Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	15 October 2022
Team ID	PNT2022TMID15752
Project Name	**Project –** Statistical Machine Learning Approaches to Liver Disease Prediction
Maximum Marks	4 Marks

Functional Requirements:

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	It is simpler and possible to predict liver disease at an earlier stage. Because that it benefits all kinds of people, it is a cost-effective option.
NFR-2	**Security**	Early diagnosis of liver illness allows patients to receive treatment before the disease progresses and saves lives.
NFR-3	**Reliability**	This approach offers excellent performance and scalability, making it more dependable.
NFR-4	**Performance**	It provides accuracy of over 90%. Thus, it has a high performance rate.

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Patient with symptoms of liver disease	Patient dataset such as Total Bilirubin, Direct Bilirubin, Total Proteins, Albumin etc.
FR-2	Predicting the disease using algorithms	Machine learning
FR-3	Pre-processing the Data set of patient.	MPCA
FR-4	Classification of algorithm	KNN ,SVM, Navis bayes
FR-5	Building and training the system	In this phase, we split the dataset into training and test dataset , and then trained the models using training dataset
FR- 6	Testing the model	In this phase, we tested the accuracy of the models with the test dataset that was formed in previous phase and the most accurate model is figured out.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

NFR-5	**Availability**	By having few basic data set of people we can predict the disease.
NFR-6	**Scalability**	It has more efficiency in detecting liver disease prediction than any other models.