Project Design Phase-I
Proposed Solution Template

Date	05 May 2023
Team ID	NM2023TMID00211
Project Name	Project - Cognitive Care : Early Intervention for Alzheimer’s disease
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Alzheimer's disease is a severe neurological ailment that affects millions of individuals throughout the world and causes memory loss and cognitive deterioration. Current Alzheimer's disease diagnostic procedures are time-consuming and costly, resulting in delayed diagnosis and inferior results. Our preferred approach is to create a web application that uses a deep learning model to analyse brain scan images and properly predict the likely development of Alzheimer's disease. The availability of high-quality brain scan data, the accuracy of the deep learning model, and the necessity for more research to prove the efficiency of the web-based application are all constraints of our solution.
2.	Idea / Solution description	The solution we propose is to create a web application that analyses brain scan images and predicts the likelihood of Alzheimer's disease using a deep learning model.The application will have a user-friendly interface with three options: general information about Alzheimer's disease, prediction, and diagnosis based information. When a user selects the prediction option and uploads an image, the Xception deep learning model, integrated with a Flask application, will analyze the image and generate predictions. The predictions will be displayed on the Flask UI for the user to see. Additionally, if the predictions indicate the positive likelihood of Alzheimer's disease, the application will provide information about it.
3.	Novelty / Uniqueness	Our solution provides a more accessible and affordable approach to Alzheimer's disease diagnosis. By using a deep learning model to analyse brain scan images, the application provides fairly accurate predictions quickly. In addition to it, the integration of additional information provides users with a more comprehensive understanding of their diagnosis.
4.	Social Impact / Customer Satisfaction	Millions of individuals throughout the world who are afflicted by Alzheimer's disease might benefit from our approach. Patients can obtain earlier diagnoses, more efficient symptom treatment, and improved quality of life by offering a more accessible and affordable diagnostic strategy. Additionally, it might offer patients more tools for managing their illness.

5.	Business Model (Revenue Model)	This business model is to generate revenue through advertisements and SEO (Search Engine Optimization) strategies. As our web application gains more traffic and users, we can monetize the platform by displaying targeted ads that are relevant to our users. This approach will allow us to offer the web application for free to users while still generating revenue.
6.	Scalability of the Solution	Given that the application can be accessible from any location with an internet connection,the solution has the potential to grow internationally.The system may be expanded to meet the demand as there is a growth in the need for more accessible and affordable diagnostic methods and large amount of users may be accommodated