

---

## 10 UseCases

# Bus Tracking System

## For IITTP

Here are 10 use cases for the bus tracking system web app project:

### 1. Student Login and Authentication:

- Students can log in using their credentials to access the bus tracking system.

### 2. View Bus Routes:

- Students can view a list of available bus routes to select their desired route.

### 3. Track Bus in Real-Time:

- Students can track the real-time location of the selected bus on a 3D Google map.

### 4. Bus Arrival Time Estimation:

- The system provides estimated arrival times for the selected bus at various stops along the route.

### 5. Bus Route Information:

- Students can access detailed information about a bus route, including stops, schedules, and any delays or alerts.

### 6. Notifications and Alerts:

- Students receive notifications and alerts about bus delays, route changes, or other important updates.

### 7. Save Favorite Routes:

- Users can save their favorite bus routes for quick access and tracking.

---

### **8.Feedback and Reporting:**

- Allow students to provide feedback on their live tracking experience, report issues (e.g., accuracy of the system , any bugs in the app ), and suggest improvements. This user-generated data can be valuable for enhancing user experience.

### **9.Geofencing and Alerts:**

- Implement geofencing capabilities to define virtual boundaries on the map. Students can set up alerts to receive notifications when a bus enters or exits specific areas, such as campus boundaries or their designated bus stop.

### **10. Admin Dashboard:**

- An admin dashboard allows administrators to manage bus routes, update bus locations manually if needed, and monitor the overall system's performance.