Project Design Phase-II
Data Flow Diagram & User Stories

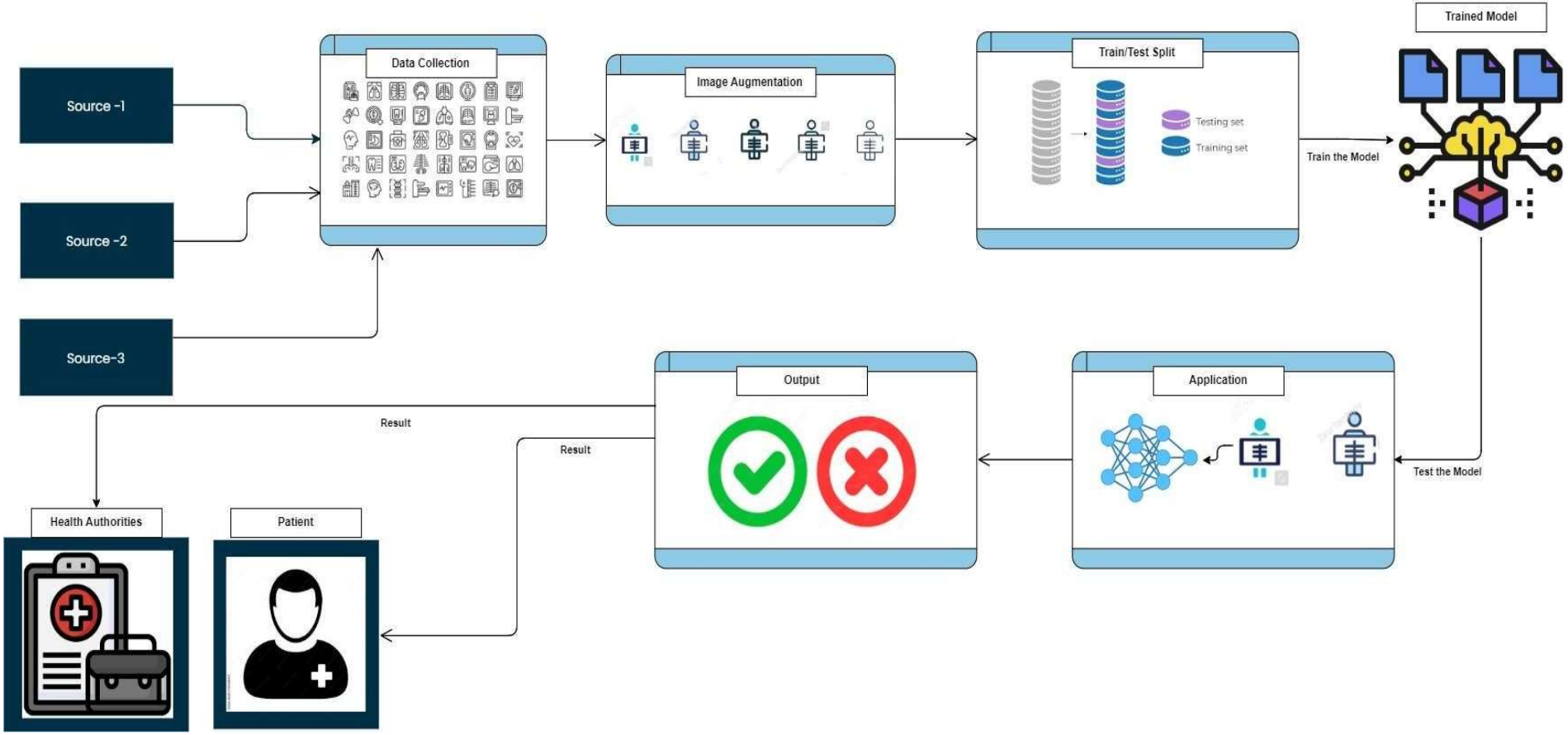
Date	23 October 2023
Team ID	Team-592616
Project Name	Detecting Covid-19 from Chest X-Rays using Deep Learning Techniques
Maximum Marks	4 Marks

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.

- DFDs consist of processes, data stores, data flows, and external entities.
- Processes represent actions or transformations.
- Data stores are repositories for data.
- Data flows illustrate the movement of data.
- External entities interact with the system.
- Data flows depict the movement of data between stages in the system.
- They are labeled to describe the type of data being transmitted.

Dataflow Diagram:



User Stories

Sprint	Functional Requirement (Epic)	User Story no.	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Project Setup & Infrastructure	USN-1	Set up the development environment with the required tools and frameworks to start the Covid-19 Detection	1	High	Avinash
Sprint-1	Data Collection	USN-2	Gather a diverse dataset of images containing different types of Chest X-rays for training the deep-learning model	2	High	Ashwanth
Sprint-2	Data preprocessing	USN-3	Preprocess the collected dataset by resizing images, normalizing pixel values, and splitting it into training and validation sets.	2	High	Sreyas
Sprint-2	Model Development	USN-4	Explore and evaluate different deep learning architectures (e.g., CNNs) and transfer learning models to select the most suitable model for Covid Detection.	3	High	Avinash
Sprint-3	Model Training	USN-5	Train the selected deep learning model using the preprocessed dataset and monitor its performance on the validation set.	4	High	Divya
Sprint-2	Data Augmentation	USN-6	Implement data augmentation techniques (e.g., rotation, flipping) to improve the model's robustness and accuracy.	6	medium	Ashwanth
Sprint-4	Model deployment and integration	USN-7	Deploy the trained deep learning model as an API or web service to make it accessible for COVID-19 detection. integrate the model's API into a user-friendly web interface for users to upload images and receive COVID-19 detection results.	1	medium	Divya
Sprint-5	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 hyperparameters and optimize its performance based on user feedback and testing results.	1	medium	Sreyas