

## **A PROJECT REPORT**

*Submitted by*

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# **FRANCIS XAVIER ENGINEERING COLLEGE**

**(Autonomous)**

**TIRUNELVELI – 627 003**

## **BONAFIDE CERTIFICATE**

Certified that this project report “**BUS TICKET RESERVATION SYSTEM**” is the bonafide work of “**SAKTHIVEL.R (950720150536)**” who carried out the project work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

**SUPERVISOR**

**HEAD OF THE DEPARTMENT**

Submitted for the B.TECH Degree Project Viva Voce held on

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**INTERNAL EXAMINER  
EXAMINER**

**EXTERNAL**

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## **Introduction**

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.

Online Bus Booking System cloud based 4online software. This system would help customers to book a seat for their journey, book bus. This system would also help the owner to manage the coaches, employees, clients, services etc.

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 ticket, or cancel ticket 24X7. The online system is available to use anytime.

User doesn't require to visit any office. They just need internet and device to use our system. They can check route, price, class etc.

They can pay fare using a credit card, debit card, internet banking, online wallet like Paytm and cash too. Managing buses, employees, and salary would be very comfortable using this system.

This is a safe and secure way to expand the business. System decreases the human efforts and increases customer satisfaction.

since the current reservation system is still conducted manually and separately at each branch, contact must be made by each branch's frontofficer to the head office for each customer's enquiry in order to get the latest update on schedule, seat availability and other reservation-related information; as well as to avoid duplicate bookings or over-capacity. There is also a physical limit to the reservation availability as each branch only operates during certain hours and reservations can only be made on-the-spot. These limitations are not the only issues the company is currently facing. Other factors that create problems include human errors (e.g. miscalculations in ticket price, mistakes in noting passenger data, etc.), the fluctuation of passengers during certain periods of time that causes a bottleneck in the check-in process because of the inability of the frontofficer to multitask and the lack of overview or report of the on-going business; making it difficult for the company to judge past/current performance or plan future improvements. Electronic tickets, or e-tickets, give evidence that their holders have permission to enter a place of entertainment, use a means of transportation, or have access to some internet services. The method to solve this problem is to create an online buying bus ticket system. Customer can buy the bus ticket over the Internet, 24 hours a day, 7 days a week and the bus ticket can't be lost, stolen or left behind. In addition, the online system lets the customers check the availability of the bus ticket before they buy bus ticket . Furthermore, customers no need to pay cash to buy bus ticket because they can pay the bus ticket by using deposit slip number order by bank

## **Existing System**

The existing Bus Booking System is not completely computerized. The customer has to visit any booking branch if he wants to book a ticket. Bus scheduling, ticket booking, bill generation and many other operations are done manually. This may lead to incorrect entries and there is a lot of room for errors as the data is not completely synced. The availability of seats is not centrally maintained and the travel operator is not fully aware of the availability and occupancy of the seats in his buses.

### **MODULES OF ONLINE BUS BOOKING SYSTEM:**

There are several modules required to complete this system. Here we are discussing the main modules or core modules of the system.

#### **Admin Profile:**

Admin is super user of our system. Admin can view all data in the system. Admin must log in to the system then there is authentication process. Admin view bus details verified the bus details, check the employee data.

#### **Customer Profile:**

The customer is the end user of our system. The customer can see bus details, check availability, book the ticket, make an enquiry, and make payment to confirm a seat. At any point of time before boarding of bus customer has all right to cancel tickets.

#### **Employee Profile:**

Employees are basically helping hands in bus reservation system. Employees have many profiles like managers, accountant, drivers, field

employee etc. The manager would manage the business in such a way that everyone does their job. Manager manages proper work distributions

### **Add Buses:**

This module would help to add new bus details. Bus details include Bus Number, Model Number, Numbers of seats, Type of bus, the condition of the bus.

### **Availability:**

This module would help to search the bus and find availability of seats. The customer can check bus availability anytime. Desired available seats can be booked by the client using this system.

### **Enquiry:**

Any question can be made using email id or filling website form. Customer care representatives will reach you with solutions. Any question about bus timing, the system can do seat availability with human interaction.

### **Cancel:**

At any point of time before boarding of bus customer has all right to cancel tickets. The money will be credited to a customer account as per bank policy and timing.

### **Booking:**

If customer finds the desired bus and available seats. The customer can book the seats using this module. The booking process is entirely

computerized. Real time seat availability. Once a place has been locked it can't be available for booking.

### **Payment:**

Payment can be made using a credit card, debit card, internet banking, online wallet like Paytm and cash too. Payment portal is highly secure and trusted.

### **Notification and messages:**

This system has a fully automated process of information. Customer will get notifications of their booking, payments, inquiry response. The employee would get notifications about their jobs. Example driver will get the text for bus boarding.



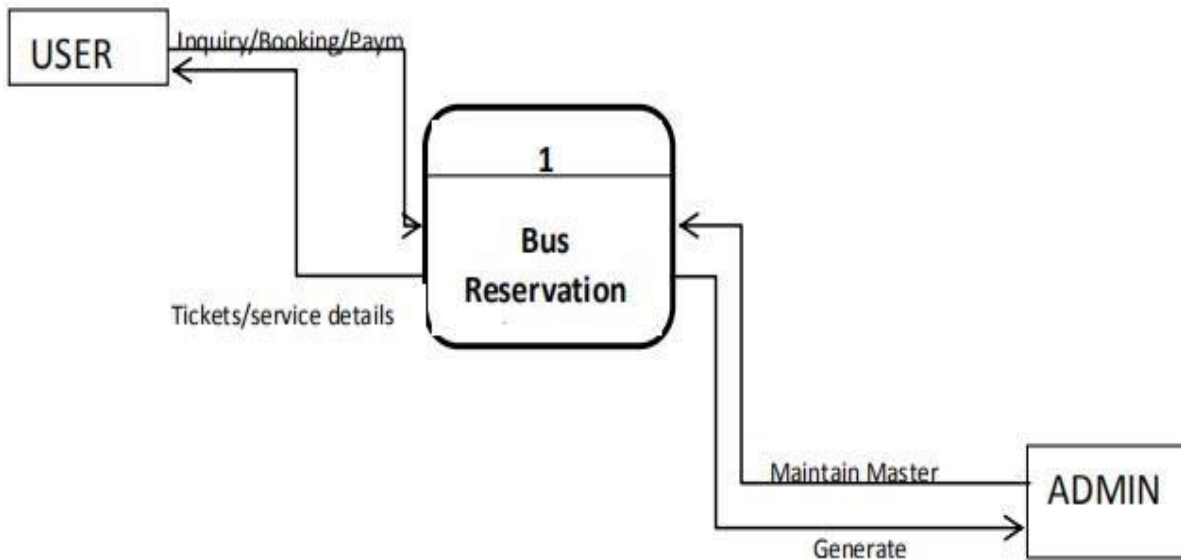
## Implementation or architecture diagrams

### DATA FLOW DIAGRAM (DFD)

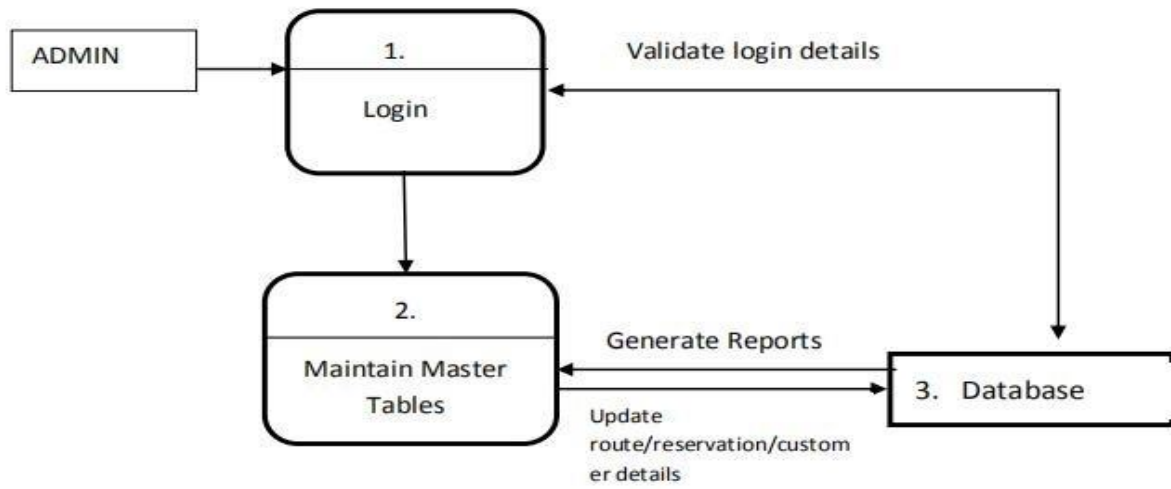
A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. A DFD shows what kind of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored.

The development of DFD'S is done in several levels. Each process in lower level diagrams can be broken down into a more detailed DFD in the next level. The Top-level diagram is often called context diagram. It consist a single process bit, which plays vital role in studying the current system. The process in the context level diagram is exploded into other process at the first level DFD.

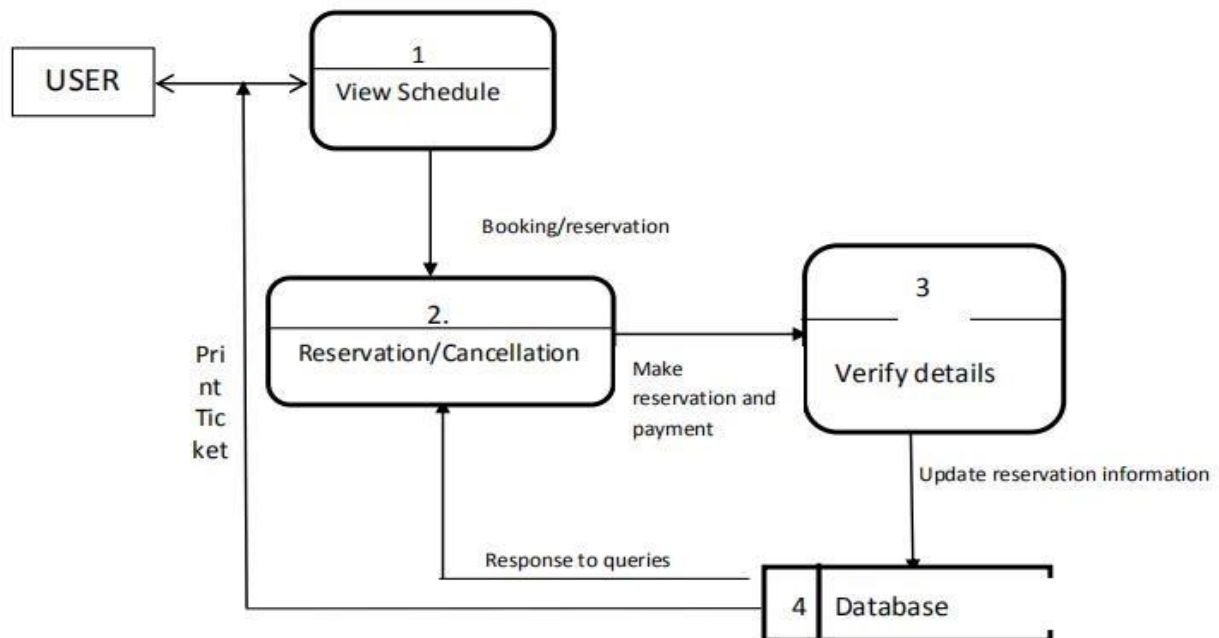
#### Level 0



## LEVEL 1

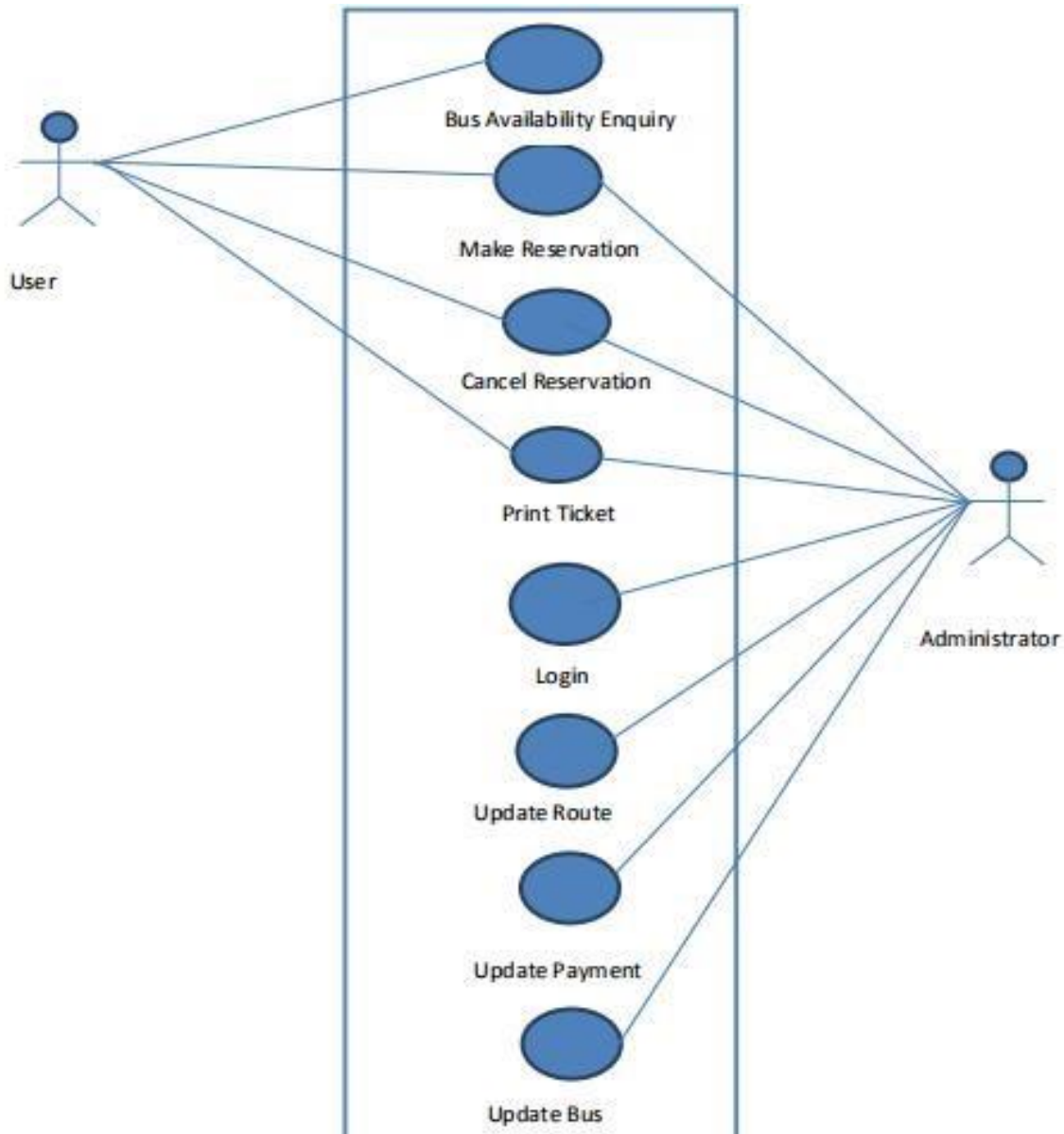


## Level 2

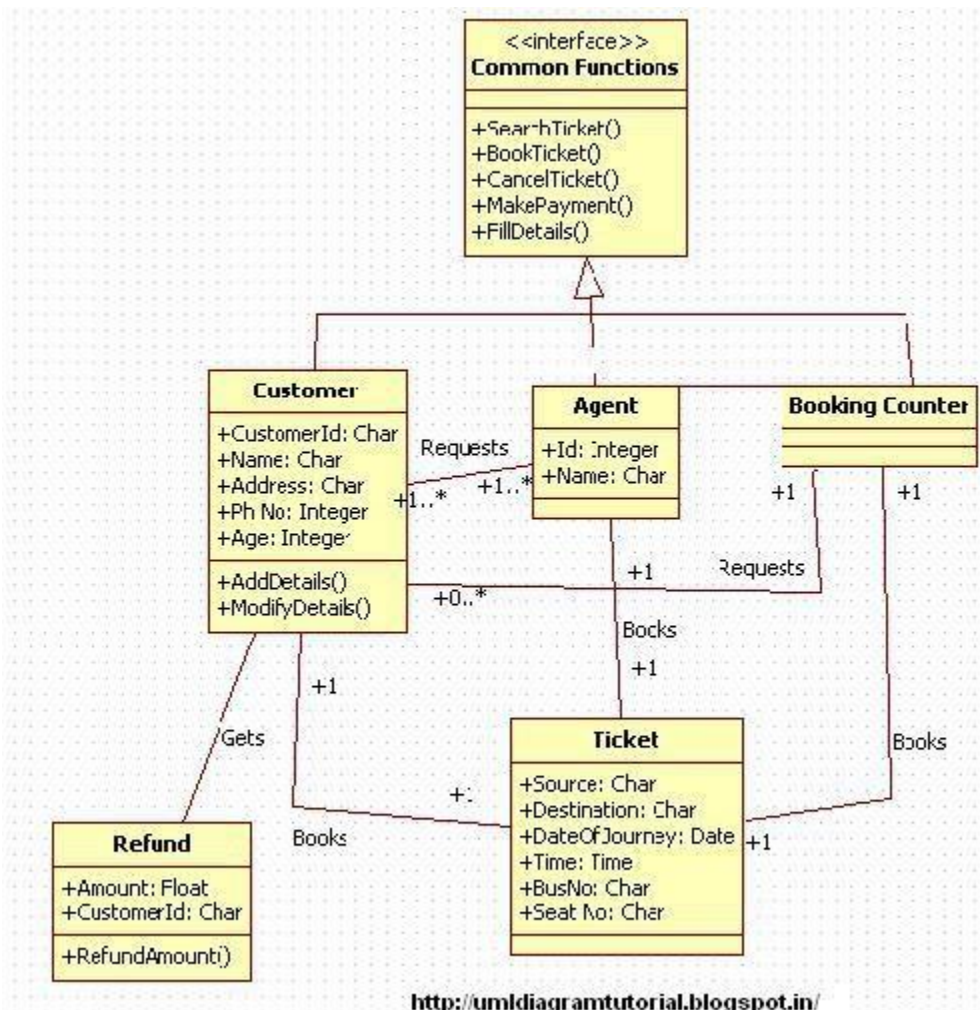


## USE CASE DIAGRAM FOR USERS AND ADMIN

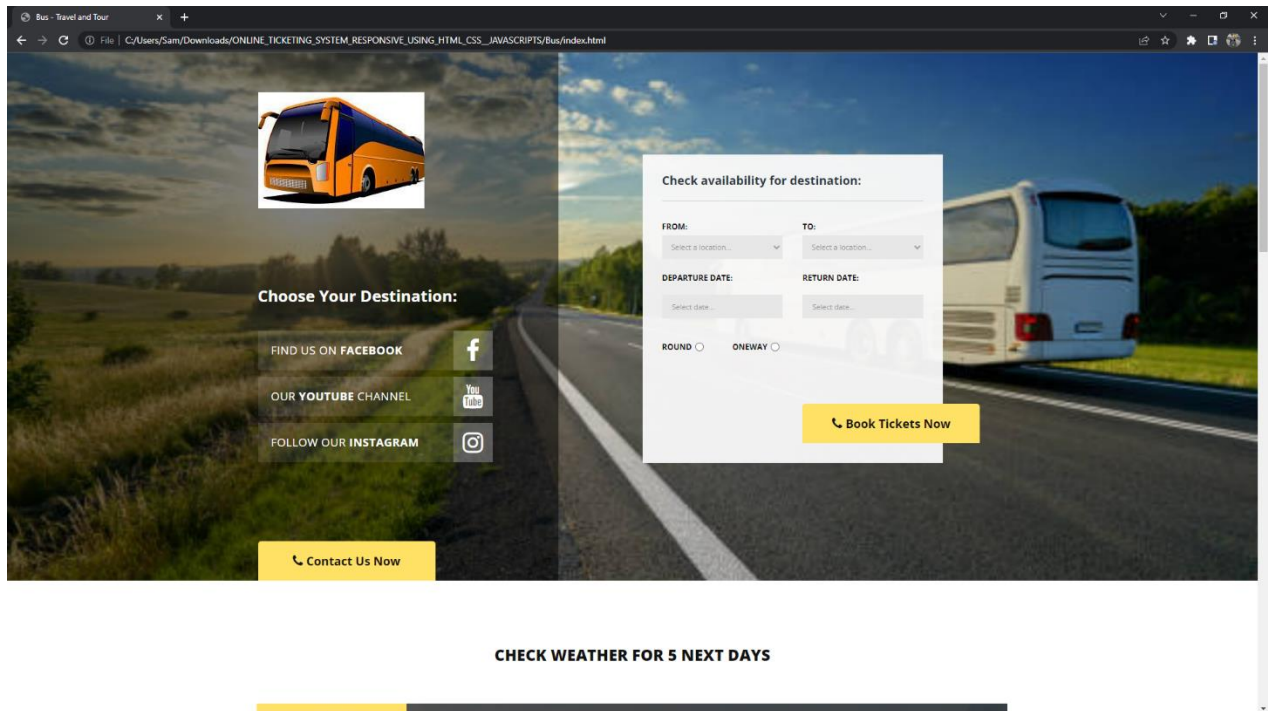
A use case is a description of a system's behaviour as it responds to a request that originates from outside of that system (the user). , a use case of the activities in a bus transport system is shown.



## Class diagram



## Outputs/screen shots



This is the main page which will be displayed when the website has started where we can choose the From and To destination and the trip mode by which we can choose the return ticket

## Destination page

The screenshot shows a web browser window with the address bar displaying "C:\Users\Sam\Downloads\ONLINE\_TICKETING\_SYSTEM\_RESPONSIVE\_USING\_HTML\_CSS\_JAVASCRIPTS\Bus/index.html". The page features a large background image of a road and a bus. On the left, there is a section titled "Choose Your Destination:" with a button "FIND US ON FACEBOOK" and a Facebook icon, "OUR YOUTUBE CHANNEL" and a YouTube icon, and "FOLLOW OUR INSTAGRAM" and an Instagram icon. Below these is a "Contact Us Now" button. On the right, there is a "Check availability for destination:" form. The form has a "FROM:" dropdown menu with options: "Trichy", "Select a location...", "Thiruvelli", "Kovilpatti", "Madurai", "Chennai", "Nagercoil", "Kanyakumari", "Coimbatore", "Ooty", and "Kodikunni". The "TO:" dropdown menu has the option "Select a location...". There is a "RETURN DATE:" field with a "Select date..." button. Below the form is a "Book Tickets Now" button. At the bottom of the page, there is a "CHECK WEATHER FOR 5 NEXT DAYS" button.

Bus - Travel and Tour

Choose Your Destination:

FIND US ON FACEBOOK

OUR YOUTUBE CHANNEL

FOLLOW OUR INSTAGRAM

Contact Us Now

Check availability for destination:

FROM: Trichy

TO: Select a location...

RETURN DATE: Select date...

Book Tickets Now

CHECK WEATHER FOR 5 NEXT DAYS

## Seat selection

The screenshot shows a web browser window with the address bar displaying "C:\Users\Sam\Downloads\ONLINE\_TICKETING\_SYSTEM\_RESPONSIVE\_USING\_HTML\_CSS\_JAVASCRIPTS\Bus/index1.html". The page features a "Bus Seat Reservation" section with a grid of seats. The grid is labeled "From Front Row" at the top and "End of Seat Row" at the bottom. The seats are numbered 1 through 35. The grid is divided into two columns. The first column contains seats 1, 2, 5, 6, 9, 10, 13, 14, 17, 18, 19, 20, 23, 24, 27, 28, 31, 32, 33. The second column contains seats 3, 4, 7, 8, 11, 12, 15, 16, 21, 22, 25, 26, 29, 30, 34, 35. The seats are color-coded: purple for "First Class", blue for "Economy Class", and red for "Already Booked". On the right, there is a "Booking Details" section with a "Selected Seats (0):" field and a "Please select Seat/s first" message. Below this is a "Total: \$0" label and a "SUBMIT BOOK" button. At the bottom, there is a "RESET BUS SEAT" button.

Simple Bus Seat Reservation Site

Bus Seat Reservation

From Front Row

1 2 3 4

2 5 6 7 8

3 9 10 11 12

4 13 14 15 16

5 17 18

6 19 20 21 22

7 23 24 25 26

8 27 28 29 30

9 31 32 33 34 35

End of Seat Row

Booking Details

Selected Seats (0):

Please select Seat/s first

Total: \$0

SUBMIT BOOK

First Class

Economy Class

Already Booked

RESET BUS SEAT

## Conclusion

It can be observed that computer applications are very important in every field of human endeavor. Here all the information about customer that made reservation can be gotten just by clicking a button with this new system, some of the difficulties encountered with the manual system are overcome. It will also reduce

the workload of the staff, reduce the time used for making reservation at the bus terminal and also increase efficiency. The application also has the ability to update records in various files automatically thereby relieving the company's staff the stress of working from file security of data.

Our project online bus reservation system provides an easy way for booking the bus tickets. Our project has succeeded in managing the data and providing the best service to the users.

This project, as a whole, will give a new way in bus reservations and ticketing processes. The automation and management of seats and reservations will be done online. However, this project does not limit the walk-in passengers that is passengers who visit the company's counter because it also caters for them. This also lessens the use of papers like in the traditional way of ticketing.

Finally, in Online Bus Booking System, we have developed a secure, user-friendly Bus Reservation System. This Project basically provides a Bus information and regarding bus information. First of all, in our website any user or visitors view our system and search the bus and how many seats are available in our buses.

The user can also register its own seats in the bus this website. The user can post a comment on different Bus Services. But user can compulsory registered first in the system. Search Bus category wise.

This system has automated process to alert employee as well as customers who have booked their seats with the system.

This is the cloud based online system. Therefore, to access this system you only need a web browser, internet connection. This is the 24X7 available system. We observed the working of the Bus reservation system and after going through it, we get to know that there are many operations, which they have to do manually.

It takes a lot of time and causing many errors while data entry. Due to this, sometimes a lot of problems occur and they were facing many disputes with customers. To solve the above problem, and further maintaining records of passenger details, seat availability, price per seat, bill generation and other things, we are developed computerized reservation system.

By using this software, we can reserve tickets, through telephone lines, via the internet. The customer can check the availability of bus and reserve selective seats. The project provides and reviews all sorts of constraints so that user does give only user data and thus validation is done in an efficient manner.