

Project Design Phase - I

Proposed Solution

Date	02 May 2023
Team ID	NM2023TMID17066
Project Name	Estimation and Prediction of Hospitalization and Medical Care Costs

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none">The problem statement for Estimation and Prediction of Hospitalization and Medical Care Costs is the challenge of accurately forecasting the costs of medical care and hospitalization for patients, healthcare providers, insurance companies, and other sources.
2.	Idea/Solution description	<ul style="list-style-type: none">Estimation and Prediction of Hospitalization and Medical Care Costs is to develop and implement an advanced analytics platform that can accurately estimate and predict healthcare costs for individual patients and specific medical procedures.Data collection is the initial step, which entails gathering information about the patient's demographics, medical background, diagnosis, courses of treatment, and procedures. Electronic health records (EHRs), insurance claims, and other pertinent sources can all be used to acquire this information.This prediction can be used for reduce healthcare costs and improve patient outcomes.
3.	Novelty / Uniqueness	<ul style="list-style-type: none">Estimation and Prediction of Hospitalization and Medical Care Costs uses advanced data analytics and machine learning techniques. Although the concept of cost estimation and prediction is not new to the healthcare sector, using machine learning algorithms and predictive modelling to increase the accuracy of these estimates is more recent.

4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> Improved cost estimation and prediction can help healthcare providers, insurance companies, and government agencies to allocate resources more effectively and efficiently, reducing healthcare costs and improving patient outcomes. Accurate cost estimates can help patients plan for their healthcare expenses and make informed decisions about their healthcare choices.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> Healthcare providers use a range of instruments and techniques, including historical claim data, medical techniques, and financial modelling, to estimate and predict healthcare costs. Insurance companies estimate and predicted healthcare costs using an accurate techniques and statistical modelling. They also negotiate and manage agreements to control costs.
6.	Scalability of the Solution	<ul style="list-style-type: none"> Increase data collection to improve cost estimation and prediction accuracy. Cloud-based infrastructure enables efficient and cost-effective scaling of operations. Platform enables data sharing and collaboration between healthcare providers.