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BDT Assignment 9

Problem statement: For suitable datasets of any application domain demonstrate big data analytics using DB.js.

Objectives: To learn D3.js concepts
To perform data visualization on given dataset.

Theory: D3.js or Data-Driven Documents, it is a potent Javascript library tailored for crafting interactive data visualizations on web browsers. With its distinctive feature of binding data to the Document Object Model (DOM) elements and employing a declarative approach to transformation, D3.js excels in creating dynamic and engaging visualizations for the web.

Types of Charts:

1. Line chart - Shows trends over continous interval.
2. Bar Chart - Uses bars to represent proportional values.
3. Pie Chart - Displays data proportions in a circular format.
4. Scatter Plot - Plots individual data points for correlation analysis.
5. Area Chart - Emphasizes changes over time with filled areas.

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Importance of Visualization:-
1. Data Understanding
2. Decision Making
3. Pattern Recognition
4. Communication of Data Insights
5. Exploration of Data.

Conclusion: Hence, I learned to perform Data Visualization using D3.js.

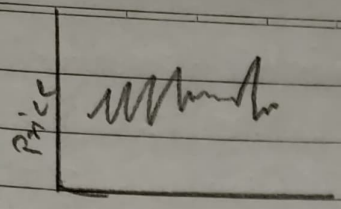
FAQ's.

1) Explain Data Visualization Factors:
→ 1) Clarity: ensure visual representation is clear and easily understandable.
2) Accuracy: Maintain accuracy in conveying intended information.
3) Simplicity: Keeps visualization simple.
4) Relevance: Include only relevant data for effective communication.

2) Explain any 3 types of charts with example:
→ 1) Line chart: Shows trends over time
ex: Stock prices

2) Bar chart: Represents categorical data with bars
ex: Sales by category

3) Pie chart: Displays parts of a whole as sectors
ex: Market Share



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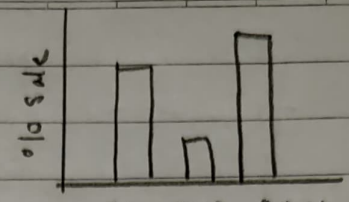

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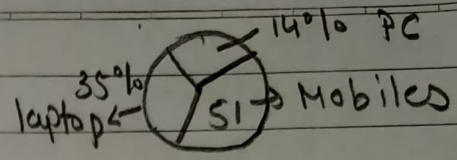

(3)

3) State use of any 10 methods of D3.js

→ 1) select: selects element in DOM
2) data : binds data to selected elements
3) enter : Adds new elements based on data
4) append : Adds elements to DOM
5) attr : sets attributes for selected elements
6) style : Applies styles to selected elements
7) transition : creates smooth transition for visual elements
8) scale : Defines scales for mapping data to visual representation.
9) axis : Generates axes for charts
10) event : Handle user interaction and events.

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