



Intern Team Seamless Movement of Vehicles - SMV -

Theme: **Design for SYSTEMS/GOVERNANCE**
Enabling a hassle-free travel

Team



Nikhil Mishra

UX Architect

Role - Ensure the product fulfills the user's needs



Ishan Jaiswal

Interaction design

Role - Handling Interaction Design



Vaibhavi Parmar

Creative Artist

Role - Illustration, Content, Visuals etc.



Sharav Rajawat

UI Designer

Role - Define Style guide and Mockup ideations.



Salman Khan

UX Designer

Role - Research, Flows, Stories, IA, Wireframes etc.

Problem Identified

PROBLEM DESCRIPTION

Significant wastage of fuel, time, and an increase in CO₂ emissions due to traffic congestion at toll plazas during peak traffic hours has a negative impact on the environment and economy of the world.

- High construction and maintenance cost of toll plazas.
- Need of manpower to enable operations.
- Absence of a robust system to track vehicles on toll plazas.
- Highly reported incidents of contention, arguments, and fights with toll officials.

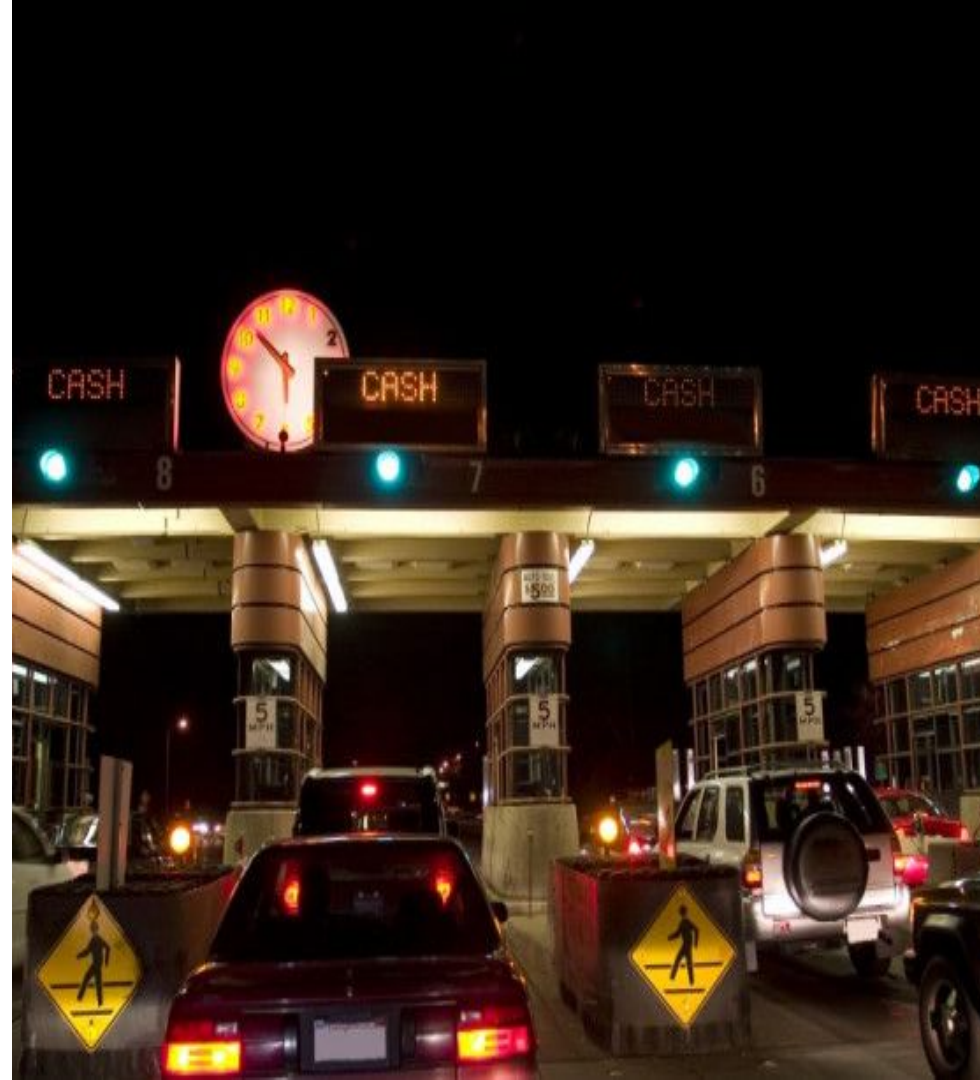


Urgency/Importance

WHY IS IT AN URGENT PROBLEM?

Traffic congestion at toll plazas is resulting in wastage of fuel worth crores of rupees and severe levels of air pollution posing a serious threat to the world's economy, environment, and infrastructural efficiency

- Prevent traffic jams/congestions during peak hours.
- Save a significant amount of man-hours and money.
- Contribute in saving fuel and reduce CO₂ emissions from vehicles.
- Enable a smooth facilitation of emergency services on highways (e.g. ambulances).
- Significantly reduce infrastructure costs.
- Provide transaction transparency for the government.



Target User Persona

PROFILE & DEMOGRAPHICS

Job Title: **IT professional**

Gender: **Female**

Family and Social Setting: **Unmarried**

Income: **10 LPA**

Education: **MBA**

FEELINGS

Worries: **Road mishaps. Noise can cause stress, fatigue, and irritability**

Influences: **New technology, design, music**

GOALS & VALUES

Goals: **Reaching office on time, Traveling, Cycling**

Values: **Have a safe trip**

Motivations: **Project delivery on time, Quality work**

PAIN POINTS

Fears: **Unsafe driving increases stress and frustration among motorists..**

Frustrations: **Wastage of fuel, disabled vehicles, which may obstruct traffic, air pollution**

Challenges: **Reach on time, traffic jams have a negative impact on the mind.**

Target User Persona

PROFILE & DEMOGRAPHICS

Job Title: **Businessman**

Gender: **Male**

Family and Social Setting: **Married, has 2 children**

Income: **15-20 LPA**

Education: **Post-graduate**

FEELINGS

Worries: **Getting stuck somewhere and not able to travel. Not having enough time with family.**

Influences: **Business magazines, travel vlogs, Friend's social media posts.**

GOALS & VALUES

Goals: **Travel around, explore new places, educate children. Become a reputable role model.**

Values: **Family's well being, success recognition**

Motivations: **Satisfying clients and delivering optimal results.**

PAIN POINTS

Fears: **Not able to pay attention to kids' upbringing. Not able to save enough money.**

Frustrations: **Not able to go for family holidays**

Challenges: **Time management, work and life balance, grow business, travel time-efficiently**

Target User Persona

PROFILE & DEMOGRAPHICS

Job Title: **Ambulance Driver (Medical Team)**

Gender: **Male**

Family and Social Setting: **Single, 27 year old**

Income: **2-5 lpa**

Education: **High School Graduate + Clinical Knowledge**

FEELINGS

Worries: **He often fears accidents because he is primarily involved in an emergency situation. Don't want to be stuck at toll points in the case of medical emergency.**

Influences: **Want to enrol for higher studies, follows High Societies Group on social media.**

GOALS & VALUES

Goals: **Travel, Social Interaction, Want to educate the public about health and fitness, Want to be a part of higher class/society group.**

Values: **To get higher education. Save as many lives as possible.**

Motivations: **People's smiles as a reward after saving them and their relatives.**

PAIN POINTS

Fears - **He often fears accidents during driving. Patient's Health in the time of emergency.**

Frustrations - **Traffic Congestion in city and toll points.**

Challenges - **Want to reduce the travel time during emergencies.**

Target User Persona

PROFILE & DEMOGRAPHICS

Job Title: **Government Employee (Party Leader)**

Gender: **35 year old women**

Family and Social Setting: **Recently divorced and has 2 children.**

Income: **10-15 lpa**

Education: **Political Science**

FEELINGS

Worries: **She needs to travel often because of political rallies. and for security reasons, she doesn't want to be stuck at toll points.**

Influences: **Other political leader/schemes, New Technology, Stock Market.**

GOALS & VALUES

Goals: **Create a safe environment for her children.
Make a difference in politics.**

Values: **Make some positive difference at the end of the day.**

Motivations: **Works for the betterment of the society, no stressful politics.**

PAIN POINTS

Fears: **Lack of personal life and communication.**

Frustrations: **Need to re-achieve a work-life balance. Working with stakeholders to focus more on long-term plans.**

Challenges: **Work-life balance. Want to reduce a travel time during rallies.**

STAGE 1

SUBMISSION

Now that you have completed all the previous slides, please submit & share your deck to team@umo.design

Make sure you have completed:

Slide 4 - Problem Identified

Slide 5 - Why the identified problem is an urgent one

Slide 6 - Target user persona(s)

IMPORTANT INSTRUCTIONS:

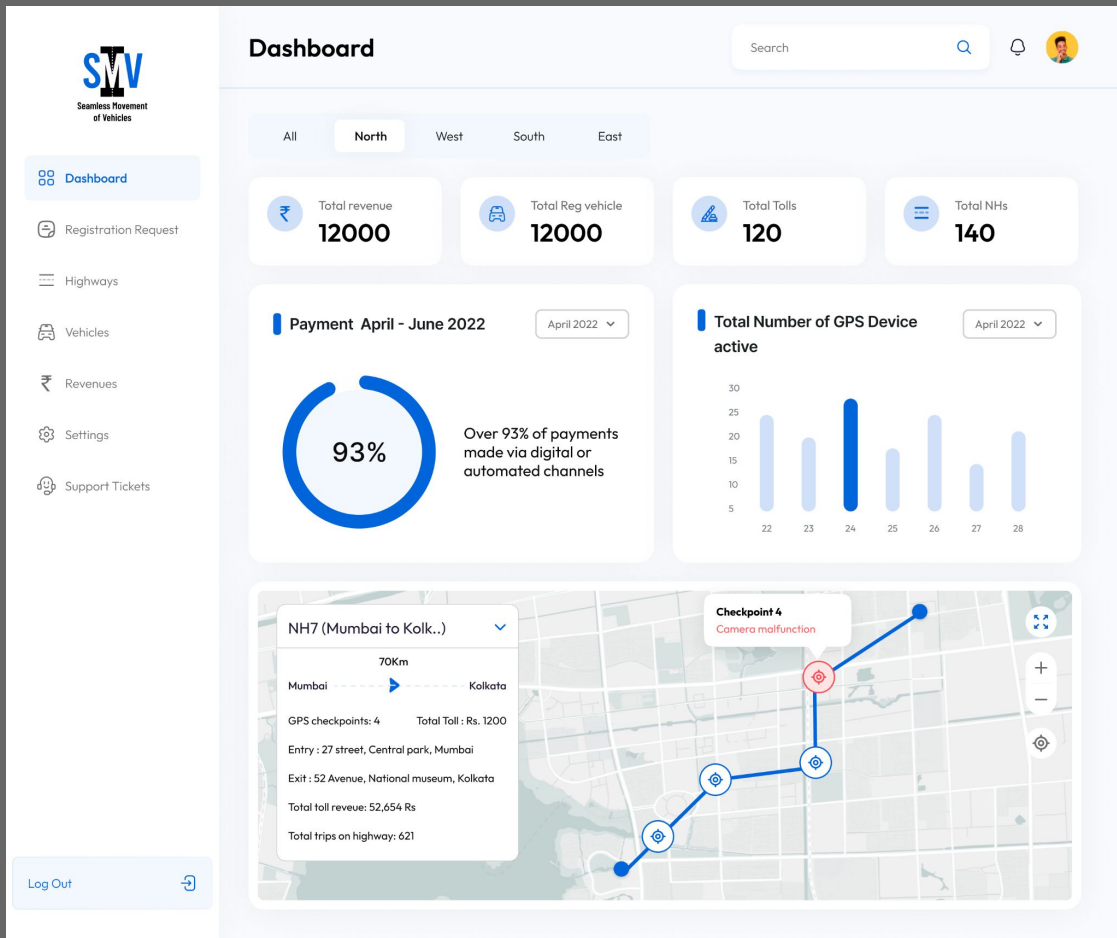
- Share a link to your Google Slides document or your Microsoft Powerpoint which ever you are working with, to **team@umo.design**
 - For sharing a Google Slide deck properly click on the Share (yellow button in the top right corner), Make sure "Anyone with the link" option is enabled. Then copy the link and email.
-

Final Solution & Innovation

Considering the extremely severe cause and effect of toll plaza congestion, we have come up with a promising solution to enable seamless movement of vehicles. Our solution ensures a simple and easy-to-use design experience.

We strongly believe our solution can improve the current state of the toll plazas and make it smoother with an unhindered driving experience. This will be helpful in saving time, money, increasing fuel efficiency and decreasing CO2 emissions.

REPRESENTATIVE PICTURE
OF YOUR SOLUTION



User Experience

HOW DOES THE UX OF YOUR SOLUTION LOOK LIKE?

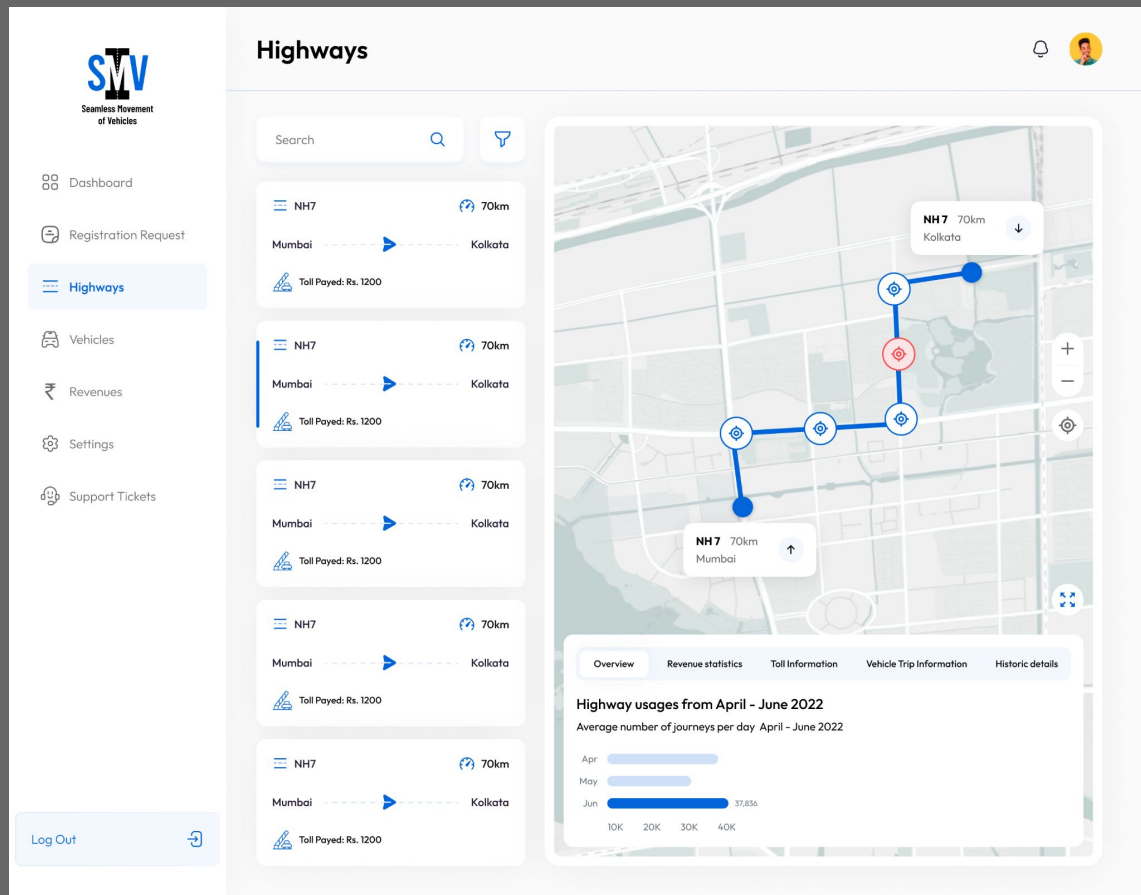
*Please use any medium to communicate/
demo the UX of your solution.*

NOTE:

*You could post a max of 5 mockups or
sketches to clearly demonstrate your
solution.*

AND \OR

Insert a video demo link (Highly encouraged)



User Experience

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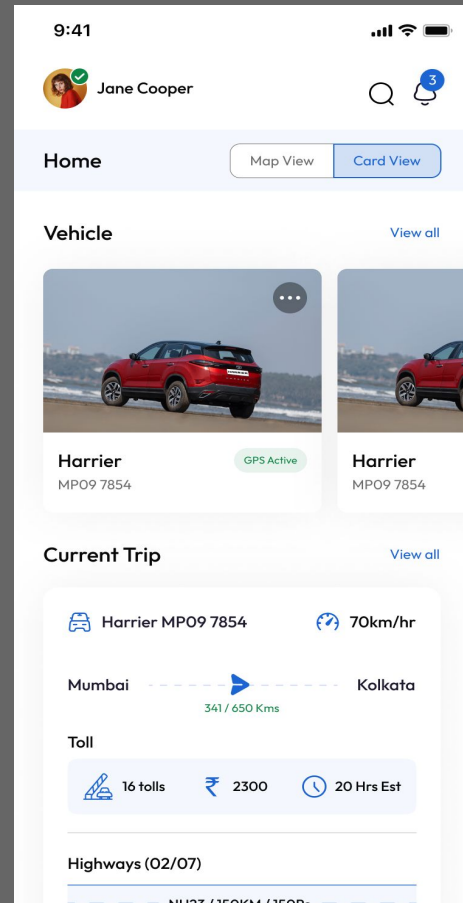
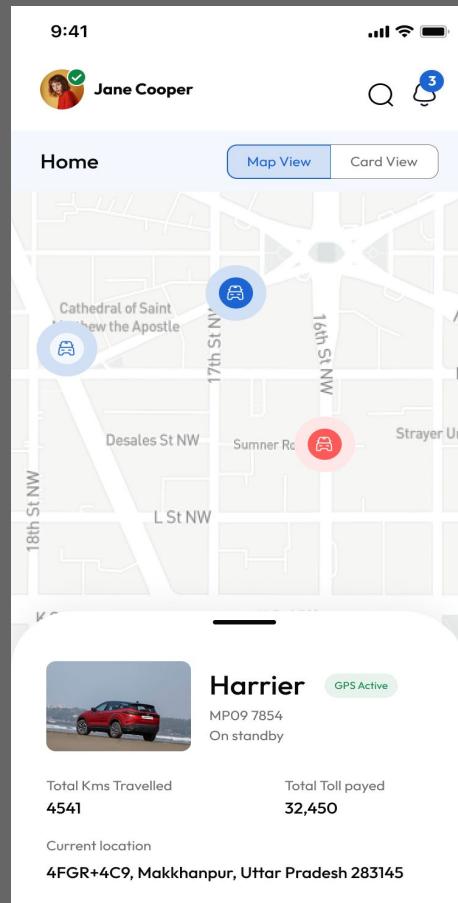
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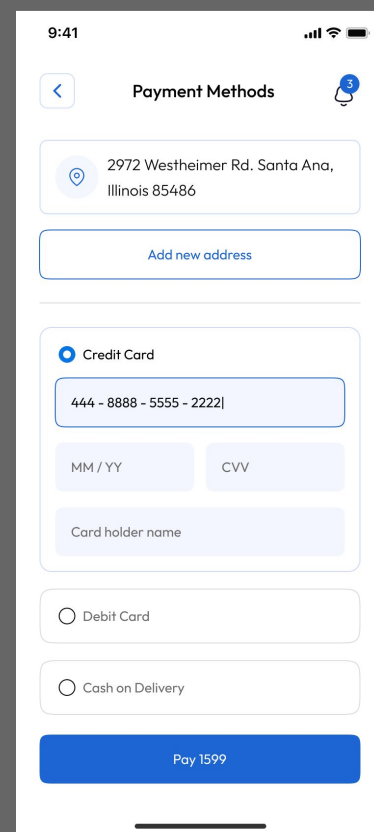
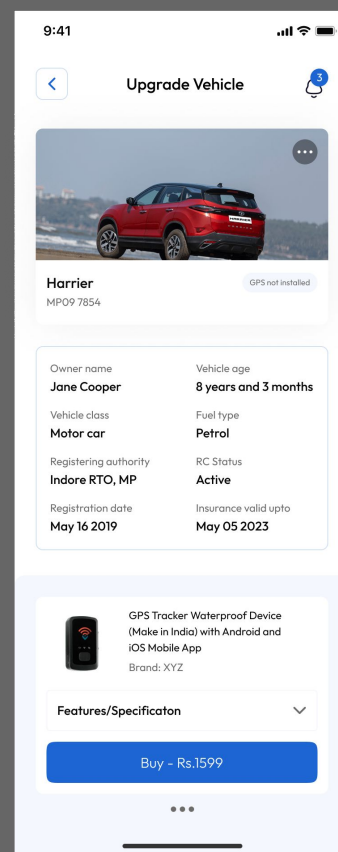
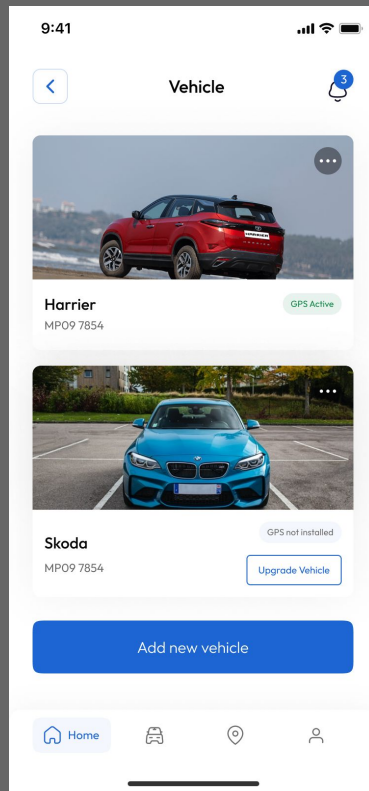
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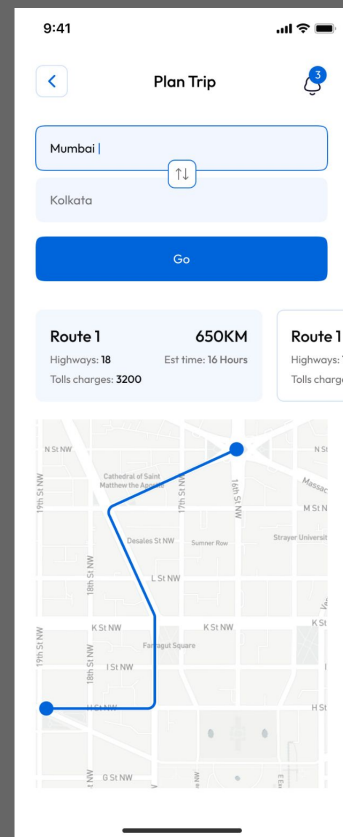
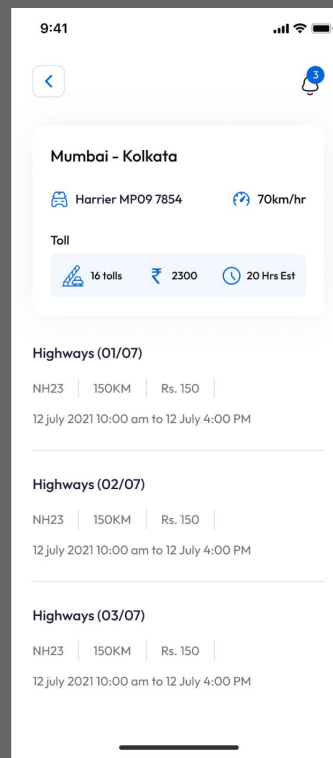
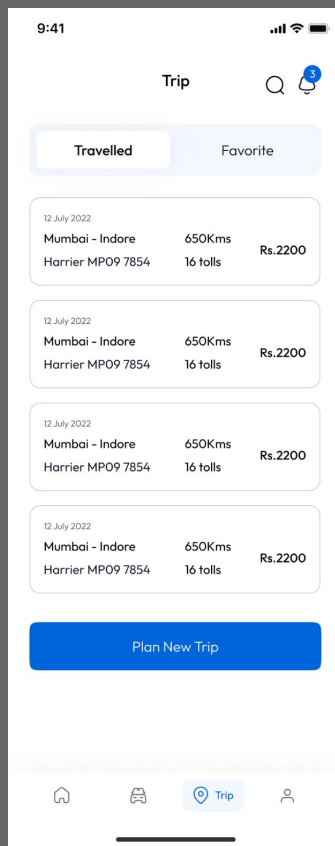
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Design Process

DESIGN PROCESS FOLLOWED

We started by identifying personas to better understand users' needs, experiences, behaviours and goals. Once that part was done we felt confident in moving forward with the remaining process of design that included creating Information Architecture, Wireframe, UI design as well as a Web Admin app concept.

REPRESENTATIVE IMAGE TO
HIGHLIGHT THE PROCESS
FOLLOWED

Impact on the Society

IMPACT OF YOUR SOLUTION

- Hassle-free and smooth driving experience from point A to point B.
- Environmental care by reducing the CO2 emissions by significant amounts.
- Prevent traffic jams/congestions during peak hours.
- Save a significant amount of man-hours and money.
- Contribute in saving fuel and reduce CO2 emissions from vehicles.

Post a representative pic to capture the impact of your solution on your target user in the Next Wave scenario

Sustainability

HOW IS YOUR SOLUTION SUSTAINABLE?

GPS-based tolling system to eliminate traffic jams on Indian highways

- Traffic Emissions and Air Quality Near Roads in Dense Urban Neighborhood will improve.
- Digital toll collection systems will help in reducing fuel consumption by up to four milliliter per trip and CO2 emission

Post a representative pic to capture the impact of your solution on your target user in the Next Wave scenario

Practicality & Business Viability

HOW CAN YOUR SOLUTION BE IMPLEMENTED AND SUCCESSFUL?

Vehicles will be fitted with GPS; the distance travelled on a highway will be gauged, and the toll amount deducted electronically

Based on the distance (in kilometres) travelled, the system will automatically deduct the toll amount at an exit point or a toll gate.

The GPS toll system would require the vehicle owner to register his or her name, address, vehicle model, registration number and bank account details.

REPRESENTATIVE IMAGE
INDICATING HOW YOU
WOULD EXECUTE YOUR
IDEA/SOLUTION

STAGE 2

Final Submission

Now that you have completed the all sections in the deck. Please send an email out to ensure that your submission is on time.

IMPORTANT FINAL SUBMISSION INSTRUCTIONS:

Please ensure that you submit the following:

- **Presentation Deck** - Review your deck for completion and submit
 - **Video** - Create a 3 min video (DO NOT EXCEED 3 mins) for the jury to evaluate and for the public voting. Imagine watching your video without any context. It should tell everything about the project, highlighting the problem, solution, and impact. Structure your video based on the evaluation criteria [here](#)
 - **Submission form** - Complete a final submission form and embed a video link and the presentation link [here](#)
-

Final Submission form
link
To be published

Thank you!

Significant wastage of fuel, time, and an increase in CO₂ emissions due to traffic congestion at toll plazas during peak traffic hours has a negative impact on the environment and economy of the world has pushed us to thought to coming up with a sustainable solution like this,

Though a lot of hard work will be needed to implement the solution. But we are sure this will be a game changer to the environment and economy.