Project Design Phase-II

Data Flow Diagram & User Stories

Date	31 January 2025
Team ID	LTVIP2025TMID45663
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.
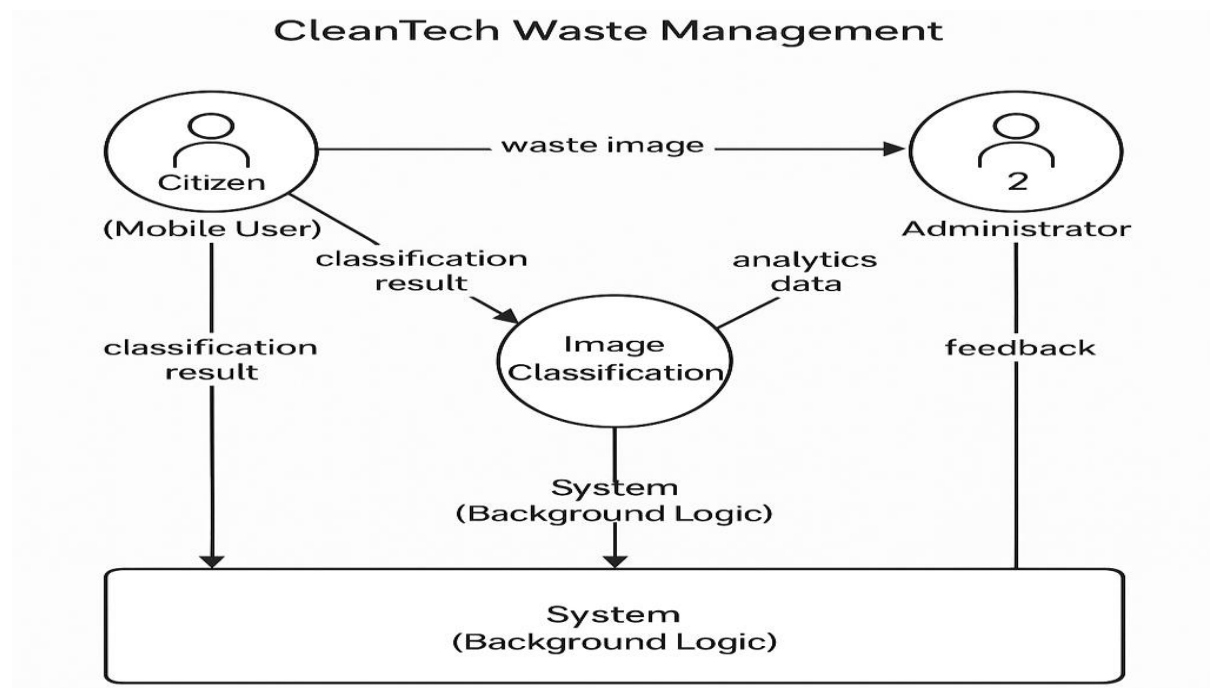
User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Citizen (Mobile User)	Registration	USN-1	As a user, I can register on the CleanTech app using email and password	I receive confirmation and can log in to the app	High	Sprint-1
Citizen (Mobile User)	Registration	USN-2	As a user, I can register using Google authentication	I can log in using Google and access the app dashboard	Medium	Sprint-1
Citizen (Mobile User)	Waste Data Upload	USN-3	As a user, I can upload an image of waste from my mobile camera	The system accepts image and confirms upload	High	Sprint-1
Citizen (Mobile User)	Dashboard	USN-4	As a user, I can view the classification result (Recyclable / Non-recyclable)	The waste type is displayed with confidence score	High	Sprint-2
Citizen (Mobile User)	Feedback	USN-5	As a user, I can give feedback on waste classification result	I get confirmation that feedback is received	Medium	Sprint-2
Administrator	Data Visualization	USN-6	As an admin, I can view waste classification analytics (bar, pie, map)	Admin dashboard loads charts with data summaries	High	Sprint-2

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Administrator	User Management	USN-7	As an admin, I can view registered users and their activity	User list and activity logs are viewable	Medium	Sprint-3
Administrator	Model Training / Feedback Loop	USN-8	As an admin, I can view and manage user feedback to retrain model	Model accuracy improves over time with feedback	Medium	Sprint-3
System (Background Logic)	Image Classification	USN-9	As the system, I classify uploaded waste images using a transfer learning model	System returns recyclable/non-recyclable with confidence level	High	Sprint-2
System (Background Logic)	Data Storage	USN-10	As the system, I store uploaded images and classification results securely	Data is stored and retrievable	High	Sprint-1
Customer Care Executive	Report Generation	USN-11	As a customer care executive, I can generate reports of waste data trends	PDF/CSV report generated with classification history	Low	Sprint-4