



INSTITUTE FOR ADVANCED
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SOFTWARE DEVELOPMENT
AKURDI, PUNE

Documentation On

“ONLINE BUS BOOKING SYSTEM”
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Introduction

Still most of the people are buying tickets offline, by visiting the counters of that particular company and getting into queues and paying through cash system and hence wasting time and having money exchange problem and taking into consideration this things online bus booking system takes into consideration that we will provide online ticket without having problem of time getting wasted and using the system of online payment they solve the problem money exchange and carrying cash along with them and we have also provided some of the additional facilities like bus enquiry, ticket enquiry, and moreover, if they want then can buy the tickets from the staff itself and the ticket can be generated online.

Document Purpose:

The advancement in Information Technology and internet penetration has greatly enhanced various business processes and communication between bus booking companies and their customers who are purchasing the tickets. This Online Bus Booking System is developed to provide the following services:

Enhance Business Processes:

To be able to use internet technology to project to the global world instead of limiting their services to their local domain alone, thus increase their return on investment (ROI).

Online Bus Booking System:

A tool through which admin can register a Customer and provide many functionalities to them. The admin also receives some set of functionalities which help in managing the Bus.

Ticket generation:

This system's key functionality is that it helps in generating the ticket online with online payment mode conveniently.

Problem Statement

The System that is being used by the staff at the counter currently is an internal system and just used to sell the bus ticket at the counter. Customer has to go to the counter to buy bus ticket or ask for bus schedule. Furthermore, customers need to pay cash when they buy the bus ticket and sometimes needs to queue up long time to get the bus ticket. Besides that, customer also not allowed to buy bus ticket through telephone and the bus company's telephone has been always-busy line.

Product Scope

The system is web based application. The users will gain access to the available buses per certain route and available seats by logging in through the customer's portal.

The staff will access the system by logging in via the staff portal where they can compare bus performance and monitor other related business performance issues.

Aims & Objectives

The main objectives of online bus systems are:

- To provide a web-based bus ticket buying functions. Customer can buy bus ticket through the online system and no need to queue up to buy bus ticket at the counter.
- To enable customer to check the availability of the bus ticket online. Customer can check the time departure and arrival for every Transnational's bus through the system.
- To ease the bus ticket payment by online. Customer has to pay the bus ticket by m-paise money services
- To reduce the number of staff at the point of sale. The number of staff at the counter can be reduced after the online buying bus ticket system launch.

Overall Description

Existing system function:

Mobile Ticketing(M-Ticketing):

Mobile ticketing (m-ticketing) can be broadly defined as ordering, purchasing, delivery and usage of a product or service using mobile technology such as Wireless Application Protocol (WAP). The mobile ticketing predictions are being the research domain for several years. M-ticketing permits a customer to purchase a valid and legitimate ticket through mobile phone application. The value added services provided by the application allows users of the mobile ticket to store digital tickets on the phone. By doing so, the consumer is less likely to lose his ticket, eco-friendly, durable, cost effective and paperless. Generally, the mobile ticketing process can be defined in the following steps:

- **Registration:** Online ticketing requires a company to register with all the business and services information.
- **Provisioning:** Allow mobile phone application to interact with customers, allowing the purchase to take place.
- **Validation:** Validating and legitimate the ticket via electronic validation system between the company and the customer.
- **Ticket check:** Controller to verify and accept the sales and display of the mobile ticket as a valid ticket for the passenger, according to the terms displayed on the ticket.

PROPOSED SYSTEM

Product functionality:

Online Bus Booking System provides the features for admin, Staff and customers. It includes several functionalities describes as below:

Enquiry:

You can have an enquiry before booking any bus and can have enquiry related bus route, type bus, etc.

Online payment mode:

We can do online payment without wasting time and without having problem of carrying money along with.

Online Ticket:

Online Ticket reservation pdf is provided to the customers and hence not having problem of losing ticket.

Benefits of Online Bus Booking System

- This online bus booking system is fully functional and flexible.
- It is very easy to use.
- This online bus booking system helps in back office administration by streamlining and the procedures.
- The monitoring of the Online Bus Booking System and the overall business becomes easy and includes the least of paper work.
- The application acts as a company that is open 24/7. It increases the efficiency of the Organisation at offering quality services to the customers.

Users and Characteristics:

Admin:

- Can access total application of the company.
- Password and other login details can be changed by admin.
- Has access to ticket details and bus details .
- Can add or remove customers and can also change the details. of customers

Customer:

- Customer can update the profile account which he has created.
- He can also change the password of his account.
- Can book bus, payments, or cancel ticket in case.

Operating Environment:

Server Side:

Server Side:

Processor: Intel® Xeon® processor 3500 series

HDD: Minimum 500GB Disk Space

RAM: Minimum 2GB

OS: Windows 10

Database: Sql Server

Client Side:

Processor: Intel Dual Core

HDD: Minimum 80GB Disk Space

RAM: Minimum 1GB

Design and Implementation Constraints:

- The application will use JQuery, bootstrap, css, .Net as main web technologies.
- HTTP and FTP protocols are used as communication protocols. FTP is used to upload the web application in live domain and the client can access it via HTTP protocol.
- Several types of validations make this web application a secured one and SQL Injections can also be prevented.
- Since Online bus booking System is a web-based application, internet connection must be established.
- The Online Bus Booking System will be used on PCs and will function via internet or intranet in any web browser

Specific Requirement

External Interface Requirements:

User Interfaces:

- All the users will see the same page when they enter in this website. This page asks the users a username and a password.
- After being authenticated by correct username and password, user will be redirect to their corresponding profile where they can do various activities.
- The user interface will be simple and consistence, using terminology commonly understood by intended users of the system. The system will have simple interface, consistence with standard interface, to eliminate need for user training of infrequent users.

Hardware Interfaces:

- Hardware Interfaces: No extra hardware interfaces are needed.
- The system will use the standard hardware and data communication resources.
- This includes, but not limited to, general network connection at the server/hosting site, network server and network management tools.

Application Interfaces: OS: Windows 7

Web Browser: The system is a web-based application; clients need a modern web browser such as Mozilla Firefox, Internet Explorer, Opera, and Chrome. The computer must have an Internet connection in order to be able to access the system.

Communications Interfaces:

- This system uses communication resources which includes but not limited to HTTP protocol for communication with the web browser and web server and TCP/IP network protocol with HTTP protocol.
- This application will communicate with the database that holds all the booking information. Users can contact with server side through HTTP protocol by means of a function that is called HTTP Service. This function allows the application to use the data retrieved by server to fulfil the request fired by the user.

ER Diagram

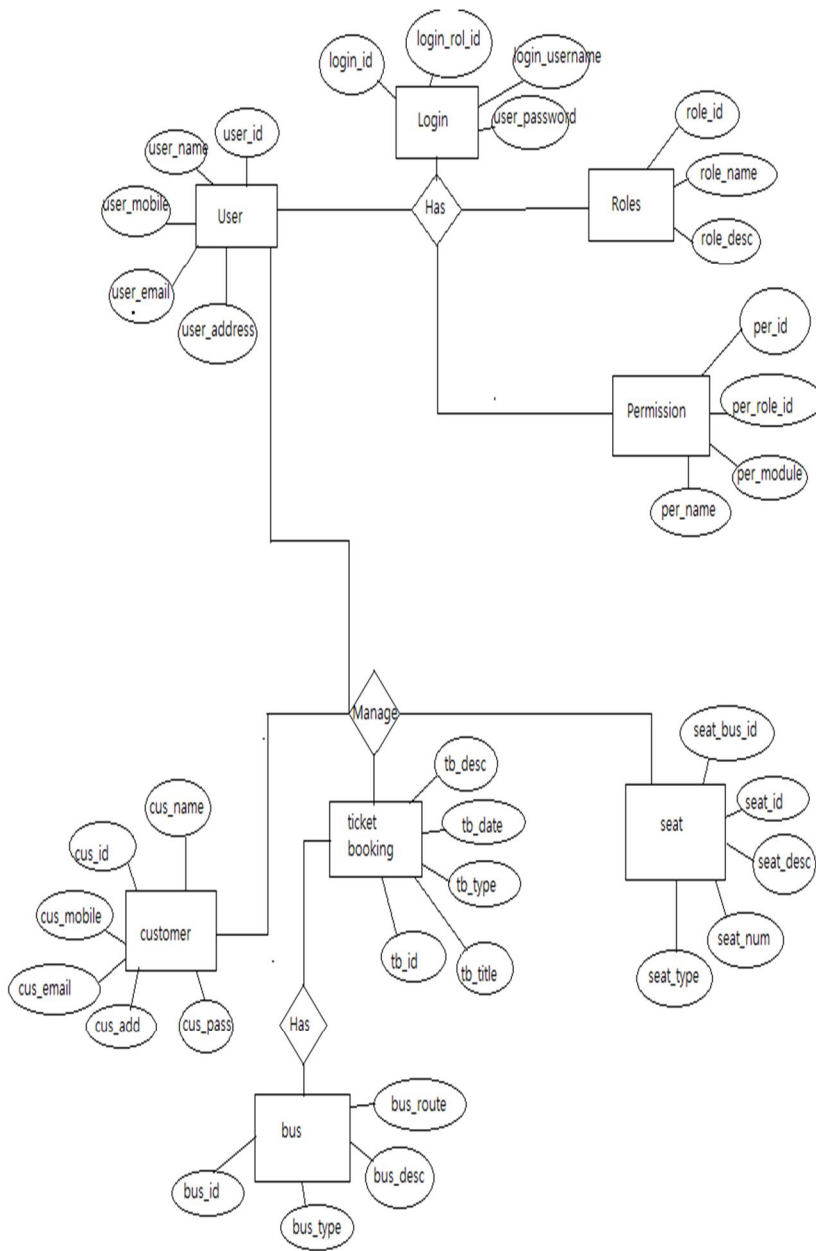


Figure 1: ER Diagram

Data Flow Diagram:

Context level data flow diagram (DFD) is describe the whole system. It shows the all user module who operate the system. The online bus booking system data flow diagram shows there are three users to run the system Admin, User.

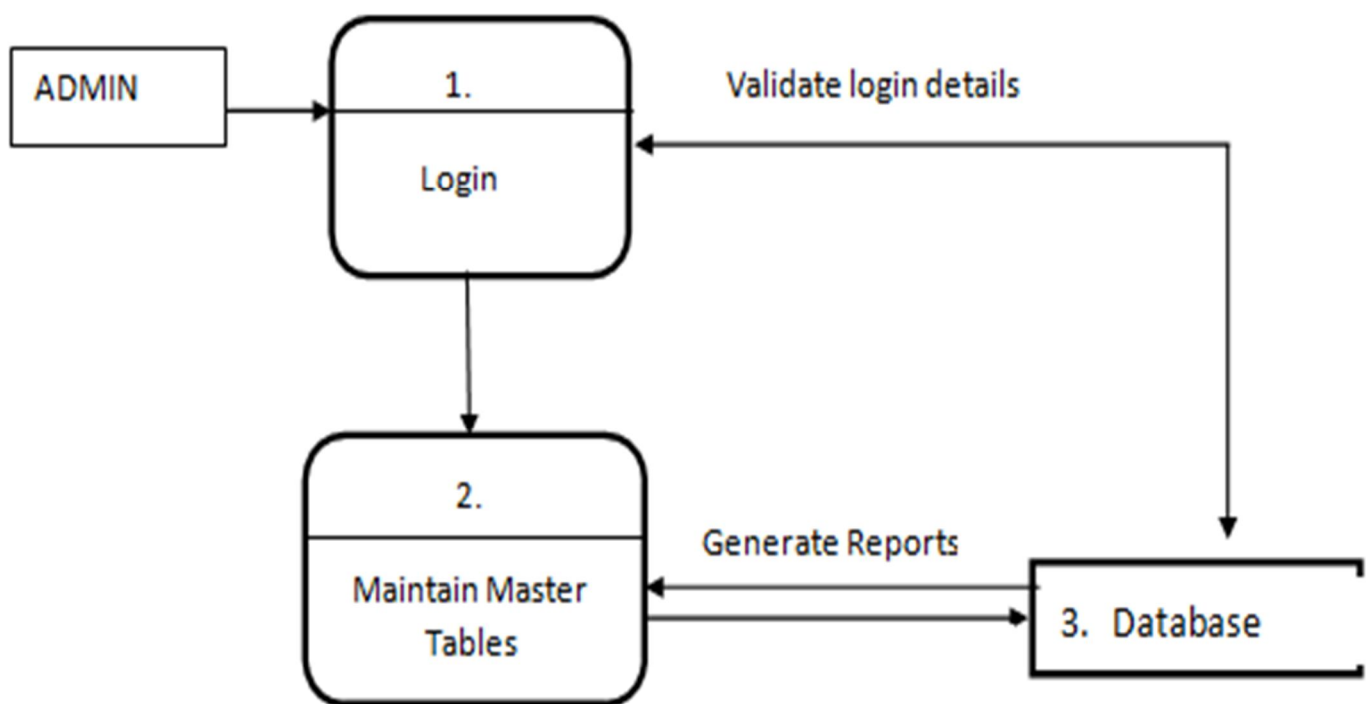


Figure 2: Data Flow Diagram

Data Flow:

Admin Panel:

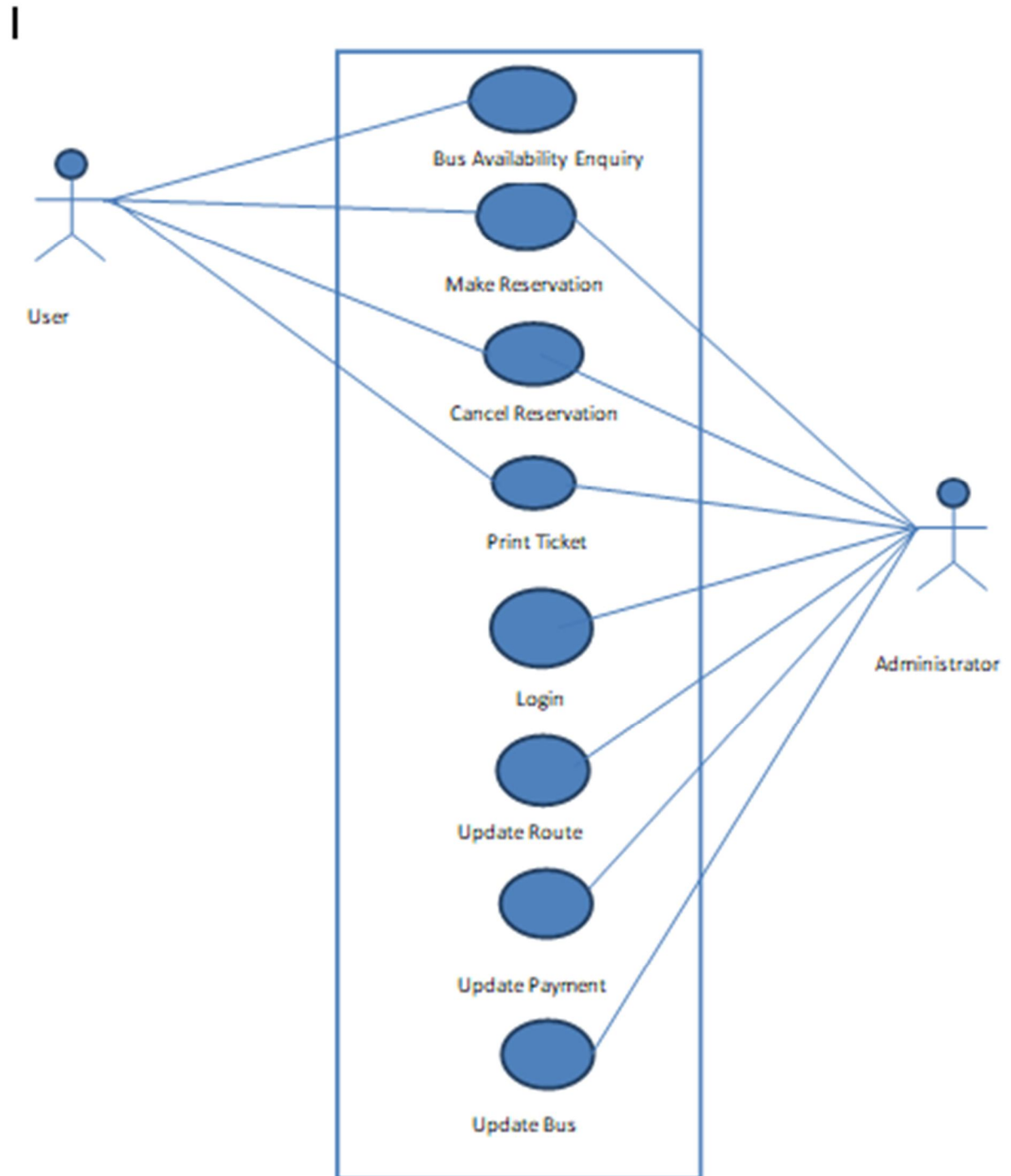
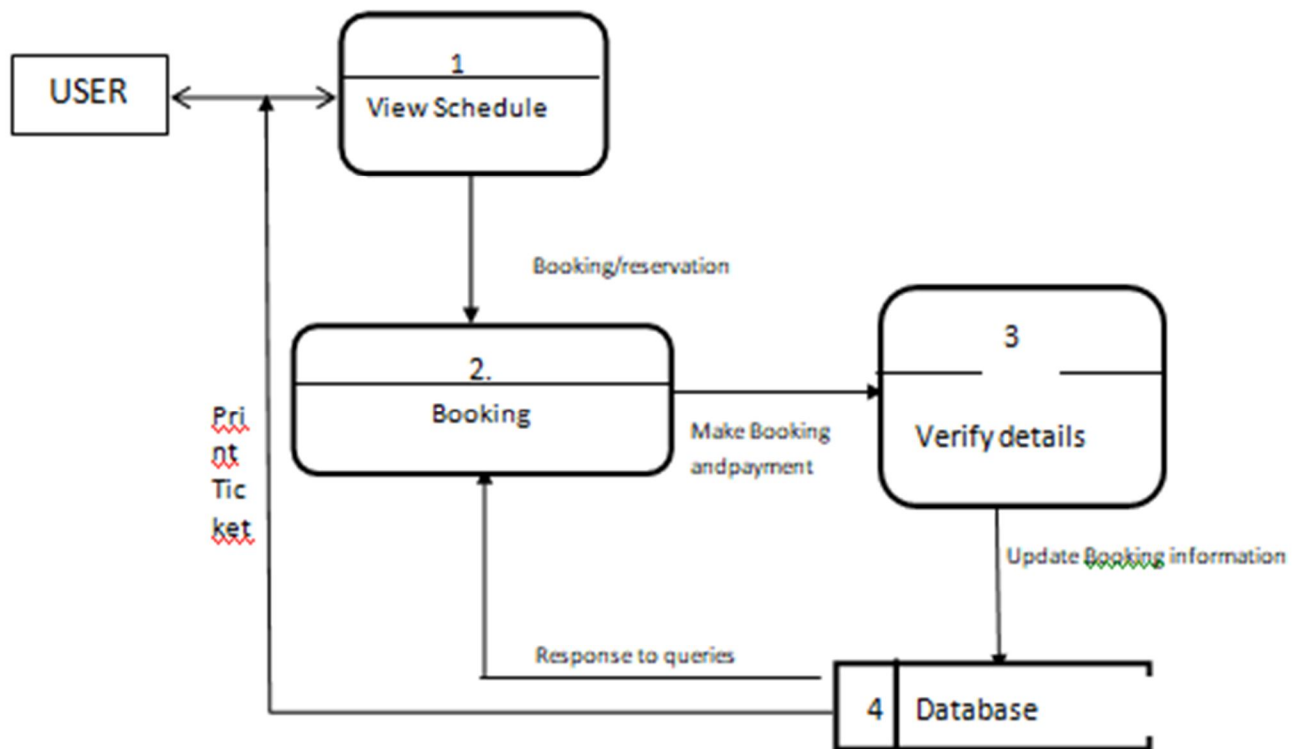


Figure 3: Admin Diagram

User Panel:

Flow Chart

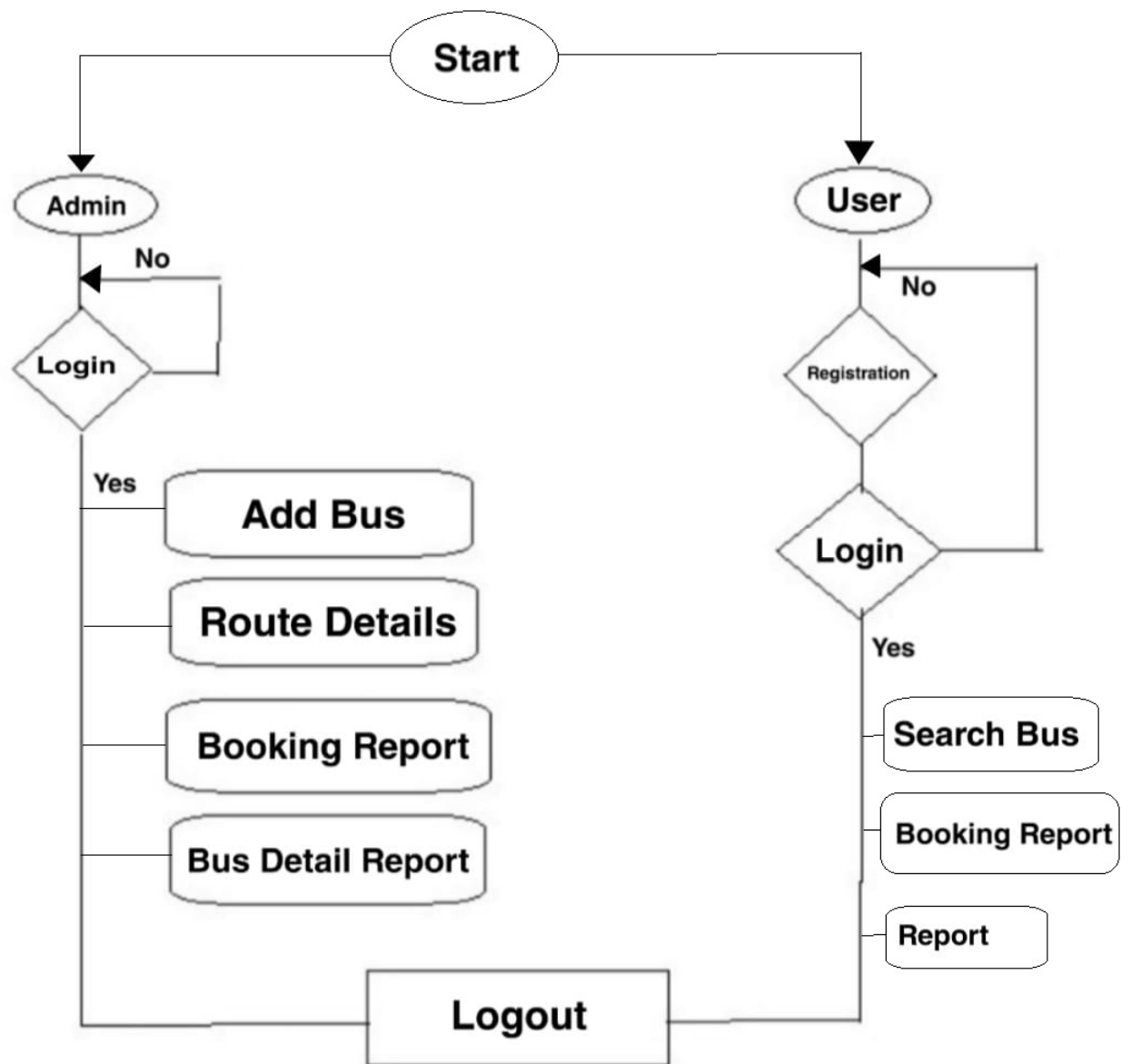


Figure 5: Flow Chart Diagram

Data Tables:

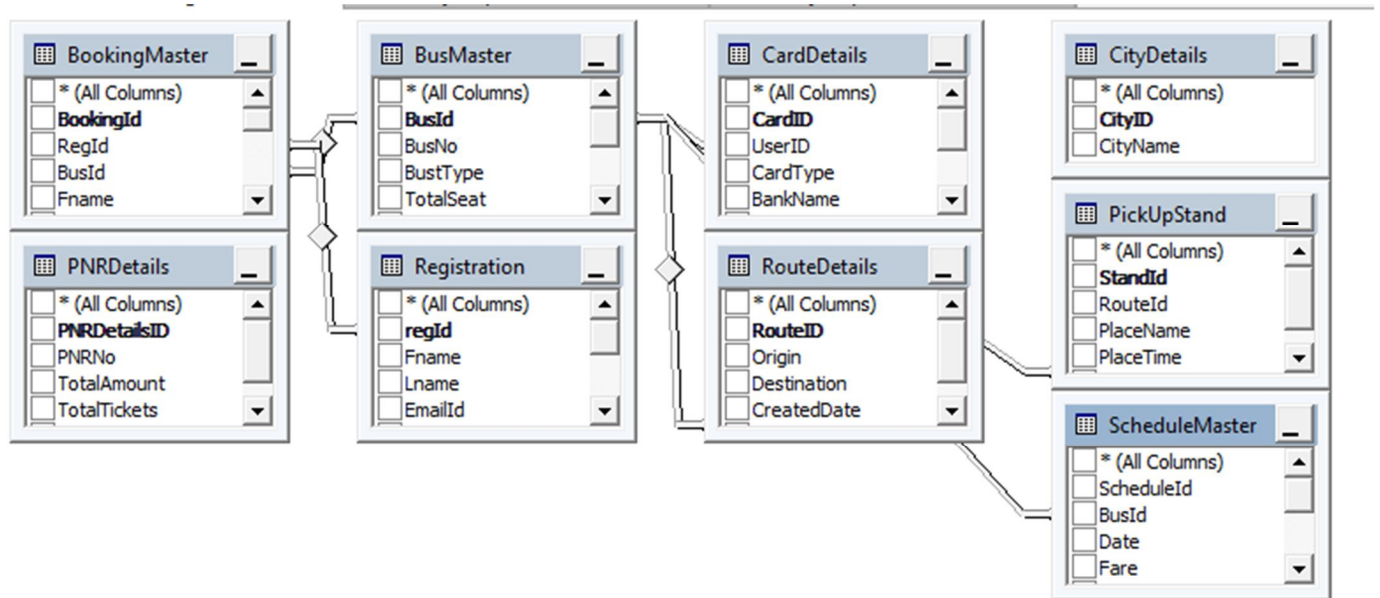
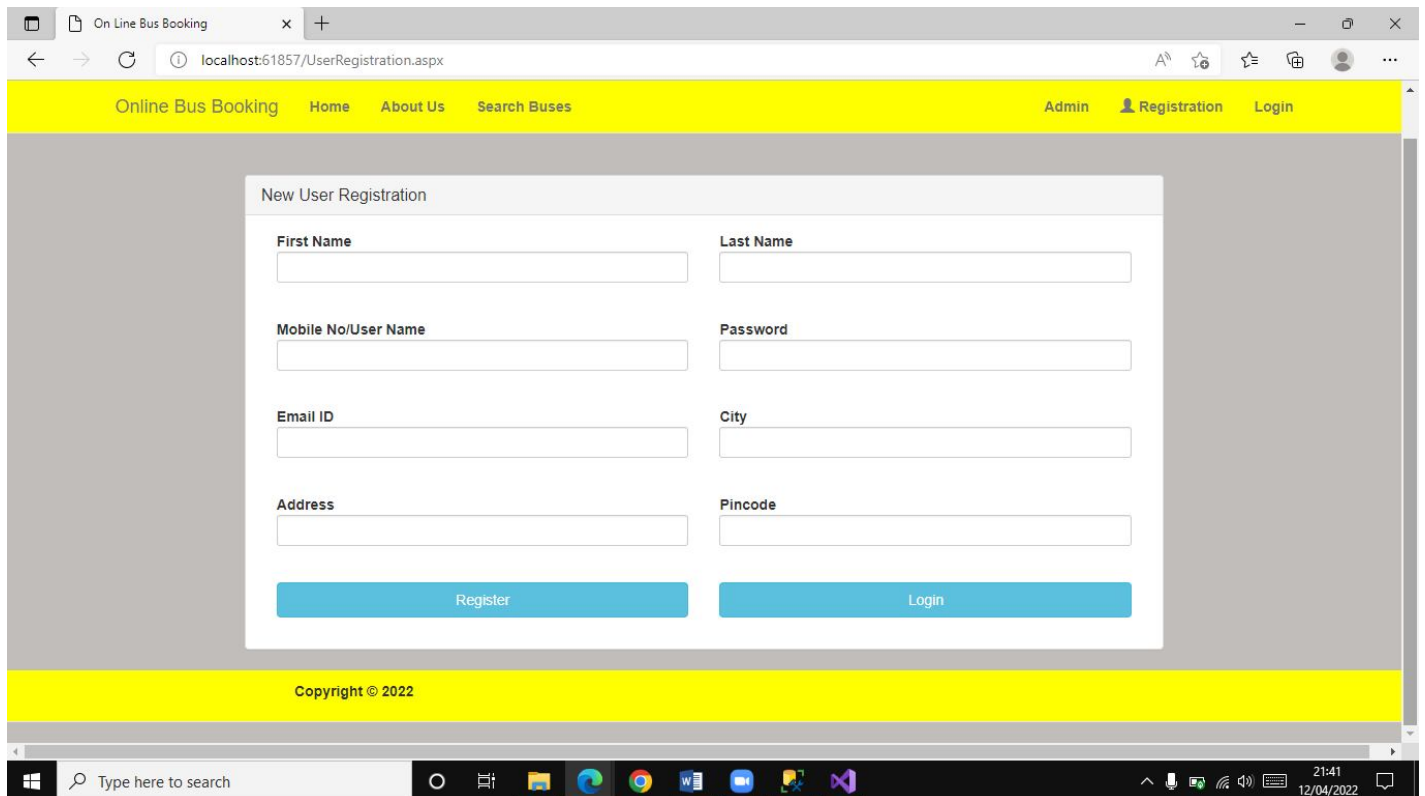
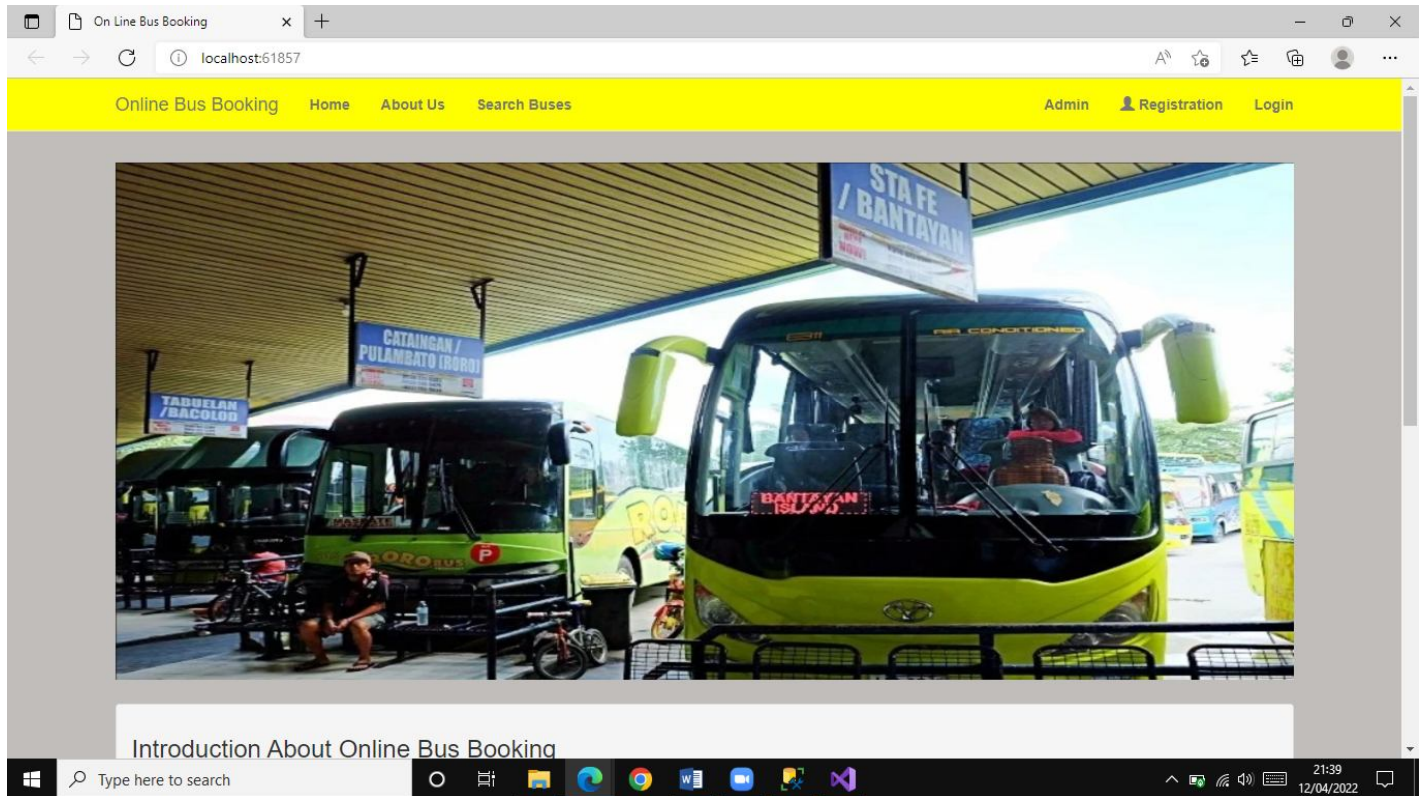


Figure 6: Tables Diagram

Screenshots:



On Line Bus Booking x +

localhost:61857/Admin/AdminLogin.aspx

Online Bus Booking Home AdminLogin

Admin Login

Log in

Copyright © 2022

Type here to search

21:42 12/04/2022

On Line Bus Booking x +

localhost:61857/Admin/BusDetailsReport.aspx

Online Bus Booking Add Bus Route Details Booking Report Bus Details Report Home Hello, Admin! Logout

| Sr.No | Bus ID | Bus No | Bus Name | Bus Type | Seat Columns | Seat Row | Origin | Destination | Action |
|-------|--------|---------|----------|----------|--------------|----------|--------|-------------|---|
| 1 | 7 | B586478 | Swarajya | Normal | 10 | 4 | Mumbai | Pune | Update Details Add Bus Schedule |
| 2 | 8 | 0563 | Rajdhani | Normal | 8 | 3 | Delhi | Mumbai | Update Details Add Bus Schedule |
| 3 | 9 | 02462 | Noor | Normal | 3 | 8 | Nanded | Pune | Update Details Add Bus Schedule |

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Type here to search

21:44 12/04/2022

On Line Bus Booking x +

localhost:61857/Admin/BusDetails.aspx

Online Bus Booking Add Bus Route Details Booking Report Bus Details Report Home Hello, Admin! Logout

Add Bus Details

Bus No

Bus Type

Select Bus Type

No Of Seats Rows

Total Seats Column

Origin

Destination

BusName

Insert

On Line Bus Booking x +

localhost:61857/Admin/RouteDetails.aspx

Online Bus Booking Add Bus Route Details Booking Report Bus Details Report Home Hello, Admin! Logout

| Sr.No | Route ID | Origin | Destination | Action |
|-------|----------|--------|-------------|-------------------------------------|
| 1 | 7 | Mumbai | Pune | Add Boarding Points |
| 2 | 8 | Delhi | Mumbai | Add Boarding Points |
| 3 | 9 | Nanded | Pune | Add Boarding Points |

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Type here to search

21:45 12/04/2022

On Line Bus Booking x +

localhost:61857/Admin/BookingReport.aspx

Online Bus Booking Add Bus Route Details Booking Report Bus Details Report Home Hello, Admin! Logout

| Sr.No | Bus Name | Passenger Name | Email ID | Contact No | Origin | Destination | Travel Date | Seat No | Fare | Booked By |
|-------|----------|-----------------|--------------------------|------------|--------|-------------|-------------|---------|---------|--------------|
| 1 | Swarajya | Deepikatripathi | Deepikatri@gmail.com | 9860270297 | Mumbai | Pune | 02 Apr 2022 | 12 | 500.00 | |
| 2 | Swarajya | AshishNaik | ashishnaik@gmail.com | 4569874562 | Mumbai | Pune | 02 Apr 2022 | 20 | 500.00 | |
| 3 | Rajdhani | SURAJBIRADAR | xyz@gmail.com | 4567874562 | Delhi | Mumbai | 02 May 2022 | 5 | 1600.00 | SurajBiradar |
| 4 | Rajdhani | MukeshDhadekar | mukeshdhadekar@gmail.com | 9860270297 | Delhi | Mumbai | 02 May 2022 | 6 | 1600.00 | SurajBiradar |
| 5 | Rajdhani | MukeshDhadekar | mukeshdhadekar@gmail.com | 456666 | Delhi | Mumbai | 02 May 2022 | 11 | 1600.00 | SurajBiradar |
| 6 | Rajdhani | SurajBiradar | surajbiradar@gmail.com | 54456 | Delhi | Mumbai | 02 May 2022 | 12 | 1600.00 | SurajBiradar |
| 7 | Rajdhani | SurajBiradar | surajbiradar@gmail.com | 7889 | Delhi | Mumbai | 02 May 2022 | 16 | 1600.00 | SurajBiradar |
| 8 | Rajdhani | ASHISHDHADEKAR | ashishdhadekar@gmail.com | 564 | Delhi | Mumbai | 02 May 2022 | 18 | 1600.00 | SurajBiradar |
| 9 | Rajdhani | MukeshDhadekar | mukeshdhadekar@gmail.com | 8965745828 | Delhi | Mumbai | 02 May 2022 | 7 | 1600.00 | SurajBiradar |
| 10 | Noor | SurajBiradar | surajbiradar@gmail.com | 8547963214 | Nanded | Pune | 13 Apr 2022 | 2 | 800.00 | SurajBiradar |

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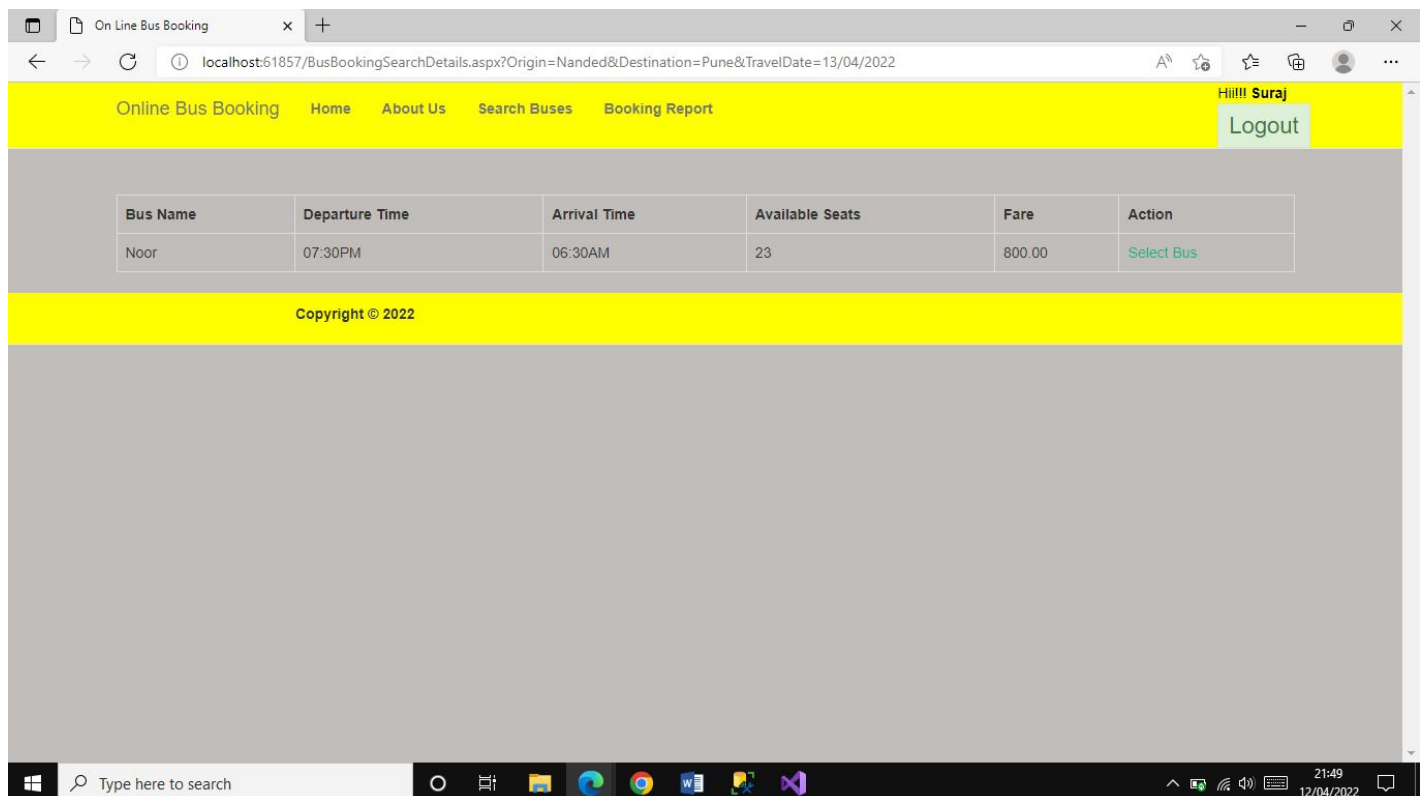
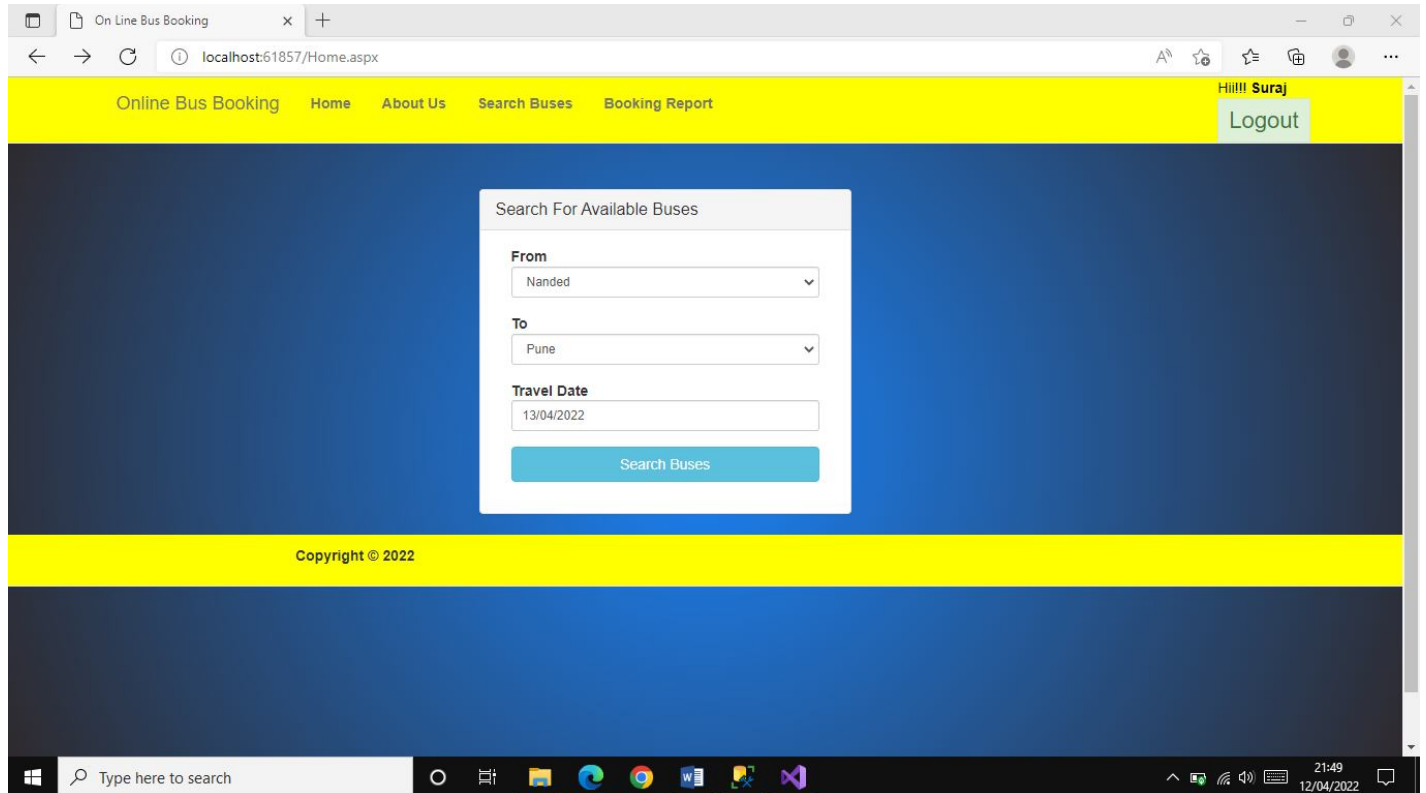
On Line Bus Booking x +

localhost:61857/Admin/BusDetailsReport.aspx

Online Bus Booking Add Bus Route Details Booking Report Bus Details Report Home Hello, Admin! Logout

| Sr.No | Bus ID | Bus No | Bus Name | Bus Type | Seat Columns | Seat Row | Origin | Destination | Action |
|-------|--------|---------|----------|----------|--------------|----------|--------|-------------|---|
| 1 | 7 | B586478 | Swarajya | Normal | 10 | 4 | Mumbai | Pune | Update Details Add Bus Schedule |
| 2 | 8 | 0563 | Rajdhani | Normal | 8 | 3 | Delhi | Mumbai | Update Details Add Bus Schedule |
| 3 | 9 | 02462 | Noor | Normal | 3 | 8 | Nanded | Pune | Update Details Add Bus Schedule |

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On Line Bus Booking x +

localhost:61857/SeatDetails.aspx?BusID=9&Row=8&Column=3&Origin=Nanded&Destination=Pune&TravelDate=13/04/2022&Fare=800.00

Online Bus Booking Home About Us Search Buses Booking Report

Hi!!! Suraj Logout

Choose seats by clicking the corresponding seat in the layout below:

Back To Search List

Front

| | | | | | | |
|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | 32 | 33 | 34 | 35 |
| 36 | 37 | 38 | 39 | 40 | 41 | 42 |
| 43 | 44 | 45 | 46 | 47 | 48 | 49 |
| 50 | 51 | 52 | 53 | 54 | 55 | 56 |

Rear

Journey Details

Onward Journey From **Nanded** To **Pune**
on **Wed, 13 Apr, 2022**

Selected Seat No **6**

Per Seat Fare **800**

Amount **800**

Boarding Points
Latur Phata - 07:00PM

Make Payment

Type here to search

21:50 12/04/2022

On Line Bus Booking x +

localhost:61857/PassengerDetailsInfo.aspx?BusID=9&SeatNo=6&TravelDate=13%2F04%2F2022&Origin=Nanded&Destination=Pune&BoardingL...

Online Bus Booking Home About Us Search Buses Booking Report

Hi!!! Suraj Logout

| Row Number | First Name | Last Name | Email | Contact | City |
|------------|------------|-----------|------------------|------------|---------|
| 1 | Anthony | Stark | Anthonystark@gma | 9860270297 | Newyork |

Add New Passanger Details

Confirm Booking

Copyright © 2022

Type here to search

21:51 12/04/2022

On Line Bus Booking x +

localhost:61857/PassengerDetailsInfo.aspx?BusID=9&SeatNo=6&TravelDate=13%2f04%2f2022&Origin=Nanded&Destination=Pune&BoardingL...

Online Bus Booking Home About Us Search Buses Booking Report Hi!!! Suraj Logout

| Row Number | First Name | Last Name | Email | Contact | City | |
|------------|------------|-----------|------------------------|------------|---------|---------------------------|
| 1 | Anthony | Stark | AnthonyStark@gmail.com | 9860270297 | Newyork | |
| | | | | | | Add New Passanger Details |

Confirm Booking

Card Details For Payment

Select Your Card
Credit Card

3 Digit CVV Code
446

Select Bank
State Bank Of India

Card No
1315411545

Make Payment

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On Line Bus Booking x +

localhost:61857/BookingReport.aspx?Msg=Booking%20Done%20Successfully,Please%20download%20your%20ticket%20from%20below

localhost:61857 says
Booking Done Successfully,Please download your ticket from below

OK

The screenshot displays a web browser window with the title 'On Line Bus Booking'. The address bar shows the URL: `localhost:61857/BookingReport.aspx?Msg=Booking%20Done%20Successfully,Please%20download%20your%20ticket%20from%20below`. The page has a yellow header with navigation links: 'Online Bus Booking', 'Home', 'About Us', 'Search Buses', and 'Booking Report'. A user greeting 'Hi!!! Suraj' and a 'Logout' button are in the top right. The main content area features a table with booking details.

| Sr.No | PNR No | Total Booked Tickets | Booking Amount | Action |
|-------|--------|----------------------|----------------|---------------------------------|
| 1 | MASAUD | 2 | 3200.00 | Download Ticket |
| 2 | ILHY0K | 2 | 3200.00 | Download Ticket |
| 3 | N7L5XK | 2 | 3200.00 | Download Ticket |
| 4 | N23P18 | 1 | 1600.00 | Download Ticket |
| 5 | BNV8UF | 1 | 800.00 | Download Ticket |
| 6 | GTS1RT | 1 | 800.00 | Download Ticket |

Below the table, a yellow bar contains the text 'Copyright © 2022'. The Windows taskbar at the bottom shows the search bar and various application icons. The system clock indicates 21:52 on 12/04/2022.

Conclusion

The problems associated with the current system will be addressed with the new proposed system. The whole design of the proposed system is a clear automation of the current system at Modern coast bus ticket booking system and therefore the problems associated with the manual system are well addressed by this design.

Also, the new system has been developed with a graphical user interface that is simple for use and is therefore going to simplify the entire booking process. Despite a few challenges in the implementation process, the process was a successful one as I was able to come up with a system that did not only work but also got acceptance from users.

Future Scope

This project can be enhanced further by adding internet recharge facilities, online food availability, separate pick and drop facility for the customers till bus stop. The software is flexible enough to be modified and implemented as per future requirements. We have tried our best to present this free and user-friendly website to Customers. Message and Email alerts for various updates of the facilities provided by the company.

References:

www.GeeksforGeeks

www.Stackoverflow.com

www.Github.com