Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	06 May 2023
Team ID	NM2023TMID00113
Project Name	Cognitive Care: Early Intervention for Alzheimer's Disease

Functional Requirements:

FR No.	Functional Requirement	Sub Requirement
FR-1	**MRI Classification Model**	The model must classify Alzheimer MRI in at least 4 classes. Must not be too big in size. But not take up too much memory to run. Must be flexible to load and run on any platform.
FR-2	**Alzheimer MRI Upload**	A neat HTML Page with a nimble backend. Form to upload patient MRI images to be predicted.
FR-3	**Alzheimer MRI Prediction Result View**	Result view must contain prediction for uploaded MRI Must have a description of the predicted class. Must contain guideline recommendations on care to be provided at that stage of disease progression.
FR-4	**IBM Cloud Storage For Reconfiguration**	Model must be hosted on IBM Cloud Storage Must be in the Dallas-South region for anywhere anytime accessibility with no service failures.

Non-functional Requirements:

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The solution should have an intuitive user interface that is easy to navigate and understand. The solution should have a short learning curve, allowing healthcare professionals to quickly grasp how to use the software effectively.
NFR-2	**Security**	Adhere to strict data privacy regulations, such as General Data Protection Regulation (GDPR) or Health Insurance Portability Laws, depending on the jurisdiction. Can be deployed on healthcare institution servers to ensure maximal safety to prevent data breach.
NFR-3	**Reliability**	The model must have a reasonable accuracy score of at least 90 percent.
NFR-4	**Performance**	The model must run with minimal latency to give a result upon feeding the input.
NFR-5	**Availability**	The model must be available on a needs basis of the institution’s functioning hours. This need not run on an emergency basis as it is not an immediate life-threatening illness.
NFR-6	**Scalability**	The solution must be easily scalable and adaptable to integration with all other softwares used by the medical institution and rapidly adapt to other technologies.