**Ideation Phase**

**Brainstorm & Idea Prioritization Template**

|  |  |
| --- | --- |
| Date | 27 June 2025 |
| Team ID | LTVIP2025TMID30092 |
| Project Name | TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning |
| Maximum Marks | 4 Marks |

**Brainstorm & Idea Prioritization Template:**

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.

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

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

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

*Our team of four members collaboratively selected the problem statement:*

*"To estimate traffic volume using machine learning for dynamic traffic management, urban planning, and commuter navigation."*

*We discussed real-world challenges in traffic congestion and identified the need for predictive systems that can assist city authorities and commuters.*

**Step-2: Brainstorm, Idea Listing and Grouping**

*We brainstormed the following ideas:*

|  |  |
| --- | --- |
| **Ideas Generated** | **Group** |
| Predict traffic volume using historical data | ML Algorithms |
| Consider weather and time factors | Data Features |
| Use real-time data integration | Real-time Systems |
| Develop web-based UI with Flask | UI/UX |
| Build models using regression algorithms | Modeling |
| Deploy model using Flask + HTML | Deployment |
| Provide traffic insights for urban planning | Applications |
| Suggest alternate routes for commuters | Applications |

**Step-3: Idea Prioritization**

*After discussing feasibility, impact, and innovation, we prioritized ideas as follows:*

|  |  |  |
| --- | --- | --- |
| **Priority Level** | **Idea** | **Reason** |
| High | ML model using historical + weather + time data | High accuracy, scalable |
| High | Flask web app with input fields and predictions | Direct user interaction |
| Medium | Integration with navigation apps | Requires external APIs |
| Low | Real-time sensor data integration | Needs IoT infrastructure |