### Project Design Phase-II

**Data Flow Diagram & User Stories**  
**Date**: 1 july 2025  
**Team ID**: LTVIP2025TMID38158

**Project Name**: CleanTech  
**Maximum Marks**: 4 Marks

### 📊 ****Data Flow Diagram: Level 0 — CleanTech****

**User uploads image** via UI

**Flask app receives image** and calls prediction logic

**VGG16 model** processes the image

**Prediction result** (biodegradable / recyclable / trash) is sent to UI

### 📝 ****User Stories Table****

| **User Type** | **Functional Requirement (Epic)** | **User Story Number** | **User Story / Task** | **Acceptance Criteria** | **Priority** |
| --- | --- | --- | --- | --- | --- |
| Web User | Image Upload | USN-1 | As a user, I can upload a waste image through the web interface | Image uploads successfully | High |
| Web User | Prediction | USN-2 | As a user, I can receive the waste category after uploading | Model returns classification | High |
| Web User | UI Display | USN-3 | As a user, I can see my image and predicted result on the screen | Result displayed with image | Medium |
| System | Model Processing | USN-4 | As a system, I use VGG16 to classify uploaded images | Model classifies input | High |
| Admin | Logs (optional) | USN-5 | As an admin, I can view system logs of uploaded files | Admin views log file | Low |