

Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID28411
Project Name	Analytics for Hospitals Health Care Data
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The goal is to accurately predict the Length of Stay for each patient on case-by-case basis so that the Hospitals can use this information for optimal resource allocation and better functioning. The length of stay is divided into 11 different classes ranging from 0-10 days to more than 100 days.
2.	Idea / Solution description	Use various factors which determine the LOS like: <ul style="list-style-type: none"> • Similarity in Patient health conditions • Similarities in previous history of illness • Predictive analysis bases on seasons • Predictive analysis based on age groups • Doctor's Advice regarding LOS • Add bed days for each discharged patient and divide the sum by the number of discharged patients • General predictions based on Oxygen Delivery Index, RBC count, Creatinine Levels etc.
3.	Novelty / Uniqueness	The uniqueness of this proposed system is that data is not gathered by a single source but from multiple departments from the hospitals thereby reducing redundant data The proposed dashboard will make it easy for anyone to analyse and accommodate based on priority and requirements
4.	Social Impact / Customer Satisfaction	The various social impacts / Customer Satisfaction are: <ul style="list-style-type: none"> • Easy to access by the public and prepare accordingly • People need not worry about their LOS and can simply rely on this data

5.	Business Model (Revenue Model)	<p>This system when sold as a business to hospitals as clients will generate huge amounts of revenue as this is a system which will help in resource allocation, budget allocations, pharmaceuticals etc.</p> <p>Previous medical record and records from this dashboard together will make this system reliable at all instances and help in the overall RND of the hospitals and the quality of treatment provided</p>
6.	Scalability of the Solution	<p>Easy to be implemented as this does not involve any special hardware.</p> <p>Data inputs are from the hospitals directly hence no outsourcing is required for datasets</p> <p>In case of sudden surges and sudden mutations of any disease the solution will require a minimum of 14 days to understand the system properly</p>