



Bharatiya Vidya Bhavan's  
**Sardar Patel Institute of Technology**  
(Autonomous Institute Affiliated to University of Mumbai)  
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**AIM:**

Create advanced charts using Tableau / Power BI / R / Python / Plotly or Chart or D3.js to be performed on the dataset - Socio economic data

- Advanced - Word chart, Box and whisker plot, Violin plot, Regression plot (linear and nonlinear), 3D chart, Jitter, Line, Area, Waterfall, Donut, Treemap, Funnel
- Write observations from each chart

Practice dataset:

World Socio Economic dataset and Power BI file

**PROCEDURE DESCRIPTION:**

**Step 1:**

**Line Chart**

Step-by-Step Procedure:

1. Load Data:
  - Open Power BI Desktop.
  - Click on "Get Data" and load your dataset.
2. Insert Line Chart:
  - Click on the "Line Chart" icon in the Visualizations pane.
3. Add Data to the Chart:
  - Drag the field you want to plot on the X-axis to the "Axis" section.
  - Drag the field you want to plot on the Y-axis to the "Values" section.
4. Format the Chart:
  - Click on the Format pane (paint roller icon).
  - Customize the appearance, data colors, and labels as needed.

**2. Area Chart**

Step-by-Step Procedure:

1. Load Data:
  - Open Power BI Desktop.
  - Click on "Get Data" and load your dataset.
2. Insert Area Chart:
  - Click on the "Area Chart" icon in the Visualizations pane.
3. Add Data to the Chart:
  - Drag the field you want to plot on the X-axis to the "Axis" section.

- Drag the field you want to plot on the Y-axis to the "Values" section.
- 4. Format the Chart:
  - Click on the Format pane.
  - Customize the appearance, data colors, and labels as needed.

### 3. Treemap

Step-by-Step Procedure:

1. Load Data:
  - Open Power BI Desktop.
  - Click on "Get Data" and load your dataset.
2. Insert Treemap:
  - Click on the "Treemap" icon in the Visualizations pane.
3. Add Data to the Chart:
  - Drag the field you want to group by to the "Group" section.
  - Drag the field you want to use for size to the "Values" section.
4. Format the Chart:
  - Click on the Format pane.
  - Customize the appearance, data colors, and labels as needed.

### 4. Waterfall Chart

Step-by-Step Procedure:

1. Load Data:
  - Open Power BI Desktop.
  - Click on "Get Data" and load your dataset.
2. Insert Waterfall Chart:
  - Click on the "Waterfall Chart" icon in the Visualizations pane.
3. Add Data to the Chart:
  - Drag the field you want to plot on the X-axis to the "Category" section.
  - Drag the field you want to plot on the Y-axis to the "Values" section.
4. Format the Chart:
  - Click on the Format pane.
  - Customize the appearance, data colors, and labels as needed.

### 5. Funnel Chart

Step-by-Step Procedure:

1. Load Data:
  - Open Power BI Desktop.
  - Click on "Get Data" and load your dataset.
2. Insert Funnel Chart:
  - Click on the "Funnel Chart" icon in the Visualizations pane.
3. Add Data to the Chart:
  - Drag the field you want to group by to the "Group" section.
  - Drag the field you want to use for values to the "Values" section.
4. Format the Chart:

- Click on the Format pane.
- Customize the appearance, data colors, and labels as needed.

## 6. Donut Chart

### Step-by-Step Procedure:

1. Load Data:
  - Open Power BI Desktop.
  - Click on "Get Data" and load your dataset.
2. Insert Donut Chart:
  - Click on the "Donut Chart" icon in the Visualizations pane.
3. Add Data to the Chart:
  - Drag the field you want to group by to the "Legend" section.
  - Drag the field you want to use for values to the "Values" section.
4. Format the Chart:
  - Click on the Format pane.
  - Customize the appearance, data colors, and labels as needed.

### Submission

[https://docs.google.com/forms/d/e/1FAIpQLSc9g-c226PEYBN02hiE0vgdLtDYVSnUgtN1RhjBcZfSxz10Bg/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSc9g-c226PEYBN02hiE0vgdLtDYVSnUgtN1RhjBcZfSxz10Bg/viewform?usp=sf_link)