US Healthcare Case Study

Overview: *The US healthcare department has shared the hospital data for 100 hospitals which includes data like patient information, their admission information and the insurance information. The top executives from the department have a few questions on the data and would like you to analyse and present your findings to them. The analysis should derive meaning actionable insights and the presentation should be clear, complete and concise.*

Dataset:

[Healthcare Dataset](#) - Right-click to download*

Problem Statement:

Analyzing the Impact of Demographics and Admission Types on Healthcare Costs and Outcomes

1. **Demographic Analysis of Medical Conditions**
   a. **Objective:** *Identify the most prevalent medical conditions within different demographic groups*
   b. **Analysis:** *Analyze the frequency of each medical condition across different patient demographics. Bucket the demographics to make it presentable to high level management. Ensure not to create too many bucket and make the bucket mutually exclusive and collectively exhaustive.*
2. **Patient Price Optimization**
   a. **Objective:** *Identify trends in the data and recommend ways for patients to reduce their cost*
   b. **Analysis:** *Calculate the average billing amount for different metrics. Determine if certain metrics consistently result in higher or lower healthcare costs. Try to relate it back to findings from the demographic analysis*
3. **Hospital Resource Management**
   a. **Objective:** *Identify ways in which hospital can better manage its resources*
   b. **Analysis:** *Identify time-series trends in admission type and suggest ways to improve the workload utilization of the hospital.*