

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

Date	13 May 2023
Team ID	NM2023TMID00211
Project Name	Project - Cognitive Care : Early Intervention for Alzheimer's disease

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Brain Scan Image Input and Analysis	<ul style="list-style-type: none"><li>• User input image upload</li><li>• Image Preprocessing</li></ul>
FR-2	Disease Diagnosis	<ul style="list-style-type: none"><li>• Analysis of image against Xception model</li><li>• Generation of Prediction by model</li><li>• Model prediction display in UI</li></ul>
FR-3	User Interface	<ul style="list-style-type: none"><li>• General Information about Alzheimer's Page</li><li>• Diagnosis Prediction (from images uploaded) Page</li><li>• Diagnosis Information Page</li></ul>

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The application should be user-friendly and instructions are to be illustrated to ensure language barrier isn't a constraint.
NFR-2	<b>Security</b>	Application deployment must be in a secure platform since it hosts sensitive data and to ensure data privacy of user.
NFR-3	<b>Reliability</b>	Sudden increase in traffic must be handled without worrying about application crashing or experiencing downtime and if it does, backup and recovery options should be available.
NFR-4	<b>Performance</b>	The application should be fast and responsive and the model should take less time to generate result.
NFR-5	<b>Availability</b>	Addition of new pages or features and tuning of model should be possible.
NFR-6	<b>Scalability</b>	As a rough estimate, the system should be able to handle at least several thousands users per day.