GO-DRiVeS Mobile App for Pedestrian-Vehicle On-Demand Ride Request and Sharing

### **Problem Formulation :**

* Pedestrians have no access to the schedule and routes of the cart , hence they are not able to benefit from it
* Pedestrians are not able to request on demand rides whenever they need .

### **Objective :**

* Develop a scalable mobile application for the on campus golf carts ,that enable Pedestrians to request , share , and track rides in real time .

### **Propositions:**

## On-Demand Ride Requests

## Ride Sharing

## Real-Time Vehicle Tracking

## Route Optimization

These are the main features that should be done in the application . They can be achieved through various techniques and tools like:

* In Frontend : React Native (with Expo or CLI) ,Flutter , Native Development (Kotlin for Android, Swift for iOS)

#### Backend : Node.js with Express.js ,Django (Python) , Firebase (Serverless backend)

#### Database : MongoDB (NoSQL) , PostgreSQL (SQL) , Firebase Firestore .

### Real-Time Ride Tracking & Updates :

### Google Maps API (For live location updates, route planning).

### Socket.io (For instant ride updates & driver communication).

### Firebase Firestore (For real-time ride status updates).

* Best options until now : React Native , Node.js with Firebase for real-time updates + MongoDB for scalable data storage , Google Maps API + Firebase Firestore for real-time ride tracking.