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

Date	11 October 2022
Team ID	PNT2022TMID28449
Project Name	**Project** – Statistical Machine Learning Approaches to Liver Disease Prediction
Maximum Marks	4 Marks

Functional Requirements:

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, ANN, 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.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	We can predict the liver disease easier and also in an earlier stage. It is an cost effective, since it is useful to all types of people.
NFR-2	**Security**	Predicting the liver disease earlier helps the people to get rid of disease in an earlier stage and it saves the life of people.
NFR-3	**Reliability**	This method is more reliable as its provide high performance and scalability.
NFR-4	**Performance**	It gives accuracy of more than 90% .So its performance rate is high.

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.