Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	26 June 2026
Team ID	LTVIP2025TMID35978
Project Name	Traffictelligence
Maximum Marks	4 Marks

Technical Architecture:
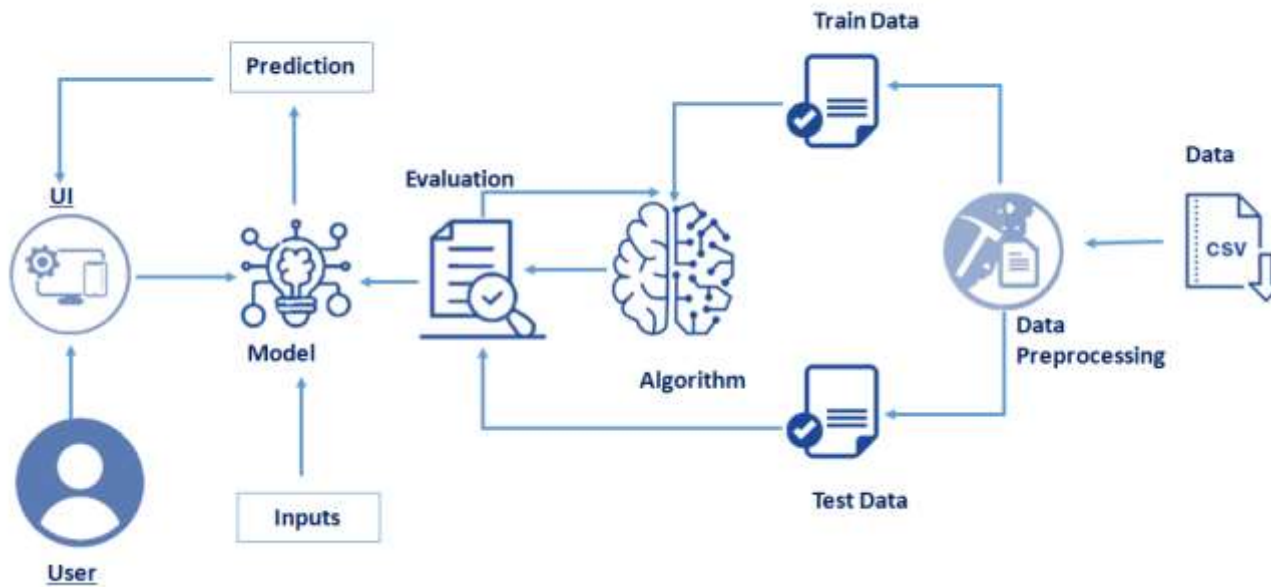
Table-1 : Components & Technologies:

Component	Technology
Web Framework	Flask
Machine learning	Scikit-learn, XGBoost
Data preprocessing	Pandas, numpy
Model persistence	Joblib
Frontend	Html, css
Deployment	Localhost(python)

Table-2: Application Characteristics:

Characteristic	Description
Input	User-entered weather, time, holiday data
Processing	Preprocessing with ColumnTransformer, scaling, prediction
Output	Predicted traffic volume (vehicles/hour)
Scalability	Single-server for now, expandable with cloud
Security	No user data storage, basic input validation

References:

- Flask Documentation: https://flask.palletsprojects.com/

- Scikit-learn Documentation: https://scikit-learn.org/