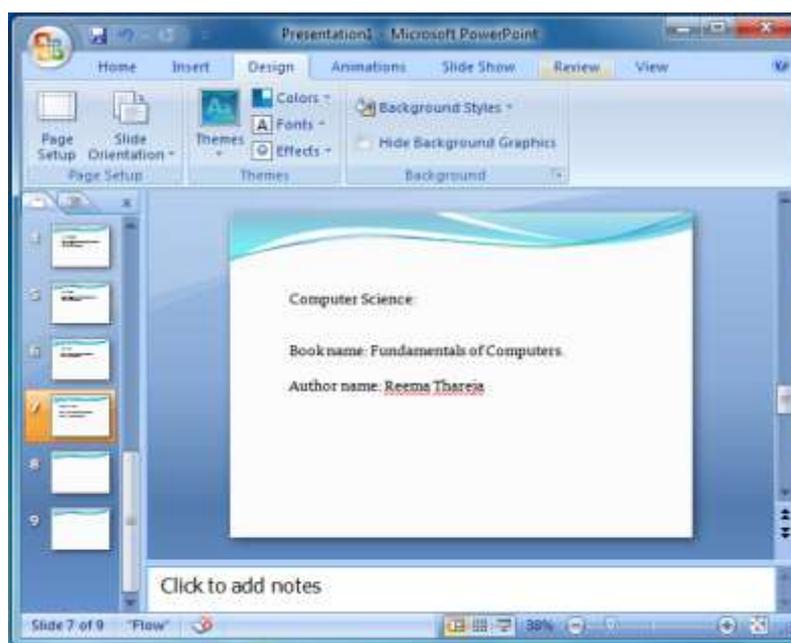
2. Click the Subtitle text box and type a subtitle.

### Selecting a Theme or Designing Slides

Design themes are a convenient way to add a professional flair to your presentation. Themes include preset colors, fonts, backgrounds, and formatting effects. PowerPoint provides you with the option to customize one of their existing themes or to build your own.

### Selecting a Theme

To choose a Theme for an open slide, use the **Theme group** under the **Design tab**. Use the arrows on the right of the Theme group to scroll through the themes, or to see all available themes at once. When you hold your mouse over any of the examples, PowerPoint will show you a preview of the slide.



## Animating Text and Images

### Adding Animation to Slides

1. Click on the object or text box you wish to animate (hold down the Ctrl button while clicking to select more than one).
2. In the **Animations tab** under the **Animations group**, select an option from the **Animate** pull-down list. As you move your mouse over each choice PowerPoint will preview the effect on your slide.
3. Repeat for any other slides or objects you wish to animate.

### Run Your PowerPoint Slide Show

After you create your slides, you can run your slide show:

- Press F5.
- Choose the Slide Show tab. Click the From Beginning button  in the Start Slide Show group.
- Click the Slide Show icon in the bottom-right corner of your screen.

### Saving your presentation

If you are saving a document for the first time, you will need to use the **Save As** command; however, if you have already saved a presentation, you can use the **Save** command.

To use the Save As command:

- Click the **Microsoft Office button**.
- Select **Save As**. A menu will appear.
- Select the type of file you want to save the presentation as
- Enter a **name** for the document.
- Click the **Save** button.

To use the Save command:

- Click the **Microsoft Office button**.
- Select **Save** from the menu.

Using the Save command saves the document in its current location using the same file name.