Summary – Day 2

- We can do many operations in data source pane such as Rename, Copy Values, Hide, Unhide, Aliases, Describe, Create Calculated Field, Create Groups etc.

- There are 5 types of shelves.
  - **Rows**: To add the values of a column horizontally.
  - **Columns**: To add the values of a column vertically.
  - **Marks**: To beautify the charts by adding color, showing more information using label.
  - **Filters**: To restrict the data to flow into the chart.
  - **Page**: To show the series of events in animated form.

- As per the requirement given by the clients, user needs to create the charts. Mostly traditional charts are preferred by the clients.

- **Bar Chart**:
  - A bar chart or bar graph is a chart or graph that presents categorical data with rectangular bars with heights or lengths proportional to the values that they represent.
  - The bars can be plotted vertically or horizontally.
  - A vertical bar chart is sometimes called a column chart.
  - For example, Region wise SUM(Sales)

- **Pie Chart**:
  - A pie chart is a circular chart that is divided into multiple sections and each of which represents a proportion of the whole.
  - For example, Category Vs SUM(Sales) in pie chart wherein each category value is a slice of a pie chart.

- **Stacked Bar Chart**:
  - Stacked bar/stacked column chart is used to show comparison between categories of data, but with ability to break down and compare parts of whole.
  - Each bar represents whole with segments of the bar representing different parts of the whole.

- It represents values in the form of segmented bars. Here, each bar is divided into different segments or sections, providing further details about the field and regions.
- For example, Category wise breakup of each region Vs SUM(Sales)

- **Discrete Line Chart**:
  - To show the trend of any numerical columns over the period of time, a line chart is used.
  - Discrete line chart is used to show the discrete values of a date dimension against a measure. e.g. MONTH(Order Date) Vs SUM(Sales). Hence January month sales will show the total sales of all the years only for January month.
  - For MONTH(Order Date) discrete field the unique values are the names of months of all the years. i.e. January, February,……, December etc.
  - Here the date dimension has blue pill.

- **Continuous Line Chart**:
  - Continuous line chart is used to show every point of date dimension on line chart.
  - For example MONTH(Order Date) Vs SUM(Sales) will show the sum of sales for each month of each year
  - Here the date dimension has a green pill.

- **Symbol Map**:
  - The Symbol Map is used to show the geographical values on a map against any measure.
  - For example, State wise SUM(Sales)
  - The symbol used is a circle which represents the measure value for that state. The size of the circle varies as per the value of a measure for each state.

- **Filled Map**:
  - The Filled Map is used to show the geographical values on a map against any measure. However, in this case, each state is coloured with different colours instead of representing states as a circle.
  - For example, State wise SUM(Sales)
  - The colour has a deviation meaning darker the colour higher the value of a measure for that state and vice-versa.

- **Text Table**:
  - The text table is used to show the data in excel-like pivot table structure.
  - All the discrete dimensions can be dragged and dropped on rows or columns.
  - Similarly to show any continuous measure in a table one needs to double click on that measure.
  - For example, SUM(Sales) and SUM(Profit) shown for each category, sub-category and for all the years.

- **Highlight Table**:
  - Highlight table uses color to help visualize data displayed as a text table.

- Highlight tables enhance text tables while keeping their form. The background color is given to each cell. Darker the color of the cell higher the value for that cell and vice-versa.
- These tables can display either continuous colors using sequential or diverging palettes.

- **Marks Cards**:
  - **Color**:
    - It is used to change the color of the chart. Can use any dimensions or measures on color marks card.
    - Any dimension or measure can be dragged and dropped on the color.
    - When the dimension is used on color then as per values of dimension the colours are given to the chart, whereas when the measure is dragged and dropped on color then the chart shows the deviation of the same colour from darkest to lightest.
  - **Size**:
    - It is used to change the size of the chart based on the pointer shown.
    - The size of the chart can also be changed based on any measure we drag and drop. If the value of the measure is the highest then chart element would be the biggest and vice-versa.
  - **Text**:
    - It is used to show the labels in the chart. Labels can be resized, given colours, or can be aligned horizontally/vertically.
    - If we want to show any value in the chart then the corresponding field should be dragged and dropped in text.
    - We can change the font, color of the font, size of the font, alignment of the labels as well.
  - **Detail**:
    - It is used to show the information in more depth. For example, one can show region wise and category wise sales in pie chart.
  - **Tooltip**:
    - Tooltips are details that appear when you rest the pointer over one or more marks in the view.
    - Tooltips also offer convenient tools to quickly filter or remove a selection, select marks that have the same value or view underlying data.
    - We can embed the worksheets inside tooltip as well using Insert option in edit tooltip screen.

- General formatting can be done by right-click and selecting Format option.

- General formatting includes below aspects. These options can be viewed after right-clicking in empty space in worksheet.

- **Font**: To change the font of values/axis in the worksheet.
- **Alignment**: To change the alignment of values in chart/axis.
- **Shading**: To give background colour to the worksheet.
- **Borders**: To give the borders to table. Add row and column divider in charts.
- **Lines**: To show/hide the grid lines, zero lines, trend lines etc.

- The measure values can be converted in different units i.e. Thousands(K), Millions(M) etc. by right-click on measure (rows/columns/text card) and selecting Format → Pane → Numbers → Number (Custom)