Project Design Phase-II
Data Flow Diagram & User Stories

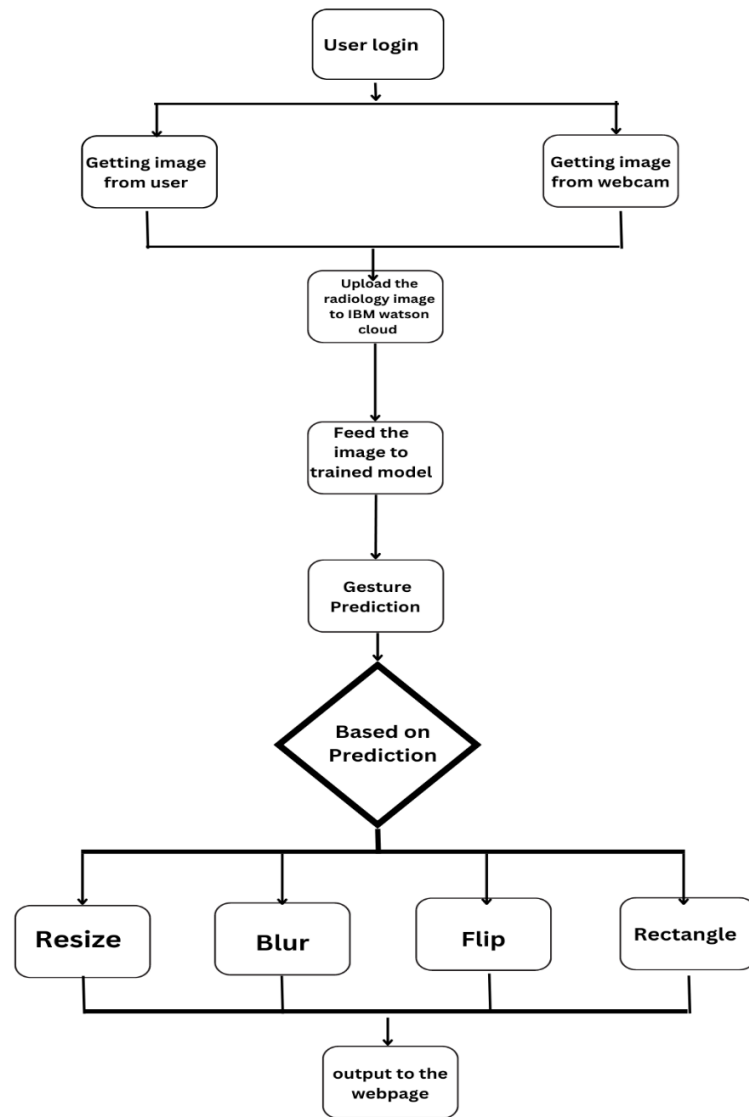| Date	12 October 2022
Team ID	PNT2022TMID42641
Project Name	A Gesture-based Tool for Sterile Browsing of Radiology Images
Maximum Marks	4 Marks

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.
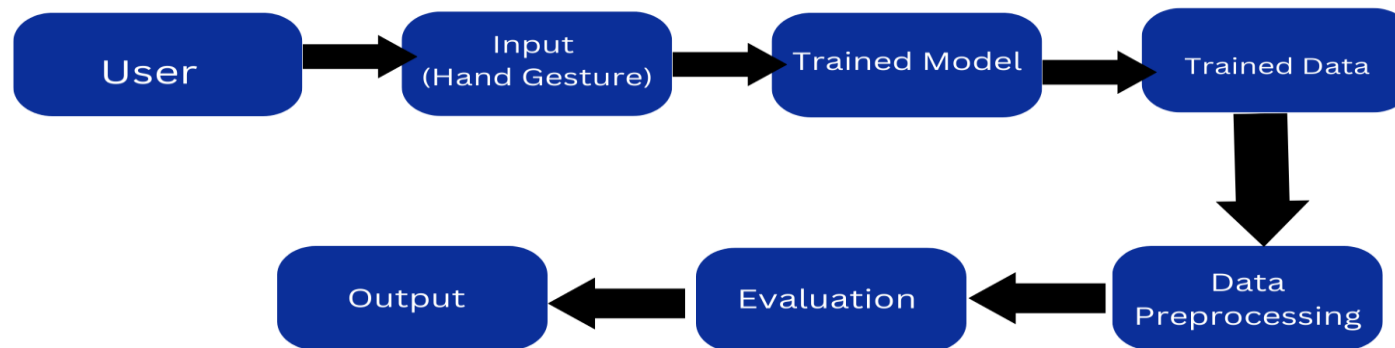
Simplified Data Flow Diagram

```
                          ┌──────────────┐
                          │  User login  │
                          └──────┬───────┘
                   ┌─────────────┴─────────────┐
          ┌────────┴────────┐         ┌─────────┴─────────┐
          │  Getting image  │         │   Getting image   │
          │   from user     │         │   from webcam     │
          └────────┬────────┘         └─────────┬─────────┘
                   └─────────────┬─────────────┘
                          ┌──────┴───────┐
                          │  Upload the  │
                          │ radiology image │
                          │ to IBM watson │
                          │    cloud     │
                          └──────┬───────┘
                          ┌──────┴───────┐
                          │  Feed the    │
                          │  image to    │
                          │ trained model│
                          └──────┬───────┘
                          ┌──────┴───────┐
                          │   Gesture    │
                          │  Prediction  │
                          └──────┬───────┘
```

Based on Prediction

```
   ┌────────┐   ┌────────┐   ┌────────┐   ┌───────────┐
   │ Resize │   │  Blur  │   │  Flip  │   │ Rectangle │
   └────────┘   └────────┘   └────────┘   └───────────┘
                     ┌───────────────┐
                     │ output to the │
                     │    webpage    │
                     └───────────────┘
```

Data Flow Diagram

Description

- User login to the page.
- Uploading the Radiology images into the page.
- The images gets processed and producing a trained model.
- Predict the output for the gesture.
- The images are accessed accordingly.

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Surgeons)	Load	USN-1	Entering the Webpage	The web page is loaded	High	Sprint-1
Nurses	Register	USN-2	As a new user, I can register for the application by providing the necessary details.	I can register and access the application.	High	Sprint-1
Lab Technicians	Login	USN-3	As a existing user, I can login into my existing account by my login credentials.	I can login into my account and access it.	High	Sprint-1
	Dashboard	USN-4	Entering into the dashboard of the webpage	The dashboard is displayed with my account.	High	Sprint-1
	About	USN-5	As a user, I can click the 'About' to know the details of this application	I can get the complete details of this application.	Medium	Sprint-2
	Upload	USN-6	As a user, I can upload the radiology images from my computer.	I can choose any image from my device.	High	Sprint-2
		USN-7	As a user, I can turn on the camera of my device to predict the hand gestures.	I can turn on camera for prediction.	High	Sprint-2
	Gesture	USN-8	As a user, I can give different hand gesture movements and it recognizes it.	I can give hand movements based on the images that needs to be browsed as required.	High	Sprint-3
	Predict	USN-9	Predicting the images using Hand Gesture	I can resize, blur, and flip my image using my hand gesture.	High	Sprint-3
	Display	USN-10	As a user, I can see my uploaded radiology images.	I can browse and view the images as per my hand gestures	High	Sprint-4
	Raise Ticket	USN-11	As a user, I can raise a issue if found any errors or difficulties in using the application	I can use the customer support to raise a ticket	Low	Sprint-4
Service Provider or Administrator	Resolving errors	USN-12	As a Service provider or Administrator, I can resolve the complaints raised by the customers.	I can look for errors or bugs and resolve it.	High	Sprint-4
Customer Support	Get Queries	USN-13	As a Customer Support, I can get the queries of the customer and notify administrator.	I can receive queries from customer and inform to service provider	Low	Sprint-3