



# NEXT GEN EMPLOYABILITY PROGRAM

| Creating a future-ready workforce

Team Members

Student Name :

Student ID :

College Name

Xyz

# CAPSTONE PROJECT SHOWCASE

## Project Title

**Building Bus Reservation System using Python and Django**

Abstract | Problem Statement | Project Overview | Proposed Solution |  
Technology Used | Modelling & Results | Conclusion



## Abstract

- Online Bus Ticket Reservation System is a Web based application that works within a centralized network. This project presents a review on the software program "Online Bus Ticket Reservation System" as should be used in a bus transportation system, a facility which is used to reserve seats, cancellation of reservation and different types of route enquiries used on securing quick reservations
- .OBTRS is built for managing and computerizing the traditional database, ticket booking and tracking bus and travel made. It maintains all customer details, bus details, reservation details. In order to achieve the design, Imo Transport Company (ITC) was chosen as a case study because of its strategic importance to Imo State.
- Structured Systems Analysis and Design Methodology (SSADM) was adopted. In addition, PHP Hypertext Preprocessor (PHP) language was used for the front-end of the software while the back end was designed using MySQL. The software achieved is capable of improving the customer hand and relationship management in ITC operations.
- It is recommended that despite the present functionality of the designed software, an additional functionality such as the use of E-mail to send tickets and notifications to the customer and an online payment using credit cards/debit cards should be implemented into the system. Furthermore, other operations carried by ITC such as the courier services should also be integrated in order to enhance the system.

## Problem Statement

- Currently, the type of system being used at the counter is an internal system which is manually used in selling the bus tickets.
- The problems facing the company are that customers have to go to the counter to buy bus ticket or ask for bus schedule, customers will also have to queue up for a long time in order to secure a bus ticket and will also need to pay cash when they buy the bus ticket.

## Project Overview

- The bus reservation system is a software application designed to streamline the process of booking, managing, and monitoring bus tickets.
- Here's a brief project overview: User interface, scalability, booking management, Notifications system, feedback mechanism etc.
- Overall, the bus reservation system aims to enhance the booking experience for passengers, streamline operations for bus operators, and improve overall efficiency in managing bus services.

## Proposed Solution

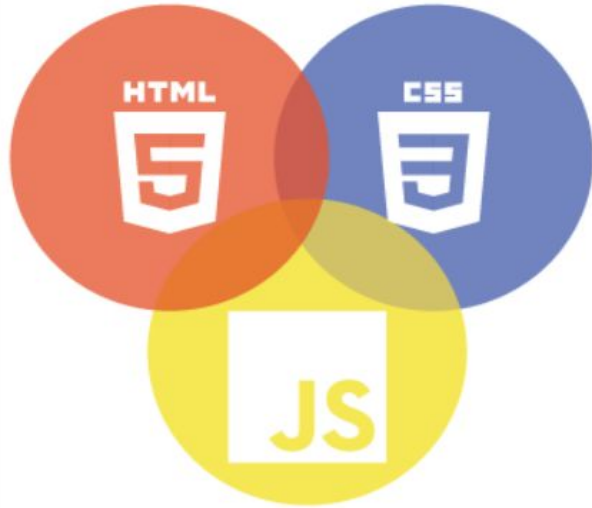
- Bus Reservation System will increase the booking process faster, convenient, and comfortable. Customers can book their desired seats.
- They can check the availability of posts on a specific date.
- The customer can check availability, book a ticket, or cancel a ticket 24X7. The online system is available to use anytime. The user doesn't require to visit any office.

## Objective:

- i) Providing a web-based bus ticket reservation function where a customer can buy bus ticket through the online system without a need to queue up at the counter to purchase a bus ticket.
- ii) Enabling customers to check the availability and types of busses online. Customer can check the time departure for every ITC bus through the system.
- iii) Easing bus ticket payment by obtaining a bank pin after payments is made to the various designated banks.
- iv) Ability of customers to cancel their reservation.
- v) Admin user privileges in updating and canceling payment, route and vehicle records.

## Technology Used

Front-end

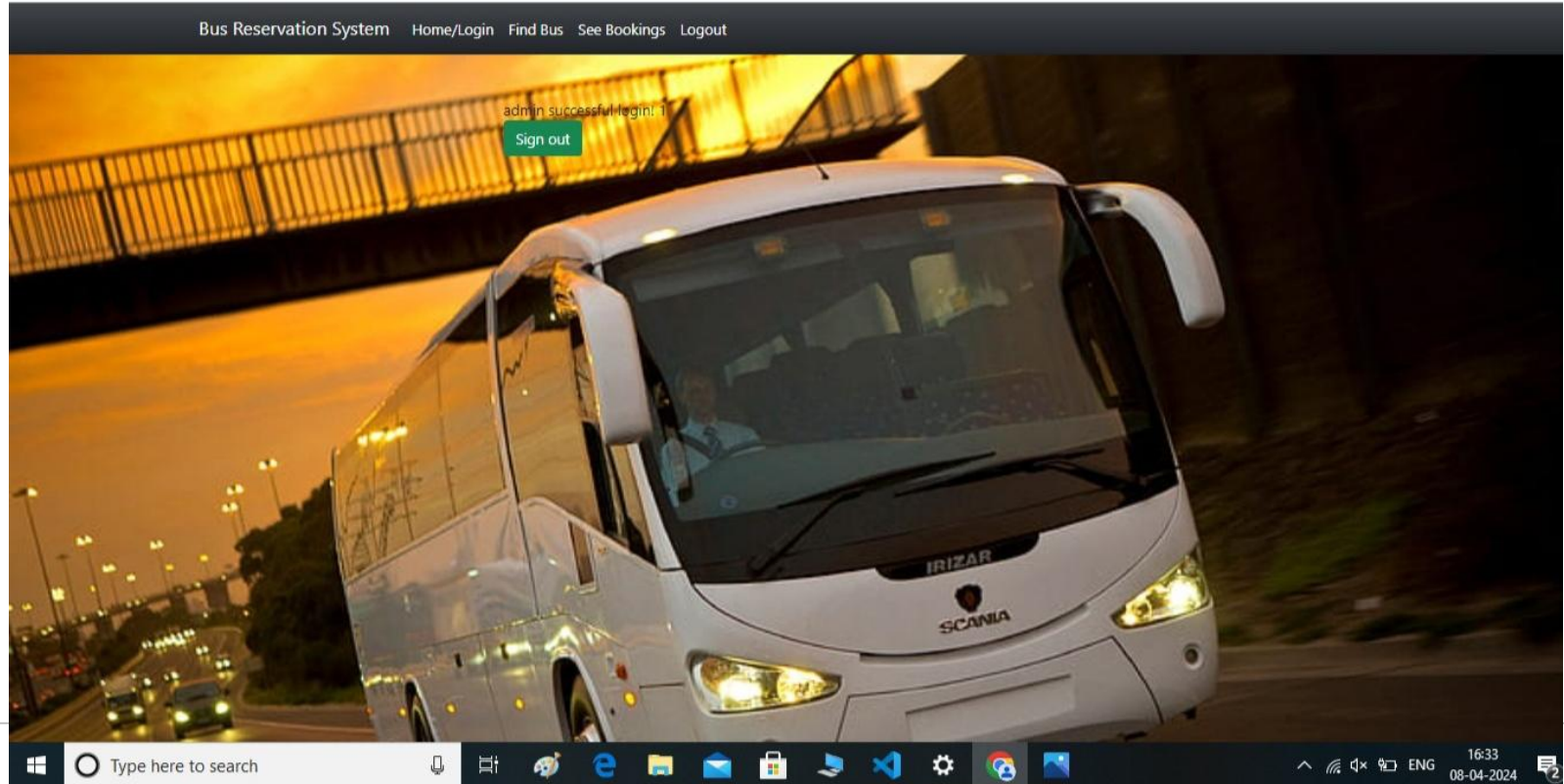


Back-end





## Modelling & Results



Source :

## Homepage

Bus Reservation System   Home/Login   Find Bus   See Bookings   Logout

### Bus Reservation System



Windows taskbar: Type here to search, Task View, File Explorer, Microsoft Edge, Mail, Store, Teams, Settings, Chrome, and other background applications. System tray shows network, volume, and power icons, along with the date 08-04-2024 and time 16:29.

## Registration

Bus Reservation System   Home/Login   Find Bus   See Bookings   Registration

### Registration

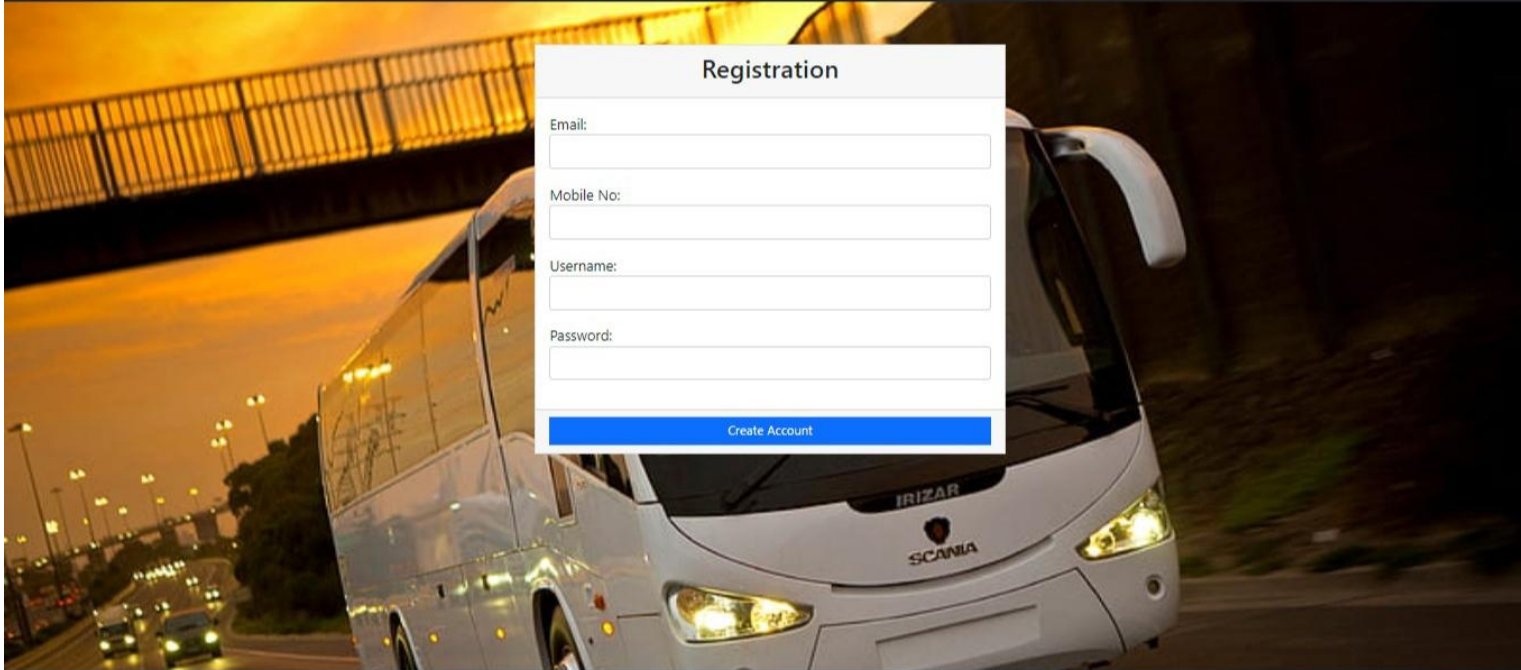
Email:

Mobile No:

Username:

Password:

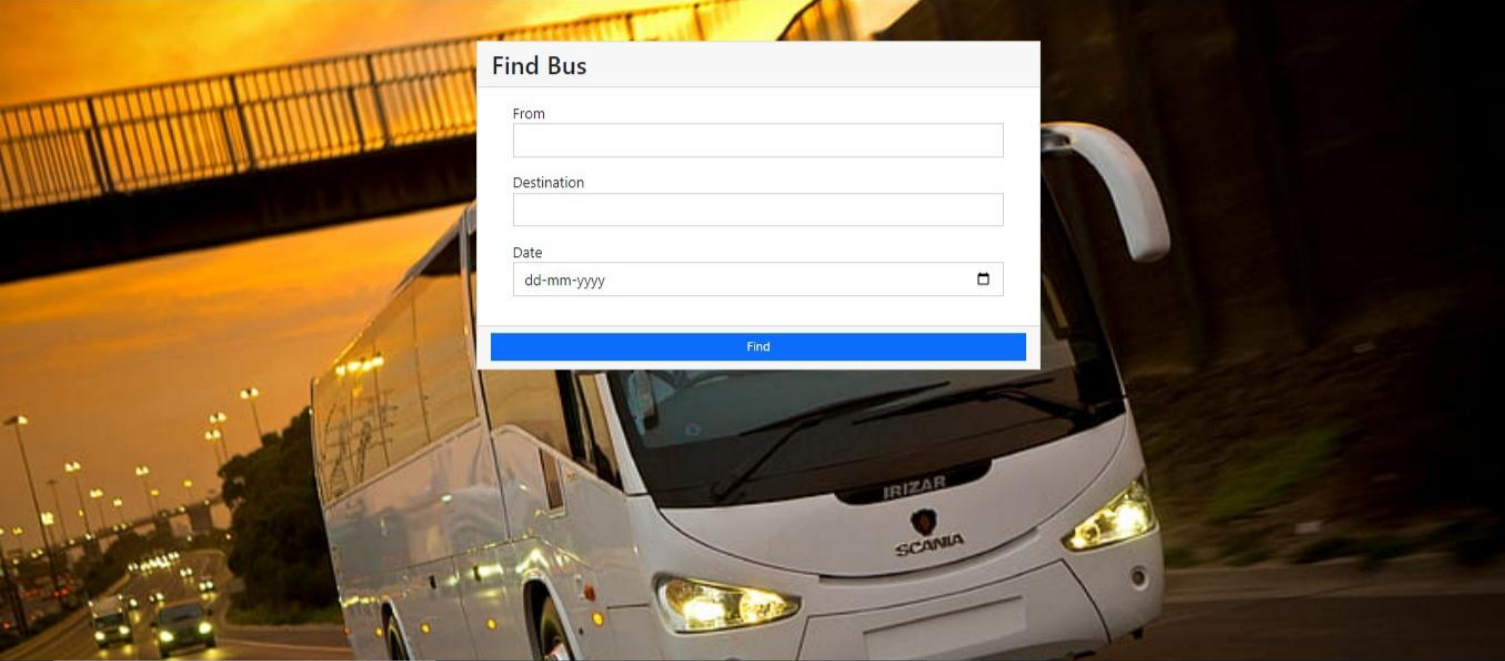
Create Account



Windows taskbar: Type here to search, 16:30, 08-04-2024

## Find bus


Bus Reservation System   Home/Login   Find Bus   See Bookings   Logout



### Find Bus

From

Destination

Date  
 

[Find](#)

Windows taskbar: Type here to search, Task View, Edge, File Explorer, Mail, Store, Teams, Settings, Google Chrome, System tray: Network, Volume, Brightness, ENG, 16:25, 08-04-2024, Notifications (2)



# Booking details

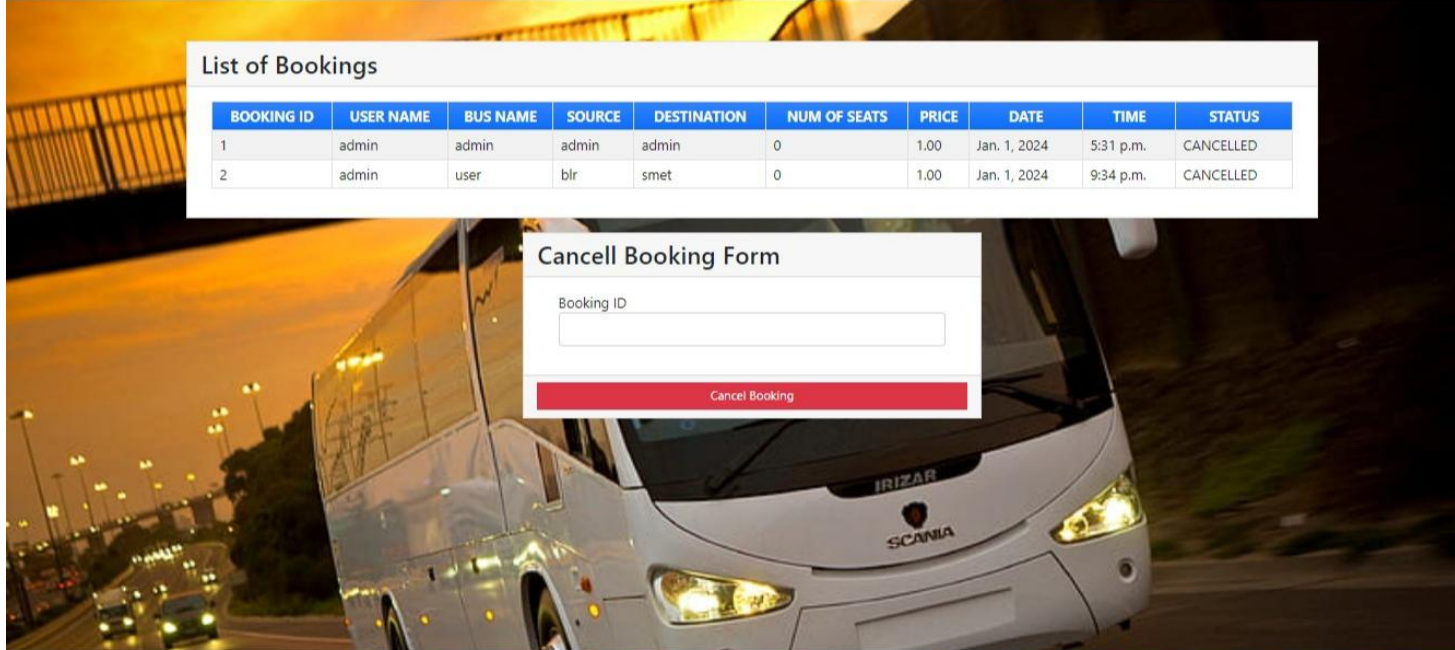
Bus Reservation System   Home/Login   Find Bus   See Bookings   Logout

### List of Bookings

BOOKING ID	USER NAME	BUS NAME	SOURCE	DESTINATION	NUM OF SEATS	PRICE	DATE	TIME	STATUS
1	admin	admin	admin	admin	0	1.00	Jan. 1, 2024	5:31 p.m.	CANCELLED
2	admin	user	blr	smet	0	1.00	Jan. 1, 2024	9:34 p.m.	CANCELLED

### Cancel Booking Form

Booking ID



Windows taskbar: Type here to search, 16:30, 08-04-2024

## Future Enhancements:

### 1. Advanced Inventory Control:

The operator's business model determines how seat inventory is managed. Shuttle services, for example, rarely necessitate specific seat inventory management.

### 2. Comprehensive and Well-Documented APIs for Integration:

According to a popular saying, "no man is an island." The same can be said for digitally savvy operators and their booking systems.

### 3. On-Board Registration:

Although it may come as a surprise, there are still places where travelers must redeem tickets purchased online at a bus station or through an agency.

## Conclusion

In conclusion, the bus reservation system offers a streamlined and convenient way for passengers to book their travel tickets. By leveraging technology, it enhances efficiency, reduces manual errors, and provides passengers with multiple booking options. Overall, the implementation of such a system improves the travel experience for both passengers and bus operators alike.

**Thank You!**