

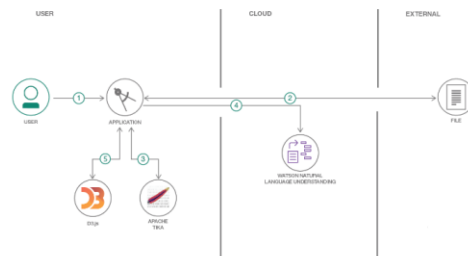
Project Design Phase-II Data Flow Diagram & User Stories

Date	14 March 2025
Team ID	PNT2025TMID00705
Project Name	TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning
Maximum Marks	4 Marks

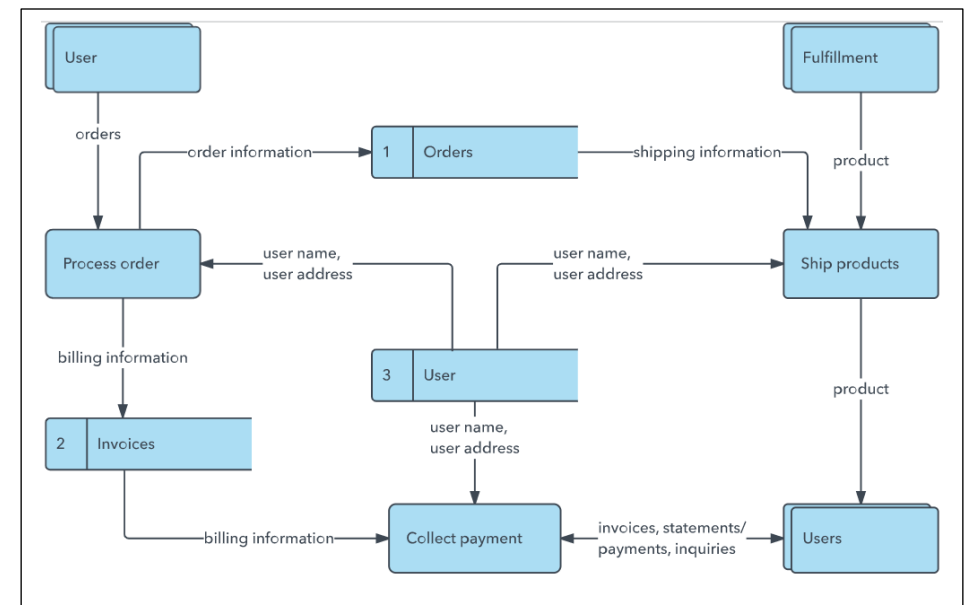
Data Flow Diagrams:

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.

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
Traffic Analyst	Data Upload & Processing	USN-1	As an analyst, I can upload traffic sensor data to the system.	The system should accept CSV/JSON files and validate them.	High	Sprint-1
		USN-2	As an analyst, I can clean and preprocess uploaded data.	The system should allow missing data handling and outlier removal.	High	Sprint-1
AI Model Developer	Model Training & Evaluation	USN-3	As a developer, I can train a traffic volume prediction model.	The model should achieve at least 85% accuracy on test data.	High	Sprint-2
		USN-4	As a developer, I can evaluate different ML algorithms for accuracy.	The system should generate comparison reports for different models.	Medium	Sprint-1
City Traffic Planner	Traffic Volume Prediction	USN-5	As a planner, I can view real-time traffic volume predictions.	Predictions should be displayed on a live dashboard with time-series graphs.	High	Sprint-3
		USN-6	As a planner, I can download traffic prediction reports.	Reports should be downloadable in PDF/CSV formats.	Medium	Sprint-3
Administrator	User Management	USN-7	As an admin, I can manage user roles and permissions.	Admin should be able to create, edit, or remove users.	High	Sprint-1