

Ideation Phase

Define the Problem Statements

Date	27 June 2025
Team ID	LTVIP2025TMID59638
Project Name	TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning
Maximum Marks	2 Marks

Customer Problem Statement – TrafficTelligence:

I am	an urban commuter or traffic planner
I'm trying to	predict traffic volume and plan routes efficiently
But	the traffic prediction is inaccurate or not available in real-time
Because	Existing systems are reactive and do not incorporate dynamic variables like weather, holidays, or time-of-day
Which makes me feel	Stressed, delayed, and unable to make confident decisions

Who is the customer?

Urban commuters, traffic planners, city administrators, and logistics companies who face unpredictable traffic congestion, delays, and planning inefficiencies.

What are they trying to do?

They are trying to plan their travel routes efficiently, reduce commuting time, improve delivery scheduling, and make better decisions using real-time traffic insights.

What's the barrier or frustration?

Current traffic estimation systems are either outdated, generic, or reactive rather than predictive. These users often encounter: - Unexpected traffic jams due to weather or peak hours

- Lack of reliable data to plan ahead
- Time lost in rerouting due to poor traffic forecasting
- Delayed deliveries and resource wastage due to inaccurate volume predictions

Why is it important?

Because traffic congestion affects not just personal comfort, but productivity, operational costs, fuel consumption, and urban stress levels. Without a predictive and intelligent system, users continue to face daily inefficiencies and delays.

What do they need?

They need an AI-powered tool that can forecast traffic volume accurately by taking into account weather, time of day, holidays, and historical patterns—presented in an easy-to-use web interface with real-time predictions.



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	An urban commuter who travels daily through city roads	Plan my commute in a faster, smarter way	Traffic predictions are unreliable or unavailable	Current systems don't consider real-time weather or traffic flow data	Stressed, delayed, and constantly anxious
PS-2	A city traffic planner responsible for reducing congestion	Use data to make informed infrastructure or traffic signal decisions	I lack real-time and accurate traffic volume forecasts	Manual tracking is inefficient and current tools don't support intelligent insights	Overwhelmed, pressured, and unable to optimize city traffic flow