

# **COLLEGE BUS TRACKING APPLICATION**

## Mobile App User Guide



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## **CHAPTER 1: Introduction**

### **1.1 What is bus Tracking app?**

A college bus tracking app is a specialized version of a bus tracking app that is designed specifically for our college students to track the real-time location of their buses used for transportation. It serves as a valuable tool for enhancing the safety, efficiency, and convenience of college bus services. The app provides students, faculty, and staff with up-to-date information on the current location and estimated arrival times of college buses, ensuring a smooth and reliable transportation experience.

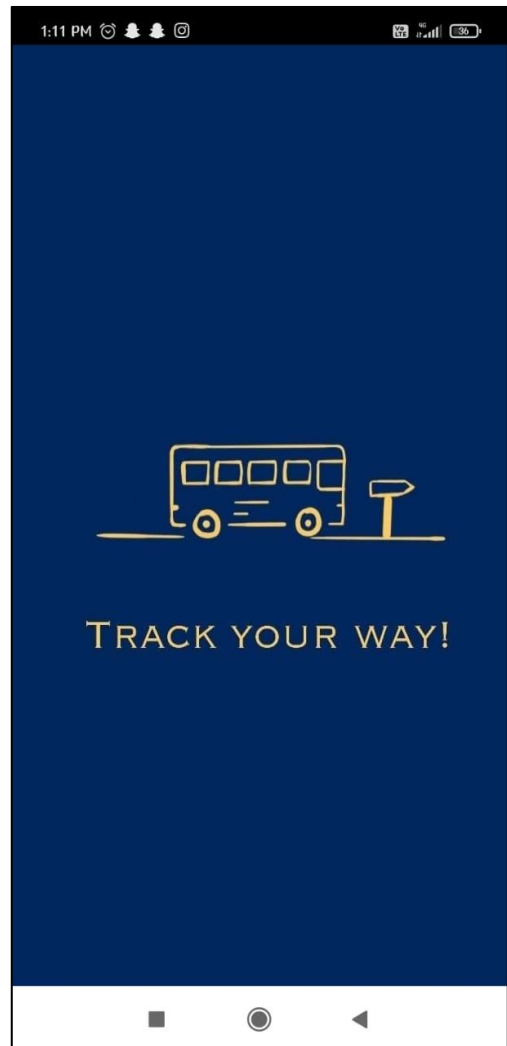
Key features of a college bus tracking app may include:

- **Real-time tracking:** The app allows users to view the real-time location of college buses on a map. This enables students to know when the bus will arrive at their designated stop, reducing wait times and enabling better time management.
- **Firebase Integration:** The app has been integrated with Firebase to ensure secure user authentication and enable real-time database functionality.

## CHAPTER 2: Splash screen

A splash screen is a brief graphical or visual representation that appears when you launch a mobile application or a software program. It is usually displayed for a few seconds before the main user interface of the app fully loads. The primary purpose of a splash screen is to provide a seamless and engaging user experience while the app is initializing, loading resources, or performing any necessary background tasks before becoming fully functional.

This app has a splash screen that says "Track Your Way," the focus is on providing users with the ability to easily track the college buses and plan their commute effectively. The message is concise and conveys the primary purpose of the app, which is to help users track the college buses on their way to various stops.



## CHAPTER 3: Choose Login type

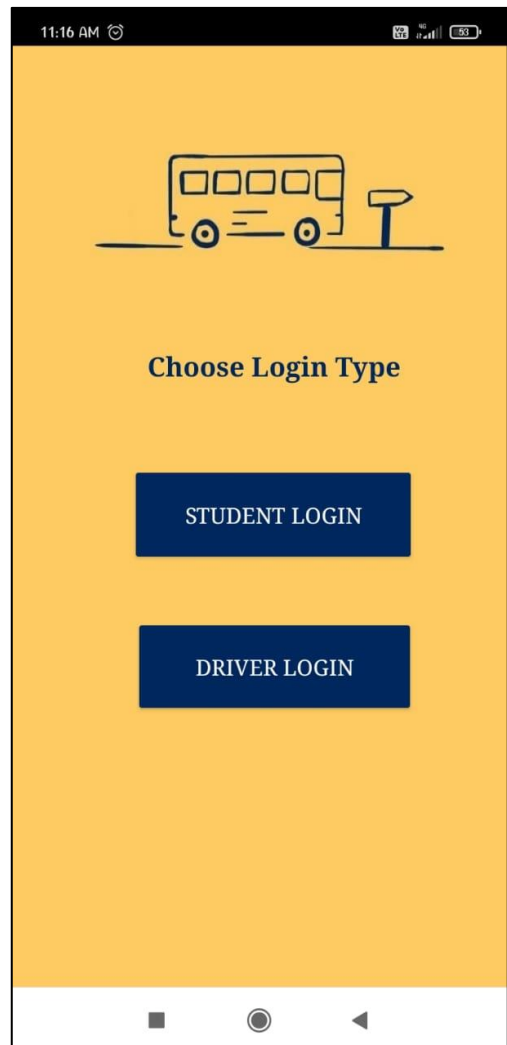
To access the login page, open the app on your device. Upon launching the app, you will be directed to the login screen automatically.

Our app supports two user roles: students and drivers. Depending on your role, you will have access to different functionalities within the app.

Select the appropriate login option to proceed:

a. Student Login: If you are a student using our app, click on the "Student Login" button.

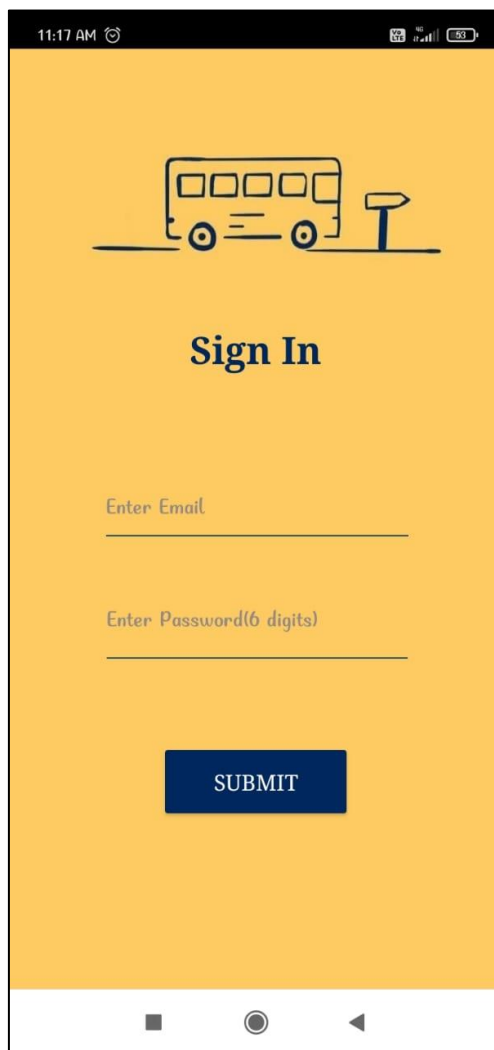
b. Driver Login: If you are a driver associated with our app, click on the "Driver Login" button.




## CHAPTER 4: Login

### 4.1 Student Login

- When the "Student Login" button is clicked, a form should appear prompting students to enter their login credentials.
- The student login form typically includes fields for the student's email address and password



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**Sign In**

Enter Email

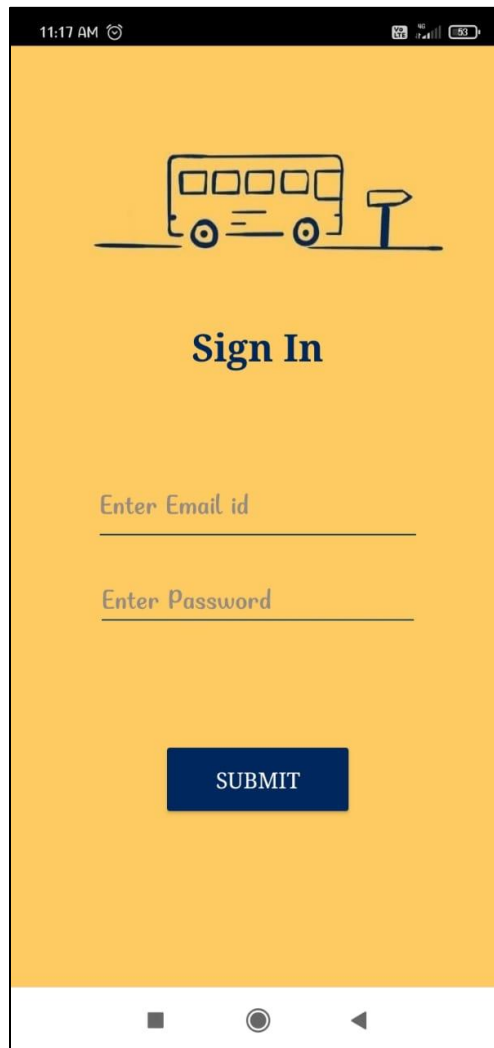
Enter Password(6 digits)

**SUBMIT**

### 4.2 Driver Login

- When the "Driver Login" button is clicked, a separate login form should appear for bus drivers.

- The driver login form may require the driver to enter email and a password for authentication.



### 4.3 Firebase Integration

The College Bus Tracking App leverages Firebase, a powerful platform that enhances our app's performance and functionality. Firebase integration ensures a seamless experience for our users and enhances data security.

Firebase Authentication enables secure and convenient login options for our users. It supports various authentication methods, ensuring a smooth login experience. For our College Bus Tracking App, we have implemented custom Email/Password Authentication, allowing users to access the app using their registered email and

password. This ensures that only authorized users, such as drivers, students, and college authorities, can access and update live location information.



## CHAPTER 5: Driver homepage

To access the Driver Homepage, follow these steps:

1. Open the College Bus Tracking App on your device.
2. Log in using your driver credentials provided by the college or system administrator.
3. After successful login, you will be directed to the Driver Homepage.

4. Selecting Bus Number

On the Driver Homepage, you will see a section with radio buttons labelled " Select Bus Number." Select the appropriate radio button that corresponds to the unique identification number of your bus.

5. Entering Live Location

Locate the "Live Location" text box on the Driver Homepage. You can manually enter the current live location of your bus or paste a link generated by Google Maps that represents your bus's location.

6. Sending Live Location

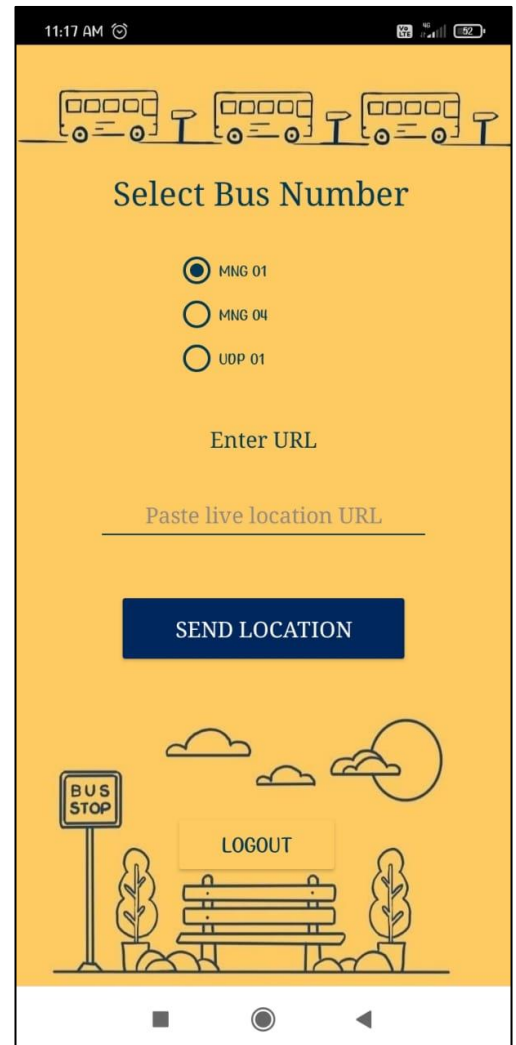
Once you have entered or pasted the live location, click on the "Send Live Location" button. By clicking this button, you trigger the process of updating and sharing your bus's current location with students and college authorities in real-time.

7. Location Sharing Mechanism

After clicking the "Send Live Location" button, the app will use the bus number you selected in Step 4 to identify your bus uniquely. The app will then update the live location associated with your specific bus in the database.

8. Real-time Database Integration

The College Bus Tracking App utilizes Firebase Realtime Database for seamless data synchronization. Your bus's updated live location is securely



stored in the Firebase Realtime Database, ensuring it is accessible only to authorized users, such as students and college staff.

#### 9. Logging Out

To log out from your current session, locate the "Logout" option on the Driver Homepage. Click on the "Logout" button, and the app will redirect you to the main selection page. You have now successfully logged out, and the session has ended.

## CHAPTER 6: Student Homepage

To access the Student Homepage, follow these steps:

1. Open the College Bus Tracking App on your device.
2. Log in using your student credentials provided by the college or system administrator.
3. After successful login, you will be directed to the Student Homepage.

### 4. Bus Selection Buttons

On the Student Homepage, you will find a list of buttons, each representing a specific bus route or bus number. These buttons are labelled with the corresponding bus route or number, making it easy for you to identify and select your desired bus.

### 5. Real-Time Location Updates

The Student Homepage automatically fetches real-time location links for each bus from the server when you access the app. This ensures that you receive the latest live location of the buses. The location data is continuously updated by the bus drivers, providing you with accurate information.

### 6. Google Maps Integration

Upon clicking a specific bus button, the College Bus Tracking App seamlessly redirects you to Google Maps. This integration allows you to view the live location of the selected bus on the map. You can enjoy various map-related features, including zooming in/out and satellite view, enhancing your tracking experience.

### 7. Logging Out

For your convenience, the Student Homepage includes a "Logout" option. When you click on the "Logout" button, the app will redirect you to the main selection page. This enables you to end your current session and return to the initial page for selecting a bus route.

