Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID17917
Project Name	Analytics for hospitals' health care data
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Healthcare management has various use cases for using data science, patient length of stay is one critical parameter to observe and predict if one wants to improve the efficiency of the healthcare management in a hospital. This parameter helps hospitals to identify patients of high LOS-risk at the time of admission. 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.
2.	Idea / Solution description	Exploration of health care data helps in identifying the set of features that have high influence on determining the length of stay of the patients. Suitable methods are applied to make the data better for further processing.
3.	Novelty / Uniqueness	Prediction of length of stay of the patients is done using decision tree classifier and parameters are fine tuned such that high accuracy is obtained.
4.	Social Impact / Customer Satisfaction	• Patient gets an enhanced healthcare treatment based on the analysis report. • Hospitals can manage the available resources in a more efficient way.
5.	Business Model (Revenue Model)	• Dashboard will be created to view trends in the patient admission at various locations. • Better decision can be made by hospitals.
6.	Scalability of the Solution	This solution can be used by small hospitals to multi-speciality hospitals. The solution can be found with less memory requirement and computation cost.