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

Date	13 October 2022
Team ID	PNT2022TMID19416
Project Name	Project - Visualizing and Predicting Heart Diseases with an Interactive Dashboard
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**	Enables users to make registration through a Google account, phone number, and online application forms.
FR-2	**User Confirmation**	Confirmation mail or message is sent to the user immediately after registration.
FR-3	**User's present status updation**	Gets the user's important medical conditions like heart beat rate, blood pressure, blood sugar level andcholestrol level.
FR-4	**Data Visualization**	The present medical status of the patient is visualized for better interpretation using IBM Cognos Analytics.
FR-5	**Disease Prediction**	Uses advanced machine learning techniques to predict the presence or absence of a heart disease and also its type if the disease s present.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	● Easier navigation boosts the entire product's usability, helping users enjoy all the features offered. ● Our solution has better characteristics in navigation such as a hamburger menu. ● The application has a simple and user friendly graphical interface. ● Any action can be performed with just a few clicks. ● Gives a tour regarding the features of the dashboard for first-time users.
NFR-2	**Security**	● The website does not require additional cookies to offer services. ● It stores the data of the patients in a protected database.

		• It confirms the user's identity before any prediction is disclosed. • It does not allow another app or site to access data unless we intend to send data from the database to a different app or site that we don't own. • It provides data to the intended recipients as customized by each user personally.
NFR-3	**Reliability**	• The dashboard is accessible 24 x 7 • It responds within the time frame needed. • It is regularly updated as per the user requirements. • The proposed solution provides a high degree of accuracy in the prediction of diseases.
NFR-4	**Performance**	• The dashboard provides real-time notifications about the user condition to the intended users. • The proposed solution offers services such as disease prediction, prevention, and treatment. • Due to the employment of lightweight algorithms, the speed of performance of the prediction modal is high.
NFR-5	**Availability**	• The application is available 24 x 7 for users without any interruption. • The user can access the application anytime, anywhere. • The data is spread across clusters so that if one storage node fails the entire data is not lost.
NFR-6	**Scalability**	• Any number of users can use the prediction model accurately without any delay at the same time using this application. • It can be integrated with smartwatches and apps for further advancements.