

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

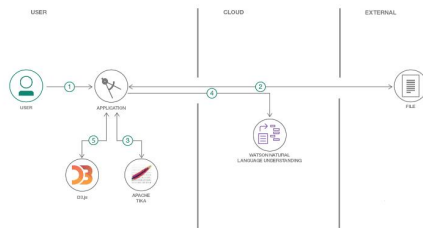
Date	06 May 2023
Team ID	NM2023TMID11143
Project Name	Intelligent Garbage Classification System Using Deep Learning

### 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.

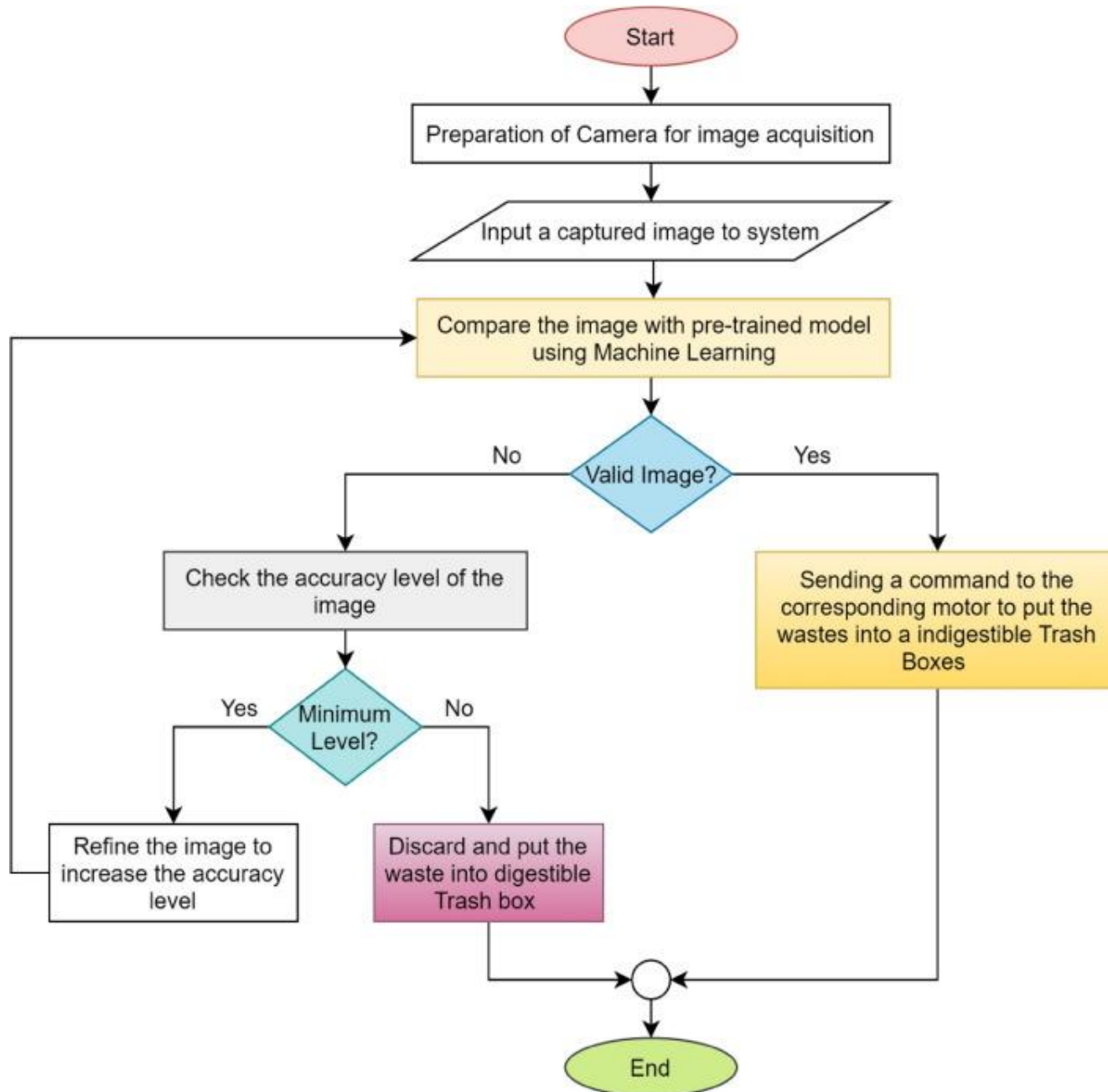
### Example: [\(Simplified\)](#)

Flow



1. User configures credentials for the Watson Natural Language Understanding service and starts the app.
2. User selects data file to process and load.
3. Apache Tika extracts text from the data file.
4. Extracted text is passed to Watson NLU for enrichment.
5. Enriched data is visualized in the UI using the D3.js library.

### DFD LEVEL 0 (Industry Standard)



## USE CASE 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	Team Member
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Manjula
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Kousalya
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Banupriya
		USN-4	As a user, I can register for the application through Gmail		Medium	Kousalya
	Login	USN-5	As a user, I can log into the application by entering email & password		High	Banupriya
	Dashboard	USN-6	As a user I want to personal details with Recent garbage classification through images		High	Manjula
AI-Based Garbage Classifier	Classification of garbage		As a user, I want to be able to use an AI-based garbage classifier to dispose of my waste properly and contribute to waste management efforts	Split the Garbage in various types	High	Manjula
			1. Develop a mobile application that can capture an image from the camera in the device	Capture images through Cameras	High	Manjula
			2. Build a deep learning model that can classify the image accurately	Create a learning algorithm to classify accurately	High	Banupriya
			3. Integrate the deep learning model with the mobile application			

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Team Member
			4. Train the model on a large dataset of waste images to increase accuracy	Large dataset of garbage images increase classification efficiently	High	kousalya
			5. Test the application and model in real-life scenarios to ensure accuracy in classification	Test the real time scenarios	Medium	Kousalya
Waste Management Platform with Deep Learning Classification		USN 01	As a waste management industry professional or municipality, I want a waste management platform that utilizes deep learning algorithms to accurately classify and track waste, so that we can efficiently manage waste and reduce its impact on the environment.			Banupriya
		USN 02	As a user of the waste management platform, I want the platform to accurately identify different types of waste based on their characteristics, so that we can segregate them properly and dispose of them safely.			Kousalya
			Task-1 Develop a deep learning algorithm: Develop a deep learning algorithm that can accurately classify waste based on its characteristics such as color, texture, shape, etc.	The waste classification algorithm must classify waste accurately based on its characteristics.	High	Manjula
			Task-2 Train the algorithm: Train the algorithm using a large dataset of waste images and their labels, so that it can learn to classify waste accurately	The algorithm must be trained using a large dataset of waste images and their labels to ensure accuracy.	High	Manjula
			Task 3 - Test the algorithm: Test the algorithm using a new dataset of waste images to ensure that it can classify waste accurately in real-world scenarios.	The algorithm must be tested using a new dataset of waste images to ensure accurate classifications in real-world scenarios.	Medium	Banupriya

