Bharatiya Vidya Bhavan's

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AIM:

Design Interactive Dashboards and Storytelling using Tableau / Power BI / R (Shiny) / Python (Streamlit/Flask) / D3.js to be performed on the dataset - Disease spread / Healthcare

Create interactive dashboard - Write observations from each chart given below

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

Basic - Bar chart, Pie chart, Histogram, Timeline chart, Scatter plot, Bubble plot)

DESCRIPTION:

The dataset contains information related to a healthcare provider's operations. Here's a breakdown of the available datasets:

cities: Information about the cities where the healthcare provider operates.

DAX calculation: Data related to DAX calculations, which are likely used for data analysis and reporting.

departments: Details about the different departments within the healthcare provider.

diagnoses: Information about the diagnoses made by the provider.

insurance: Data related to insurance plans and coverage.

patients: Patient demographics and medical history.

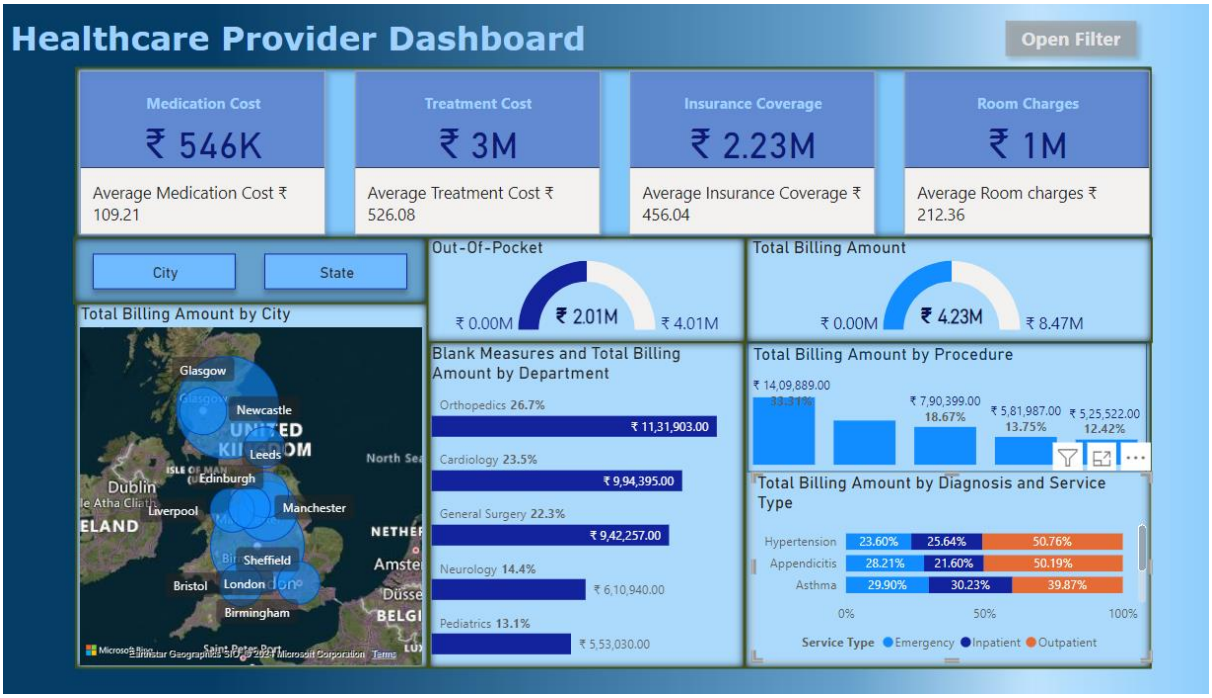
Patients Location Switch: Data on patients who have switched locations or facilities.

procedures: Information about the medical procedures performed.

providers: Details about the healthcare providers (e.g., doctors, nurses).

visits: Data on patient visits to the healthcare provider.

REPORT:



Top-Level Metrics:

- Medication Cost: Shows the total medication cost and average cost per medication.
- Treatment Cost: Displays the total treatment cost and average cost per treatment.
- Insurance Coverage: Indicates the total insurance coverage and average insurance coverage per patient.

Room Charges: Presents the total room charges and average room charges per patient.

2. City and State Distribution:

- Total Billing Amount by City: A map visualization that highlights the total billing amount for each city.
- Total Billing Amount by State: A map visualization that shows the total billing amount for each state.

3. Breakdown of Costs:

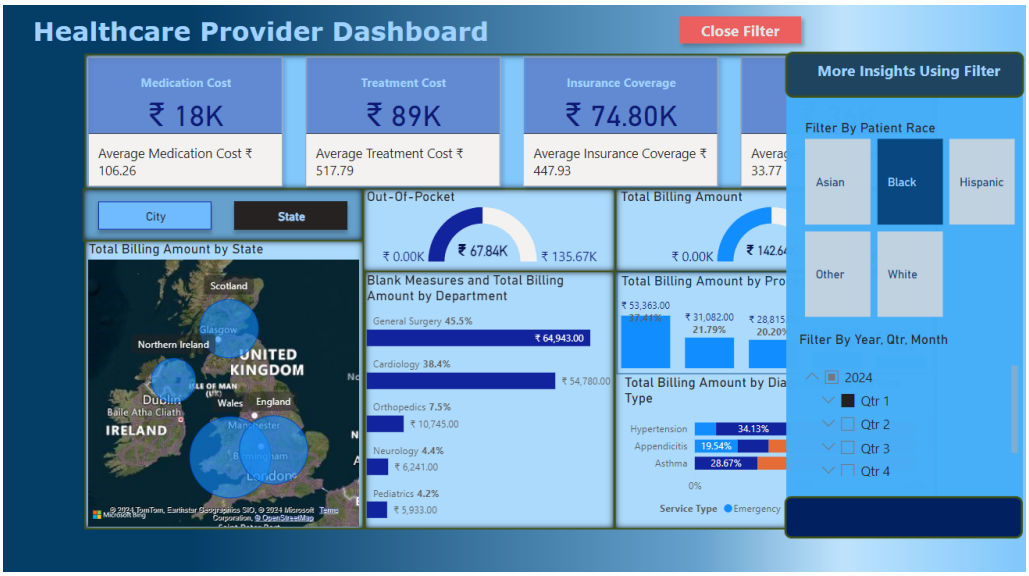
- Blank Measures and Total Billing Amount by Department: A bar chart that displays the total billing amount for each department.

- Total Billing Amount by Procedure: A bar chart that shows the total billing amount for each procedure.
- Total Billing Amount by Diagnosis and Service Type: A bar chart that illustrates the total billing amount for each diagnosis and service type.

4. Out-of-Pocket Costs: A pie chart that represents the percentage of out-of-pocket expenses.

5. Geographic Distribution: A map visualization that pinpoints the locations of healthcare facilities.

6. Percentage Breakdown: Pie charts that show the percentage distribution of various factors, such as service type, diagnosis, and department



The addition of the filter button to the healthcare provider dashboard significantly enhances its interactivity and functionality.

1. Filter by Patient Race: This filter enables users to analyze data based on the patient's race or ethnicity. It can be used to identify disparities in healthcare outcomes, treatment costs, and insurance coverage among different racial groups.

2. Filter by Year, Quarter, Month: This filter allows users to focus on data from specific time periods. It can be helpful for tracking trends over time, identifying seasonal variations, or comparing performance across different years or quarters.

CONCLUSION: From this experiment I learnt how to create an interactive dashboard. I have also gained the knowledge of doing an EDA over the data on Power Bi using DAX queries.