

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

Date	09th November 2023
Team ID	Team-591588
Project Name	ASL- Alphabet Image Recognition
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.

### Data Flow Diagram:

The data flow diagram for the ASL Alphabet Image Recognition is as follows:



**Flow:**

1. The user can choose the input option as uploading an image file or by using the webcam stream.
2. In both cases the images or frames are pre-processed(converted into arrays)
3. This pre-processed data is fed to the model
4. The model that is trained on the dataset, works to recognise the image
5. The model then classifies the image among the 29 classes of the dataset
6. The model produces an output which is displayed in the user-interface

**User Stories**

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer	Uploading an image for recognition	USN-1	As a user, I can upload an image from my computer into the application successfully	I can upload an image	High	Sprint-1
		USN-2	As a user, I can confirm which image is uploaded because when I upload an image by displaying the name of the chosen file	I can confirm image selection	Low	Sprint-1
		USN-3	As a user, I can upload images using any type of browsers	I can upload images across any browser	Low	Sprint-2
	Using Webcam Stream for Live Recognition	USN-4	As a user, I can use my webcam to share my video stream successfully.	I can use my webcam to share my live video stream	High	Sprint-1

Customer	Result after uploading an image	USN-5	As a user, I get a quick and accurate result after clicking on the "Predict!" button	I get a recognition result after uploading an image	High	Sprint-1
	Result after sharing live webcam video stream	USN-6	As a user, I can share a live video stream via a webcam and get a quick low latency prediction result along with the confidence scores.	I get a recognition result after sharing my webcam live video stream.	High	Sprint-1