



PARSHVANATH CHARITABLE TRUST'S

**AP. Shah Institute of Technology Thane,
400615**

Academic Year: 2022-23
Department of Computer Engineering

**CSL304 SKILL BASED LAB COURSE: OBJECT ORIENTED
PROGRAMMING WITH JAVA**

Mini Project Report

**Title of Project: Bus Reservation and Ticketing System
Second Year (Semester III)**

Group Members: Razzaq A Shikalgar (21102035)
Samyukta Shinde (21102039)
AaryanSorte (21102174)
Mandvi Shukla (21102110)

Table of Contents

Sr. No.	Topic	Page No.
1.	Problem Definition	2
2.	Introduction	3
3.	Description	5
4.	Implementation details with screen-shots (stepwise)	6
5.	Learning Outcome	14

Problem Definition

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

Introduction

The prevalent view in various global circles is that man is presently living in an age growth of information gathering, processing and dissemination, popularly called the information age. For this reason, managers and other users of information especially in transport industries are demanding more kinds of information to support management and operations. They must therefore respond to the increasing requirement for information and data management.

Electronic tickets, or e-tickets, gives evidence that their holders have the permission to enter a place of entertainment, use a means of transportation, or have access to some

Internet services. The design of this online system will be beneficial to the company because it has not existed before.

Therefore, Imo Transport Company, Owerri, a viable investment owned by the state government whose primary objectives are: to spread comfort and hospitality to passengers away from their home, to make profit, will definitely appreciate a system which can automate its manual operations in the area of bus ticket reservation in order to meet customers increasing demand during peak and off peak seasons. The ultimate expectation is to inspire a feasibility study aimed at providing proper guidance and awareness to any future potential investors, particularly those in the bus industry, to consider utilizing the Imo transport, as a gateway to the fertile soil of unlimited opportunities in the south-east Nigeria.

Currently, staff at the bus ticket counter is using an internal system to sell tickets at the counter and customers who are unable to buy bus ticket online at this moment would have to go to the counter to a buy bus ticket.

Sometimes, customers' needs to queue up a long queue to buy bus ticket and ask for information and this brings a lot of inconveniences to customers.

However, Online Bus Ticket Reservation System enables the customer to buy bus ticket, make payment, and ask for information online easily. Furthermore, staff can sell bus ticket using Bus Ticket Reservation System after checking the bus ticket availability for the customer and print the bus ticket to the customer.

Description

The user who wants to use the transport must make an application to book the transport before boarding.

Similarly, after considering the type of system which Badariah adopted, this project will be designed with the same aim of presenting the customers of Imo Transport Company with the opportunity of making reservations at the comfort of their homes or offices without being faced with the challenges of queuing at counters before embarking on any journey. This project will also enlighten prospective customers and users of the system on the need to patronize the system as it displays more advantages over the old system by providing an easy to use Graphic User interface (GUI) interaction, checking availability of routes before boarding etc.

EZB SDN BHD is a bus service company located in the heart of Malaysia, Kuala Lumpur. Usually they do paper works for keep their customer's details and booking reservation records.

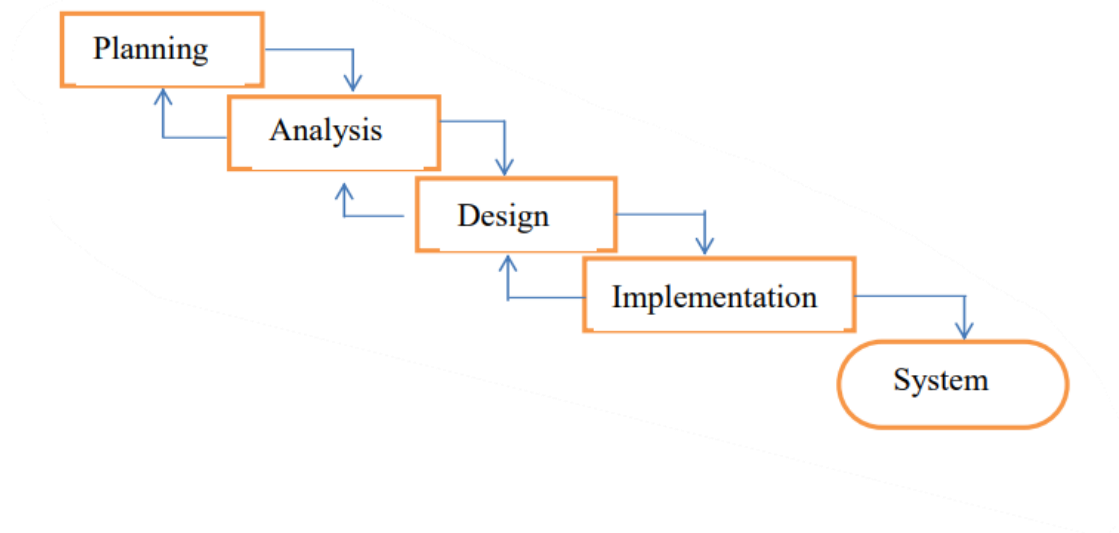
If any customer need to reserve seat he or she need to call them or walk in to their counter which is consider as wasting their valuable times. Sometimes the phone line also keep busy and customers unable to reserve seats for them. Besides, EZB need to keep records of the payments made by customers in papers and quite impossible for them to keep track on payment issues. Currently EZB is planning to replace their old booking system with new system which is online based. So they want to implement an online web based bus ticketing system which will be easier for customers to book from home and abroad as well as for them to manage their overall business smoothly.

Implementation

Software Requirements

VS Code: IDE to execute the machine vision program. Plenty of extensions, opensource, and offers cross-platform support.

Java Runtime Enviroment (**JRE**), **JDK1.7**, Editor like notepad ,etc



If the user Visit's Our Website then he need to Put up his Id and Password If he is already logged in If not then he have to create a new account ...We check That Condition by using the below code snippet

```

for (int i = 1; i < 4;) {
    System.out.print("Enter Username: ");
    user = in.readLine();
    System.out.print("Enter Password: ");
    password = in.readLine();

    // "available[]" is the SEAT AVAILABLE//
    // store 20 seats every destination [1-5]//
    for (int o = 1; o <= 5; o++) {
        available[o] = 20;
    }

    // if user and password are correct proceed to MAIN MENU//
    if (user.equals("Razaq")) {
        System.out.println("Valid Username");
    } else {
        System.out.println("Invalid Username");
    }
}

if (password.equals("Razaq@2003")) {
    {

```

If the Password is Correct then he is Directed to the main window where he/she can See the Destination and Accordingly Book ticket's.

```

for (x = 1; x == 1;) {
    System.out.print(s: "ENTER CHOICE: ");
    choice = in.readLine();

    // if CHOICE is "1" display the DESTINATION//
    if (choice.equals(anObject: "1")) {
        // the DESTINATION DETAILS//
        // display the "Destination", every destination "Fare", and the "Seat"
        // available//
        System.out.println(x: "~~~~~");
        System.out.println(x: "*** DESTINATION | FARE | SEAT ***");
        System.out.println(x: "*****");
        System.out.println(x: "*** 1.)MUMBAI CITY | Php600 | " + available[1] + " ***");
        System.out.println(x: "*** 2.)PUNE CITY | Php170 | " + available[2] + " ***");
        System.out.println(x: "*** 3.)KOLHAPUR | Php150 | " + available[3] + " ***");
        System.out.println(x: "*** 4.)NAGPUR | Php200 | " + available[4] + " ***");
        System.out.println(x: "*** 5.)RATNAGIRI | Php250 | " + available[5] + " ***");
        System.out.println(x: "~~~~~");
        System.out.println(x: "~~~~~\n");
        System.out.println(x: "PWD, STUDENT, & SENIOR CITIZEN with 20% DISCOUNT!!!\n");
        x = 0;
    }
}

```

After that user have to enter the passenger's Name and if the User name matches with the previously used data then it will show some errors ie.) Username already exist

```

// if Passenger's Name already used, display error and go back to Inputing//
for (int l = 0; l < z; l++) {
    if (ticketS[l][0].equalsIgnoreCase(ticketS[z][0])) {
        System.out.println(x: "Sorry, Passenger's name have already used!");
        x = 1;
    }
}

```

Then the passenger is asked to Input the total number of passenger's travelling with him and also the count of people gaining discount.

```

// inputing of Destination//
// integers Only [1-5]//
for (x = 1; x == 1;) {
    System.out.print("\nEnter DESTINATION [number]: ");
    to = Integer.parseInt(in.readLine());

    // if Inputed integers are "<1" or ">5", display error and go back to Inputing//
    if (to < 1 || to > 5) {
        System.out.println("\Invalid Input!");
        x = 1;
    }
    // if available seat is equal to "Zero", display error and go back to Inputing//
    for (int d = 1; d <= 5; d++) {
        if (to == d) {
            if (available[to] == 0) {
                System.out.println("\Sorry, We don't have available seat!");
                x = 1;
            }
            x = 0;
        }
    }
}

// convert the integer to string//
String dest[] = { " ", "MUMBAI CITY", "PUNE CITY", "KOLHAPUR ", "NAGPUR", "RATNAGIRI" };
double fare[] = { 0, 600, 170, 150, 200, 250 };

```

```

        if (available[to] < 0) {
            System.out.print("\Sorry, We don't have seat available for "
                + ticketI[z][0] + " person\n");
            available[to] = available[to] + ticketI[z][0];
            System.out.print("\We only have " + available[to] + " seat available\n");
            x = 1;
            print = 0;
        } else {
            x = 0;
        }
    }
}

// inputing for Number of Discounted Passenger's//
for (x = 1; x == 1;) {
    System.out.print("\HOW MANY PASSENGERS HAVE DISCOUNT?: ");
    ticketI[z][1] = Integer.parseInt(in.readLine());

    if (ticketI[z][1] > ticketI[z][0]) {
        System.out.println("\Invalid Input!");
        System.out.println("\No. of Passengers are only " + ticketI[z][0] + "!");
        x = 1;
    } else {
        break;
    }
}

```

Accordingly Each Parent User has to input the total Number of passenger travelling with him and the total number of person getting discount.

```

for (x = 1; x == 1;) {

    System.out.print(s: "ENTER PASSENGER'S NAME: ");
    search = in.readLine();

    int s = 1;
    for (int b = 0; b < z; b++) {
        if (search.equalsIgnoreCase(ticketS[b][0])) {
            System.out.println(x: "*****");
            System.out.println(x: "***      PASSENGER'S DETAILS      **");
            System.out.println(x: "*****");
            System.out.println("PASSENGER'S NAME: " + ticketS[b][0]);
            System.out.println("PASSENGER'S DESTINATION : " + ticketS[b][1]);
            System.out.println("FARE PRICE: Php" + ticketD[b][0]);
            System.out.println("NO. OF PASSENGERS: " + ticketI[b][0]);
            System.out.println("NO. OF PASSENGERS WITH DISCOUNT: " + ticketI[b][1]);
            System.out.println(x: "*****");
            System.out.println(x: "*****");
            s = 0;
            x = 0;
        }
    }
}

```


Output:-

```

Enter Username: Razzaq
Enter Password: Razzaq@2003
Valid Username
~~~~~
!!!! BUS RESERVATION AND TICKETING SYSTEM !!!!
*****
!! [1] Destination      !!
!! [2] Passengers      !!
!! [3] Billing          !!
!! [4] View            !!
!! [5] Exit            !!
~~~~~
~~~~~

```

```

ENTER CHOICE: 1
~~~~~
** DESTINATION | FARE | SEAT **
*****
** 1.)MUMBAI CITY | Php600 | 20 **
** 2.)PUNE CITY | Php170 | 20 **
** 3.)KOLHAPUR | Php150 | 20 **
** 4.)NAGPUR | Php200 | 20 **
** 5.)RATNAGIRI | Php250 | 20 **
~~~~~
~~~~~

PWD, STUDENT, & SENIOR CITIZEN with 20% DISCOUNT!!!

```

```

Do you want another transaction? [Y/N]: y
~~~~~
!!!! BUS RESERVATION AND TICKETING SYSTEM !!!!!
*****
!! [1] Destination                !!
!! [2] Passengers                 !!
!! [3] Billing                    !!
!! [4] View                      !!
!! [5] Exit                      !!
~~~~~
~~~~~

```

```

ENTER CHOICE: 2
~~~~~
**  DESTINATION  |  FARE  |  SEAT  **
~~~~~
** 1.)MUMBAI CITY | Php600 | 20    **
** 2.)PUNE CITY   | Php170 | 20    **
** 3.)KOLHAPUR    | Php150 | 20    **
** 4.)NAGPUR      | Php200 | 20    **
** 5.)RATNAGIRI   | Php250 | 20    **
~~~~~
~~~~~

PWD, STUDENT, & SENIOR CITIZEN with 20% DISCOUNT!!!

ENTER PASSENGER'S NAME: Razzaq
ENTER DESTINATION [number]: 1
HOW MANY PASSENGERS ARE YOU?: 5
HOW MANY PASSENGERS HAVE DISCOUNT?: 2

```

```

*****
**          PASSENGER'S DETAILS          **
*****

PASSENGER'S NAME: Razzaq
PASSENGER'S DESTINATION : MUMBAI CITY
FARE PRICE: Php 600.0
NO. OF PASSENGERS: 5
NO. OF PASSENGERS WITH DISCOUNT: 2
*****
*****

Do you want another transaction? [Y/N]: n

Thank You!!!
PS C:\Users\Admin\Desktop\BusAndTicketReserve_J

```

Learning Outcome —

Our goal in this project was to create bus reservation and ticketing system through Java. We successfully achieved that goal. Through the completion of this project we were able to learn a lot about a variety of java functions and classes. We also acquired basic knowledge about databases and its implementation using java. Getting to our end goal was not an easy nor was it a short process. We encountered issues in nearly all parts of the project. Along with the technical knowledge we also were able to learn important skills of time management, team work and consistency. We faced problems initially because we lacked direction but eventually we got the grip. Overall this whole project was a knowledge boosters for many concepts especially Java programming language, database creation and expanding our programming horizon.