Ideation Phase

Brainstorm & Idea Prioritization Template

Date	18 june 2025
Team ID	Team ID : LTVIP2025TMID42407
Project Name	TrafficTelligence : Advanced Traffic Volume Estimation with Machine Learning
Maximum Marks	4 Marks

Brainstorming ideas is a creative process where a group generates a list of potential solutions, suggestions, or concepts for a specific problem or project. Voting in brainstorming involves participants selecting and prioritizing their favourite or most promising ideas from the list to determine which ones should be pursued further.

Brainstorming for "TrafficTelligence : Advanced Traffic Volume Estimation with Machine Learning":

The objective of this brainstorming session is to generate creative and practical ideas to address the issue of Traffic Volume estimation effectively. We aim to help people able to plan their days better as they will have a better idea on how the traffic is going to be. It will also help traffic authorities be able to regulate traffic better.

The brainstorming session will include a diverse group of stakeholders, including public people, Traffic authorities, educators, community leaders, and technology enthusiasts. This diversity will ensure a wide range of perspectives and ideas.

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

Brainstorm & idea prioritization

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.

- 10 minutes to prepare
- 1 hour to collaborate
- 2-8 people recommended

Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

⏱ 10 minutes

A **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.

Open article →

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① Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

⏱ 5 minutes

TrafficTelligence: Advanced Traffic Volume Estimation With Machine Learning

Problem

Traffic problem is one of the major problem now a days, In the increase in no of vehicles and non –usage of public transport leading to traffic related issues, Making a eye on count of traffic at each level enables the government to take the further decisions such as building new roads, increasing infrastructure ,developing mutli-channel connectivity .To address such problems to tracking the vehicle count in each and every place AI-ML has given a solution to such kind of traffic related issues, which are able to measure the volume of traffic, identify the violations of traffic rules etc.ML models could give early alerts of severe traffic to help prevent issues related to traffic problems. Hence, there is needs to develop ML algorithms capable in predicting Traffic volume with acceptable level of precision and in reducing the error in the dataset of the projected Traffic volume from model with the expected observable Traffic volume.

Key rules of brainstorming
To run an smooth and productive session

- 😊 Stay in topic.
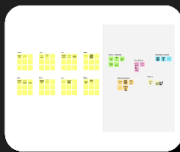- 💡 Encourage wild ideas.
- 🙂 Defer judgment.
- 👂 Listen to others.
- 👆 Go for volume.
- 👁 If possible, be visual.

Need some inspiration?

See a finished version of this template to kickstart your work.

Open example →

Step-2: Brainstorm, Idea Listing and grouping

2 Brainstorm

Write down any ideas that come to mind that address your problem statement.

⏱ 10 minutes

TIP
You can select a sticky note and hit the pencil switch to sketch icon to start drawing!

Rohan Verma

Implement an extensive network of smart sensors along roads to gather real-time traffic data, including vehicle count, speed, and congestion levels.

Collaborate with local governments to integrate TrafficTelligence into their traffic management systems.

Offer solutions for optimized traffic signal controls, emergency response route planning, and urban development based on traffic data insights.

Faheem Muhammad

Gather traffic data with the help of local governments to make better predictions

Design roads in such a way that the chance of traffic congestion is low

Use AI/ML to analyze preexisting traffic data in order to predict traffic

Sarvesh Adithya

Government can collaborate with advanced computer vision domain companies to use their technology

Computer vision algorithms can be used to monitor the speed and volume of vehicles in the road Realtime and can be used to predict the traffic later on.

By analyzing the movement of vehicles over time, computer vision algorithms can estimate vehicle trajectories, which helps prevent accidents.

Prerna Kumari

Develop a system that not only estimates current traffic volume but also predicts future traffic conditions based on historical data and real-time inputs.

Use the traffic volume estimation to suggest optimal traffic signal timings and lane management strategies to reduce congestion.

Analyze the environmental impact of traffic congestion and evaluate how improved traffic management through accurate volume estimation can reduce emissions and energy consumption.

3 Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.
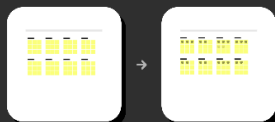
⏱ 20 minutes

TIP
Add customizable tags to sticky notes to make 1 easier to find, browse, organize, and categorize important ideas as themes within your mural.

Collaborate with local governments to integrate TrafficTelligence into their traffic management systems.

Offer solutions for optimized traffic signal controls, emergency response route planning, and urban development based on traffic data insights.

Using AI/ML to analyze past traffic data and find solution

Step-3: Idea Prioritization

Idea prioritization is the process of ranking or assessing ideas based on specific criteria such as feasibility, impact, cost, or strategic importance to determine which ideas should be implemented or pursued first.

Here certainly we chose "Using AI/ML to analyze past traffic data and find solution" is:

Among all of other ideas this was most important to us because, if the model is not accurate enough then the prediction may not be highly accurate. So, this was our most prioritized one.

Then comes our second most important idea such as **"Collaboration with local government to integrate TrafficTelligence into their traffic management systems"**. This was taken as our second because, if we want to give ourself a social responsibility that will be helpful, not only to use but also for others. If we work with other government or organization this might be helpful for a smooth traffic without any problems for Traffic authorities and also for people.

Then comes out our next idea **"Offer solutions for optimized traffic signal controls, emergency response route planning, and urban development based on traffic data insights."** After fulfilling our main goal, we will scale our ML model not only to predict our main problem but also for extra features such as above-mentioned things. This will give our project more value in all ways.