**1. Full-stack Software Engineer**

a. Transport Management System (TMS) for Education Institution

+ Education Institution has a fleet of Vehicles to be used to pick students and /or faculty and drop them back on every working day. TMS helps in seamless scheduling, tracking and managing the transport

+ Vehicle master, insurance details, maintenance

+ Drivers / Helpers master, background check proof, contact details

**+ Trips / Routes master - create and publish routes for students to subscribe and make online payment for the price and period. It is desired to have the system can help build route based on student locations. This is the key use case that candidate has to solve.**For this use case assume that an API for students service is already present.

+ View registrations for trips/routes and payment status and count in each route

+ Allocate vehicle + driver + students in a route

+ Provide APIs for vehicles to post their location to the server so that user can track current location of the vehicle. Present current location of vehicle in a map

+ Provide APIs for students entry and exit from the transport to the server so that parents can be assured that their student has boarded the bus without any hassles

+ Maintenance, Fuel Costs, Salary cost of Driver and Helper and cost of other staff as against fees collected from students

+ Report on Usage statistics