

## LECTURE SCHEDULE 12

### CREATING GRAPHS

#### Graphs or Charts

- The graphical representation of data is called graph or chart.
- The data entered in the excel sheet can be represented by a graph or a chart.
- MSEXCEL supports a wide variety of graphs.
- Example of graphs:
  - Column, Line, Bar, Pie, Area, Doughnut, Radar, Surface, Bubble, Stock etc.

#### Column Graph

- It shows data change over a period of time or illustrates comparisons among items.
- Categories are organized horizontally and values vertically.
- It is an ideal chart for showing the variation in the value of an item over period of time.

#### Bar Graph

- Bar graph illustrates comparison among individual items.
- Categories are vertically organized and values horizontally.

#### Line Graph

- A line graph shows trends in data at equal intervals.
- It is very useful to show the change in the value over a period of time.
- It will show very clearly whether a value is ascending or descending.

## Pie Chart

- Pie chart is used to plot data for a single data series.
- Each data point is represented by one piece of the circular pie chart.
- The size of each piece is proportional to the value it represents, so all the data points taken together will form circle.

## Area Graph

- Area chart is similar to line chart.
- But plots series one above the other with different colors and shades.
- It emphasizes the magnitude of change over a period of time.

## XY (Scatter) Graph

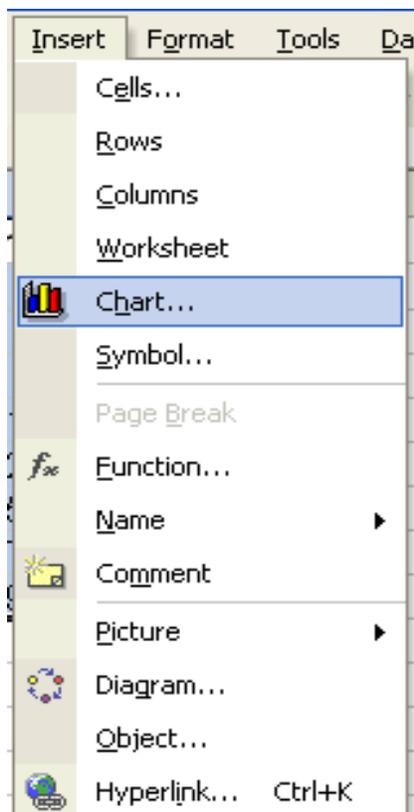
- It plots each point with a mark of two groups of numbers as one series of XY coordinates.
- It shows uneven intervals of data and it is commonly used for scientific data.

## CREATING GRAPHS

- Create a spreadsheet with data rice yield in tones from the year 1998 to 2004 as shown below:

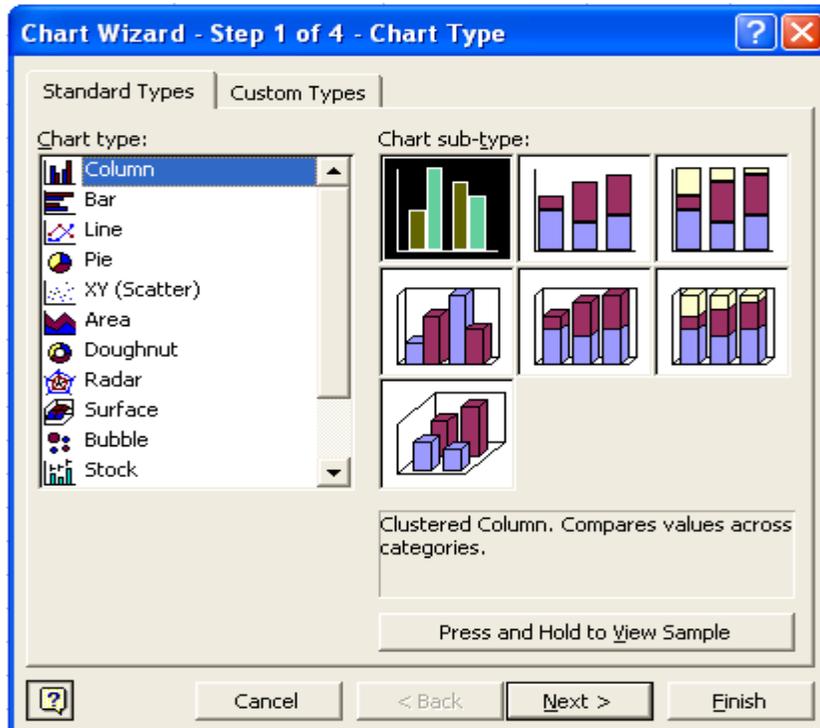
	A	B
1	<b>Rice Yield Analysis</b>	
2	<b>Year</b>	<b>Rice Yield (tones)</b>
3	1998	546,858.95
4	1999	895,745.77
5	2000	1,025,892.62
6	2001	2,548,955.55
7	2002	5,895,458.25
8	2003	7,102,584.65
9	2004	9,883,529.25

- Go to Insert Menu select Chart and click.



## First Step

- A dialog box of chart wizard will appear, select the required type of chart from the chart type.



- Then select the chart sub type according to your requirement.

## Second Step

- Select the data range in this step.
- To give enter data range move the cursor on excel sheet and
  - by clicking select the data area you want or
  - type cells position if you know exactly which area you want.
- Click on the Next button.
- the data range selected in our example is **Sheet1!\$A\$1:\$B\$9**
- Sheet1 we are in sheet1 in MS Excel.
- \$ Sign is used to represent the absolute position of the data in MS Excel.

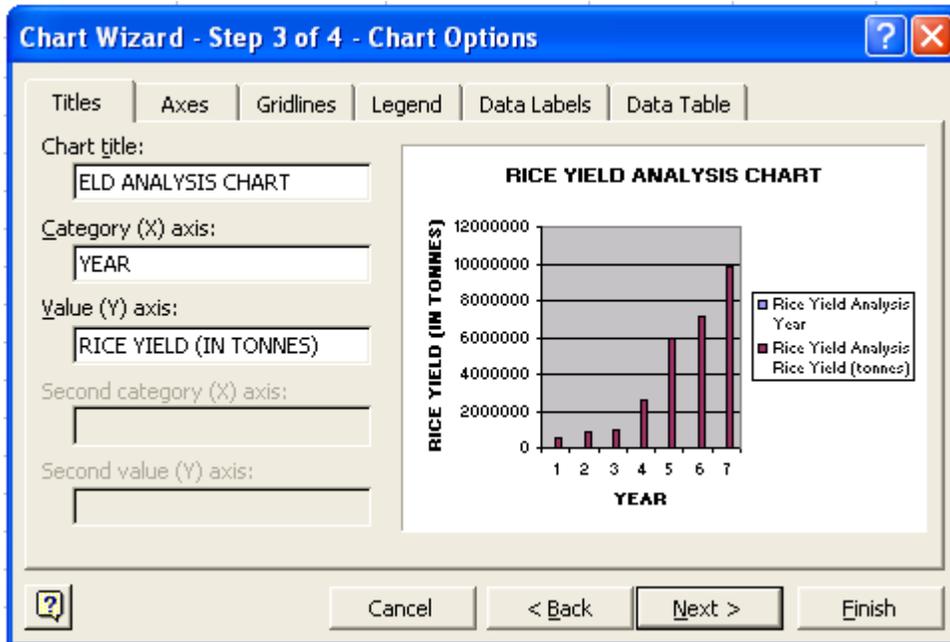
- The range is to conform that the chart is being prepared of the proper sheet of the file.
- On confirming click on Next button.

The screenshot shows the 'Source Data' dialog box in Microsoft Excel. The dialog box has two tabs: 'Data Range' and 'Series'. The 'Data Range' tab is active, showing a preview of a bar chart. The chart has a vertical axis ranging from 0 to 12,000,000 and a horizontal axis with categories 1 through 7. The legend indicates two series: 'Rice Yield Analysis: Year' and 'Rice Yield Analysis: Rice Yield (tonnes)'. The 'Data range' field contains the formula '=Sheet1!\$A\$1:\$B\$9'. The 'Series in' section has 'Columns' selected. The background shows an Excel spreadsheet with a table titled 'Rice Yield Analysis'.

Rice Yield Analysis	
Year	Rice Yield (tonnes)
1998	546,858.95
1999	895,745.77
2000	1,025,892.62
2001	2,548,955.55
2002	5,895,458.25
2003	7,102,584.65
2004	9,883,529.25

### Third Step

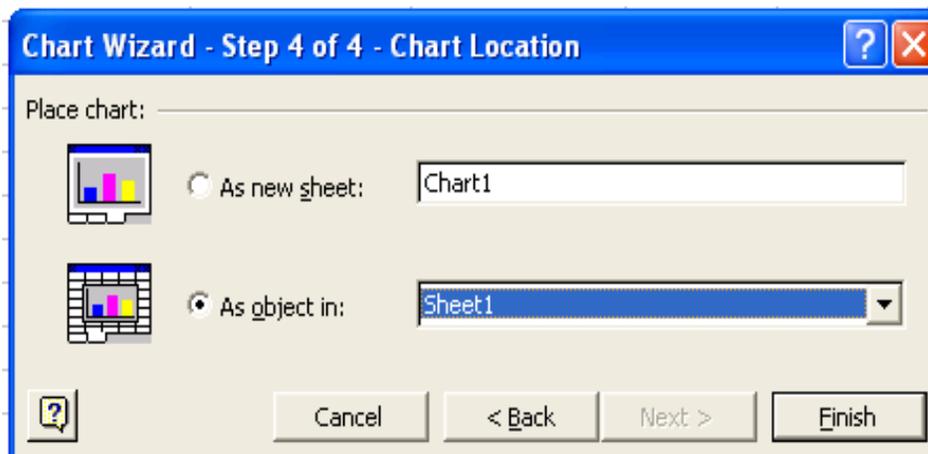
- Here the Chart title, Category and Value information are entered, which will be displayed when the chart is viewed.



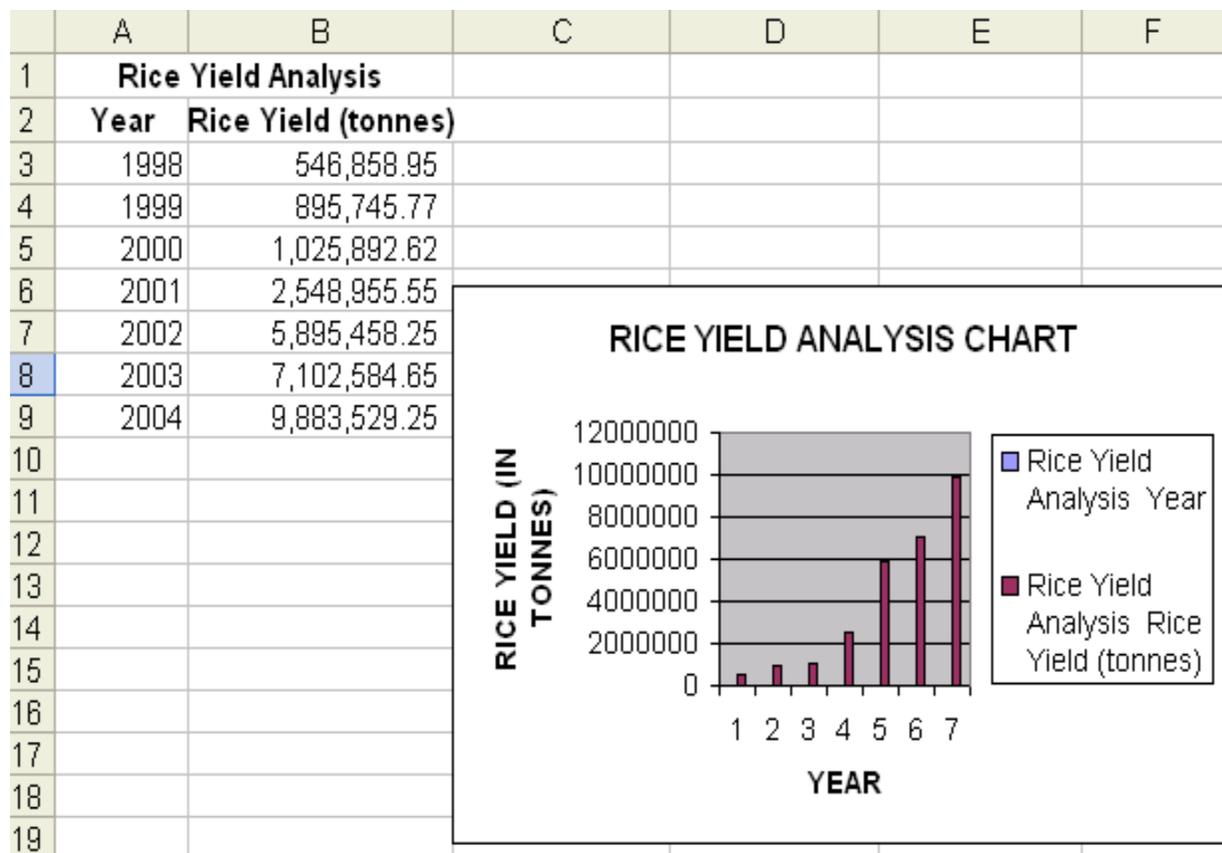
- Click Next button.

#### Fourth Step

- This step will provide in the way you want to place the chart.
- Select the appropriate option available in the chart wizaerd.



- Click the Finish button.
- The chart will be as shown below:



### Moving Chart

- If the chart needs to be placed in different position, then we can move the chart wherever we want.
- To move the chart select the chart by clicking on it without leaving the mouse button, drag in the direction you want.
- The chart will move and then release it where you want.

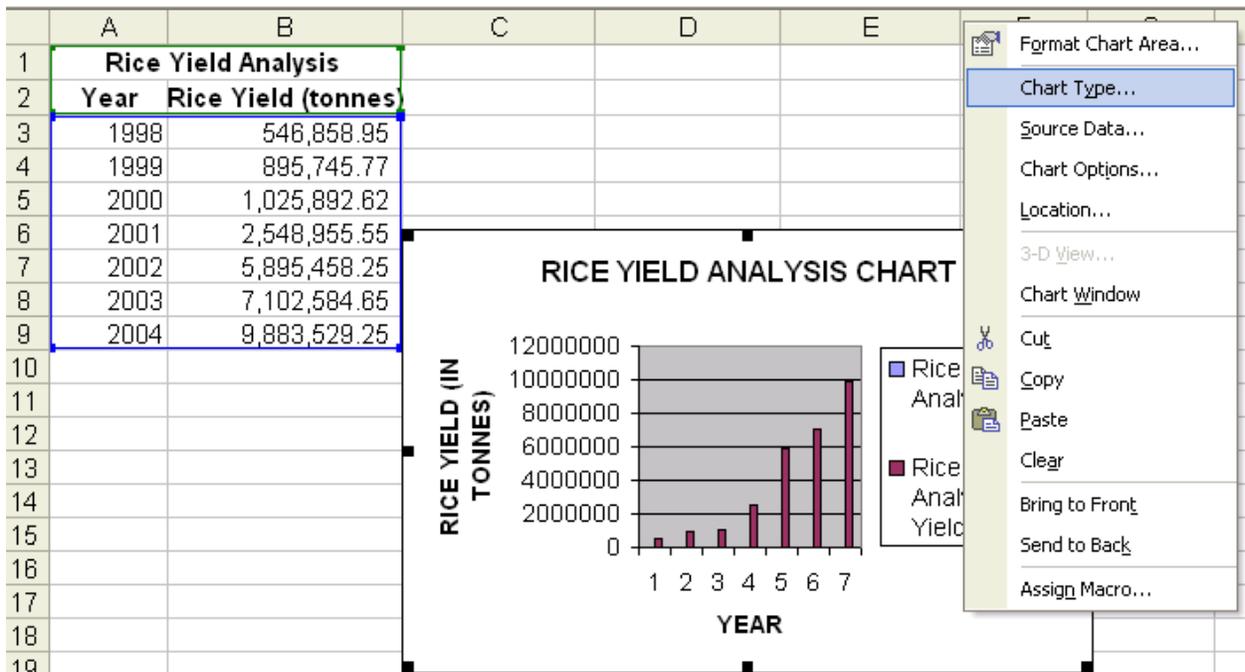
### Changing the Chart Size

- To change the chart size, select the chart by clicking on it.
- You will get eight small rectangular boxes around the chart.
- Now move the cursor to the border of the chart and the mouse pointer changes to double headed arrow cursor.

- Then press the left mouse button and drag.
- If you want to reduce the size, drag towards the centre of the chart, else in opposite direction to increase the size of the chart.

### Changing the Chart Type

- Select the chart
- Click the right mouse button
- From the right context menu select Chart type



- Select the required chart type from the chart type window.

Chart Area    fx

	A	B
1	<b>Rice Yield Analysis</b>	
2	<b>Year</b>	<b>Rice Yield (tonnes)</b>
3	1998	546,858.95
4	1999	895,745.77
5	2000	1,025,892.62
6	2001	2,548,955.55
7	2002	5,895,458.25
8	2003	7,102,584.65
9	2004	9,883,529.25

**RICE YIELD (IN TONNES)**

**Chart Type** [?] [X]

Standard Types | Custom Types

Chart type:

- Bar
- Line
- Pie
- XY (Scatter)
- Area**
- Doughnut
- Radar
- Surface
- Bubble
- Stock
- Cylinder

Options:

Apply to selection

Default formatting

Chart sub-type:

Stacked Area. Displays the trend of the contribution of each value over time or categories.

Press and Hold to View Sample

Set as default chart    OK    Cancel

- Click OK.
- If the selected chart type is Area type then the chart will be as shown below:

