Capgemini

Online Driver Booking System

High Level Design/ Low Level Design

Index

Document Control :

Project Revision History							
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Date	**Version**	**Author**	**Brief Description of Changes**				**Approver Signature**
20/10/2022	0.0	Group 4					
21/10/2022	0.1	Group 4					

1. Introduction

1.1Intended Audience:

The target audience for this project is any person who owns a car but don't know how to drive or can't drive, who requires a driver can use this service.

1.2Acronyms/Abbreviations:

USER	CLIENT
DRIVER	THE WHO DRIVES THE CLIENT TO THEIR SPECIFIED LOCATION.
ADMIN	ADMINSTRATOR

1.3 Project Purpose:

The purpose of this project is to serve the client who owns a car with a driver to drive to a specified location. This application can be used anywhere at any time with a stable internet connectivity. To get the best experienced drivers this application can be used.

1.4 Key Project Objectives:

- Admin login.
- Validate admin id and password
- Allow user registration with aadhar id.
- Allow users to login
- Validate username and password
- Allow driver registration with dl.no
- Allow drivers to login
- Validate drivers name and password
- User booking for the driver by unique id
- Show Driver booked status
- Ride status
- Storing the records of successful and cancelled rides

1.5 Project Scope and Limitation:

The scope of the online driver booking applications functionality, to give the user a seamless driver booking experience. The application's primary goal is to book drivers for people who owns cars. Through this application a New users can be able to register and already registered users can be able to login. The new driver can also register and login with an age limitation of 20-65. The admin can store and access both user and driver data. This application is not only useful for the user but also for the driver.

1.6 Functional Overview:

1.6.1 Following header files are included in the program:

- #include <stdio.h>
- #include <stdlib.h>
- #include <termios.h>
- #include <string.h>
- #include <ctype.h>

1.6.2 Login

- User : user logins by entering password.
- Driver : driver logins by entering dl.no and password
- Admin : admin logins by entering admin's password.

1.6.3 User's corner

1.6.3.1 Add User data

This function is the starting point of the application as the user creates their own profile by entering details such as Aadhar no, name, address and age which they can edit in future. The user can create an account only if he is 18 or above.

1.6.3.2 Edit user data

This function allows the user to edit the data he entered while registering anytime.

1.6.3.3 Book driver

The user can book a driver from the given list of drivers who matches the routes selected by entering the drivers unique id.

1.6.3.4 Show top drivers

The drivers who have taken the most number of rides and has a good rating will be shown in the top drivers list.

1.6.3.5 Cancel ride

The user can can cancel the drivers anytime after booking but an service fee of 2% will be detucted as an cancellation fee.

1.6.4 Driver's corner

1.6.4.1 Add driver data

The driver will create their profile by giving driving license no, name, age, address and phone number.

1.6.4.2 Edit driver data

The driver can only edit their information by giving their unique id and login details and can update their related data.

1.6.5 Admin's corner

1.6.5.1 User maintainance

The admin can edit, delete, view and maintain the user database.

1.6.5.2 Driver maintainance

The admin can edit, view, delete and maintain the driver database.

1.6.5.3 Ride report

The admin has the status of the ride and displays the ride report to the user after the completion of the ride.

1.6.5.4 Display records

The admin has the records for the successfully completed and cancelled rides and can also display the ride status.

1.6.5.5 List of routes

The admin specifies the list of routes from which the user and the drivers picks the route which matches them.

2. Design Overview:

Online driver booking application comprises of the following modules:

Name of the Module	User Menu (add)
Handled by	Chinthaparthi navya sree
Description	Is to login for the user and adding their basic details like name, address, age and aadhar number.

Name of the Module	User Menu(edit)
Handled by	Shanmugapriya SD
Description	User can edit their basic details can change the address, age etc.

Name of the Module	User Menu(book_driver)
Handled by	Sushmitha patnam
Description	To book a driver the user should specify the route, no of days and vehicle type by that the driver will charger amount.

Name of the Module	Driver Menu(add)
Handled by	Ramya Padmini pendyala
Description	Driver login/ register and add their details like driving license number, name, address, age and phone number.

Name of the Module	Driver Menu(edit)
Handled by	Shanmugapriya SD
Description	Driver can edit their basic details like address, age and phone number.

Name of the Module	Admin Menu (user maintains)
Handled by	Ramya Padmini pendyala
Description	Admin will have all the details of user and only admin can add, edit, delete the details for user

Name of the Module	Admin Menu (driver maintains)
Handled by	Sushmitha patnam
Description	Admin will have all the details of driver and only admin can add, edit, delete the details for driver.

Name of the Module	Admin Menu (ride reports)
Handled by	Sujitha nadendla
Description	Admin will have all the reports of successful rides had taken.

Name of the Module	Admin Menu (ride reports1)
Handled by	Chinthaparthi navya sree
Description	Admin will have all the reports of cancelled rides had taken.

2.1 Design Objectives:

- Allow user to login
- Allow user to add and edit user's data.
- Allow user to book a driver.
- Allow driver to login.
- Allow driver to add and edit driver's data.
- Allow admin login.
- Allow admin to edit,delete and maintain user and driver's data.
- Allow admin to display records and show ride status.

2.2 Design Alternative:

We have used linked list to store the data from there we are storing it into the files. We are storing the user menu, driver menu and the admin has all the reports for user details, driver details, Successful rides and cancelled rides.

2.3 User Interface Paradigms:

The online driver booking systemgives a user to travel freely without any stress of driving a car. The user can login and give their basic details also the driver can also login by giving their basic details.. The admin will generate the unique Id for the drivers and list of routes from that the driver can be hired.

2.4 Error Detection / Exceptional Handling:

- If the user doesn't have existing account , the user has to create one else it won't perform any functions.

- New users should register before login or else it displays the no user found.Registered users have to login with valid credentials otherwise, they will get invalid username or password. After login, the user is able to start booking for a driver with the driver's id, route, no of days.

2.5 Performance:

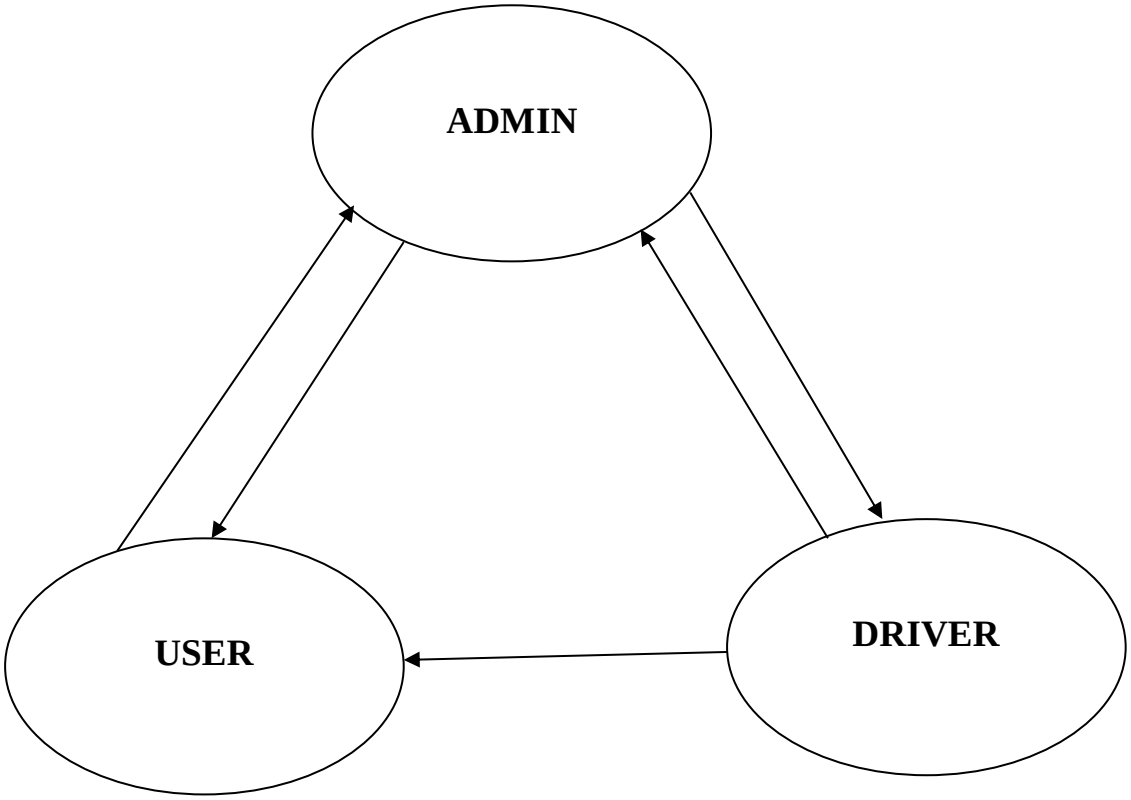
The system will work on the user's terminal. The performance depends on the hardware component of the user's system and the internet connection.

2.6 Maintenance:

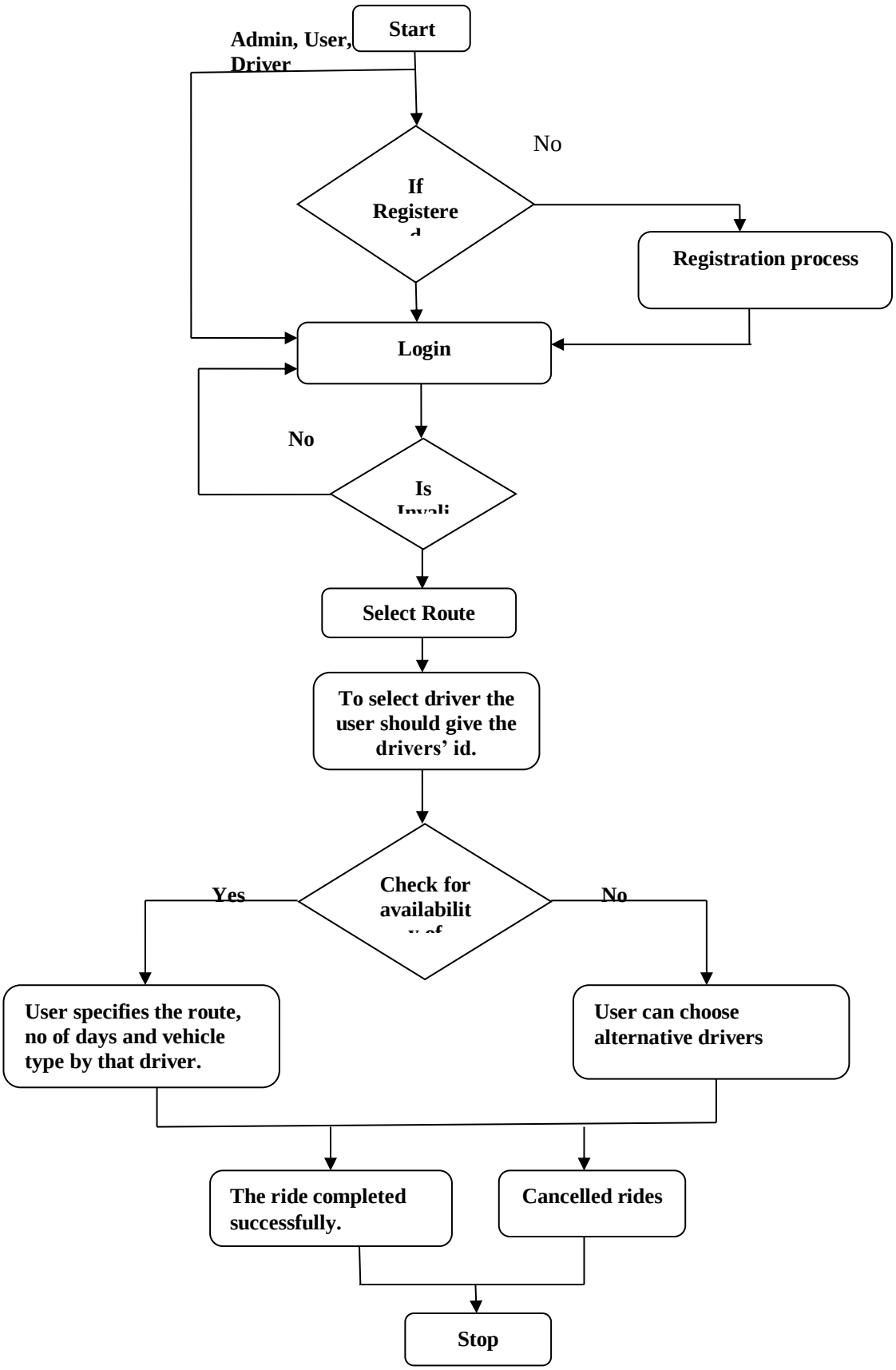
Very little maintenance should be required for this setup. An initial configuration will be the only system required interaction after system is put together. The only other user maintenance/ driver maintenance would be any changed by the admin. Physical maintenance on the system's parts may be required, and would result in temporary loss of data or Internet. Upgrades of hardware and software should have little effect on this project but may result in downtime.

3. SYSTEM ARCHITECTURE:

3.1. System Architecture Diagram:



4. Detailed System Design
Activity Diagram:



5. Environment Description:

5.1 Time Zone Support: IST- Kolkata

5.2 Language Support: English

5.3 User Desktop Requirements:

a. 64-bit processor, 1 GHz or faster

b. At least 2 GB free hard drive space

c. At least 1 GB RAM

5.4 Server-Side Requirements:

a. 64-bit processor, 1 GHz or faster

b. At least 1 GB free hard drive space

c. At least 1GB

5.4.1 Deployment Considerations

- Local storage is used
- No network latency to consider
- To scale buy a bigger CPU, more memory, larger hard drive, or additional hardware

5.4.2 Application Server Disk Space: -

No such disk space is required as the program is fully functional on online IDE(s) as well.

5.4.3. Database Server Disk Space: -

No such disk space is required as the program is fully functional on online IDE(s) as well.

5.4.4 Integration Requirements:

- Language: C
- Tools: C check, Valgrind, Makefile
- Complier: Putty
- Linux Environment

5.4.5 Network: End to End

5.5 Configuration:

5.5.1 Operating System: Linux environment.

6 Reference

- https://www.javatpoint.com/file-handling-in-c
- https://github.com/Ayesh18/
- https://github.com/sukanya-99/