Project Design Phase-II
Data Flow Diagram & User Stories

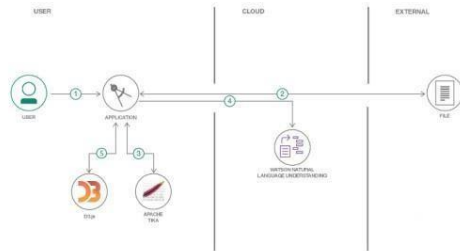| Date	28 June 2025
Team ID	LTVIP2025TMID48326
Project Name	Visualization Tool for Electric Vehicle Charge and Range Analysis
Maximum Marks	4 Marks

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.
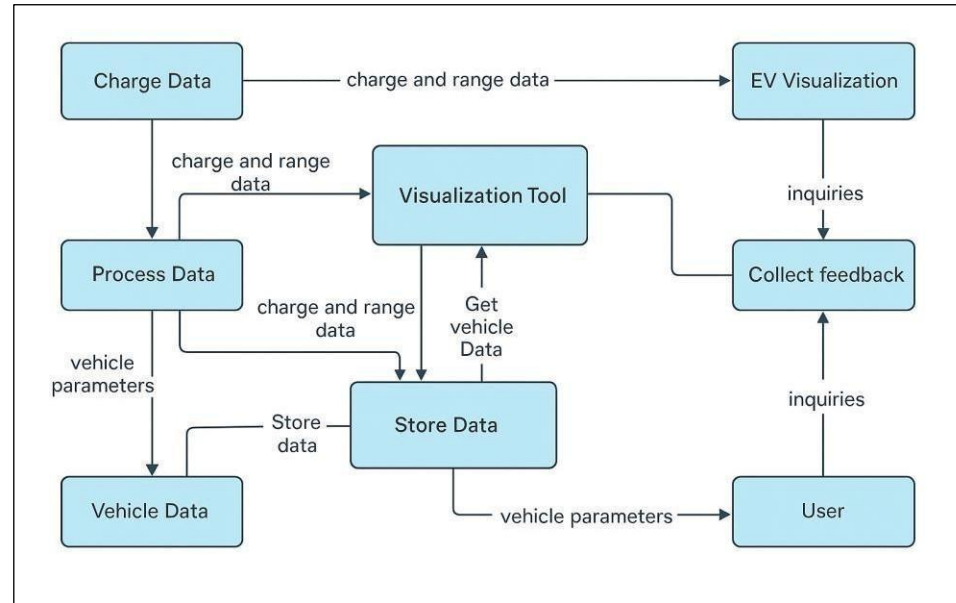
Example: DFD Level 0 (Industry Standard)

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.

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
\EV Owner (Mobile user)	Account Management	USN-1	As an EV user, I want to register and log in to the app to securely access personalized features	User can create an account and sign in using valid credentials	High	Sprint-1
	Map Visualization	USN-2	As a user, I want to view a map showing nearby charging stations and range zones	Map loads with charging station icons and vehicle range overlay	High	Sprint-1
	Vehicle Charge Analysis	USN-3	As a user, I want to input my vehicle's battery level and get real-time range estimates	System provides accurate range estimates based on battery and driving data	Low	Sprint-2
	Charging History	USN-4	As a user, I want to view my previous charging sessions and performance reports	App displays historical charts and statistics about past charges	Medium	Sprint-2
Admin	Data Management	USN-5	As an admin, I want to upload and manage station data across different locations	Admin panel shows options to add/update station information	High	Sprint-1
	User Monitoring	USN-6	As an admin, I want to monitor system usage and user activity for improvement tracking	Dashboard reports include session logs and activity summaries	Medium	Sprint-3

Data Analyst	Reporting Module	USN-7	As an analyst, I want to generate customized reports based on station usage and range patterns	As an analyst, I want to generate customized reports based on station usage and range patterns	Medium	Sprint-3
Guest User	Demo Access	USN-8	As a guest, I want to explore the tool in demo mode without signing up	Demo mode provides limited but working sample visualizations	Low	Sprint-2