

# University Transport ERP System

## 1. Database Schema Design

[Student]: id, admission\_no, name, course, year, contact\_number, address, is\_active

[Driver]: id, name, license\_no, phone\_number, address, is\_active

[Vehicle]: id, vehicle\_number, type, capacity, driver\_id (FK), is\_active

[Route]: id, route\_name, start\_point, end\_point, stops, estimated\_time

[TransportAssignment]: id, student\_id (FK), vehicle\_id (FK), route\_id (FK), seat\_number, assigned\_date, is\_active

[TransportFee]: id, student\_id (FK), academic\_year, fee\_amount, paid\_amount, due\_date, payment\_status

[GPSLog]: id, vehicle\_id (FK), timestamp, latitude, longitude, speed

[Notification]: id, recipient\_type, recipient\_id, message, created\_at, is\_read

## 2. System Architecture

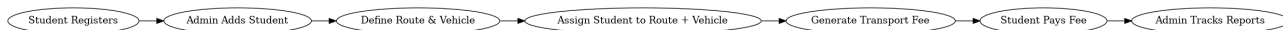
UI Layer -> Backend API -> DB + GPS Engine + Notification Engine

Database: PostgreSQL or MySQL

GPS: Leaflet.js + OSM logs to GPSLog

Notifications: Email/SMS APIs

## 3. Flow Chart



## 4. UI Module List

- Student Management
- Vehicle Management
- Driver Management
- Route Management
- Transport Assignment
- GPS Dashboard
- Transport Fee Module
- Reports
- Notification Center