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KAVERI COLLEGE OF ARTS, **SCIENCE & COMMERCE**



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Principal

A PROJECT REPORT ON

Bus Ticket Management System

By

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In partial fulfilment of B. Sc. (Computer Science)



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1.ACKNOWLEDGEMENT

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We are also thankful to our colleagues and all our instructors for helping in the making of the project.

2.ABSTRACT

ONLINE BUS TICKET SYSTEM is mainly helpful for the travelers who are facing problem with the current manual work of bus ticket registration and generate as well as getting bus ticket online and renew online without any irritating process. User can find all the bus ticket generation related information online without going to the bus station.

The project allows users to register and generate bus ticket through application/website and communicate online to manage or create account to perform online transaction. Verification of user will be done through ID proof. Destination of the bus will be available for the users in the web page itself.

Online bus management system is helpful as it reduces the paper work, time consumption, corruption-less and come out from irritating process to makes the process of getting bus ticket in simple way.

3.INTRODUCTION

ONLINE ticket is web-based tool which helps people booking and registering the bus ticket online. The Online Bus Ticket Booking System is made to automate the current process of bus ticket, the user can get the ticket online instead of going to the bus stop and stand in a queue.

This system is designed by keeping in mind that it allows users to register their details with the system, and then use this software with the system after logged in successfully. This is faster way than old system. This system can be used for newly registration of ticket and reduces time and provides proper management.

This project allows users to register in the bus ticket application and interact to manage their account and bus ticket related transactions and apply for a new bus ticket.

This online ticket registration application will help travelers to save their time without standing in a queue for hours near counters. Initially travelers need to register with the application by submitting their personal details, destination, time etc and submit it through online. Receipt will be provided to the user at the end of the booking process.

4.PROBLEM DEFINITION

Now-a-days public transport is increasing, most of the travel enthusiastic people like to travel together with their family and friends, hence enjoying the travel journey together. Hence bus is the best mode of transport to experience the journey.

But to issue tickets we have to go in bus depot and we have to stand in queue as well as we have to suffer for validation of our documents which is very time consuming and senior citizens are most likely to suffer in these situations.

So to reduce their efforts this system is designed and it is user friendly too.

5.LITERATURE SURVEY

Digital booking system for buses either uses a website or an application to provide service to computers. This new e-booking system is not only effective but also efficient. We provide the detail description of the existing system.

The objective of this approach is to automate booking system as well as ticket issuing procedure with name safety and security. As the time progresses, more softwares will be coming forward and will become aware of need of digital approach in transportation as well. This system is developed for the all types of user with the highly flexible and configurable product is envisaged to ensure global marketing.

6.NEED OF SYSTEM

People must go to the bus depot and stand in a queue for getting the ticket. If someone is residing in rural areas then he/she has to travel to respective area's / village's depot to issue ticket. This is a time consuming process so there is need of new system which reduces unnecessary efforts and make it easy. There is no facility for the online payment. So to reduce these efforts this system is designed.

The current system is a manual system in which transport user has to go to the bus depot for getting the ticket. The proposed system is designed in such a way that overcomes all the problems of the current system.

7.SCOPE OF SYSTEM

- The system should manage passenger information, including personal
 details, contact information, and ticket history. This can help in providing
 personalized services and maintaining records for future reference.
- User can get the ticket by online from their home instead of going physically to the bus depot and stand in a queue.
- The system provides functionality for passengers to book bus tickets
 online. This involve selecting the desired destination, date, time, and seat
 preferences.
- The system should keep track of seat availability on different buses and provide real-time information to users, allowing them to choose from the available seats.

8.SYSTEM ANALYSIS

System Analysis of a Bus Ticket Management System involves analyzing the requirements and functionality of the system to ensure it meets the needs of the users.

Identification and gathering of the requirements for the bus ticket management system. This can be done through discussions with stakeholders such as bus operators, passengers, and system administrators. The requirements should include functional requirements (e.g., ticket booking, seat availability).

Develop use case diagrams to capture the interactions between system actors (users, administrators) and the system itself. Identify primary use cases such as ticket booking. Define the steps and interactions involved in each use case.

Existing System:

In the existing system bus ticket registration is carried out manually. The person has to visit the counter and have to submit the details and then they have to wait for approval.

For each and every process there is time limit specified if the person fails to go on time all the transactions will be cancelled.

9.FEASIBILIYY STUDY

The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operational Feasibility
- Economical Feasibility

Technical feasibility:

Earlier no system existed to cater to the needs of 'Secure Infrastructure Implementation System'. The current system developed is technically feasible. The database's purpose is to create, establish and maintain a workflow among various entities in order to facilitate all concerned users in their various capacities or roles. Necessary bandwidth exists for providing a fast feedback to the users irrespective of the number of users using the system.

Operational feasibility:

Proposed projects are beneficial only if they can be turned out into information system. That will meet the organization's operating requirements. Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following: -

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undermine the possible application benefits?

Economical feasibility:

A system can be developed technically and that will be used if installed, and must still be a good investment for the organization. In the economical feasibility, the development cost in creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs. The system is economically feasible. It does not require any additional hardware or software.

10.TESTING

- The system was tested with usual test routines with the intent of finding an error to detect bugs and to test the quality of the software.
- The system begins its first test by unit testing one & only one unit is tested as such.
- Testing procedures were carried following the Bottom-up testing approach. According to the Bottom-up approach each unit is tested as and when it developed. This units are combining into modules are also individually tested. And finally all the modules are integrated to form the entire system.

11.IMPLEMENTATION DETAILS

Software Requirements:

- 1. Operating system Linux
- 2. Languages JAVA
- 3. Front End JAVA
- 4. Platform Intellij IDEA Community Edition
- 5. Back End PostgreSQL

Hardware Requirements(Basic):

- 1. Processor Intel core i3
- 2. RAM 4GB
- 3. Hard Disk SSD 512GB

12.CONCLUSION

From this system manual work is reduced and increases Digitalization.

Online bus ticket booking system will generate bus ticket online.

User can find all the bus ticket related information online without going to any private or public offices.

By automating tasks such as ticket booking, seat availability, and payment processing, the system simplifies the user experience for passengers and reduces the workload for bus operators. It also includes data processing for storing the database of passengers.

By implementing such a system, bus operators can enhance their service offerings, increase revenue, and provide a seamless and convenient experience for passengers.

13.FUTURE SCOPE

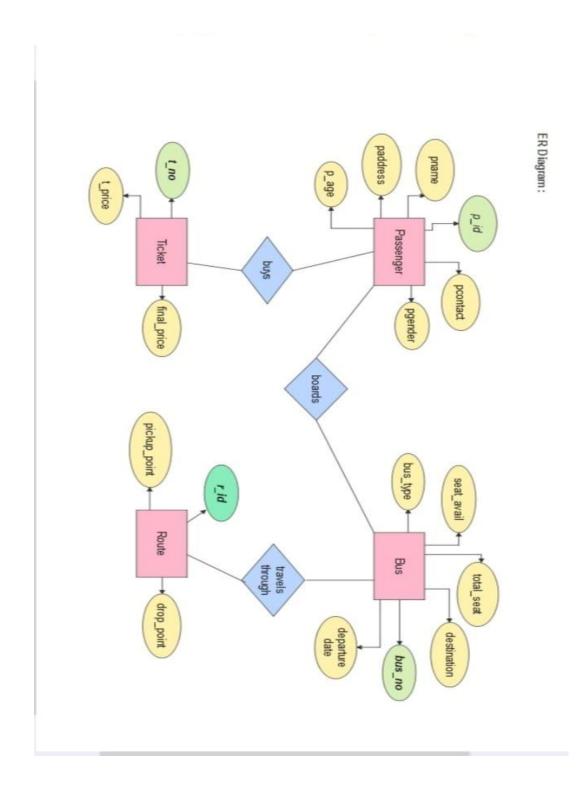
- More cities and buses can be added.
- Cyber-crimes are increasing day by day, so advance data security will be implemented in future.
- More searching options will be provided to the customer in the future.
- Process of online ticket cancellation will be considered in future.

14.LIMITATIONS

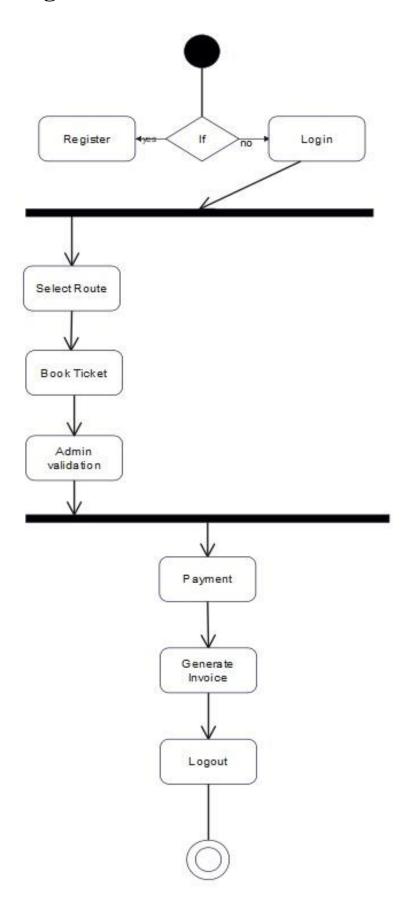
- 1. The size of the database increases day-by-day, increasing the load on the database back up and data maintenance activity.
- 2. Training for simple computer operations is necessary for the users working on the system.
- **3.** Cyber-crimes are increasing day by day, so advance data security is needed to implement.

15.DIAGRAMS

ER Diagram

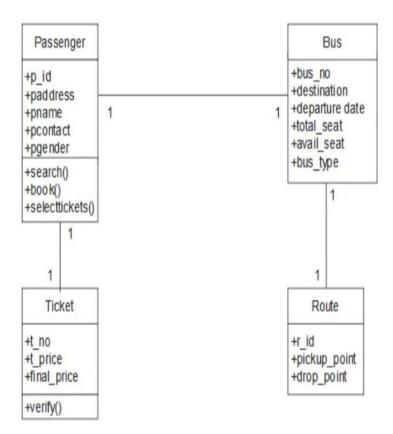


Activity Diagram

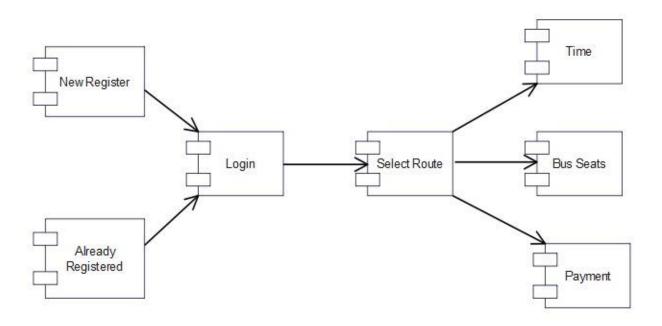


Class Diagram

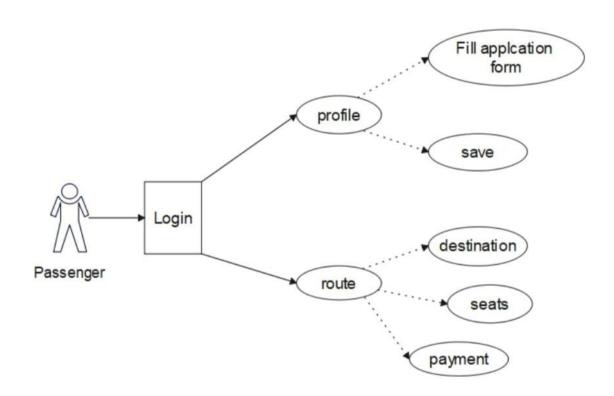
Class Diagram:

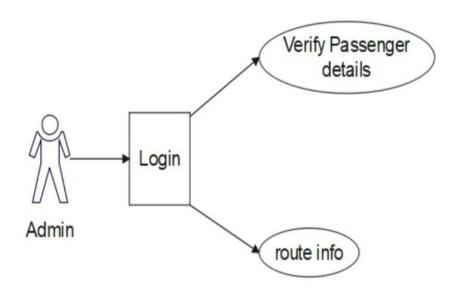


Component Diagram

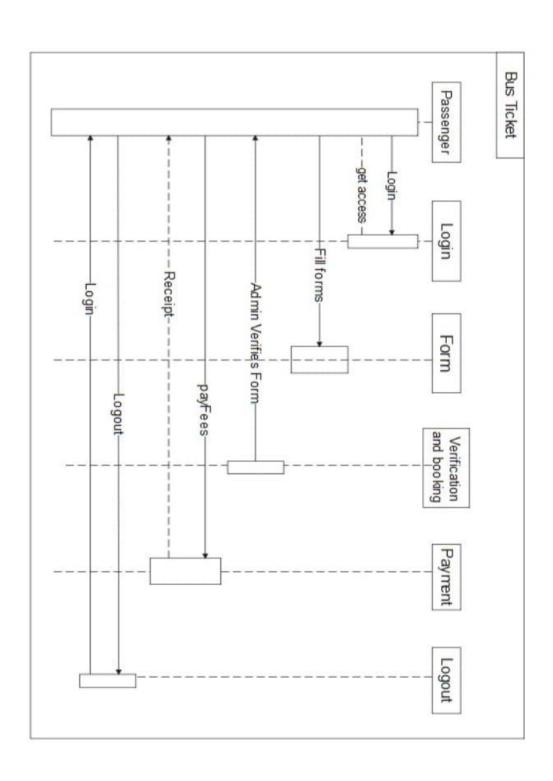


Use case Diagram

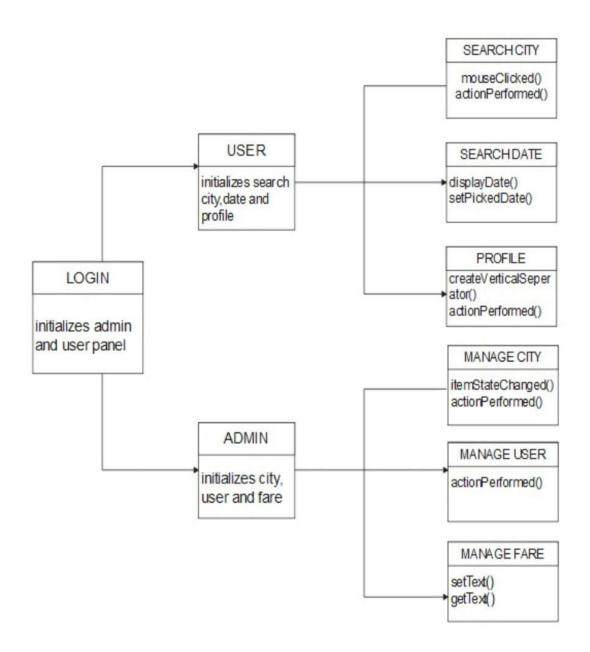




Sequence Diagram



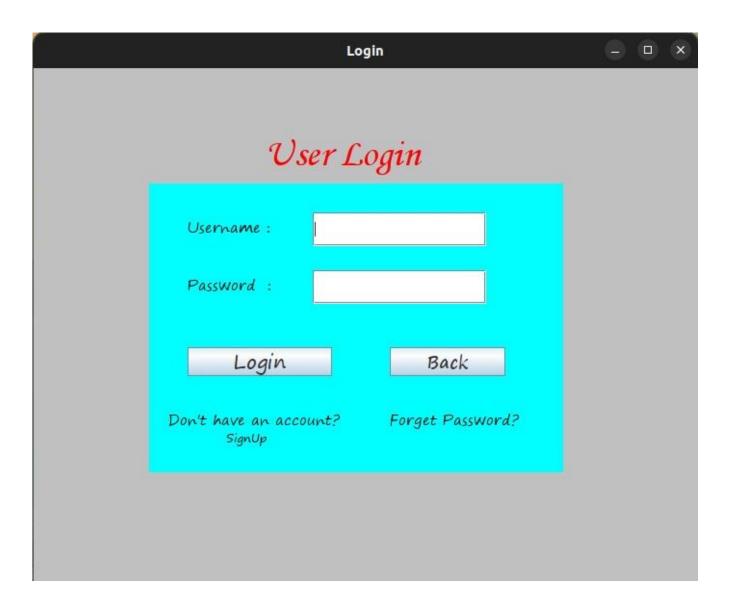
Deployment Diagram



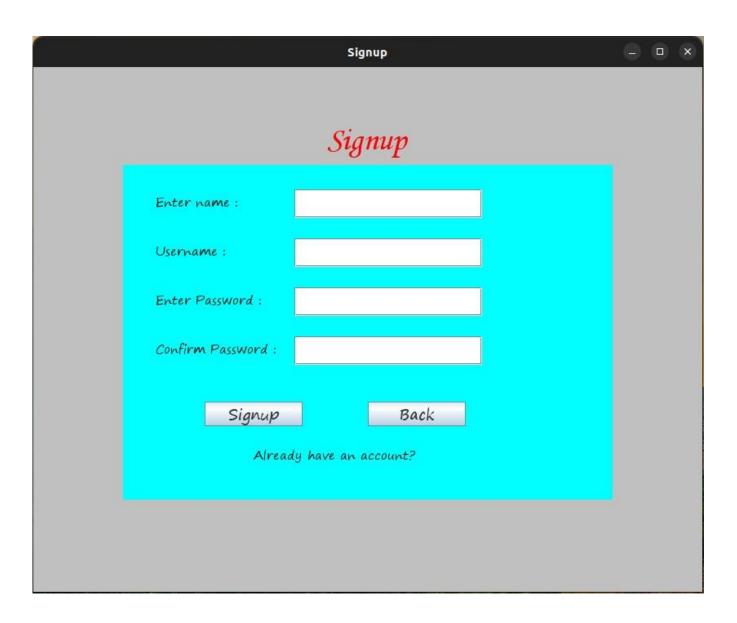
Home Page



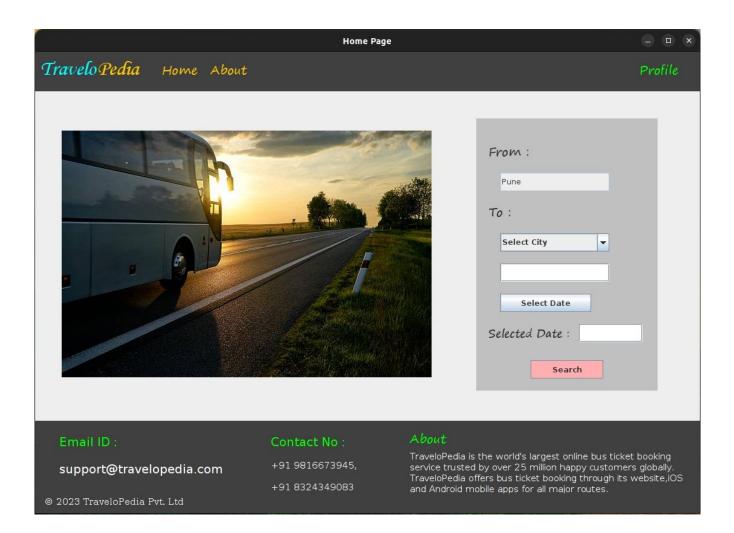
User Login



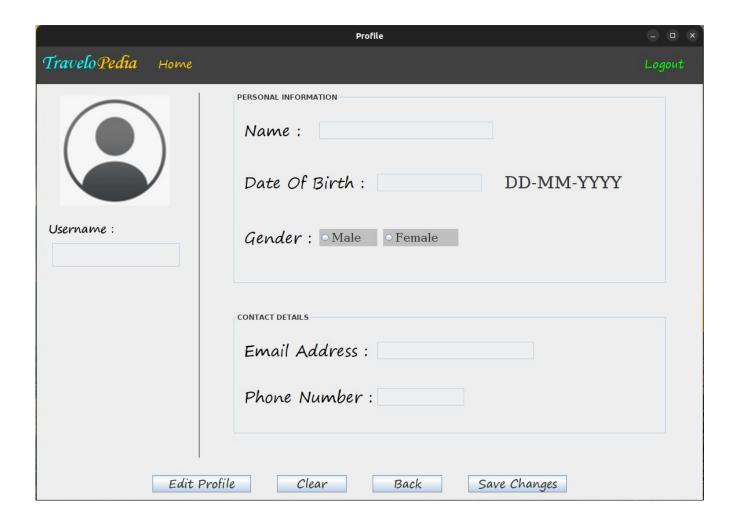
Sign up



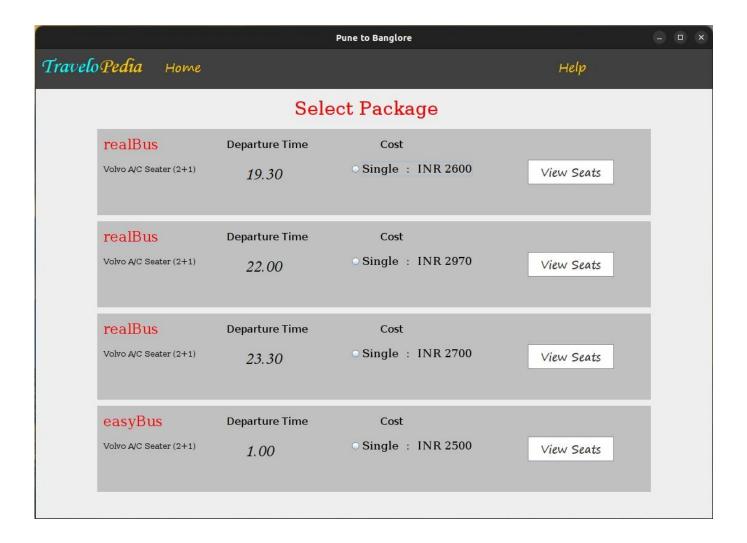
Route Details



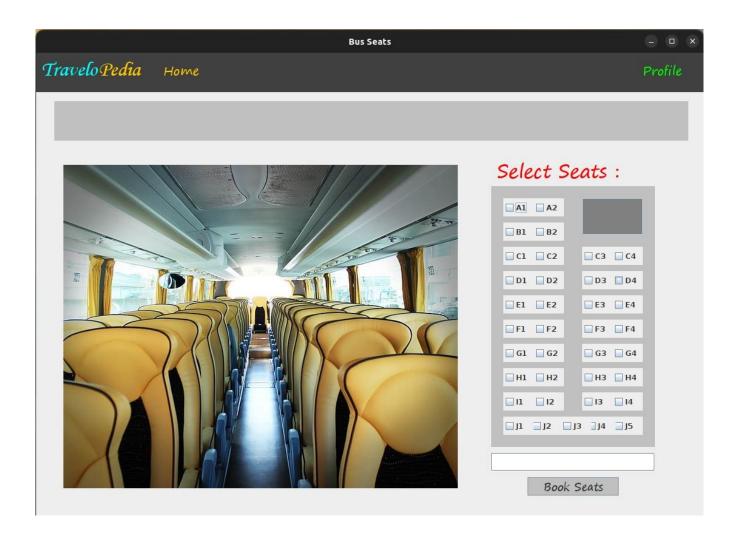
Profile



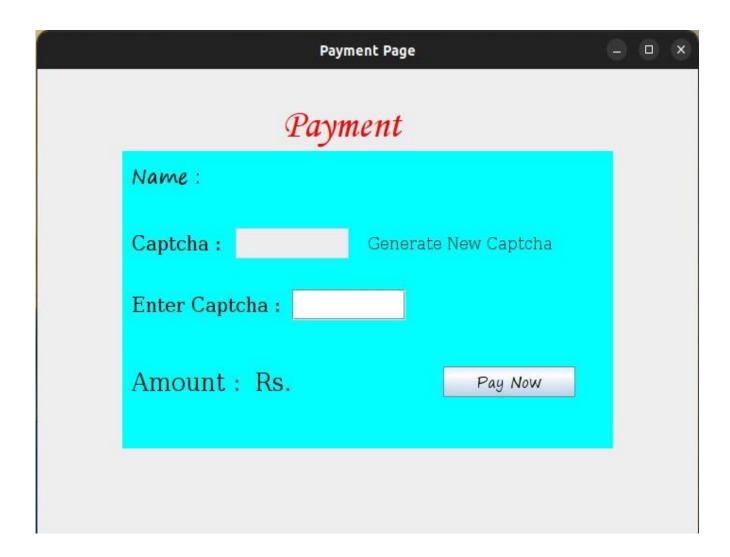
Package



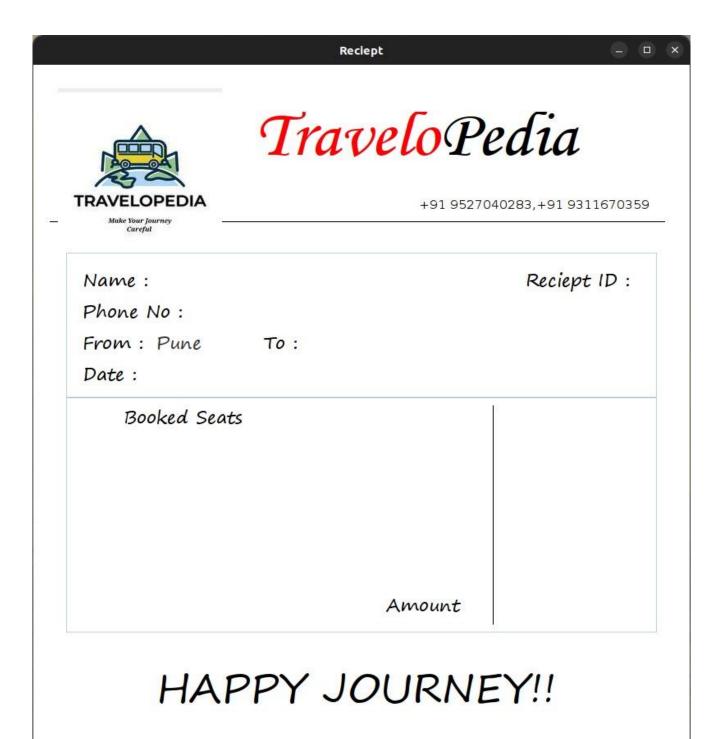
Select Seats



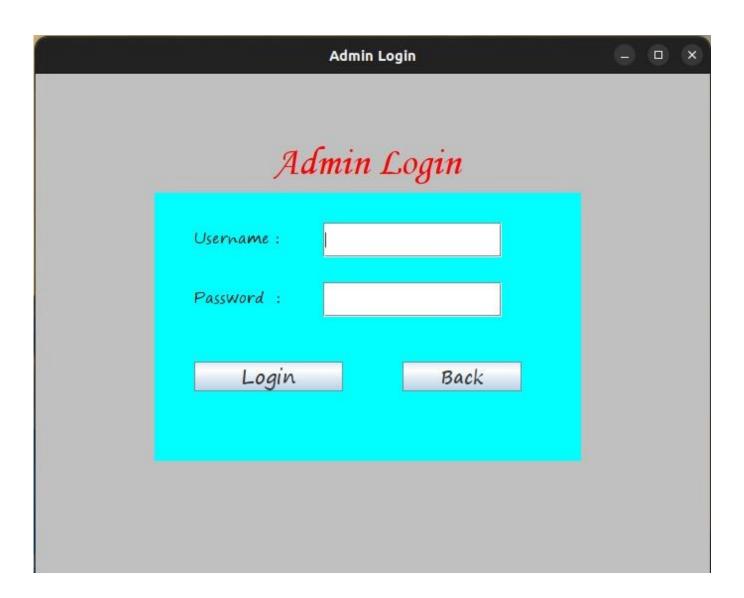
Payment



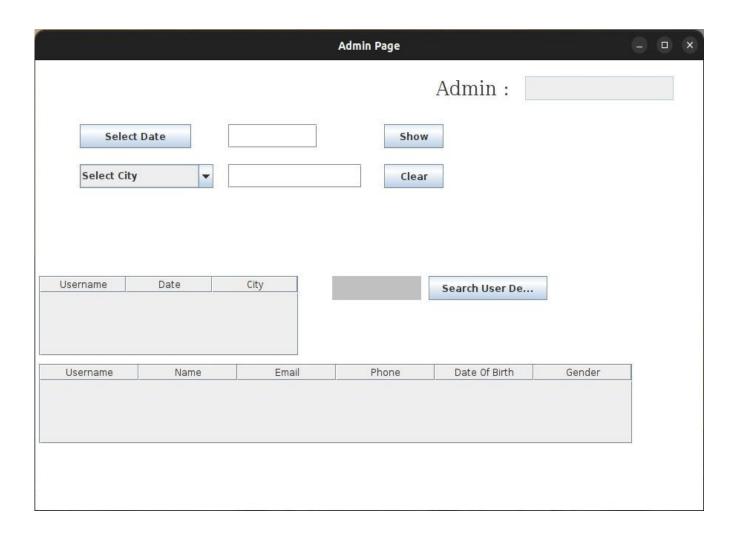
Receipt



Admin Login



Admin Page



DATABASE

For user:

```
shaunak@shaunak-Inspiron-15-5501: ~ 🔍
 F
shaunak@shaunak-Inspiron-15-5501:~ $ sudo -i -u postgres;
[sudo] password for shaunak:
postgres@shaunak-Inspiron-15-5501:~$ psql
psql (14.7 (Ubuntu 14.7-0ubuntu0.22.04.1))
Type "help" for help.
postgres=# \c loginpage;
You are now connected to database "loginpage" as user "postgres".
loginpage=# select * from login;
       | username | password
 name
Shaunak | sd
                  1211
Rushabh | rv
                   | 241
(2 rows)
loginpage=#
```

Profile:

```
shaunak@shaunak-Inspiron-15-5501: ~
                                                        Q ≡
shaunak@shaunak-Inspiron-15-5501:~$ sudo -i -u postgres
[sudo] password for shaunak:
postgres@shaunak-Inspiron-15-5501:~$ psql
psql (14.7 (Ubuntu 14.7-0ubuntu0.22.04.1))
Type "help" for help.
postgres=# \c loginpage;
You are now connected to database "loginpage" as user "postgres".
loginpage=# select * from profile;
 name | username |
                           email
                                     | phone | dateofbirth | gender
 Rushabh | alone | 243rushabh@gmail.com | 9011670358 | 24-03-2002 |
(1 row)
loginpage=#
```

Admin:

```
shaunak@shaunak-Inspiron-15-5501: ~ □ = □
shaunak@shaunak-Inspiron-15-5501:-$ sudo -i -u postgres;
[sudo] password for shaunak:
postgres@shaunak-Inspiron-15-5501:~$ psql
psql (14.7 (Ubuntu 14.7-0ubuntu0.22.04.1))
Type "help" for help.
postgres=# \c admin;
You are now connected to database "admin" as user "postgres".
admin=# select * from adminlogin;
      name | username | password
Rushabh Vaidya | alone
                           | rushabh@1
 Shaunak Dinkar
                 | inferno
                           | dinkar1211
                           47
 Ayush Gunjal
                 aag
Chaitanya Vaidya | cv
(4 rows)
admin=#
```