**NAME:**   **HAMZA GUL**

**REG #**   **FA22-BSE-086**

**LAB FINAL:**

**CASE STUDY:**

Smart traveling system.

# **DIAGRAMS:**

**ARCHITECTURAL DIAGRAM:**

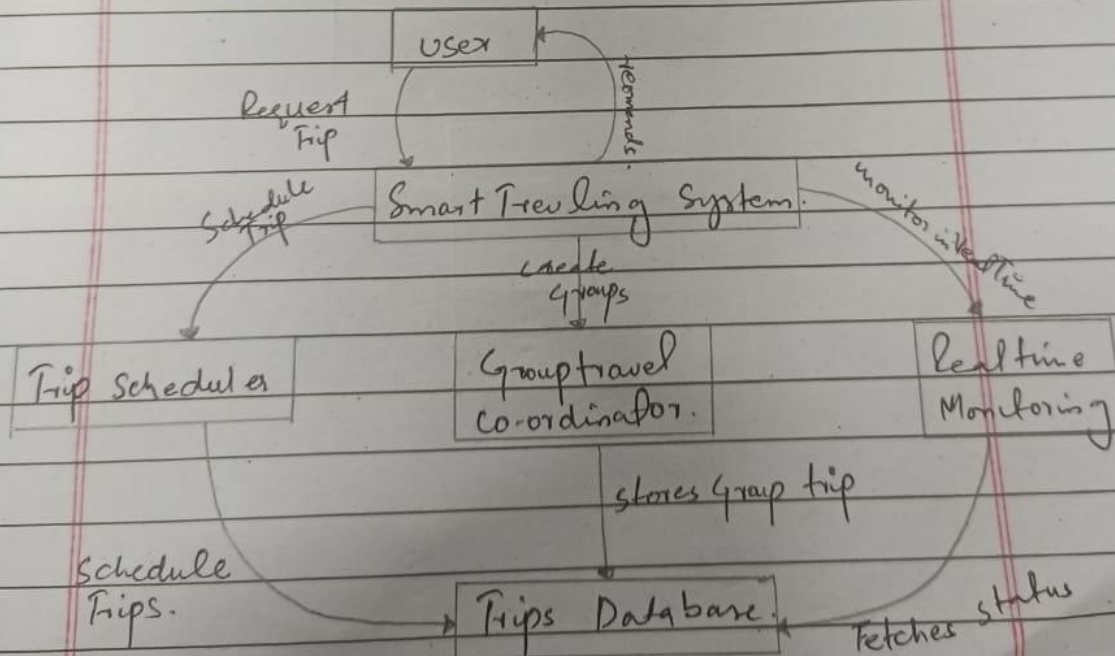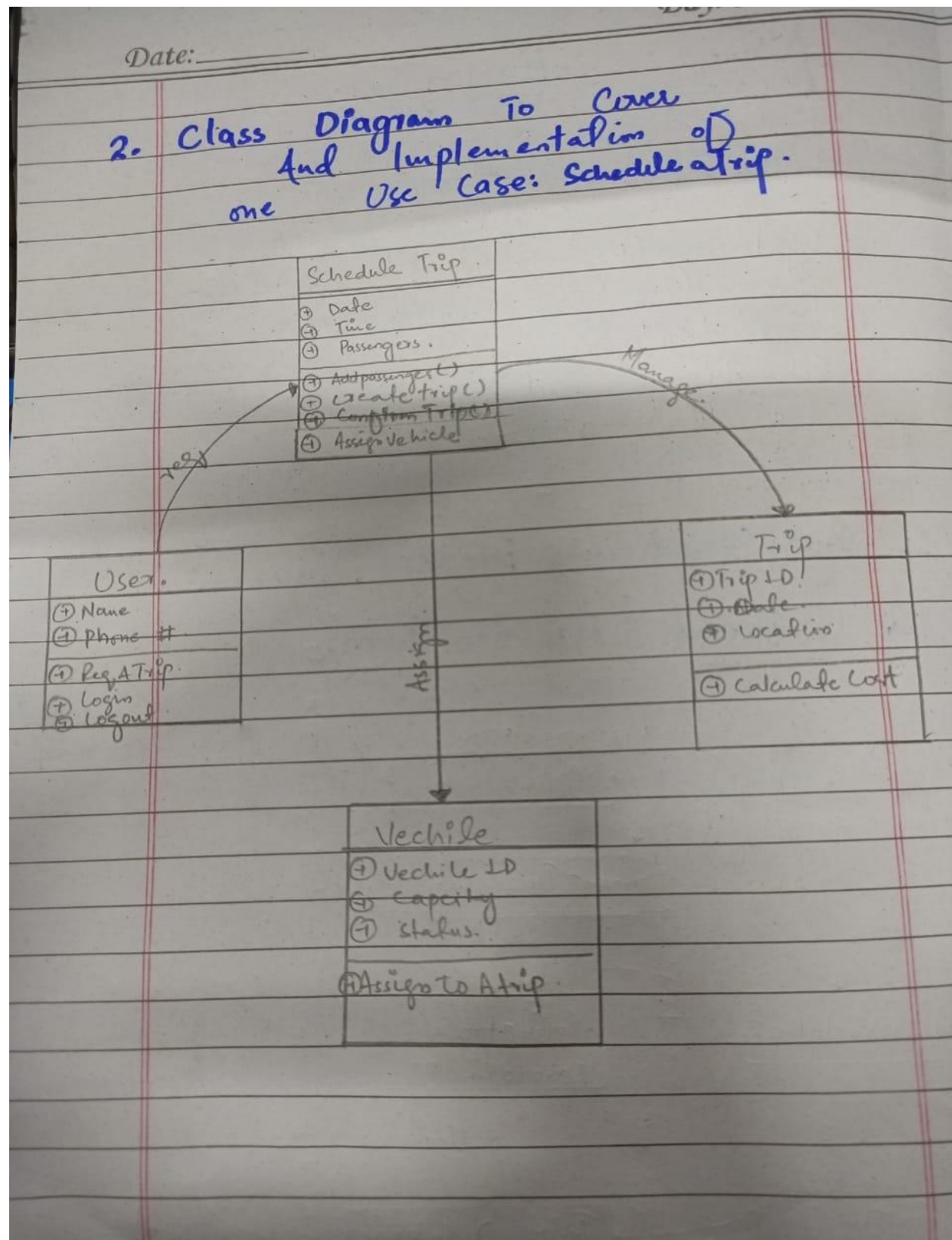| Name | Hamza Gul. |
|------|-----------|
| Reg No | FA22-BSE-086. |

## Case Study:

Smart treveling System For individuals and generating Traveling Groups without a driver with Scheduling and monitoring feature at real time.

## 1: Architecture Block Diagram:

→ **Layered Architecture.**

Diagram content (block/layered architecture):

- **User** — Request Trip → recommends
- **Smart Treuling System** — create Groups, Schedule Trip, monitor ike line
- **Trip Scheduler** — Schedule Trips
- **Group travel Co-ordinator** — stores Group trip
- **Real time Monitoring** — Fetches status
- **Trips Database.**

## Class diagram:



Date:_____

2. Class Diagram To Cover
And Implementation of
one Use Case: Schedule a trip.

**Schedule Trip**
- ⊕ Date
- ⊕ Time
- ⊕ Passengers.
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- ⊕ Add passengers ()
- ⊕ Create trip ()
- ⊕ Confirm Trip ()
- ⊕ Assign Vehicle

**User.**
- ⊕ Name
- ⊕ Phone #
---
- ⊕ Reg A Trip
- ⊕ Login
- ⊕ Logout

**Trip**
- ⊕ Trip ID
- ⊕ Date
- ⊕ Location
---
- ⊕ Calculate Cost

**Vechile**
- ⊕ Vechile ID
- ⊕ Capcity
- ⊕ Status.
---
- ⊕ Assign To A trip

## STATE DIAGRAM:

3) State Diagram for



State diagram showing: Initial state → Available. Available → Assigned (Trip Assigned). Assigned → In Use (Trip Started). In Use → Available (Trip Completed). In Use → Maintenance (Issue reported). Maintenance → Available (Repaired). Maintenance → Unable to repair → Final state.