

Railway Management System

Objective:

Railway is a very important part of India's transportation system. Proper management of it is equally important. There are so many trains and so many passengers as well, along with different ticket fares based on compartments. Different trains have different timings and different routes as well. If they are not managed properly, there would be absolute chaos. The main objective of this project is to provide solution to this problem by providing a system which would reduce the manual work and help in the management. This project is totally built at administrative level and thus only the administrator is guaranteed the access. This project is focused on a single railway station.

Introduction:

In this railway management system, the user will be able to search all the trains passing through the station along with train timings. The user will be shown ticket fares on selecting a particular train according to compartments. The user will be able to book tickets. The user will be required to enter the passenger details while doing so. The data will be able to stored in a database. The user will also be able to view the details of all the passengers who have booked the tickets.

Technology Used:

- C++ / OOPS
- File Handling

Railway Management System

Expected Output:

- Search trains at a particular station
 - View Train Timings
 - Able to view ticket fares
 - Book tickets by entering number of passengers and passenger details in a single PNR.
 - Get total fare details the passenger need to pay.
 - Get Tickets
 - View the details of already booked tickets.
 - Add travel companions
 - Cancel tickets
-

Output:

- ❑ Search trains at a particular station
- ❑ View Train Timings
- ❑ Able to view ticket fares

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XYZ Railways
-----
Main Menu
-----
Press 1 to add the Customer Details
Press 2 for Train Booking
Press 3 for Ticket and Charges
Press 4 to display Database
Press 5 to Cancel
Press 6 to view E-Catering Database
Press 7 exit
-----
Enter the Choice: █
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Railway Management System

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Enter the Choice: 2
___Book a ticket in this section___

1.train to DELHI
2.train to KOLKATA
3.train to PATNA
4.train to NAGPUR
5.train to JAIPUR
6.train to MUMBAI

WELCOME TO THE RAIWAYS!
Press the number of the city you want to book the train:1
_WELCOME TO DELHI_

your comfort is our priority , Enjoy the journey!
Following are the Trains

1.DEL-123
    08-01-2022  8:00AM  10hrs  3A-Rs.2100 2A-Rs.3100 1A-Rs.5200
2.DEL-345
    09-01-2022  10:00AM  15hrs  3A-Rs.2300 2A-Rs.3300 1A-Rs.5400
3.DEL-456
    10-01-2022  11:00AM  20hrs  3A-Rs.2400 2A-Rs.3500 1A-Rs.5100

Select the Trains you want to book : 1

Enter the AC class in which u want to travel : 3

YOU HAVE SUCCESFULLY BOOKED THE TRAIN DEL-123
YOU CAN GO BACK TO MENU AND TAKE THE TICKET
press any key to go back to the main menu:
```

- Book tickets by entering number of passengers and passenger details in a single PNR.

Railway Management System

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Enter the Choice: 1
----_Customers_----

Your PNR number is: 1000011270

Enter the number of passengers: 2

  Enter the customer ID :1

  Enter the Name :Akash

  Enter the age :19

  Enter Birth Preference :U

  Gender:M

  Enter the customer ID :2

  Enter the Name :Ankit

  Enter the age :19

  Enter Birth Preference :L

  Gender:M
Yours details are saved with us.
Your PNR number is: 1000011270
Please use this PNR number to book tickets!

Press any key to go back to the Main Menu
█
```

- Get total fare details the passenger need to pay.
- Get Tickets

Railway Management System

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1
XYZ Railways

-----Main Menu-----
|
| Press 1 to add the Customer Details
| Press 2 for Train Booking
| Press 3 for Ticket and Charges
| Press 4 to display Database
| Press 5 to Cancel
| Press 6 to view E-Catering Database
| Press 7 exit
|
|-----|

Enter the Choice: 3
___Getting your Ticket___

Total Cost: 4200Your Ticket is printed, you can collect it

Press 1 to display your ticket 1
___XYZ Railways___
___Tickets___
-----
| PNR Num | Customer ID | Name | Gender | Boarding | Destination | Charge |
| 1000011270 | 1 | Akash | M | CHN | Delhi | 2100 |
| 1000011270 | 2 | Ankit | M | CHN | Delhi | 2100 |
|-----|

Press any key to go back
```

□ View the details of already booked tickets.

```
XYZ Railways

-----Main Menu-----
|
| Press 1 to add the Customer Details
| Press 2 for Train Booking
| Press 3 for Ticket and Charges
| Press 4 to display Database
| Press 5 to Cancel
| Press 6 to view E-Catering Database
| Press 7 exit
|
|-----|

Enter the Choice: 4
___XYZ Railways___
___Tickets___
-----
| PNR Num | Customer ID | Name | Gender | Destination | Charge |
| 1000005288 | 1 | Ayan | M | Delhi | Rs. 2100 |
| 1000005647 | 1 | Bhavya | M | Nagpur | Rs. 1400 |
| 1000011270 | 1 | Akash | M | Delhi | Rs. 2100 |
| 1000011270 | 2 | Ankit | M | Delhi | Rs. 2100 |
|-----|

Press any key to go back
```

□ Cancel tickets

Railway Management System

```
-----Main Menu-----
|
| Press 1 to add the Customer Details
| Press 2 for Train Booking
| Press 3 for Ticket and Charges
| Press 4 to display Database
| Press 5 to Cancel
| Press 6 to view E-Catering Database
| Press 7 exit
|
|-----|
Enter the Choice: 5
Enter PNR no.:
1000005647
The record with the name 1000005647 has been deleted if it exsisted
Press any key to go back
1
XYZ Railways
-----Main Menu-----
|
| Press 1 to add the Customer Details
| Press 2 for Train Booking
| Press 3 for Ticket and Charges
| Press 4 to display Database
| Press 5 to Cancel
| Press 6 to view E-Catering Database
| Press 7 exit
|
|-----|
Enter the Choice: 4
____XYZ Railways____
____Tickets____
-----
|PNR Num|Customer ID|Name|Gender|Destination|Charge|
|1000005288|1|Ayan|M|Delhi|Rs. 2100|
|1000011270|1|Akash|M|Delhi|Rs. 2100|
|1000011270|2|Ankit|M|Delhi|Rs. 2100|
|-----|
Press any key to go back
█
```

Additional :

- Added **User Mode** along with Admin Mode ○ Admin Mode:

Railway Management System

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                        WELCOME TO XYZ RAILWAYS
-----

      |      1. Admin Mode      |
      |      2. User Mode      |
      |      3. Exit            |
      |_____|

Select: 1

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Enter Admin Username: admin
Enter Admin Password: admin
                    XYZ Railways

      |_____|
      |      Main Menu      |
      |_____|
      |
      |      Press 1 to add the Customer Details
      |      Press 2 for Train Booking
      |      Press 3 for Ticket and Charges
      |      Press 4 to display Database
      |      Press 5 to Cancel
      |      Press 6 to view E-Catering Database
      |      Press 7 exit
      |_____|

-----

Enter the Choice: 4
```

○ User Mode:

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-----
                        WELCOME TO XYZ RAILWAYS
-----

      |      1. Admin Mode      |
      |      2. User Mode      |
      |      3. Exit            |
      |_____|

Select: 2

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WELCOME TO USER MODE
      1. Create New Account
      2. Login using existing account

      Select: 2

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                        LOGGING IN
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Enter ID: iamayan2011
Enter Password: 12345

Credentials Matched!
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User Mode Main Menu:

Railway Management System

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-----
XYZ Railways
-----
Main Menu
-----
|
| Press 1 to add the Customer Details
| Press 2 for Train Booking
| Press 3 for Ticket and Charges
| Press 4 to Cancel
| Press 5 to order food
| Press 6 exit
|
|-----
```

□ E-Catering Service

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WELCOME TO E-CATERING SERVICE
-----

1. View Menu and Order Food
2. Print Receipt
3. Back

1

-----
Enter Details to continue
Enter Your PNR number: 1000005288
Welcome Ayan! Please find the Menu!

-----
FOOD MENU
-----

|S.no. |Item Name |Price |
|1. |Simple Veg Thali |Rs. 190 |
|2. |Special Veg Thali |Rs. 210 |
|3. |Veg Deluxe Thali |Rs. 240 |
|4. |Simple Non-Veg Thali |Rs. 210 |
|5. |Special Non-Veg Thali |Rs. 250 |
|6. |Non-Veg Deluxe Thali |Rs. 270 |
|7. |Simple South-Indian Thali |Rs. 210 |
|8. |Special South-Indian Thali |Rs. 240 |

Enter the number of Items you want to book:
2
Enter your Choice 1: 1

Simple Veg Thali booked!
Enter your Choice 2: 4

Simple Non-Veg Thali booked!
Order Placed Successfully! Please collect your Reciept by Print Reciept option!
Press any key to continue . . .

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Railway Management System

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-----
                WELCOME TO E-CATERING SERVICE
-----

1. View Menu and Order Food
2. Print Receipt
3. Back

2

-----
                ORDER RECIEPT
-----

Passenger Details:
|PNR Num      |Name |Gender |Boarding |Destination |
|1000005288   |Ayan |M       |CHN      |Delhi       |

Ordered Food Details:
|Simple Veg Thali      |Rs. 190
|Simple Non-Veg Thali  |Rs. 210

Press any key to continue . . . █

```

- View all the previously ordered Food through E-Catering Service using Admin Mode

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-----
                        WELCOME TO XYZ RAILWAYS
-----

|          1. Admin Mode          |
|          2. User Mode          |
|          3. Exit                |
|                                |
Select: 1
-----

Enter Admin Username: admin

Enter Admin Password: admin
                    XYZ Railways

-----Main Menu-----
|                                |
| Press 1 to add the Customer Details |
| Press 2 for Train Booking          |
| Press 3 for Ticket and Charges     |
| Press 4 to display Database         |
| Press 5 to Cancel                  |
| Press 6 to view E-Catering Database |
| Press 7 exit                      |
|                                |
-----

Enter the Choice: 6

-----FOOD DATABASE-----
|PNR no|Item Name|Price|
|1000005288|Simple Veg Thali|Rs. 190|
|1000005288|Simple Non-Veg Thali|Rs. 210|
|1000005288|Simple Veg Thali|Rs. 190|
|1000005288|Simple Non-Veg Thali|Rs. 210|
Press any key to continue . . .

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