



DBMS PROJECT

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ACKNOWLEDGEMENT:

We would want to express our profound gratitude to all of the partners, contributors, and stakeholders that helped **Road Rangers** get started and flourish. Their commitment and diligence have been crucial to achieving the goals of providing dependable transportation services and giving captains chances to drive[1]. We also thank the management and stakeholders for their invaluable assistance and direction, which has been essential in determining the goals and course of **Road Rangers**.

ABSTRACT:

To improve and expedite its a cab service operation, **Road Rangers** is currently creating a software program. The program seeks to give users a smooth experience when requesting trips, and when captains accept and carry out these requests. It will provide a range of trip alternatives, with prices determined by base fare and distance traveled, including cycles, rickshaws, small rides, air-conditioned rides, and premium-class cars. The software will allow the business to monitor important statistics, such the quantity of trips taken and overall profit made, enabling data-driven decision-making to improve customer service and operational effectiveness. In order to give captains driving chances and offer dependable and convenient transportation services, **Road Rangers** must implement this project.

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INTRODUCTION:

Road Rangers is a cab service provider that aims to offer reliable and convenient transportation services to passengers while also providing driving opportunities to captains. To efficiently manage and optimize these operations, we are developing a software application that allows passengers to request rides and captains to accept and fulfill them. This app will also provide various ride options for passengers to choose from, including bikes, rickshaws, mini rides, AC rides, and premium-class vehicles. Fares for these rides will be calculated based on the distance travelled and the base fare, as shown in the provided table. There is a need for this software because it streamlines the process of requesting and completing rides for both passengers and captains. It also allows our company to track important metrics such as the number of rides taken and the total profit earned. This information is crucial for improving the efficiency of our operations and ensuring that we are providing the best possible service to our customers.

PROBLEM STATEMENT:

The ineffectiveness of the management and optimization of passenger and captain transportation services. This involves keeping track of important information including the number of rides taken and the overall profit made, in addition to the absence of an effective system for requesting and completing rides. In addition, it's necessary to give passengers a variety of trip alternatives and compute fares depending on base fare and distance travelled. The current absence of a software application to address these issues is a significant problem that needs to be resolved to improve the overall efficiency of operations and ensure the best service for customers.

EXISTING SYSTEM:

Project Differences:

The difference between my project and existing similar project is:

Data Storage: Compared to over Access project, Oracle SQL Plus probably manages a lot more data.

Security: For sensitive data, Oracle SQL Plus provides stronger security features.

Performance: Oracle SQL Plus is designed to efficiently manage large-scale activities.

Scalability: Oracle SQL Plus has a greater capacity to develop and expand in the future.

programming: Oracle SQL Plus calls for a working knowledge of SQL as well as maybe other programming tools.



OBJECTIVE AND GOALS:

The mission of the Road Rangers project is to develop a software application that will enable captains to have driving possibilities in addition to providing passengers with reliable and convenient transportation services. The project's particular aims and objectives are as follows:

Effective Ride Management:

developing a software application that would let passengers request rides and captains accept and fulfill such requests.

providing various kinds of travel alternatives, such as premium-class cars, micro rides, rickshaws, motorcycles, and air-conditioned rides, for passengers to pick up with.

Calculating Fair Fare:

Calculating fares for rides based on the distance travelled and the base fare, as shown in the provided table.

Simplified Processes:

simplifying the process for captains and passengers to request and complete journeys, therefore increasing total productivity.

Tracking Performance:

By keeping track of important information such as the number of rides taken and the overall profit made, the company is able to monitor and improve its operations.

Enhancing Customer Service:

ensuring that the company uses the data acquired from the software application to give its customers the best service possible.

All things considered, the main purpose of the Road Rangers effort is to use technology to enhance passenger transportation services and captain driving possibilities while also increasing operational effectiveness and customer satisfaction.

PROJECT SCOPE:

Passenger interface: With the app, passengers will be able to easily request trips from a variety of ride choices, including bikes, rickshaws, micro rides, air-conditioned rides, and premium-class cars. The goal is to provide passengers with reliable and practical transportation services.

Captain interface: The app will provide captains the chance to drive, enabling them to quickly accept and complete ride requests. This gives captains a platform on which to operate while offering transportation services.

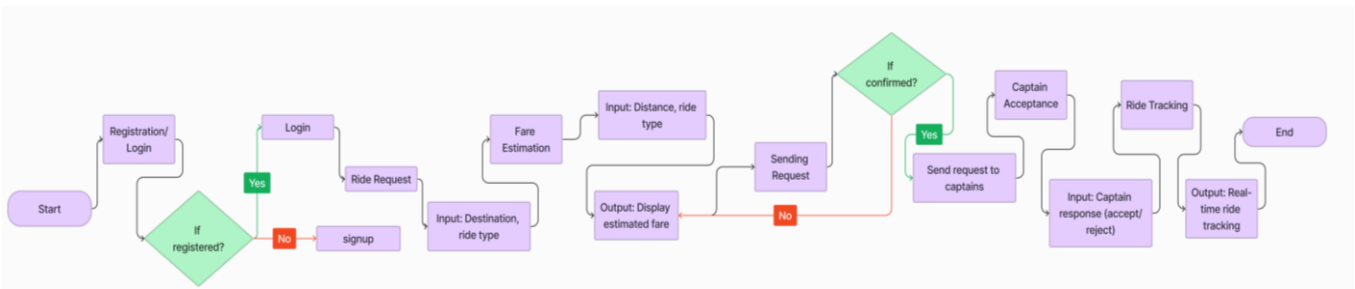
Ride Management: The software will effectively coordinate and simplify ride operations, guaranteeing a smooth ride request and completion process for captains and passengers both.

Fare Calculation: According to the fare table that is provided, the app will calculate fares for rides based on the distance traveled and the base fare. This ensures fairness and accuracy in the pricing calculation for different ride of transportation.

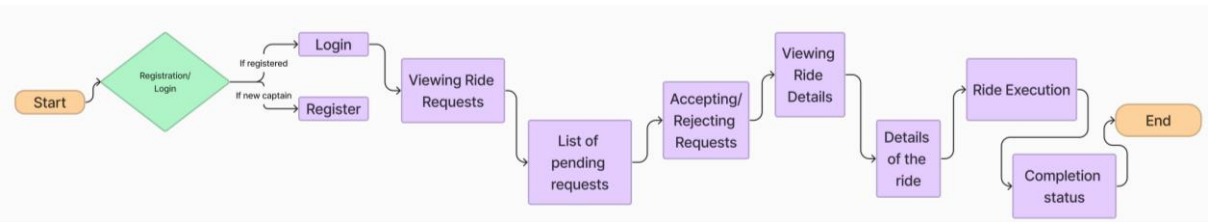
Analytics and tracking: The software will let the company keep track on important metrics like the number of rides taken and the overall profit made. Ensuring optimal customer service and increasing operational efficiency require this information.

Operational Efficiency: In general, the project’s main scope is to improve Road Rangers’ operational effectiveness by including a complete software system that meets the requirements of captains, passengers, and the company itself.

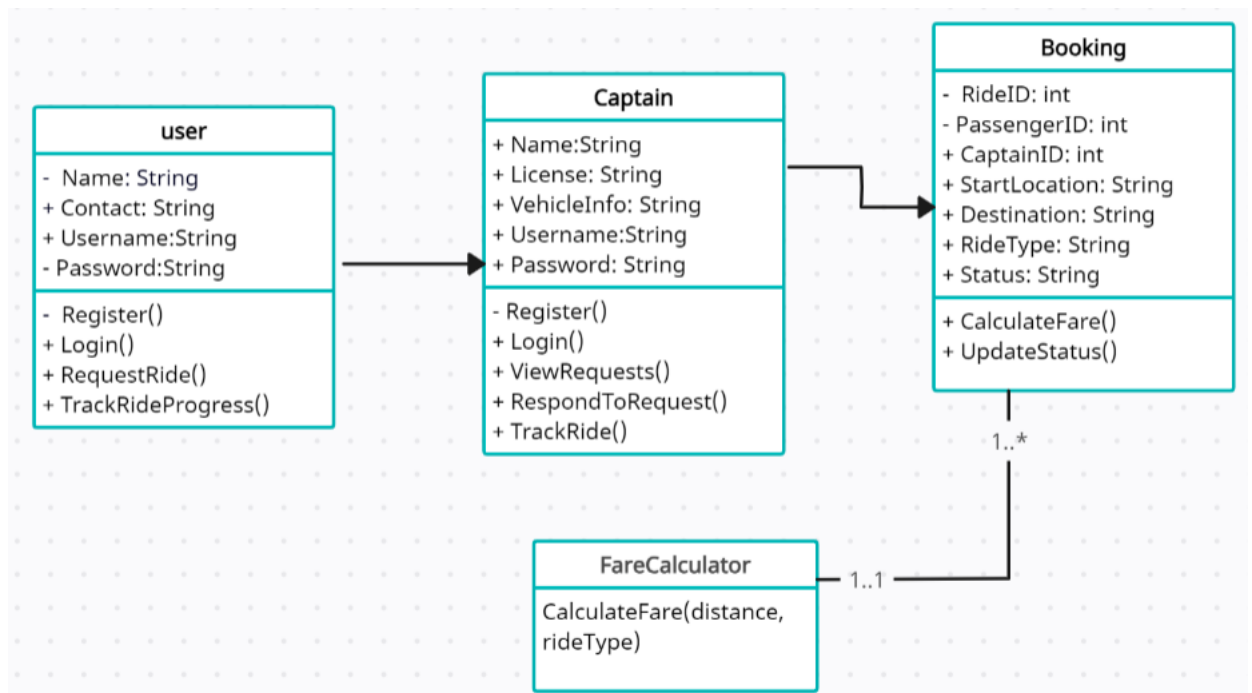
FLOWCHART:



Captain Module Flow:



WORKFLOW: (UML)



OVERVIEW OF PROJECT:

The proposed cab service system will comprise several modules:

Passenger Module: This module will allow passengers to register, log in, request rides,

choose from various ride options, view estimated fares, and track ride progress.

Captain Module: Captains will register, log in, view ride requests, accept or reject them, view ride details, and update ride statuses upon completion.

Fare Calculation Module: A module dedicated to accurately calculating fares based on distance travelled and ride type, ensuring transparency and fairness in pricing.

Ride Tracking and Reporting Module: This section will track ride details, including distance, time, fares, and generate reports on the number of rides taken, total profits, and other important.

TOOL AND TECHNOLOGIES:

Frontend:

We use GUI format on NetBeans platform to give a friendly user interface.



Backend and Database:

- We use Java Language on NetBeans platform[2].



- We use SQL Language on oracle platform (SQL Plus).



PROJECT FEATURES:

The functional and non-functional requirements can be outlined as follows:

Functional Requirements:

Passenger Module:

- Registration for passengers.
- Login functionality for registered passengers.
- Ride request feature.
- Selection of ride options.
- Viewing estimated fares.
- Tracking ride progress.

Captain Module:

- Registration for captains.
- Login functionality for registered captains.
- Viewing ride requests.
- Accepting or rejecting ride requests.
- Viewing ride details.
- Updating ride statuses.

Fare Calculation Module:

Accurate fare calculation based on distance travelled and ride type. Ensuring transparency and fairness in pricing.

Ride Tracking and Reporting Module:

Tracking ride details including distance, time, and fares. Generating reports on the number of rides taken and total profits[3].

Non-Functional Requirements:

Usability:

The system should be user-friendly for both passengers and captains. Intuitive interfaces for easy navigation.

Reliability:

The system should be reliable, ensuring that ride requests are handled promptly.

Minimal downtime for the system.

Performance:

The system should be able to handle a large number of simultaneous users.

Efficient fare calculation and ride tracking[4].

Security:

Secure user authentication and data protection. Protection against unauthorized access.

Scalability:

The system should be designed to accommodate potential growth in the number of users and ride requests.

Compliance:

Compliance with local transportation regulations and laws. Adherence to data privacy regulations.

DBMS IMPLEMENTED CONCEPT: *(show detailing with code)*

OUTPUTS: (screen shots with details)

i. LOGIN:

Login

Welcome to RoadRangers
Cab Service



Login

Enter Username:

Enter Password:

Choose Usertype:

Admin

▼

[forgot password?](#)

SignIn

SignUp

ii. FORGOT PASSWORD:

Forgot Password

Forgot Password



Enter your username:

Choose your Role:

Captain

▼

search

 Forgot Password

Account found



zainab

what is your secret number?

Answer:

submit

Forgot Password

New Password

username



New Password:

Confirm Password:

update password

iii. SIGNUP:

signupType

Choose SignUp Type

Choose your Role:

Captain

Select Back



**Welcome to RoadRangers
Cab Service**

Captain Signup

Vehicle Details:

Enter Vehical Make:

Enter Vehical Number:

Enter Model Number:

Enter Vehical Color:

Select Vehical Type:
Bike

Securityquestion
what was your first car?

Answer:

Personal Details:

Enter Full Name:

Enter Username

Enter Password:

Confirm Password:

Phone Number:



**Welcome to RoadRangers
Cab Service**

User Signup

Enter Full Name:

Enter Username

Enter Password:

Confirm Password:

Phone Number:

Securityquestion
what was your first car?

Answer:

iv. ADMIN DASHBOARD:

Admin Dashboard

Admin Dashboard

Personal Details:

Username:

sara

Name:

saratariq

Phone:

3009765432

Total Rides completed:

5

Gross Earning:

1522.0 PKR

Net Earning:

1415.46 PKR

Profit (7%):

106.54 PKR

Manage Users

Manage Captains

Ride Details

v. CAPTAINS DASHBOARD:

Captain Dashboard

Captain Dashboard

Details:

Username:

imtiaz

Name:

imtiaz

Phone:

3009876543

Vehical Number:

mnbv543

Vehical Type:

Mini Ride

Vehical Colour:

black

Total Rides Taken:

1

Total Earning:

208.32 excluding 7% tax

BookingID	Passenger...	Passenger...	Passenger...	Passenger...	Passenger...	Status	comments...	TotalDistan...	Fare

Accept Ride

Completed Rides

vi. USERS DASHBOARD:

User Dashboard

User Dashboard



Personal Details:

Username: zainab

Name: zainab

Phone: 300987654

BookingID	PassengerSource	PassengerDestin...	PassengerRideTy...	Status	TotalDistance	Fare
210630429	Quaid-e-Azam Ho...	Hilal-e-Ahmar (Re...	Mini Ride	Reached	32.0 km	224

Request Ride

Cancel Ride

FUTURE WORKS:

The future work for the cab service provider company can be outlined as follows:

Enhancing the User Experience:

The company needs to focus on making the app's user experience better for captains and passengers both. To ensure a perfect booking and ride experience, this may be accomplished by improving the app's responsiveness, simplicity, and user-friendliness.

Improving the Services Offered:

To serve more passengers, the company can think about extending the selection of transportation choices it gives. In some cases to various passenger preferences, this could include offering specialized services like group trips, eco-friendly transportation choices, or luxurious rides.

Improving the Fare Calculation:

Maintaining constant improvement of the fare calculation system to ensure accurate and affordable prices for passengers. Using prices that vary based on request, distance, and time of day may be necessary to maintain profitability while offering fair charges to passengers.

System of Reviews and Feedback:

highlighting the significance of passenger evaluations and comments in order to uphold quality standards. To raise the standard of service across the board, the traveling company might try to offer rewards passengers for offering helpful feedback.

Driver Assistance and Promotions:

providing additional support and rewards to captains in order to keep them satisfied and loyal. Offering training courses, rewards, or favors for excellent work and client satisfaction scores might be one way to do this.

Making Decisions Based on Data:

making judgments based on information gathered on earnings, frequency of rides, captains, and registered passengers. The admin team may make important company choices, identify trends, and optimize operations by using this data [5].

CONCLUSION:

In conclusion, the cab service provider company aims to offer a convenient and efficient transportation solution for both passengers and captains through the use of its app. By offering various types of rides and calculating fares based on distance and base fare, the company is able to provide fixed fares to passengers with no additional charges. Captains are able to track their earnings and accept rides, while passengers are able to request rides and make comments or requests. The company keeps records of all registered passengers and captains, the number of rides taken, and the profit earned. The admin team is able to monitor these metrics to optimize the operations of the business. Overall, the app serves as a valuable tool for managing and streamlining the cab service provider company's services.

REFERENCES:

- [1] Author name: issuu
Date or year: 1-feb-2022
Link: <https://issuu.com/solocabs/docs/texta.docx>
- [2] Author name: Gaurav Gupta
Date or year: 26-jul-2023
Link: <https://blog.payara.fish/topic/netbeans>
- [3] Author name: Sentayhu Berhanu
Date or year: 2020
Link: <https://iq.opengenus.org/system-design-of-car-rental-system/#:~:text=Functional%20Requirements,-Allow%20users%20to&text=Users%20can%20book%20a%20car,booking%20details%20and%20rental%20agreement.>
- [4] Author name: Tuhin Bhatt
Date or year: 13-june-2022
Link: <https://www.intelivita.com/blog/taxi-app-development-ideas/>
- [5] Author name: Adimuthu Ramasamy, Kamalakanta Muduli and John Pumwa
Date or year: 14-April-2021
Link: <https://journals.sagepub.com/doi/full/10.1177/2516600X21997201>

ERDIAGRAM:

