Project Design Phase-II
Data Flow Diagram & User Stories

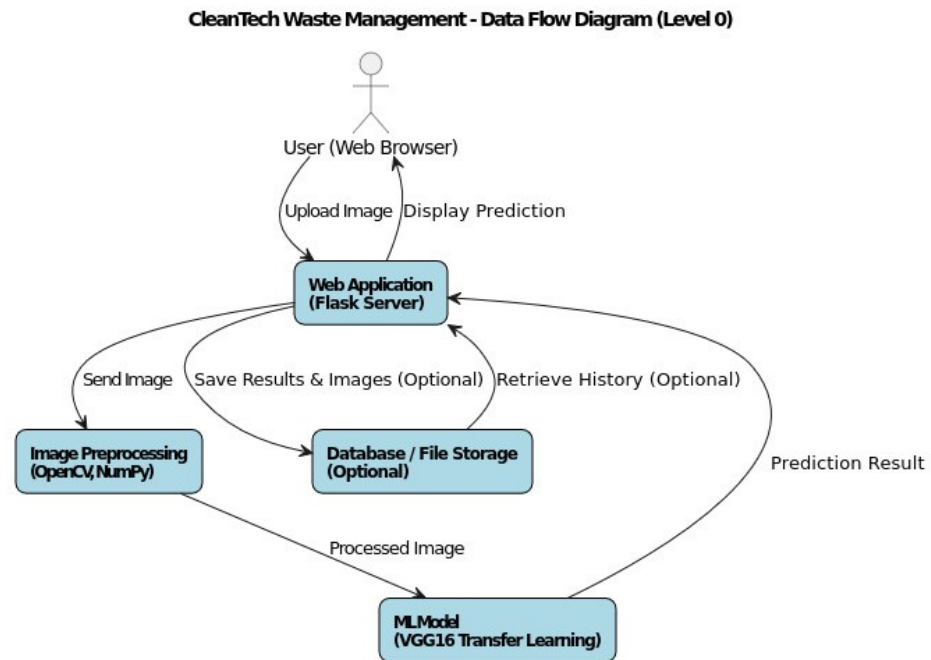|	
Date	28 June 2025
Team ID	LTVIP2025TMID45505
Project Name	**CleanTech: Transforming Waste Management with Transfer Learning**
Maximum Marks	4 Marks

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.

Example:

- User uploads an image via web UI.

- Flask backend preprocesses the image.
- Preprocessed image is classified by the VGG16 model.
- Result is displayed on the web interface.
- Optionally, results and images are stored for history and analysis.

Example: DFD Level 0 (Industry Standard)

CleanTech Waste Management - Data Flow Diagram (Level 0)

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Customer (Web User)	Waste Classification	USN-1	As a user, I can upload an image of waste for classification.	I can upload an image successfully and receive classification result.	High	Sprint-1
Customer (Web User)	Waste Classification	USN-2	As a user, I can view the predicted waste category and confidence score.	Prediction and confidence score are displayed clearly on the page.	High	Sprint-1
Customer (Web User)	History Management	USN-3	As a user, I can view my past waste classification results in a history section.	Past classification records are listed and accessible.	Medium	Sprint-2
Customer (Web User)	User Interface	USN-4	As a user, I want a simple, responsive web interface for upload and results.	The interface loads quickly and adapts to different devices.	High	Sprint-1
Customer (Web User)	Model Update	USN-5	As an admin user, I can update the ML model with new training data for better accuracy.	New model can be uploaded and applied without downtime.	Low	Sprint-3
Administrator	Result Storage	USN-6	As an admin, I want to save all classification results and images in a database for analytics.	Results and images are stored securely and retrievable.	Medium	Sprint-2