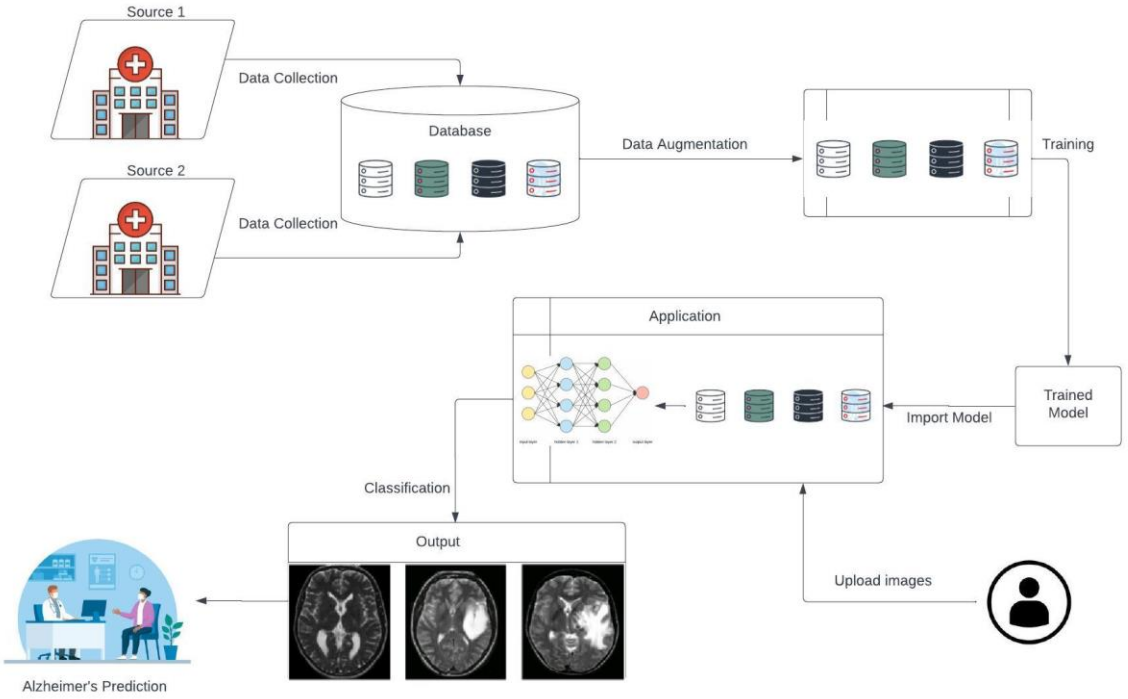
Project Design Phase-II
Data Flow Diagram & User Stories

Date	22 October 2023
Team ID	Team - 591900
Project Name	Alzheimer's Disease Prediction
Maximum Marks	4 Marks

A Data Flow Diagram (DFD) is a visual representation of how data flows within a system or process. It is a diagrammatic tool used in systems analysis and design to illustrate the movement and transformation of data as it moves through various components of a system. DFDs are used to model the data flow, data stores, processes, and external entities within a system, providing a clear and structured view of how data is processed and utilized.



User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Medical Research Centers/ Hospitals	Project Setup & Infrastructure	USN-1	Plan for the real-world need of model. The targeted audience and their needs.	Successfully understood the real-world need of project.	High	Sprint-1
	Development environment	USN-2	Setup the development environment with the required tools and frameworks to start the Alzheimer's Disease prediction project.	Successfully configured with all necessary frameworks and tools	High	Sprint-1
Patients	Data collection	USN - 3	Gather a diverse dataset of images containing different medical images of brain (MRI, CT) for training the DL model	Gathered a diverse dataset of images	High	Sprint-2
Researchers	Data preprocessing	USN - 4	Preprocess the collected dataset by resizing images, normalizing pixel values, and splitting into training and validation sets.	Processed the collected dataset	High	Sprint-2
Administrator	Model development	USN-5	Explore and evaluate different deep learning architectures to select the most suitable model for Alzheimer's prediction.	We could explore various DL models	High	Sprint-3
Educational instituites	Training	USN-6	Train the selected DL models using the preprocessed dataset and monitor its performance on validation dataset.	We could do validation	High	Sprint-3

	Testing	USN-7	Implement data augmentation techniques to improve the model's robustness and accuracy	We could do testing	Medium	Sprint-3
	Model deployment and Integration	USN-8	Deploy the trained DL model as an API or web service to make is accessible for Alzheimer's prediction, integrate the model's API into a user-friendly web interface for users to upload images and receive results	We could check the scalability of the model	Medium	Sprint-4
	Testing & quality assurance	USN-9	Conduct thorough testing of the model and web interface to identify and report any bugs or issues, fine-tune the hyperparameters and optimize the performance based on user feedback and testing results.	We could create a web application	Medium	Sprint-5