DATABASE & CLOUD SYSTEM (BERR2243)

WEEK 4 (PROPOSAL)

Maxim System

Group H

GROUP MEMBERS	**1.** RIGNES A/P TAMIL VANAN (B122320069) 2. DAMIA NAZURAH BINTI ABDUL RIZAN (B122320020)
COURSE	3 BERR S5
LECTURE'S NAME	DR. SOO

1.Screenshot/samples

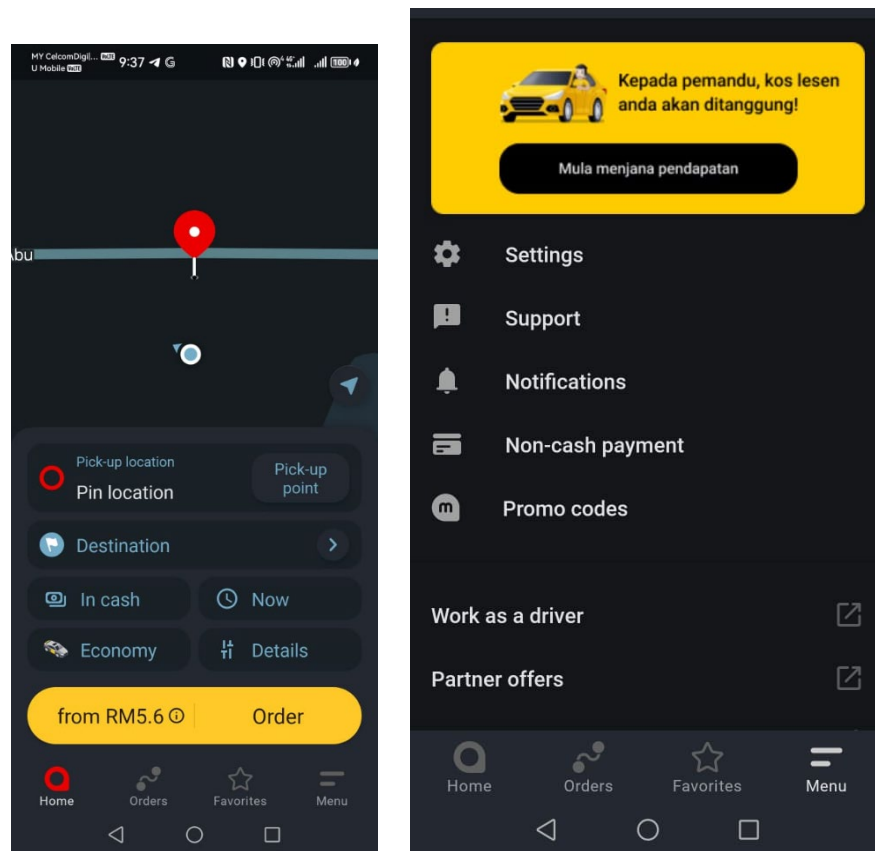Figure 1 : Main Interface & Main Menu of Maxim Application

2.

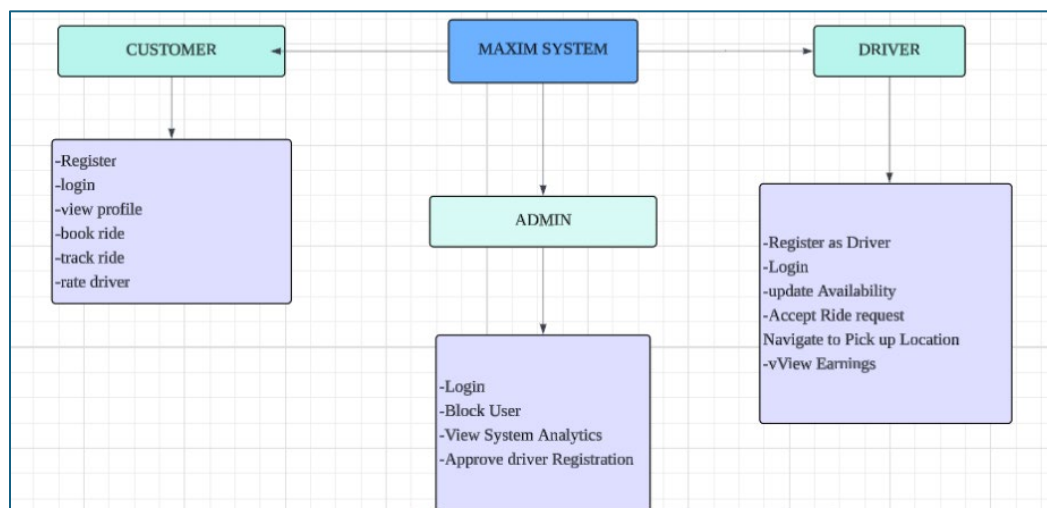**a) First brainstorm on ride booking system. Then named the system as MAXIM SYSTEM**

Figure2: First brainstorm on ride booking system

b) Features

Cases (Maxim System)

Customer:
1. Register
2. Login
3. View Profile
4. Book Ride
5. Track Ride
6. Rate Driver

Driver:
1. Register as Driver
2. Login
3. Update Availability
4. Accept Ride Request
5. Navigate to Pickup Location
6. View Earnings

Admin:
1. Login
2. Block User
3. View System
4. Analytics
5. Approve Driver Registration
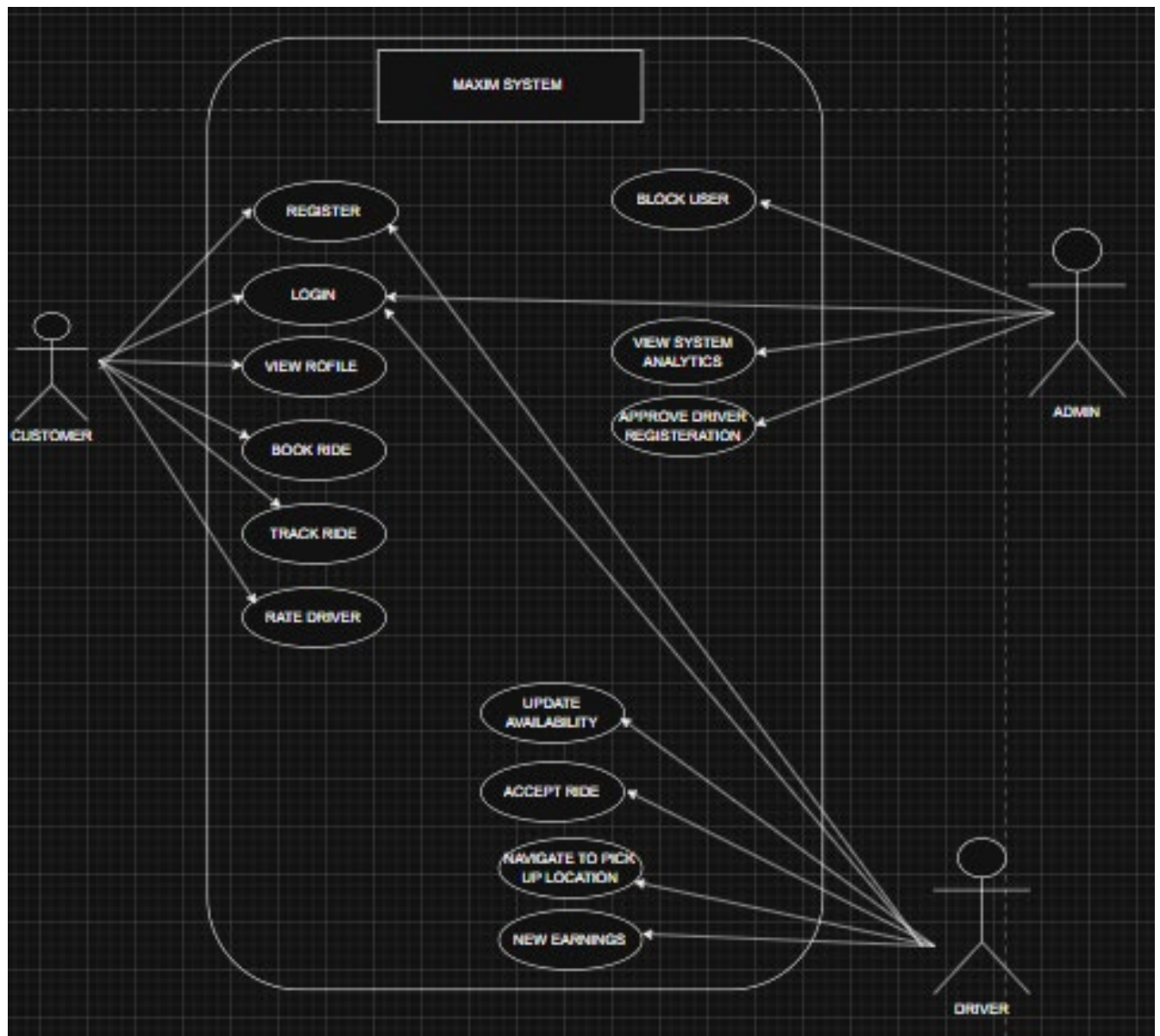
3. Case Diagram

Figure 3 : Use Case Diagram Showing User Roles and Functionalities

4. API Table

Table 4 : Draft API endpoint specifications for MaximDB, including HTTP methods, status codes, and descriptions

Use Case (Actor: Action)	Endpoint	HTTP Method	Status Codes	Description
Customer: Register	/api/auth/register	POST	201 Created, 400 Bad Request, 409 Conflict	Registers a new customer account in the system.
Customer: Login	/api/auth/login	POST	200 OK, 401 Unauthorized	Authenticates a customer and returns an access token (JWT).
Customer: View Profile	/api/customers/{customerId}	GET	200 OK, 404 Not Found, 401 Unauthorized	Retrieves profile details of the logged-in customer.
Customer: Book Ride	/api/rides	POST	201 Created, 400 Bad Request, 401 Unauthorized	Allows a customer to create a new ride request with pickup/drop-off details.
Customer: Track Ride	/api/rides/{rideId}/track	GET	200 OK, 404 Not Found, 401 Unauthorized	Tracks the live location and status of a booked ride.
Customer: Rate Driver	/api/rides/{rideId}/rate	POST	200 OK, 400 Bad Request, 401 Unauthorized	Allows a customer to rate and review the driver after completing the ride.
Driver: Register	/api/auth/register	POST	201 Created, 400 Bad	Registers a new driver account in the system.

			Request, 409 Conflict	
Driver: Login	/api/auth/login	POST	200 OK, 401 Unauthoriz ed	Authenticates a driver and returns a session token.
Driver: Update Availability	/api/drivers/{driverId}/avail ability	PUT	200 OK, 400 Bad Request, 401 Unauthoriz ed	Updates the driver's availability status (online/offline).
Driver: Accept Ride	/api/rides/{rideId}/accept	PUT	200 OK, 403 Forbidden, 404 Not Found	Confirms that the driver has accepted a ride request.
Driver: Navigate to Pickup Location	/api/rides/{rideId}/navigate	GET	200 OK, 404 Not Found	Provides navigation or directions for the driver to reach the pickup point.
Driver: View Earnings	/api/drivers/{driverId}/earni ngs	GET	200 OK, 404 Not Found, 401 Unauthoriz ed	Displays driver's total and recent earnings history.
Admin: Block User	/api/admin/users/{userId}/ block	PUT	200 OK, 403 Forbidden, 404 Not Found	Allows admin to block a user (customer or driver) from using the system.
Admin: View System Analytics	/api/admin/analytics	GET	200 OK, 403 Forbidden	Provides system-wide reports such as rides, revenue, and user stats.
Admin: Approve Driver Registratio n	/api/admin/drivers/{driverI d}/approve	PUT	200 OK, 403 Forbidden, 404 Not Found	Approves pending driver registrations after document verification.