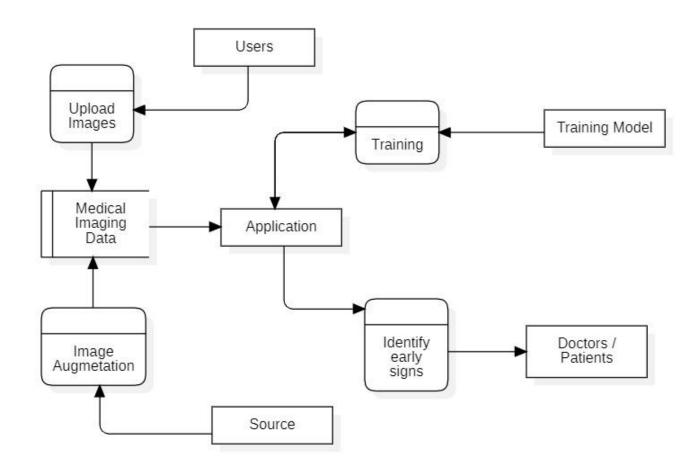
## Project Design Phase-II Data Flow Diagram & User Stories

| Date          | 04 November 2023             |
|---------------|------------------------------|
| Team ID       | Team - 592796                |
| Project Name  | Alzheimer Disease Prediction |
| Maximum Marks | 4 Marks                      |

## **Data Flow Diagrams:**

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



## **User Stories**

| User Type                  | Functional<br>Requirement (Epic) | User Story<br>Number | User Story / Task   | Acceptance criteria   | Priority | Release  |
|----------------------------|----------------------------------|----------------------|---|---|----------|----------|
| Healthcare professionals   | Project setup & infrastructure   | USN-1                | Set up the necessary infrastructure for the Alzheimer's disease prediction project using deep learning.   | Infrastructure is successfully set up for the project.                  | Medium   | Sprint 1 |
| Researchers                | Development environment          | USN-2                | Set up the development environment with the required tools and frameworks to start the Alzheimer's disease prediction project using deep learning.                        | Development environment is properly configured and ready for use.       | Medium   | Sprint 1 |
| Data scientists            | Data collection                  | USN-3                | Gather a diverse dataset of medical imaging data, genetic information, and cognitive assessments for training the deep learning model for Alzheimer's disease prediction. | Sufficient and representative data is collected for training the model. | HIgh     | Sprint 2 |
| Neurologists               | Data preprocessing               | USN-4                | Preprocess the collected dataset by cleaning, normalizing, and transforming the data to make it suitable for training the deep learning model.                            | Data is cleaned,<br>normalized, and<br>prepared for training.           | High     | Sprint 2 |
| Patients and<br>Caregivers | Model development                | USN-5                | Explore and evaluate different deep learning architectures (e.g., CNNs, RNNs) to select the most suitable model for Alzheimer's disease prediction.                       | Deep learning model is developed and ready for training.                | High     | Sprint 3 |
| Medical<br>Institutions    | Training                         | USN-6                | Train the selected deep learning model using the preprocessed dataset and monitor its performance on a validation set.  | Model is trained on the data and achieves satisfactory performance.     | High     | Sprint 3 |

| Model deployment & integration | USN-7 | Deploy the trained deep learning model as an API or web service to make it accessible for Alzheimer's disease prediction. Integrate the model's API into a user-friendly web interface for users to input relevant data and receive Alzheimer's disease prediction results. | Model is successfully deployed and integrated into the system.   | Medium | Sprint 4 |
|--------------------------------|-------|---|--|--------|----------|
| Testing & quality assurance    | USN-8 | Conduct thorough testing of the model and web interface to identify and report any issues or bugs. Fine-tune the model's hyperparameters and optimize its performance based on user feedback and testing results.   | Model passes all tests and meets the required quality standards. | Medium | Sprint 4 |