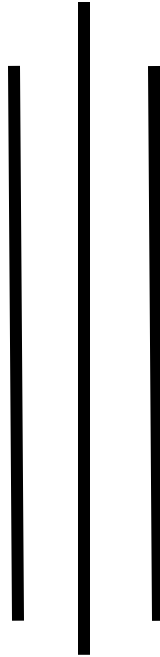


NEPAL OPEN UNIVERSITY
MANBHABAN, LALITPUR



A mini project proposal on
"ThapleJeep" as "Kaligandaki Corridor Transport Coordination System (KCTCS)"
Submitted in partial fulfillment of the requirement for the degree in
M.Phil. ICT

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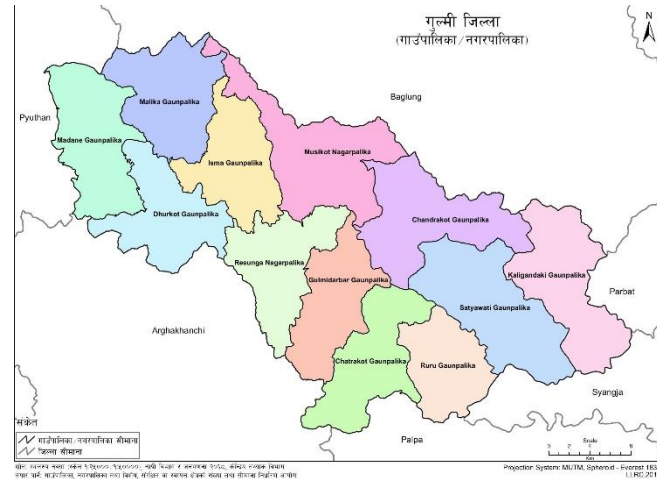
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1. Introduction

Brief Overview:

The **Kaligandaki Corridor Transport Coordination System (KCTCS)** is a Java Swing-based application designed to address the chaotic transportation system along Nepal's Kaligandaki Corridor Highway, a vital route connecting rural municipalities as **Ruru Gaupalika**, **Kaligandaki Gaupa**, **Satywati Gaupalika**, and **Chandrikot Gaupalika** in Gulmi district. The app bridges passengers, drivers, and local administrators to streamline jeep services ensuring reliable and organized travel in a hilly region where transportation is critical for daily commutes, agriculture, and tourism.



- **Problem:** Passengers struggle to locate jeeps, and drivers rely on ad-hoc phone calls for pickups, leading to inefficiency and confusion.
- **Importance:** The system will improve accessibility, reduce wait times, and enhance operational transparency for a critical transportation route in a remote region.

2. Problem Statement

- **Core Issue:** Unstructured jeep services cause delays, inconvenience, and unreliable travel for passengers and drivers.
- **Affected Stakeholders:**
 - **Passengers:** Uncertainty in finding rides.
 - **Drivers:** Inefficient route planning and seat utilization.
 - **Local Economy:** Poor transportation impacts tourism and commerce.
- **Need for Solution:** A centralized platform will optimize resource allocation, reduce chaos, and improve user trust.

3. Scope of the Project

- Passenger registration and seat booking.
- Driver profiles with vehicle details and availability.
- Admin dashboard for user/route management.
- Real-time jeep tracking (simulated via status updates).
- Booking notifications and confirmations.

4. Functional Requirements

Actors:

1. Admin:

- Manage drivers, passengers, and routes.
- Generate reports (e.g., bookings per day).

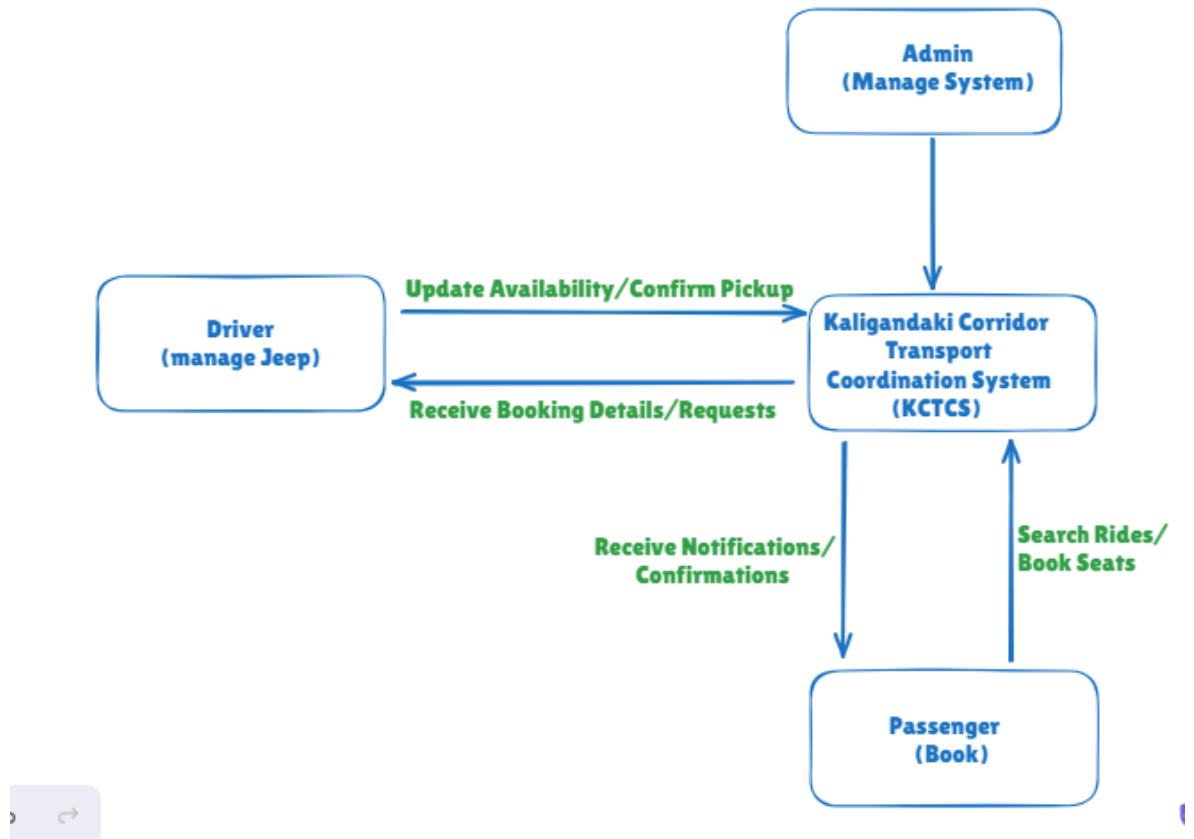
2. Driver:

- Update availability and jeep status.
- View passenger bookings and pickup locations.

3. Passenger:

- Search for available jeeps by route/time.
- Book seats and receive confirmations.

5. Context Diagram

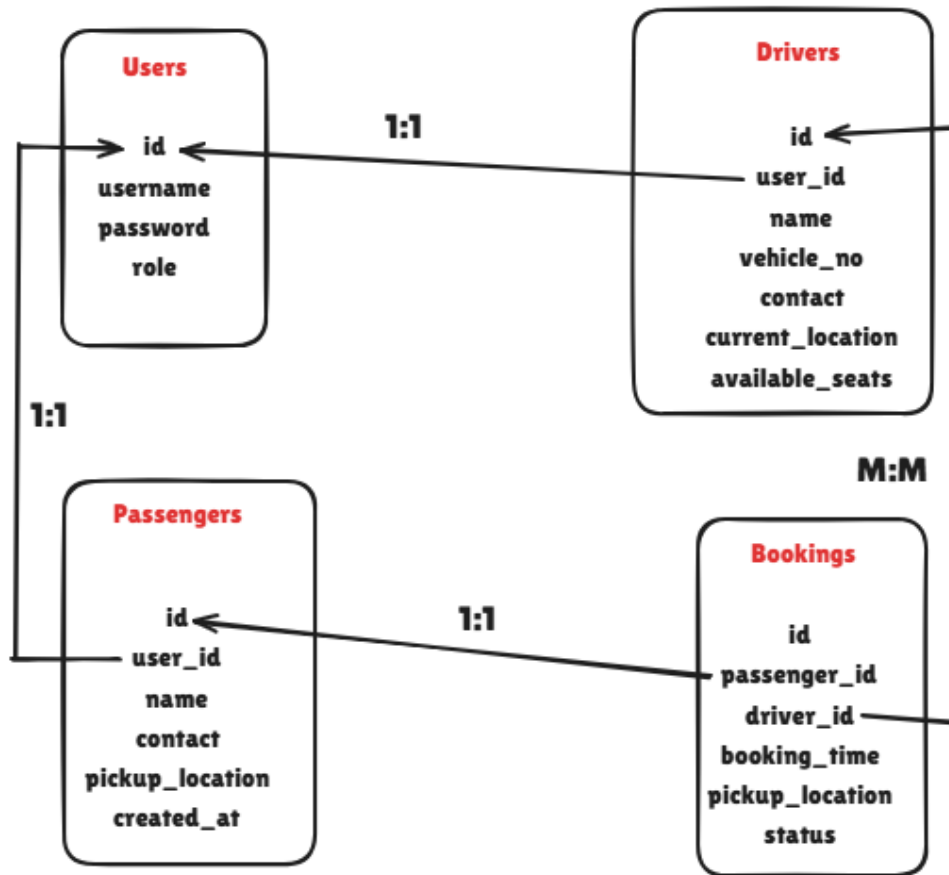


6. Tools and Technologies

- Programming Language:** Java (Swing for GUI).
- Database:** MySQL (JDBC for connectivity).
- Tools:** Eclipse, MySQL Server, Linux GUI and terminal.

7. System Design

a) ER Diagram



b) Use Case Diagram

- Passenger: Book seat, View bookings.
- Driver: Update availability, Confirm pickup.
- Admin: Add/remove routes, Manage users.

c) Data Flow Diagram (DFD)

- **Level 0:**
Passenger → App → MySQL → Driver/Admin.

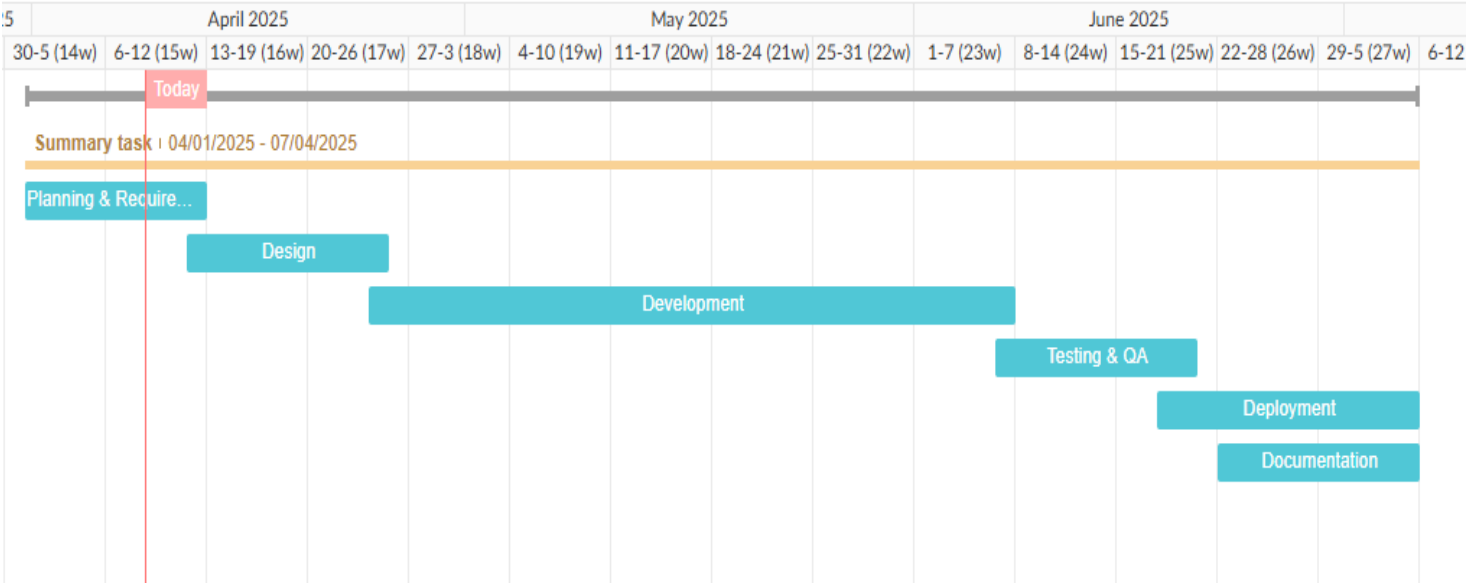
d) Architecture

- **UI Layer:** Java Swing (forms, tables).
- **Application Layer:** Booking logic, validations.
- **Database Layer:** MySQL (queries via JDBC).

8. Expected Outcomes

- **Finished Product:**
 - Passengers book seats via a user-friendly interface.
 - Drivers manage schedules and view bookings.
 - Admins oversee system health and resolve issues.
- **Impact:**
 - Reduced passenger wait times.
 - Optimized jeep occupancy and routes.
 - Improved transparency for all stakeholders.

9. Gantt Chart



10. Prototype Interface:

Admin Login Window:

JEEP TRANSPORT SYSTEM

Username:

Password:

Login

Passenger Sign Up

Admin Dashboard - Jeep Transport System

Manage Drivers

Manage Passengers

Manage Bookings

Manage Locations

Refresh

Add Driver

Delete Driver

Sign Out

id	name	vehicle_no	contact	current_location	available_seats
3	Hira Gurung	Lu12Pa	9817458795		14
4	Govind BK	Lu1349	984567848		13

Admin Dashboard - Jeep Transport System

Manage Drivers

Manage Passengers

Manage Bookings

Manage Locations

Refresh

Delete Passenger

Filter by Location: All Locations

id	name	contact	pickup_location
1	Jane Smith	9847654321	
2	Sanjeev Thapa	9815489555	Horizon Chowck
3	Mina Thapa	9815487888	Plapa Buspark
4	Ashok Gurung	9857089124	Palpa

Admin Dashboard - Jeep Transport System

Manage Drivers

Manage Passengers

Manage Bookings

Manage Locations

Refresh Bookings

id	passenger	driver	pickup_location	booking_time	status
2	Jane Smith	Hira Gurung	Shantipur	2025-04-08T11:53:45	completed
4	Sanjeev Thapa	Hira Gurung	Kalikanagar	2025-04-08T13:26:01	completed
5	Ashok Gurung	Govind BK	Palpa	2025-04-08T15:03:35	confirmed

Admin Dashboard - Jeep Transport System

Manage Drivers

Manage Passengers

Manage Bookings

Manage Locations

New Location:

Add Location

Remove Selected

Horizon Chowck

Plapa Buspark

Palpa

Add New Driver

Username:

Password:

Full Name:

Vehicle No:

Contact:

Default Location: Horizon Chowck

Save

Driver Login Window:

Driver Dashboard - hira

My InformationMy PassengersManage Bookings

Available Seats: 14

Vehicle Number: Lu12Pa

Current Location:

Update Location:

Update Location

Sign Out

Driver Dashboard - hira				
My InformationMy PassengersManage Bookings				
Refresh Passengers				
name	contact	pickup_location	booking_time	status
Jane Smith	9847654321		2025-04-08T11:53:45	completed
Sanjeev Thapa	9815489555	Horizon Chowck	2025-04-08T13:26:01	completed

Driver Dashboard - hira					
My InformationMy PassengersManage Bookings					
Refresh BookingsConfirm BookingMark as Completed					
id	passenger	contact	pickup_location	booking_time	status
2	Jane Smith	9847654321	Shantipur	2025-04-08T11:53:45	completed
4	Sanjeev Thapa	9815489555	Kalikanagar	2025-04-08T13:26:01	completed

Passenger Login Window:

Passenger Dashboard - sanjeev

Available Jeeps

My Bookings

Refresh Available Jeeps

Book Selected Jeep

Sign Out

id	name	vehicle_no	contact	current_location	available_seats
3	Hira Gurung	Lu12Pa	9817458795		14
4	Govind BK	Lu1349	984567848		13

Passenger Dashboard - sanjeev

Available Jeeps

My Bookings

Refresh My Bookings

Cancel Booking

id	driver	vehicle_no	pickup_location	booking_time	status
4	Hira Gurung	Lu12Pa	Kalikanagar	2025-04-08T13:26:01	completed

Thankyou !!!