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

Date	15 October 2022
Team ID	PNT2022TMID12640
Project Name	Project - Web Phishing Detection
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 Website Form and other platforms.
FR-2	User Confirmation	Confirmation through Email.
FR-3	User Authentication	Authentication using a password.
FR-4	User Input	User enters the URL they wish to check credibility for.
FR-5	Website Comparison	Machine Learning model using the URL entered by the user to compare with other URLs using Blacklist and Whitelist concepts.
FR-6	Feature Extraction	Features of the website such as visuals and contents of the website are extracted based on heuristics.
FR-7	Prediction	Machine Learning model employs ML algorithms to predict whether the website is malicious or not.
FR-8	Classifier	The prediction model sends its output to the classifier model and produces the final result.
FR-9	Announcement	Model provides the probability score of the site being legal compared to the site being a phishing website.

Non-functional Requirements:

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

NFR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The system is usable and flexible to any of the user's input meaning different forms of URLs.
NFR-2	**Security**	No user data will be leaked and the system is protected against any malware attacks or unauthorized access.
NFR-3	**Reliability**	The system is comparable to manual URL classification.
NFR-4	**Performance**	Parameters for performance measurement are done through a confusion matrix, Matthews correlation coefficient, and ROC AUC score.
NFR-5	**Availability**	The system will be accessible to the user at any point in time through a web browser.
NFR-6	**Scalability**	The design of the pipeline would be able to handle erratic demands with great efficiency.