Project Design Phase-II
Data Flow Diagram & User Stories

Date	31 January 2025
Team ID	LTVIP2025TMID36588
Project Name	traffictelligence: advanced traffic volume estimation with machine learning
Maximum Marks	4 Marks

The *Traffictelligence* system's Data Flow Diagram (DFD) begins with a Level 0 or context-level view, which depicts the entire system as a single unified process interacting with external entities. Traffic sensors, cameras, and weather APIs provide real-time input data, which flows into the system. In return, the system outputs traffic predictions to the city traffic authority and live dashboards for commuters and public users. Internally, data is stored in repositories including a traffic data repository, an ML model store, and a historical analytics store. At Level 1, the system is broken into four core subprocesses: **Data Collection**, **Data Preprocessing**, **Model Inference**, and **Visualization & Alerts**. Raw data from sensors enters the Data Collection process and is stored as raw traffic data. This flows into the preprocessing module to clean and normalize data, which is stored separately. The clean data is then fed into a trained ML model to generate predictions, which are logged and visualized in real time. This layered view ensures that the flow of data is transparent, structured, and well-organized for both technical and non-technical stakeholders.

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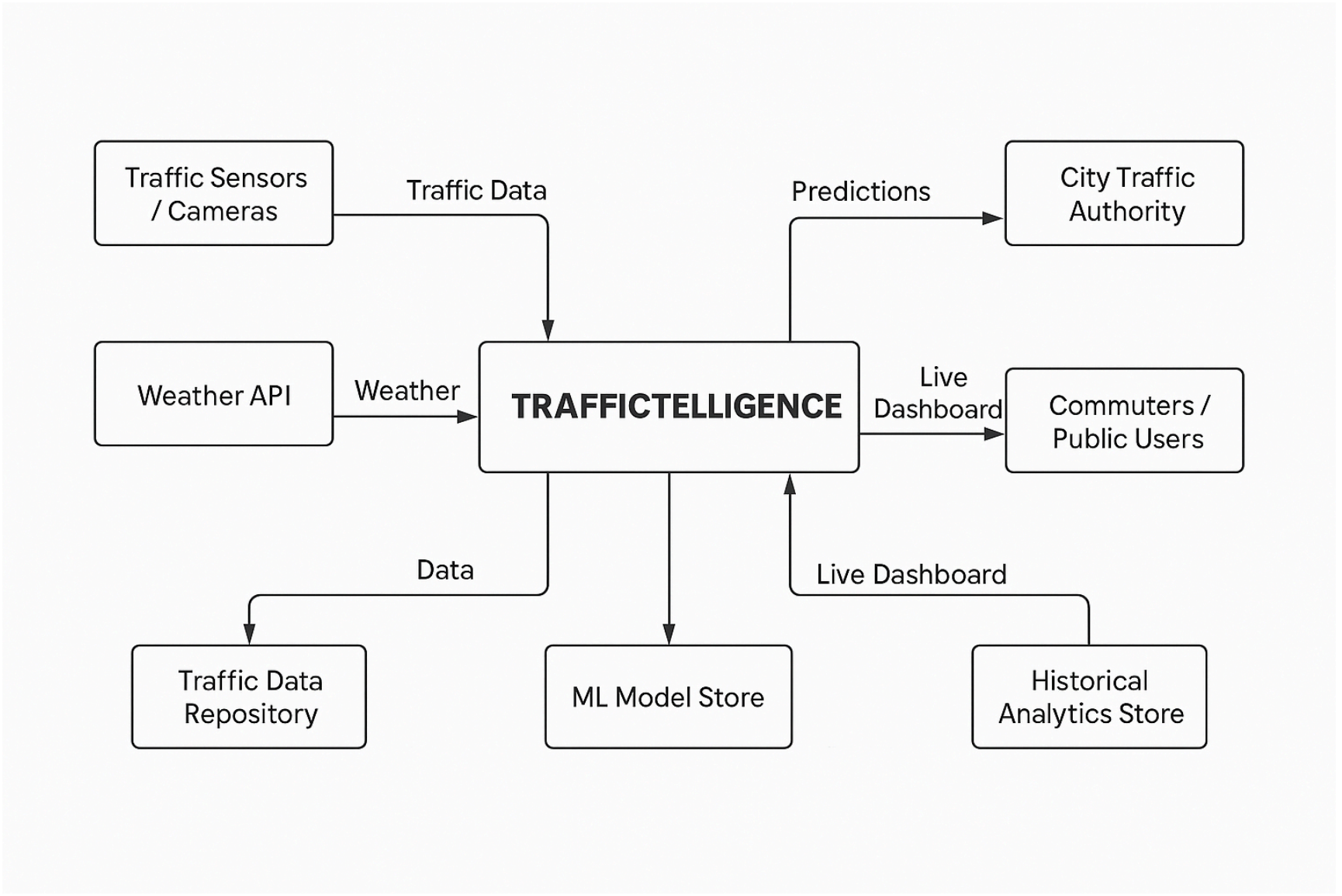
Example:


Traffic Sensors / Cameras
Traffic Data
Predictions
City Traffic Authority
Weather API
Weather
TRAFFICTELLIGENCE
Live Dashboard
Commuters / Public Users
Data
Live Dashboard
Traffic Data Repository
ML Model Store
Historical Analytics Store

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
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	Sprint-1
		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	Sprint-1
		USN-3	As a user, I can register for the application through Facebook	I can register & access the dashboard with Facebook Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail		Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering email & password		High	Sprint-1
	Dashboard					
Customer (Web user)						
Customer Care Executive						
Administrator						