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

Date	15 October 2022
Team ID	PNT2022TMID49226
Project Name	Project - Visualizing and Predicting Heart Diseases with an Interactive Dash Board
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	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User verification	Verification through CAPTCHA Verification through I'm not a robot.
FR-4	User authentication	Recognition of correct person Resending the code in case of forgot password.
FR-5	User validation	Reconfirming the new password. Sending a two digit number in (Google account) your Old devices, so that you can enter into a new device By entering the two digit number.
FR-6	User submission	Submission through Google form Submission through Email.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The EHDPS predicts the likelihood of patients getting heart disease. It enables significant knowledge, eg, relationships between medical factors related to heart disease and patterns, to be established
NFR-2	**Security**	When we predict health analysis we provide a correct accuracy and prediction based on these prediction only the seriousness of diseases will be predicted. So the taken data will contains at least some of true values.
NFR-3	**Reliability**	Support vector machine (SVM), Gaussian Naive Bayes, logistic regression, LightGBM, XGBoost, and random forest algorithm have been employed for developing heart disease risk prediction model and

		obtained the accuracy as 80.32%, 78.68%, 80.32%, 77.04%, 73.77%, and 88.5%, respectively
NFR-4	**Performance**	This study found that using a heart disease dataset collected from Kaggle threeclassification based decision tree along with accuracy, sensitivity and specificity.
NFR-5	**Availability**	Machine Learning can play an essential role in predicting presence/absence of Locomotor disorders, Heart diseases and more. Such information, if predicted well in advance, can provide important insights to doctors who can then adapt their diagnosis and treatment per patient basis.
NFR-6	**Scalability**	It is depend on the model performance. If the accuracy will not satisfied we will improve the accuracy by boosting method. The high accuracy can achieved through removing duplicates and performing data Cleaning.