Project Design Phase-II
Data Flow Diagram & User Stories
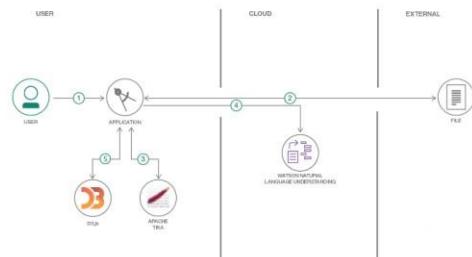
| Date	2 FEB 2026
Team ID	LTVIP2026TMIDS24926
Project Name	Visualization Tool For Electric Vehicle Charge And Range Analysis
Maximum Marks	4 Marks

Data Flow Diagrams:
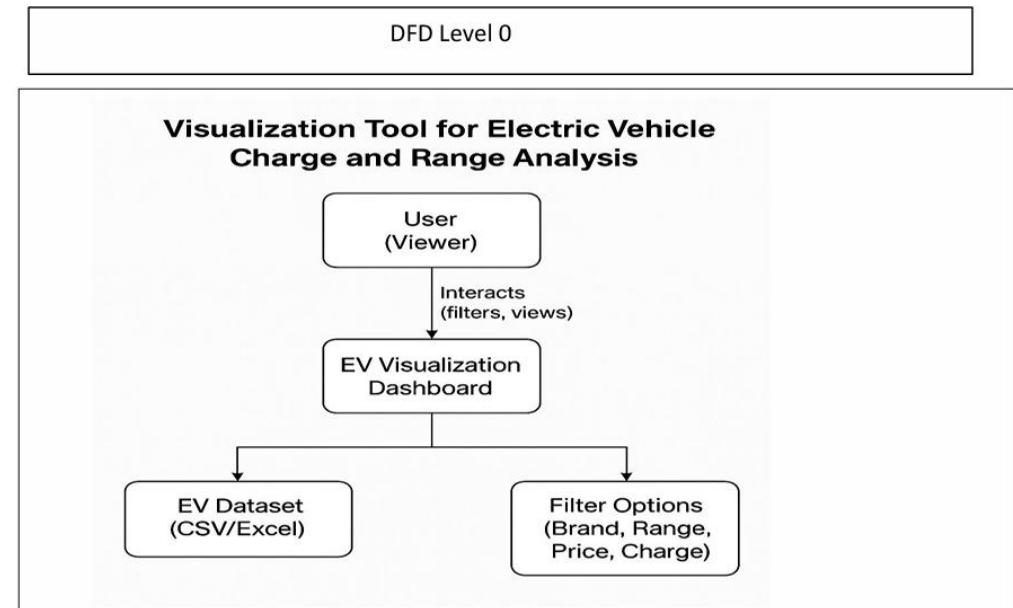
A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Example:

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

Visualization Tool for Electric Vehicle Charge and Range Analysis

User
(Viewer)

Interacts
(filters, views)

EV Visualization
Dashboard

EV Dataset
(CSV/Excel)

Filter Options
(Brand, Range, Price, Charge)

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
Viewer	View EV Range Comparison	USN-1	As a user, I want to compare EV ranges by brand using a bar chart.	User can clearly compare range of different EV brands.	High	Sprint-1
Viewer	View Charge Level Distribution	USN-2	As a user, I want to see a donut chart of charge levels across all EVs.	Donut chart accurately shows charge levels and updates with filters.	High	Sprint-1
Viewer	Apply Filters to EV Data	USN-3	As a user, I want to filter EVs by price range, brand, and battery capacity.	Filters apply instantly and visuals update accordingly	High	Sprint-2
Analyst	Export Dashboard Insights	USN-4	As a user, I want to export dashboard visuals for reporting.	Export option works and provides a clean image/PDF of the dashboard.	Medium	Sprint-1
Viewer	View Price vs Range Chart	USN-5	As a user, I want to explore which EVs give more range for a lower price.	Scatter plot displays accurate price vs range for all EVs.	Medium	Sprint-1
Admin	Update EV Dataset	USN-6	As an admin, I want to upload updated EV data to reflect new models.	New data loads correctly and updates all dashboard elements.	High	Sprint-3
Viewer	View Summary Cards	USN-7	As a user, I want to see key stats like average range and battery on summary cards.	Summary cards display correct, updated values based on current dataset.	Medium	Sprint-3