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

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Team ID	NM2023TMID17489
Project Name	Project - **CancerVision: Advanced Breast Cancer Prediction with Deep Learning**

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	1. Data Acquisition and Preprocessing:	Collect relevant medical data, such as patient demographics, medical history, imaging data, genetic information, and biopsy results.
FR-2	2.Feature Extraction and Selection:	Identify appropriate features from the collected data that are relevant to cancer prediction, such as tumor size, lymph node involvement, hormone receptor status, and genetic mutations.
FR-3	3.Model Development:	Train the prediction model using labeled data, where the target variable is the presence or absence of cancer.
FR-4	4.Model Validation and Evaluation:	Conduct rigorous testing and validation of the prediction model using independent datasets or cross-validation techniques.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The system should provide a user-friendly interface that is intuitive, easy to navigate, and requires minimal training to operate.

NFR-2	**Security**	The model should employ appropriate security measures to protect against unauthorized access, data breaches, or tampering with the system or data.
NFR-3	**Reliability**	The model should consistently produce reliable and consistent predictions, exhibiting minimal variability across multiple runs or inputs.
NFR-4	**Performance**	The model should provide predictions within an acceptable time frame, considering the volume and complexity of the input data.
NFR-5	**Maintainability**	The system should be designed in a modular and well-structured manner, facilitating easy maintenance, updates, and bug fixes.