

# **Lost and Found: Navigating Your Way Around Campus**

# A Project by :

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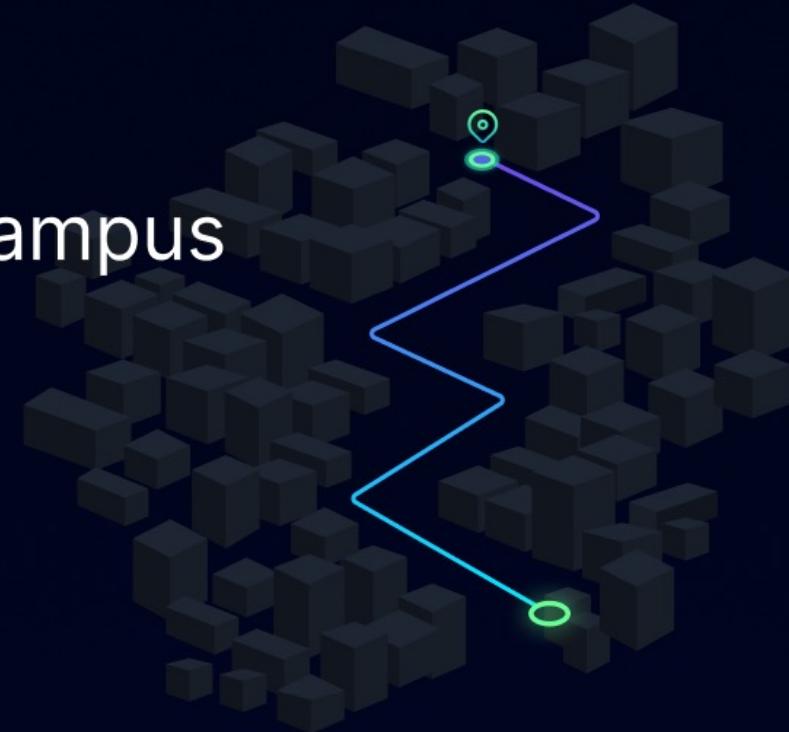
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# Lost and found

one stop solution to all things at campus

by Sarthak Nahar  
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**Introduction**

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## Introduction

College campuses can be vast and confusing, especially for new students. With so many buildings, rooms, and facilities, it can be difficult to find your way around. This is where a location finder on campus can be incredibly useful.

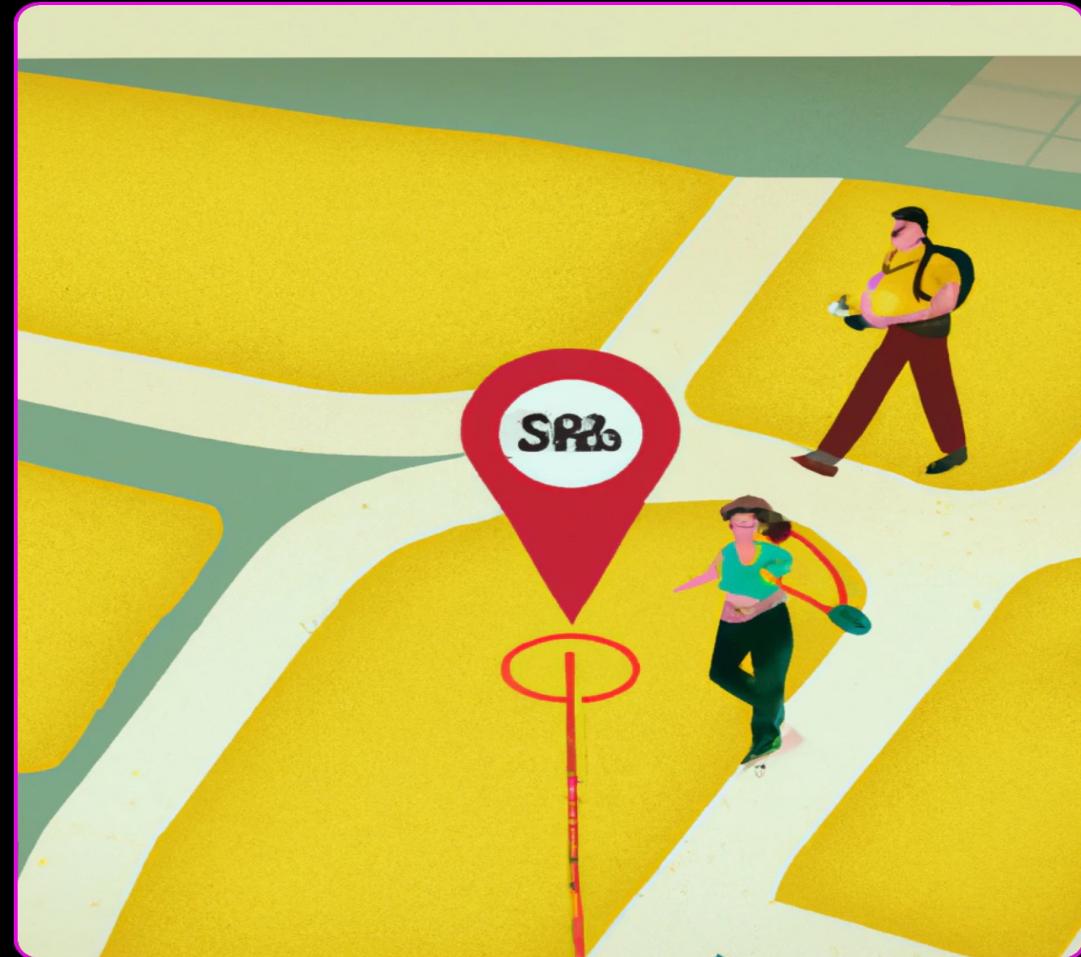
A location finder is a tool that allows users to search for specific locations on a map of the college campus. It can help students, faculty, and visitors quickly and easily locate buildings, classrooms, offices, and other important places.



## Benefits of a Location Finder

A location finder on a college campus can provide numerous benefits. For one, it can save time and reduce stress for students and faculty who are trying to find their way around. Instead of wandering aimlessly or asking for directions, they can simply use the location finder to quickly pinpoint their destination.

Another benefit is that it can improve safety on campus. In emergency situations, a location finder can help first responders quickly locate the scene of an incident. Additionally, it can help prevent incidents by allowing students to easily find safe routes to their destinations.



## How a Location Finder Works

A location finder typically works by using GPS technology to track the user's location on the college campus. The user can then input a search term, such as the name of a building or office, and the location finder will display the location on the map.

Some location finders may also include additional features, such as the ability to get directions from the user's current location to the desired destination. This can be especially helpful for students who are unfamiliar with the layout of the campus.



## Implementation of a Location Finder

Implementing a location finder on a college campus can be a complex process. It requires the installation of GPS sensors throughout the campus, as well as the development of software to track and display the location data.

However, the benefits of a location finder make it a worthwhile investment for colleges and universities. Many campuses have already implemented location finders, and more are likely to follow suit in the coming years.



## **Challenges and Limitations**

While a location finder can be incredibly useful, there are also some challenges and limitations to consider. For example, GPS technology may not always be accurate or reliable, especially in areas with poor reception or interference.

Additionally, some users may not have access to the necessary technology, such as a smartphone or tablet, to use the location finder. This could create inequities among students and faculty who have different levels of access to technology.

## Stake holder and user description table

Stakeholder Name	Activity/ Area /Phase	Interest	Influence	Priority (High/ Medium/ Low)
Customers/users Professors, Scholars and students.	They are the ultimate beneficiaries of the app and their satisfaction and preferences are crucial for the app's success.	High	High	High
Development team	The team responsible for designing, developing, and testing the app	low	High	Medium
Investors	They provide the financial resources to fund the app's development.	High	High	Low
Marketing and sales team	They are responsible for promoting the app and increasing its user base.	Low	High	Medium

# Functional Requirements

The functional requirements for a Geofilter gps locator on the campus may include:

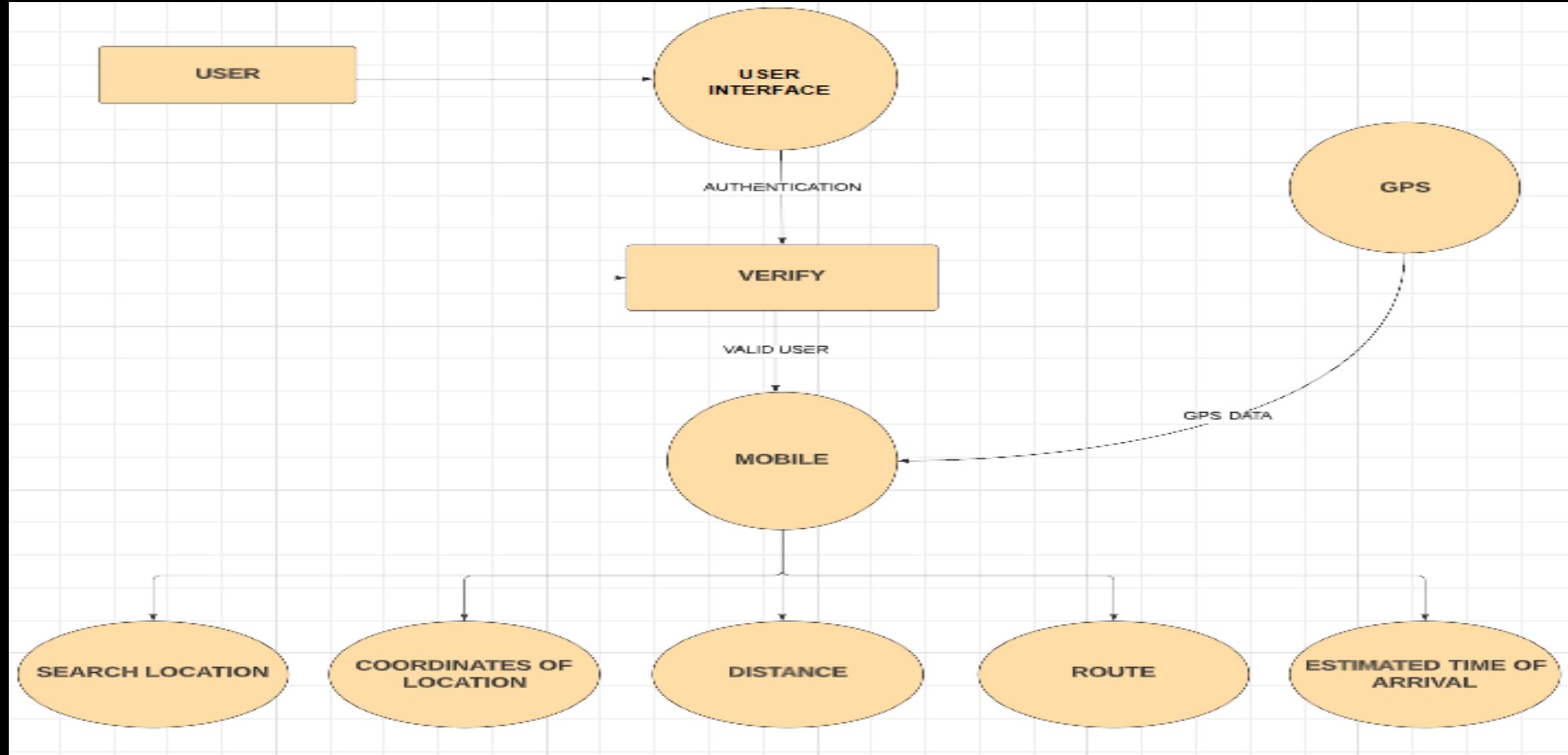
1. **Accurate positioning:** The GPS locator should be able to provide accurate positioning information for the campus
2. **Signal acquisition:** The GPS locator should be able to acquire a GPS signal even in challenging signal conditions.
3. **Navigation features:** The GPS locator may need to include navigation features such as turn-by-turn directions or route planning.
4. **Data logging:** The GPS locator may need to be able to log location and movement data for later analysis or tracking.
5. **Battery life:** The GPS locator should have a sufficient battery life to last for the required duration of use.
6. **Durability:** The GPS locator should be durable enough to withstand the conditions of the campus, such as extreme temperatures or moisture
7. **Integration:** The GPS locator may need to be able to integrate with other systems, such as mapping software or tracking systems.

# Non Functional Requirements

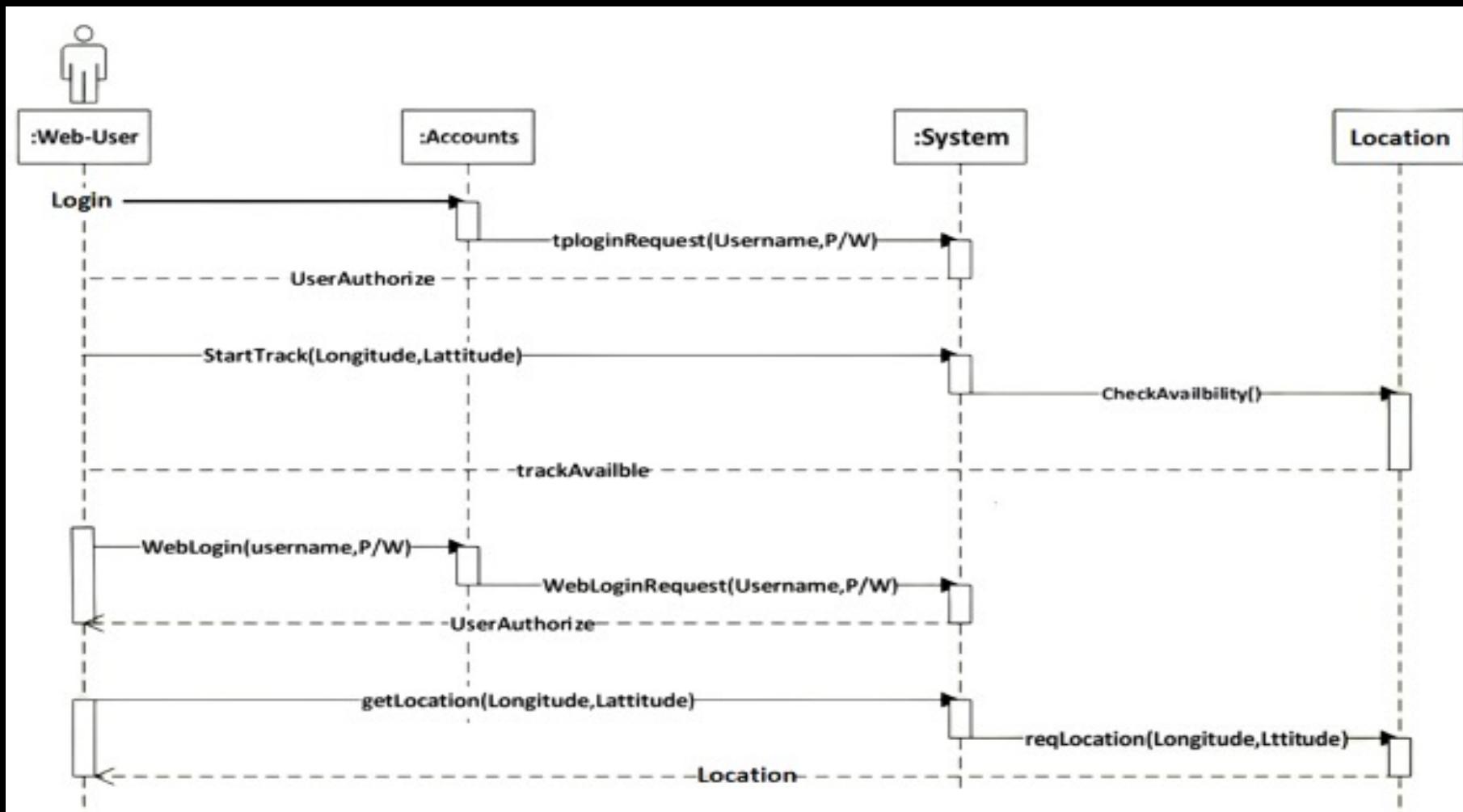
- Non-functional requirements for a GPS locator of the campus could include:
  1. Accuracy: The GPS locator must be accurate enough to pinpoint the location of the place with a high degree of precision.
  - Reliability: The GPS locator must be reliable and work consistently under various conditions.
  3. Performance: The GPS locator must perform efficiently and provide the location information quickly.
  4. Security: The GPS locator must be secure and prevent unauthorized access to the location data.
  5. Scalability: The GPS locator should be able to handle a large number of requests and support growth in users and usage.
  6. Usability: The GPS locator should be user-friendly and easy to use for people with different levels of technical expertise.
  7. Availability: The GPS locator should be available 24/7 and not experience significant downtime or interruptions.
  8. Maintainability: The GPS locator should be easy to maintain and update to ensure it remains functional over time.

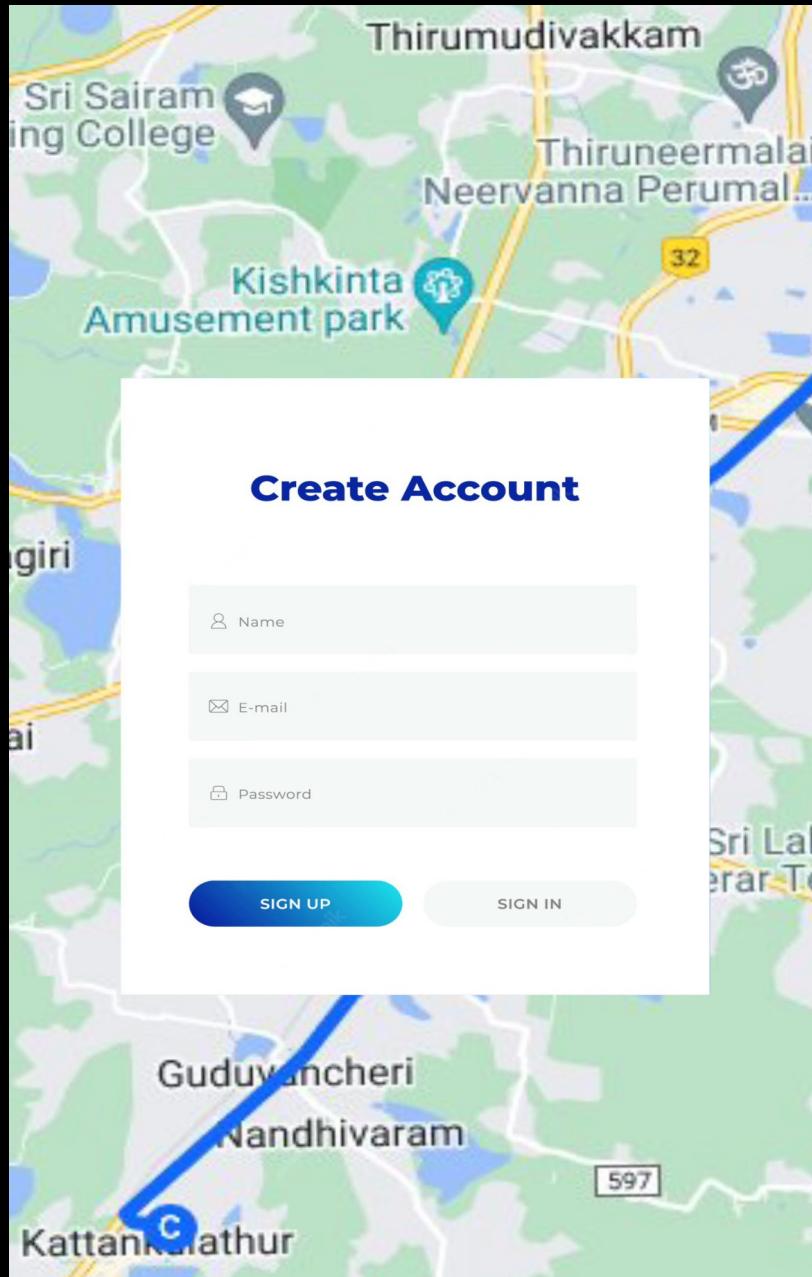
<u>Focus Area</u>	<u>Details</u>
Integration Management	<p><b>Governance Framework</b></p> <p><b>Project Team Structure</b></p> <p><b>Roles &amp; Responsibilities of Team</b></p> <p><b>Change Management</b></p> <p><b>(Change Control, Issue Management)</b></p> <p><b>Project Closure</b></p>
Scope Management	<p><b>Scope Statement</b></p> <p><b>Requirement Management (Gathering, Control, Assumption, Constraint Stakeholder)</b></p> <p><b>Define Deliverable</b></p> <p><b>Requirement Change Control</b></p> <p><b>Activities and Sub-Tasks</b></p>
Schedule Management	<p><b>Define Milestones</b></p> <p><b>Schedule Control</b></p>

## Data flow diagram for location finder



## Sequence Diagram

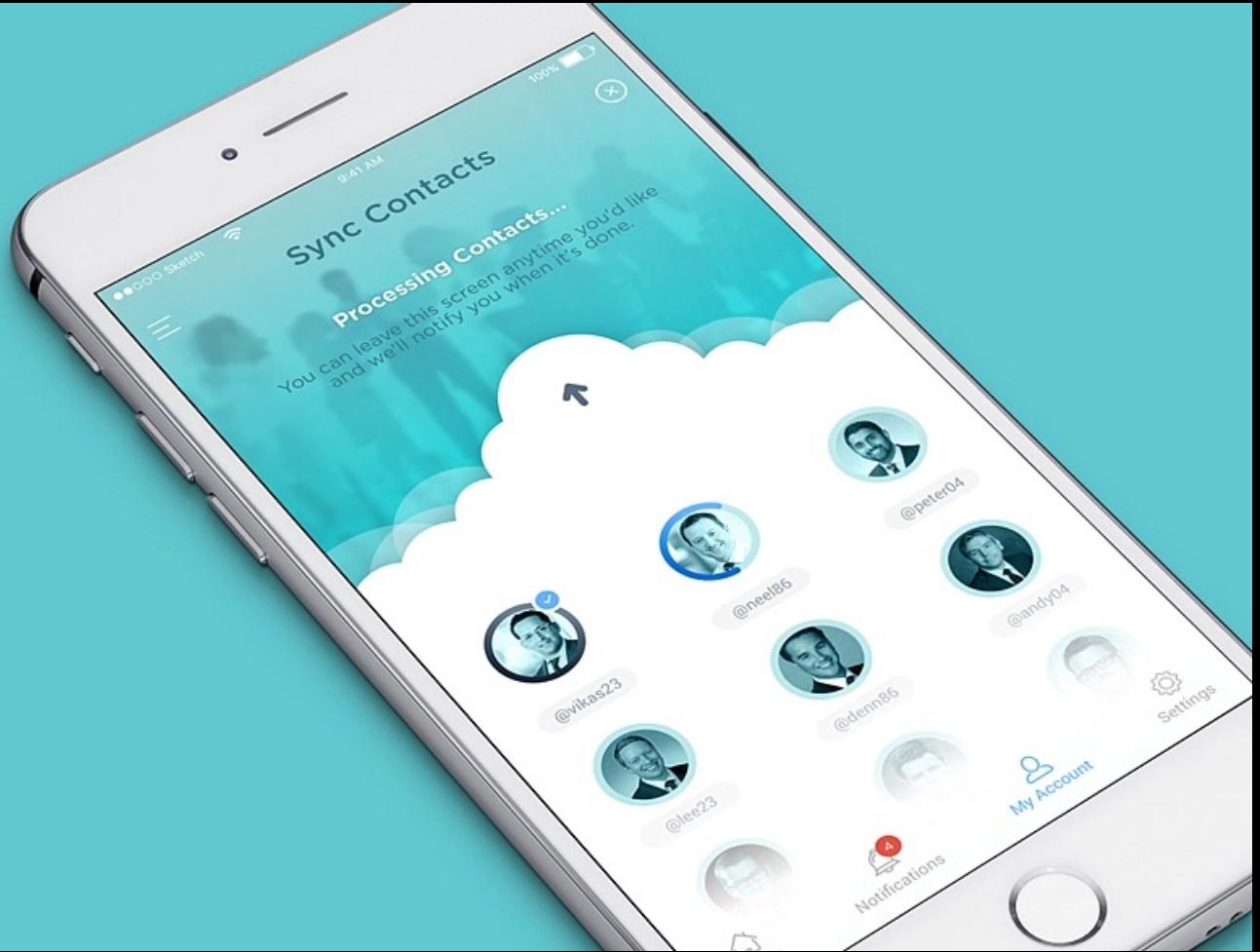




## The working of the location finder app (lost & found)

Login or sign up using SRM net id and password  
Create account and enter details  
Sync contacts

Add contacts to your search directory by requesting to follow them.



The synced contacts can accept and request Live/current location tracking.

This allows privacy by sharing location only to the people in your contacts and that too with Permission.

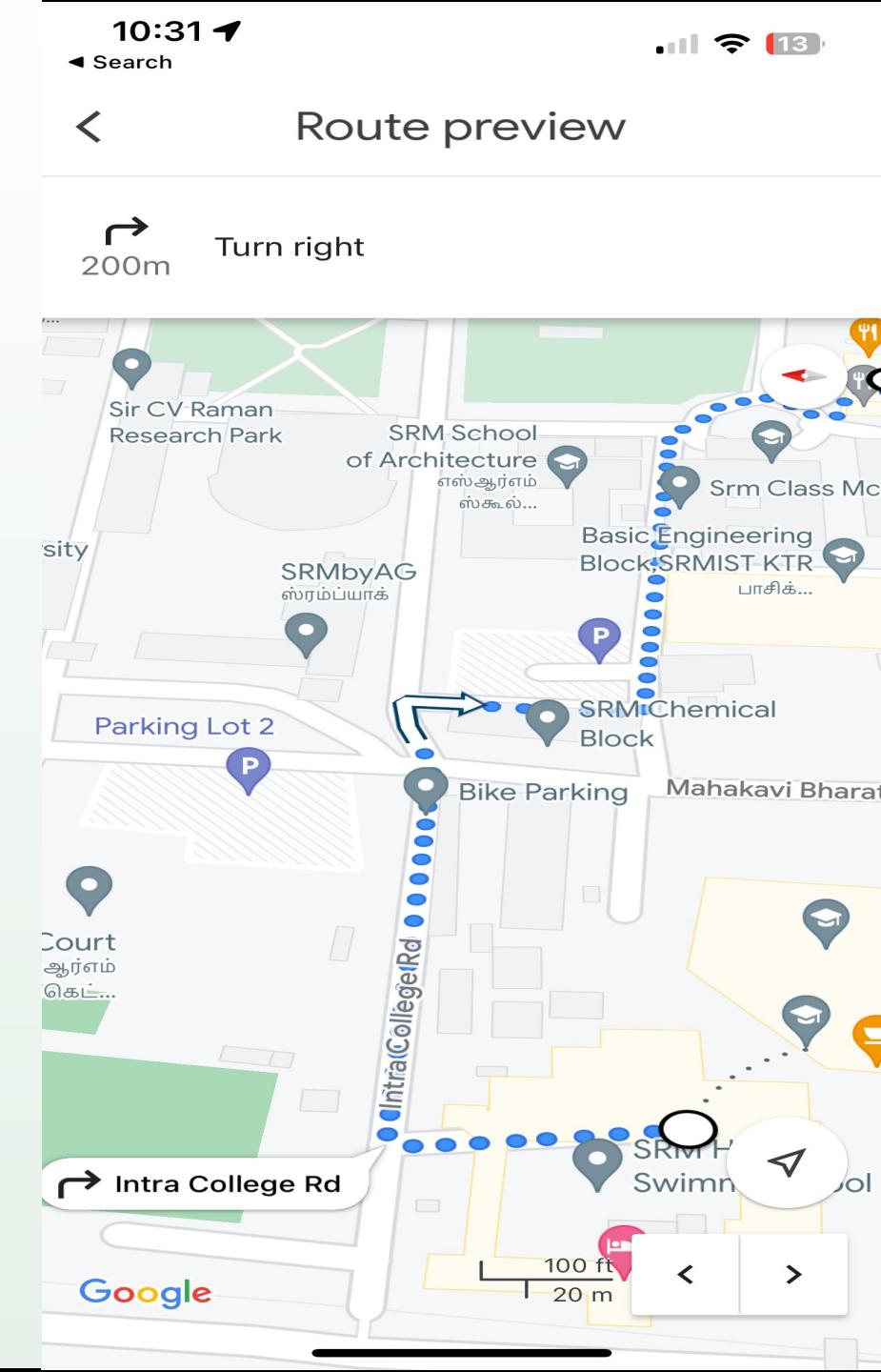
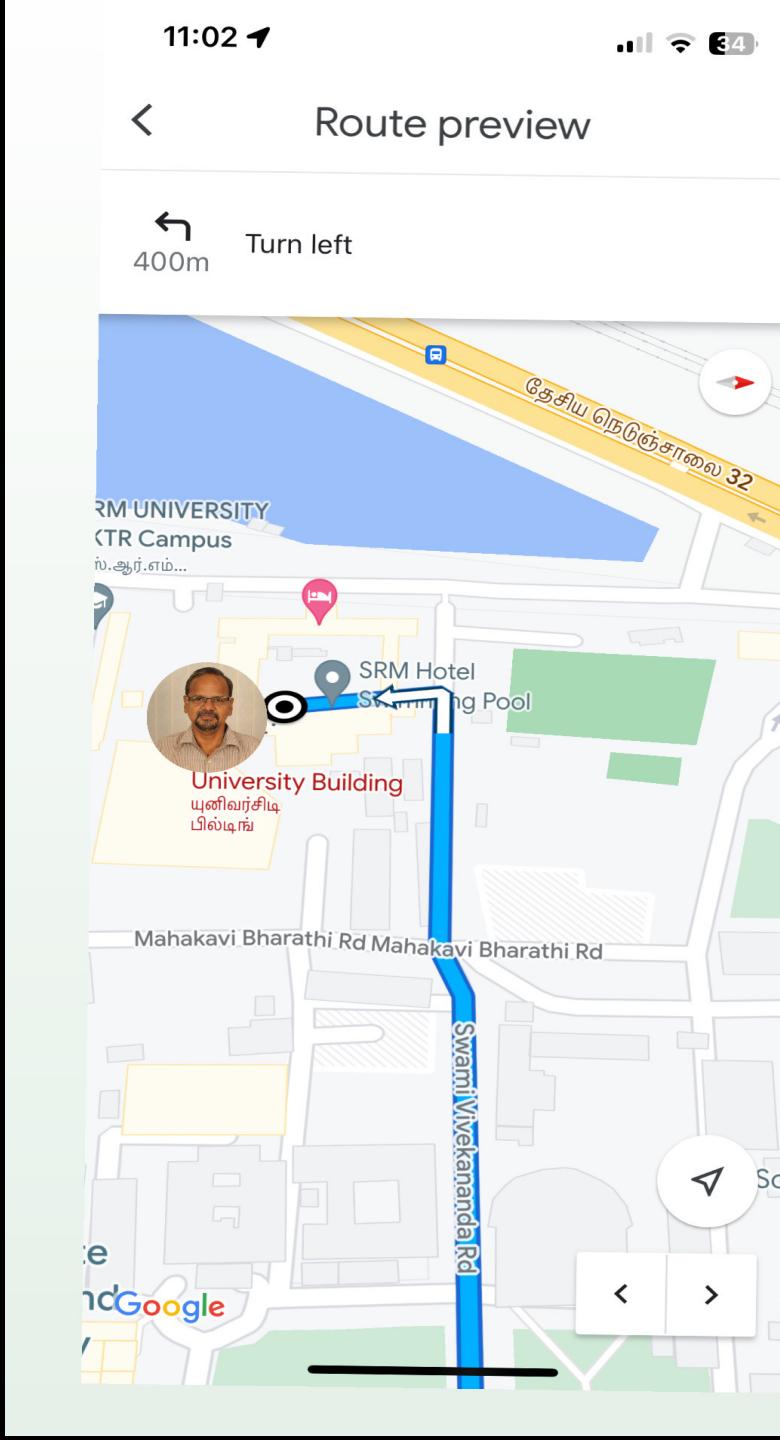


Integrated Maps

Tap to share your location.

Users will be able to see live location

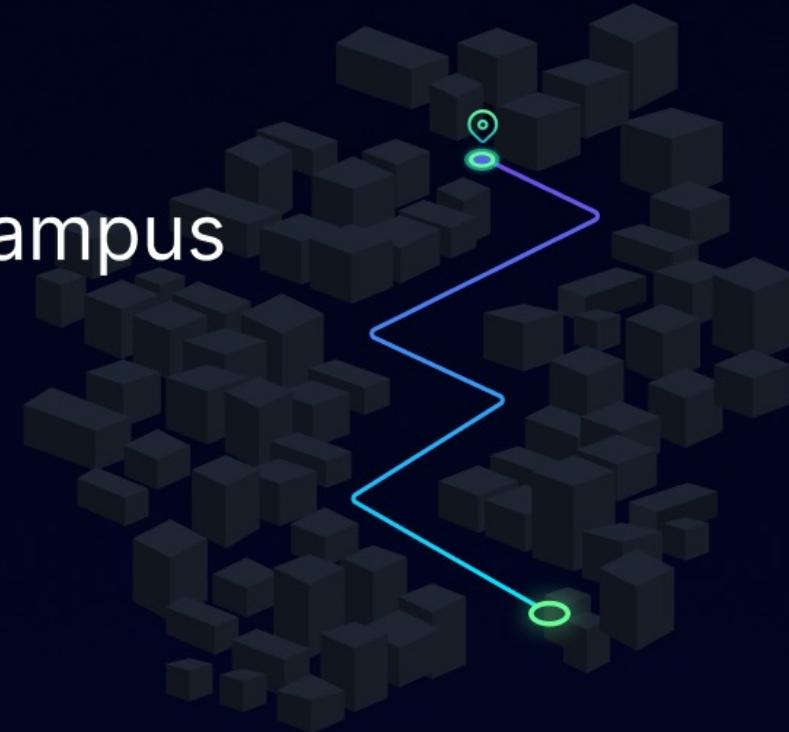
The application will allow turn by turn navigation  
Modes of transport available with ETA for all.  
Multiple users can be tracked at once.

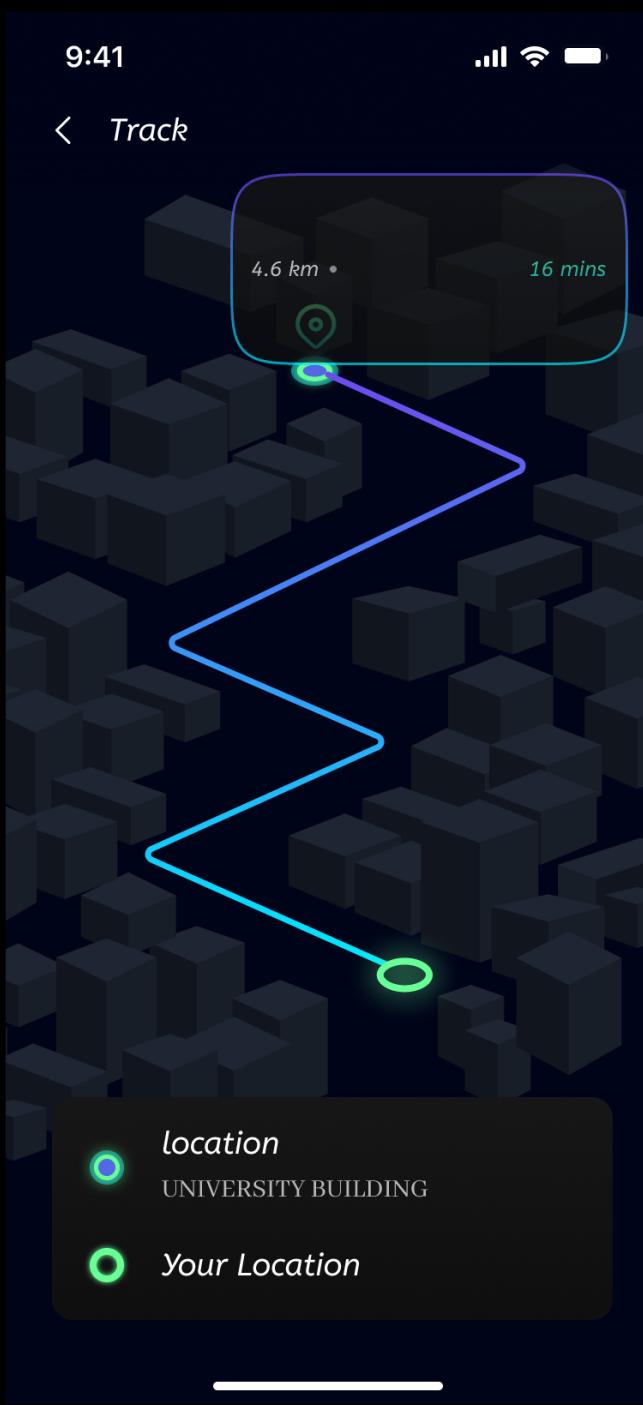


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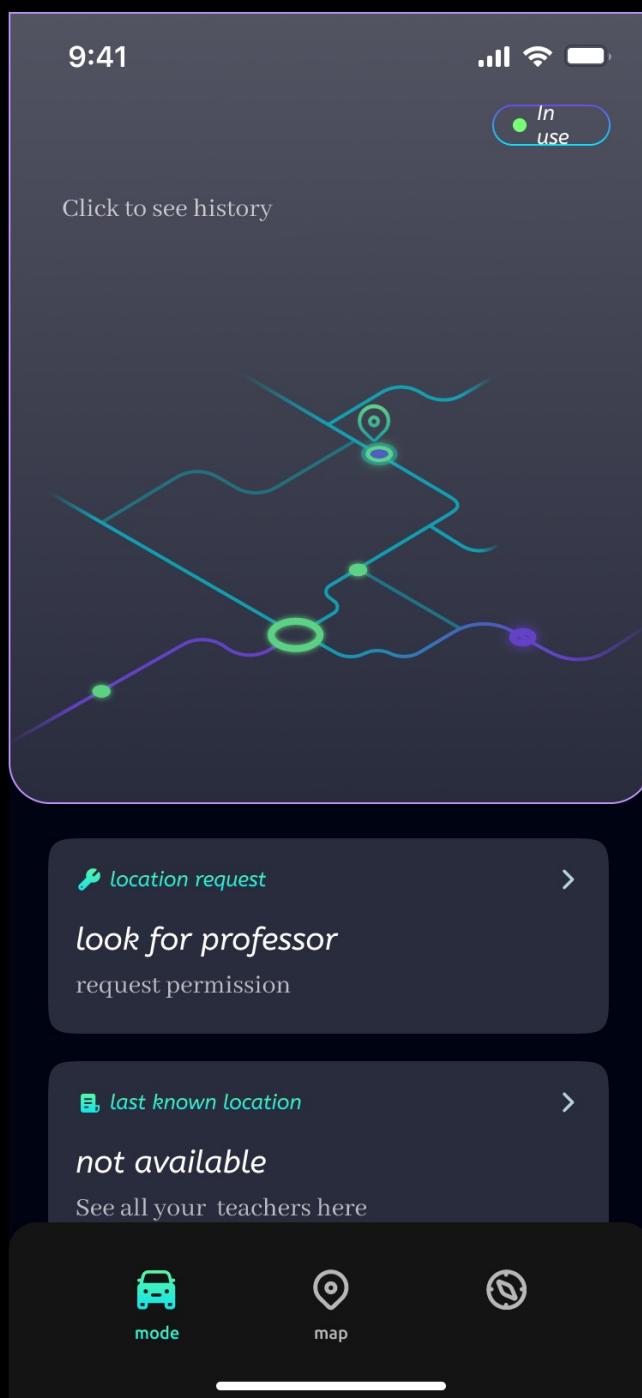
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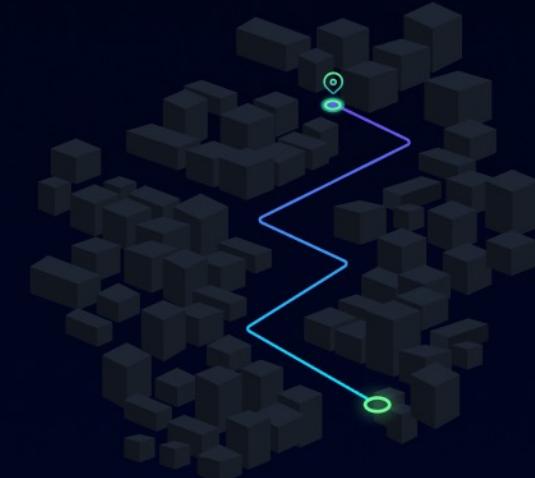
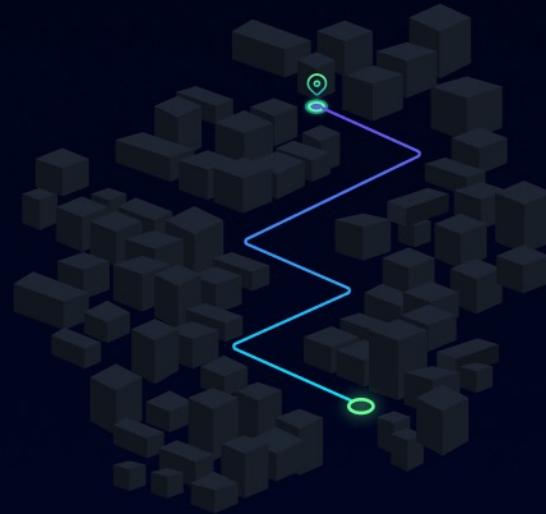
Futuristic UI/UX helps make the app interesting with the help of 3D map and navigations



Real time tracking along with widgets that make the access to students and teachers even easier.

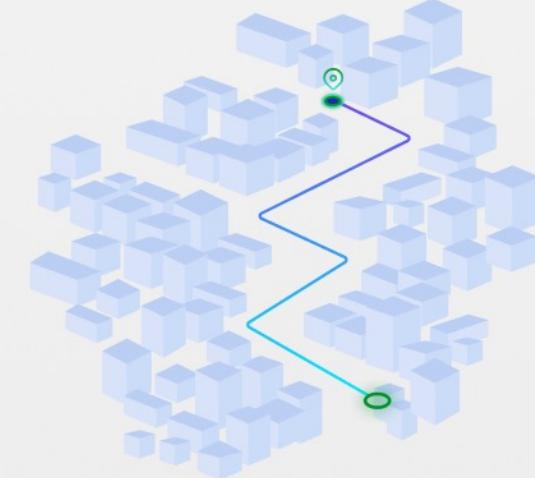
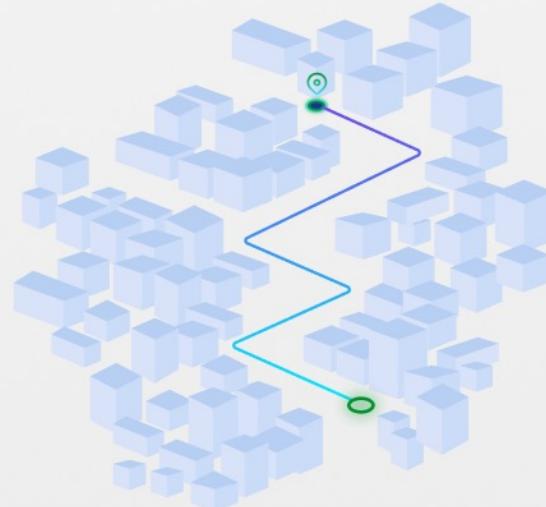
Multiple widgets and buttons such as the location request, last known location , explore Map button and mode of transports also embedded in the app to be the stop solution to all stops at the campus.

Neon, Buildings



Neon, Light

Neon, Buildings



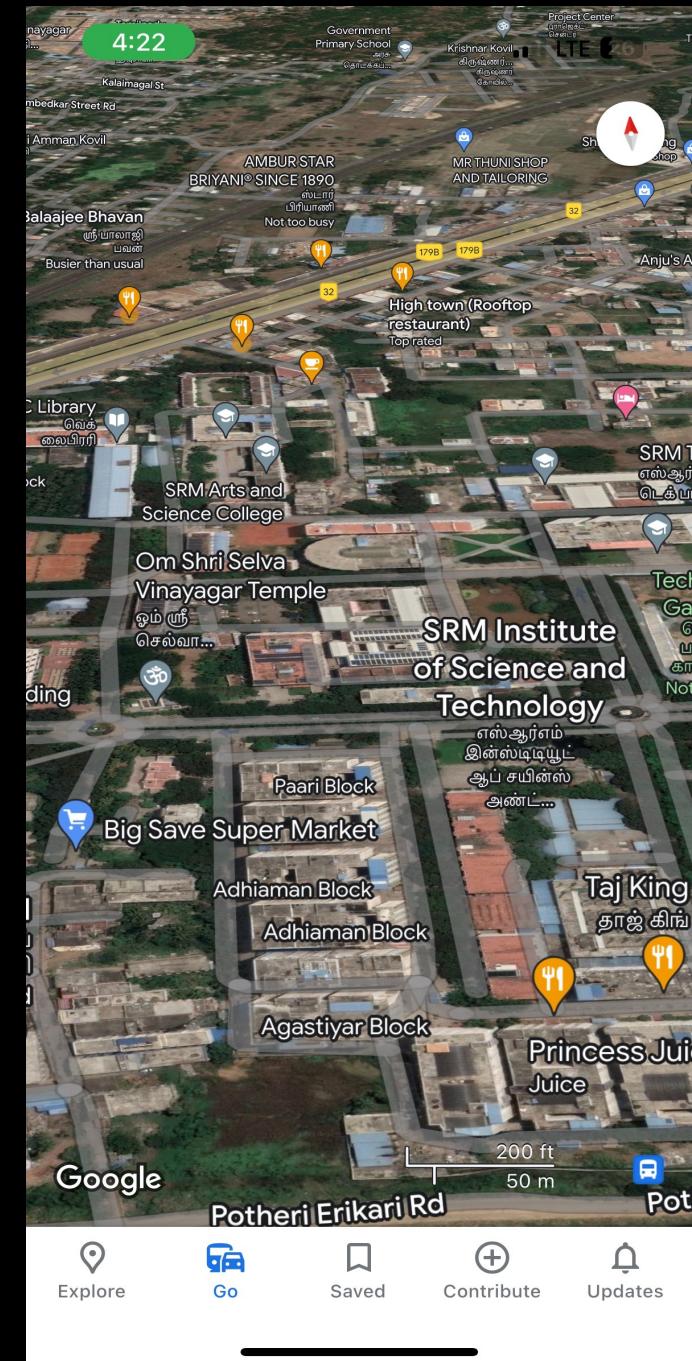
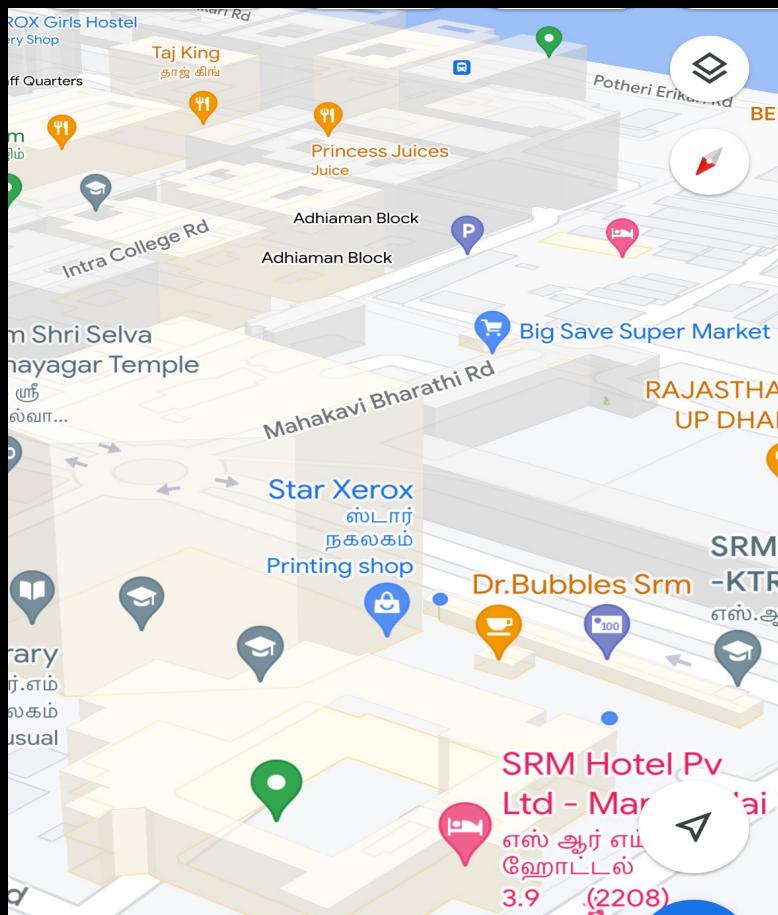
Interactive modes

Such as dark adaptive and normal

Multiple geosettings such as satellite, Earth (3-d) and normal maps navigation tools

Voice commands activated using siri and google assistant for accessibility for disabled people

And multiple other haptics and touch assisted features to make the app usable for all.





A digital building twin is a virtual replica of a physical building and all associated technologies, systems, equipment, sensors, and actors.

The Building Twin allows a connected, digital representation of a physical building. It brings together dynamic and static data from multiple sources in 2D/3D models and enables informed and effective decisions to be made.