

## **Ideation Phase**

### **Brainstorm & Idea Prioritization Template**

Date	23 Oct 2023
Team ID	NM2023TMID08503
Project Name	Tracking public infrastructure and toll payment using blockchain



## 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

💬 [Share template feedback](#)



### 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](#)



## 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.

## Tracking public infrastructure and toll payment using blockchain

### PROMBLEM

Traditional infrastructure tracking and toll payment systems suffer from issues such as fraud, lack of transparency, and inefficiency. Users often face delays and discrepancies in toll payments, while authorities struggle to maintain accurate records of infrastructure maintenance and usage.



#### Key rules of brainstorming

To run a smooth and productive session



Stay in topic.



Encourage wild ideas.



Defer judgment.



Listen to others.



Go for volume.



If possible, be visual.

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## 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!

## ESAKKIRAJA E

Create blockchain-based digital wallets for vehicle owners, where they preload funds for toll payments. Each time a vehicle passes through a toll booth, the appropriate toll amount is automatically deducted from the wallet, eliminating the need for cash or card payments.

Establish decentralized toll collection points equipped with blockchain technology. These collection points can interact with vehicles directly through RFID or mobile apps, automatically deducting toll fees using smart contracts.

Implement a blockchain auction system for toll booth operation contracts. Infrastructure management authorities can use smart contracts to award contracts to the highest bidder, ensuring transparency and efficiency in the selection process.

## MICHEAL ANTONY SOOSAI RAJA

Facilitate public-private partnerships in infrastructure development using blockchain. Create a blockchain platform that allows private investors to transparently fund and manage infrastructure projects while sharing revenue through blockchain-based smart contracts.

Develop a blockchain-based pool of funds for infrastructure maintenance and repairs. Users and stakeholders can contribute to the pool, and smart contracts can ensure that these funds are allocated to the most critical maintenance needs.

Install road sensors equipped with blockchain technology to monitor traffic flow, road conditions, and usage. The data collected can be stored on the blockchain, providing valuable insights for infrastructure planning and maintenance.

## PRASANNA

Implement blockchain-based digital identity for vehicles. This can help in reducing fraud by ensuring that only authorized vehicles are charged tolls, and it can also assist in vehicle tracking and security.

Reward users for using electronic toll payment methods by offering tokens or discounts. These rewards can be tracked and distributed using blockchain technology to encourage the adoption of digital payment methods.

Issue blockchain-based infrastructure bonds that allow citizens to invest in and support public infrastructure projects. The bonds can be easily traded on blockchain-based platforms, providing liquidity and transparency.

## MATHAVI

Develop a blockchain platform for cross-border toll payments, simplifying the process for international travelers and ensuring accurate payments through smart contracts.

Tokenize ownership of infrastructure assets on a blockchain, allowing the public to invest in and gain returns from infrastructure projects. These tokens can be traded and provide a transparent view of ownership and revenue sharing.

Use blockchain for auditing and compliance of infrastructure projects. Smart contracts can track every expense, ensuring funds are allocated correctly and preventing misuse.

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## 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 can break it up into smaller sub-groups.

🕒 20 minutes

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### TIP

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

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Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

⌚ 20 minutes

