Summary – Day 9

- **Reference Lines**:
    - Reference lines are the horizontal or vertical lines that act as a reference or baseline for a certain measure against which they are compared.
    - For example, if one is analysing the annual revenue for several companies, one can include a reference line at the average sales value to see how each company performed against the average.
    - Creating a reference line is an extremely useful part of analysis and visualization.
    - Reference line can be created from Analytics pane.
    - Reference line can be created per table, per pane or per cell for any measure or dimension.
    - As many panes or cells are there in the visual those many reference lines/values will be shown in the chart.
    - By default, Average is the default aggregation in reference lines, however, one can change it to Sum, Min, Max, Median or Constant value.

- **Trend Line**:
    - A trend line in simple words is a line showing the patterns or trends emerging from data points.
    - For instance, just by looking at a trend line for sales data, one can infer whether the sales are increasing with time, is not changing or decreasing.
    - In this way, trend lines help in interpreting data trends, predicting future scenarios and draw a correlation between two variables in the analysis.
    - In the visual shown, one can infer about the sales as it is increasing each year and can take decision about upcoming events.
    - In order to create trend line, right click in the chart and select Trend Lines.

- **Tableau Dashboards**:
    - A dashboard is a consolidated display of many worksheets and related information in a single place. It is used to compare and monitor a variety of data simultaneously.

- The different data views are displayed all at once. Dashboards are shown as tabs at the bottom of the workbook and they usually get updated with the most recent data from the data source.
- While creating a dashboard, one can add views from any worksheet in the workbook along with many supporting objects such as text areas, web pages, and images.
- Each view one adds to the dashboard is connected to its corresponding worksheet. So when one modifies the worksheet, the dashboard is updated and when one modifies the view in the dashboard, the worksheet is updated.
- There are 2 sections i.e. Dashboard and Layout.
- In Dashboard section we have below sub sections.
    - **Device Preview**: Dashboard can be created on below devices.
        - Default
        - Desktop
        - Tablet
        - Phone
    - **Size**:
        - Need to get width and height of dashboard screen from client.
    - **Sheets**:
        - All the worksheets created so far in the current workbook.
    - **Objects**:
        - The backbones of dashboard creation. Must be used judiciously in order to create the dashboard of any design.
- There are 2 types of containers i.e. Tiled and Floating.
    - **Tiled**:
        - Tableau helps in placing the different containers at the designated places as per the movement of mouse in the dashboard. Every dashboard should be created using this type of container only.
    - **Floating**:
        - Tableau would not be placing the containers at the designated places as per the movement of the mouse in the dashboard. Developer needs to define manually the co-ordinates and the width and height of each container. It's free to move.
- **Objects**:
    - Horizontal:
        - Used to divide the screen column wise
    - Vertical:
        - Used to divide the screen row wise
    - Text:
        - Used to write a text for title or info
    - Image:
        - Used to add an image or logo
    - Blank:
        - Used to add a space between two objects or to add an underline below the text
    - Navigation:
        - Used to move from one screen to another
    - Webpage:
        - Used to open the valid website in the dashboard

- Download:
  - Used to download the dashboard in PDF, PPT, Image or Crosstab format

- In Layout section we have below options.
  - Position and Size:
    - Used for floating objects
    - x – distance from left
    - y – distance from top
    - w – width of screen
    - h – height of screen
  - Border:
    - Give the borders to charts and objects.
  - Background:
    - Give the background colour to the charts title in a container and to objects as well.
  - Padding:
    - It is used for any containers to adjust the space w.r.t. other containers and inside space. Two types of padding are there.
    - Outer Padding – Used to adjust the distance between any two containers container from left, right, top, bottom
    - Inner Padding – Used to adjust the distance within the container from left, right, top, bottom
  - Item Hierarchy:
    - It is used to show the architecture of the dashboard i.e. the way how different objects are placed in one another in nested form.