Brainstrom & Idea Prioritization

TeamID:LTVIP2025TMID35728

Project Name:Traffictelligence:Advanced Traffice Volume Estimation With Machine

Maximum Marks:4 Marks

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions

Reference: https://www.mural.co/templates/brainstorm-and-idea-prioritization

Step-1: Team Gathering, Collaboration and Select the Problem Statement

Problem Statement:

Trafficelligence: Advanced Traffic Volume Estimation with Machine aims to solve the problem of unreliable and outdated traffic volume data by developing a machine-learning-based system that accurately estimates real-time traffic density, helping city planners, traffic officers, and mobility services make informed, data-driven decisions.

Step-2: Brainstorm, Idea Listing and Grouping

Scenario 1: City Traffic Officer

User: Raj, a traffic control room officer in a metropolitan city

Need: Raj needs to monitor real-time traffic volume to adjust signal timings and deploy traffic personnel efficiently.

Challenge: Existing CCTV footage and sensor-based systems cover limited zones and require manual interpretation.

Scenario 2: Urban Infrastructure Planner

User: Ayesha, a civil engineer working for the city's urban planning department

Need: Ayesha needs to analyze long-term traffic patterns to decide where to expand roadways or build flyovers.

Challenge: Historical traffic volume data is inconsistent and lacks granularity.

Step-3: Idea Prioritization

-Accuracy: Ensure high-precision traffic volume estimation using real-time data and machine learning models.

-Scalability: Design the system to support deployment across various city sizes and infrastructure types.

-Usability: Provide intuitive dashboards and APIs for traffic authorities, planners, and logistics managers to easily access and act on the data.