

CLASS-X INFORMATION TECHNOLOGY NOTES (UNIT-4 SPREADSHEET)

Session-1

Autosum automatically selects the values around the cells either horizontally or vertically. Autosum is used for adding the values given in cells automatically without writing the formula to perform the operation.

Session-2

Conditional formatting allows you to change the formatting (font color, border, shading) of the cells based on the values in it. You specify a condition for the values in the cell, and if the condition is satisfied then automatically the formatting of the cell changes.

Following formats can be controlled

- Number format
- Font, font style, and font colour (but not font size)
- Fill colour and fill pattern
- Border colour and border style (but not border thickness)

Steps-

1. Click on **Conditional Formatting** option available under **Styles** group in the **Home** tab.
2. A drop down list appears. Click on **Highlight Cells Rules option**, a submenu appears.

Session-3

Hide/Unhide

A very handy feature of a spreadsheet is the ability to hide a row/column that is not to be shown to the end user. The data in hidden row/column is available for calculations though not visible.

Freeze /Unfreeze

Freezing rows and columns is another helpful feature in a spreadsheet. When you are dealing with a huge amount of data that spans several rows or columns, you may want the headers to remain constant (frozen) while you scroll through the data so that you can see the identifying names of the rows/columns.

To freeze the rows or columns do the following.

- Open a new spread sheet.
- In order to freeze rows or columns click on **Freeze Panes** option available under **Window** group in **View** tab.
- A drop down list appears as shown below.
- **Click on Freeze Panes**. Doing so will freeze all the rows above and all the columns to the left of the selected cell. Scroll your mouse in the spreadsheet the frozen rows and columns remain constant.

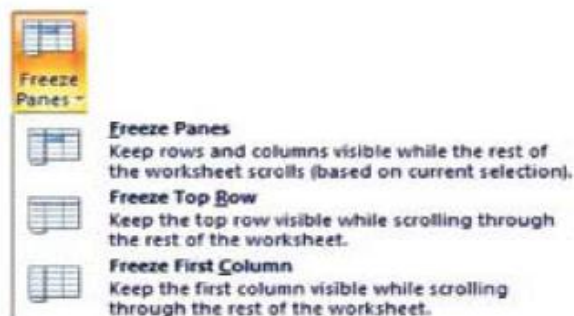


Figure 15

Session-4

Page Break-

To print a worksheet with the exact number of pages that you want, you can adjust the page breaks in the worksheet before printing it. This feature is very useful especially when printing huge sheets.

Open a new spread sheet and create the sheet. On the **View** tab, in the **Workbook Views** group, click **Page Break Preview**.

Now to set the page break do the following.

- To insert a **vertical page break**, select the column where you want to insert the page break.
To insert a **horizontal page break**, select the row to the right of where you want to insert the page break.
- To **move a page break**, simply drag the page break to the desired location.

Note: You can also remove the page breaks by clicking the **Remove Page Break** option in **Breaks** drop down list.

To return to Normal view after you finish working with the page breaks, click **Normal** in the **Workbook Views** group under the **View** tab.

Session-5

Page Layout

Spread sheet software provides various page layout options for organizing pages using the Page Layout option.

To set the page layout options, do the following:

- Click on **Page Layout** option under **Workbook Views** group on **View** tab..
You can set these features -
- Margins (Left, Right, Top, Down)
- Orientation (Portrait or Landscape)
- Page headers and footers
- Hide or display grid lines
- Size of the page
- Define the print area (Set Print Area, Clear Print Area)
- Specify the background

Session-6

MANAGE WORKBOOK VIEWS

Spread sheet offers the users with variable views for the purpose of viewing the outcome of the sheet while printing.

There are five types of views available in the spreadsheet.

- Normal
- Page Layout
- Page Break Preview
- Custom Views
- Full Screen

Normal View: The default view of the spreadsheet application is the Normal. It's a collection of cells arranged in the work area.

Page Layout: You can select the Page Layout view in order to quickly fine tune a worksheet that contains many charts or huge amounts of data and achieve professional looking results.

Page Break Preview: This option is similar to the Page Layout option except you can set the area that is to be set as a page after inserting page break.

Custom Views: If you would like to view selected areas of a document, you can use the custom view option. For example, if you would like to point out certain row and column, you can add that to the Custom view.

Full Screen: Selecting this option makes the workbook cover the entire screen. All tabs are hidden from view. To get back the tabs, click on **File> Restore**.

Session-7

APPLY CELL AND RANGE NAMES

You can assign names to cells in a worksheet and use it for quickly locating specific cells by entering the names. This could be useful when working with large spread sheets. For example, if you have a lengthy list of groceries and prices, you can use names to quickly locate and find total pricing of fruits from the entire list.

Select the cost against the cells that have Apple, Banana, Cherry, Grape, Guava, Mango, Pineapple values (Keep the **Ctrl** key pressed and click on the cells – you will be able to select selective cells together!).

Right click and select **Name a Range**.... Alternatively, you can select **Define Name** under **Defines Names** group in the **Formulas** tab.

• A **New Name** dialog box appears prompting to enter a name. Enter **Fruits** in the **Name** field and click **OK** (figure below).

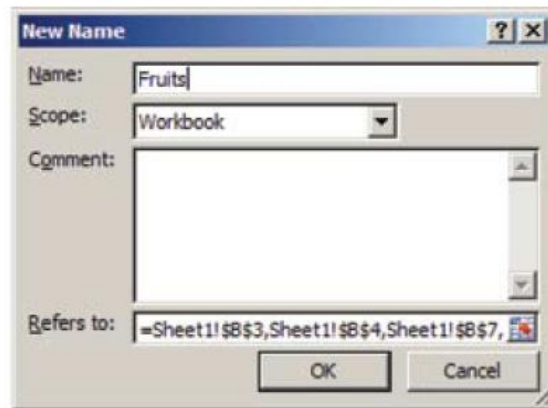


Figure 26

If you would like to calculate the total cost of fruits from the list,

- Select an empty cell
- Type Total Cost of Fruits and in the adjacent cell, Type **=SUM (Fruits)** and press **Enter**.

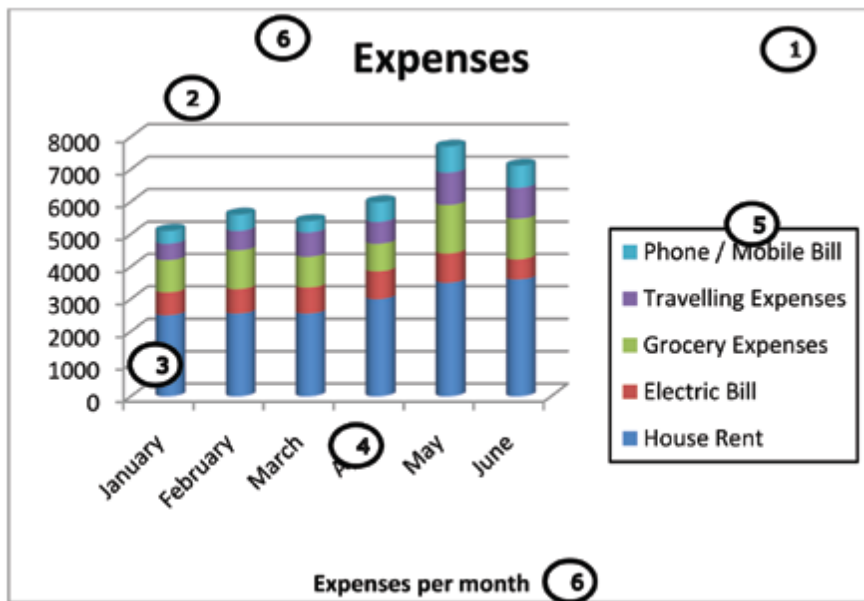
Session-8

CREATE MODIFY AND FORMAT CHARTS

A chart is a graphical representation of data, in which the data is represented by symbols, such as bars in a bar chart, lines in a line chart, or slices in a pie chart. A chart can represent tabular numeric data, functions or some kinds of qualitative structures.

A Spread sheet enables you to create, modify and format charts based on the data given in the spread sheet.

Chart has many elements; however, only some of the elements are displayed by default. Following is an description of the elements used in the above chart:



1. **Chart Area** of the Chart
2. **Plot Area** of the Chart
3. **Data Points** that are plotted in the chart
4. **Horizontal and Vertical Axis** in the chart
5. **Legend** of the chart
6. **Chart and Axis Title** used in the chart
7. **Data Label** for identifying details of data point in the chart

Chart Types:

Choosing the right type of chart is very important. Different charts display data in very different ways. Using the best chart type and format helps you to display data visually in the most meaningful way.

Bar charts: A bar chart (horizontal bars) emphasizes the comparison between items at a fixed period of time. This chart type also includes cylinder, cone, and pyramid subtypes.

Column charts: A column chart, unlike a bar chart to which it is often compared, emphasizes variation over a period of time. This chart type also includes cylinder, cone, and pyramid subtypes

Line charts: A line chart shows the relationship of the changes in the data over a period of time.

Pie charts: Pie charts contain just one chart data series. A pie chart shows the relationship of the parts to the whole.

Area charts: An area chart shows the relative importance of values over time.

XY (Scatter) charts: Scatter charts are useful for showing a correlation among the data points that may not be easy to see from data alone.

Session-9

SORT AND FILTER DATA

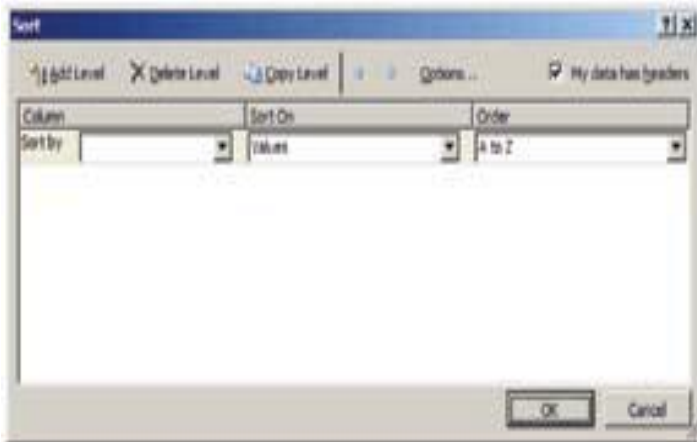
Sort is a feature that helps you arrange the selected data either in an ascending or descending order.

Open a new spreadsheet and enter the following data:

	A	B	C	D	E	F
1	Region	Sales 2008	Sales 2009	Sales 2010	Sales 2011	
2	New Delhi	56	67	85	87	
3	Mumbai	66	77	54	91	
4	Calcutta	75	65	47	63	
5	Chennai	74	85	67	77	
6						

Now to sort or filter the data do the following:

- Select the data to be sorted and then click on **Sort** option under **Sort & Filter** group in the **Data** tab. A dialog box appears as shown below.



- You need to specify on what basis you are going to sort the data in the **Sort by** field and select the order that is ascending and descending and then click **OK**. For example, if you wanted to sort the data in Sales 2008, you would select the relevant detail in the Sort by list and click OK. The spreadsheet would be displayed as shown below. You can notice that the data has been sorted as per the data in 2008 and also that values in the Sales 2008 field are arranged in ascending order that is from smallest to largest.

	Region	Sales 2008	Sales 2009	Sales 2010	Sales 2011
2	New Delhi	56	67	85	87
3	Mumbai	66	77	54	91
4	Chennai	74	85	67	77
5	Calcutta	75	65	47	63
6					

Filter is a feature used for extracting particular data using some conditions. Spread sheet offers both these features for sorting and filtering data in the spreadsheet.

To filter data, do the following:

- Click the **Filter** option available under **Sort & Filter** group in the **Data** tab. Before applying a filter you have to select the data along with the header as shown below.

	A	B	C	D	E	F
1	Region	Sales 2008	Sales 2009	Sales 2010	Sales 2011	
2	New Delhi	56	67	85	87	
3	Mumbai	66	77	54	91	
4	Chennai	74	85	67	77	
5	Calcutta	75	65	47	63	
6						

Once you click on filter, the headers will be displayed with a down arrow as shown below.

	A	B	C	D	E
1	Region ▼	Sales 20 ▼	Sales 20 ▼	Sales 20 ▼	Sales 20 ▼
2	New Delhi	56	67	85	87
3	Mumbai	66	77	54	91
4	Chennai	74	85	67	77
5	Calcutta	75	65	47	63

If you want to filter data that is greater than 75 in the Sales 2009 do the following.

- Click the down arrow available under Sales 2009 header, a dropdown list appears as shown below.

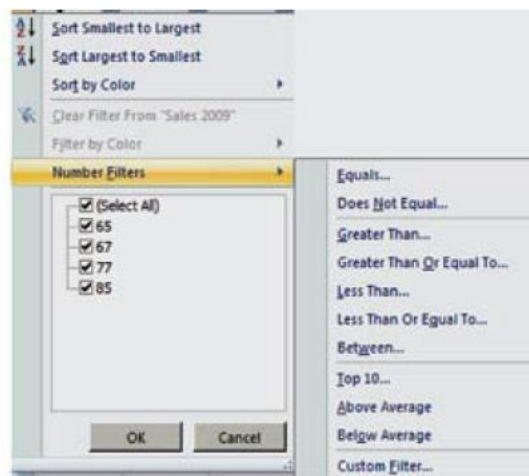
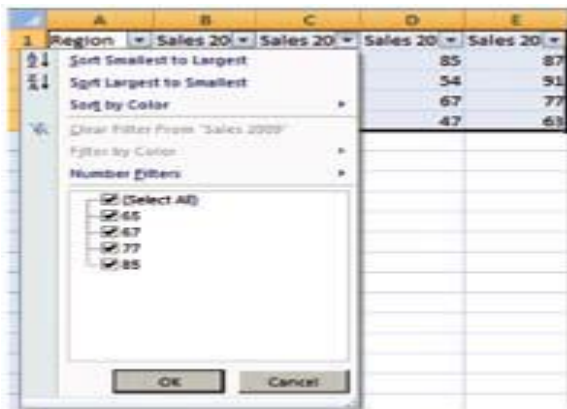
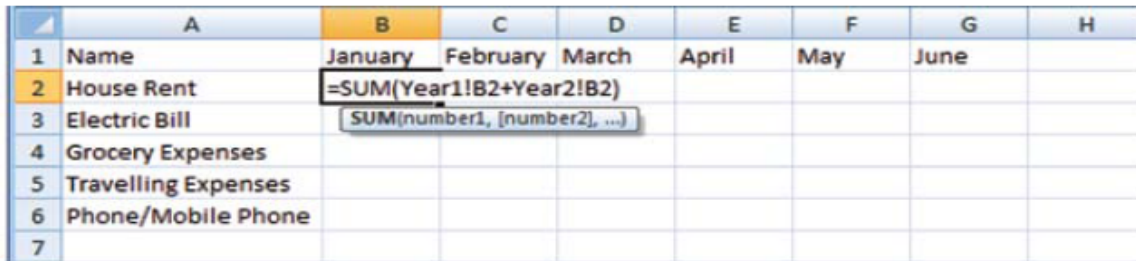


Figure 38

Session- 10:

Now to calculate the data across worksheets do the following.

- Go to sheet 2, name it year 2 sheet, and insert the same data in the Sheet 2 for the next year.
- Go to sheet 2, name it Totals, and insert the same labels.
- Type the sum formula in cell B2, =sum(, while the parenthesis is opened go to year 1 sheet and go to year 2 sheet and press **Enter**. Repeat the same step to calculate sum for other expenses. Note the way the range is specified (sheetname!cellnumber).



	A	B	C	D	E	F	G	H
1	Name	January	February	March	April	May	June	
2	House Rent	=SUM(Year1!B2+Year2!B2)						
3	Electric Bill	SUM(number1, [number2], ...)						
4	Grocery Expenses							
5	Travelling Expenses							
6	Phone/Mobile Phone							
7								

Figure 42

To answer the question raised earlier, you could create a new sheet, called Quarter Summary. To find the average, enter the following formula in one of the cells in the Summary sheet: =AVERAGE(Region01: Region06!H15)

Spreadsheet calculates the average for all values stored in H15 on all sheets in the range Region01:Region06. If you move the Region06 sheet between Region04 and Region05, the software will adjust the calculation to include the sheets for Regions01, 02, 03, 04, and 06; Region05 will be omitted. Similarly, if you delete or add a sheet anywhere between Region01 and Region06, the software will include all the sheets located within the range in

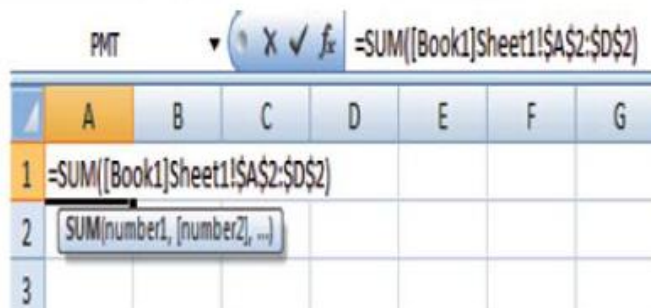
Session-11

USING MULTIPLE WORKBOOKS AND LINKING CELLS

Spreadsheet also allows you to link the cells from various worksheets and from various spreadsheets to summarize data from several sources.

In this manner, you can create formulas that span different sources and make calculations using a combination of local and linked information.

You can link data from other spreadsheets and keep the information up to date without editing multiple locations every time the data changes. For example, you can display data from multiple departments for an overview of details without sharing information between sources.



	A	B	C	D	E	F	G
1	=SUM([Book1]Sheet1!\$A\$2:\$D\$2)						
2	SUM(number1, [number2], ...)						
3							

Figure 45

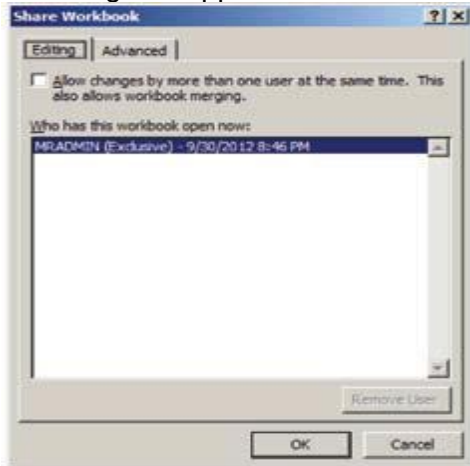
Session-12

SHARING WORKSHEET DATA

Spreadsheet software allows the user to share the workbook and place it in the network location where several users can access it simultaneously.

Now to share the spreadsheet do the following.

- Click on **Share workbook** option under **Changes** group in the **Review** tab.
- A dialog box appears as shown below.



Check the option **Allow changes by more than one user at the same time. This also allows workbook merging.**

- Click **OK**.