**Machine Learning Lab**

**Project Task**

**Predicting Medical Expenses Based on Health Conditions**

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**INTRODUCTION:**

In this project, Healthcare organizations are always looking for ways to optimize their operations, and part of that is knowing what elements contribute to the overall expense’s hospitals suffer. In this analysis, we examine a dataset called 'hospital\_data.xlsx,' which includes a variety of aspects related to hospital operations. Predicting the cost of hospitals is the primary objective.

To create a prediction model for calculating the hospital's total expenses based on the available variables, regression techniques must be applied. To gain knowledge that can guide healthcare management decision-making, we want to explore the connections between each of the variables and the primary variable.

We will use key metrics, such as the Sum Squared Regression (SSR), Mean Squared Error (MSE), and R-squared (R2) values, to evaluate the effectiveness of our regression model. These evaluations will provide useful data regarding the way the linear regression model predicts hospital expenses and how accurate it performs.

**FLOW CHART:**

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**IMPLEMENTATION:**

**Performance Evaluation of Model:**

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**Flask Application:**

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**Output:**

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