



Project Report

Railway Reservation System

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Submitted on:

16th June 2020

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Introduction

This Railway Reservation system is basically concerned with the reservation and cancellation of railway tickets to the passengers. The need of this system arose because as is the known fact that Pakistan has the large railway network and to handle it manually is quite difficult job. By computerizing it, we will be able to overcome many of its limitations and will be able to make it more efficient. The handling of data and records for such a vast system is a very complex task if done manually but it can be made much easier if the system is computerized.

Tools Used

SQL Server Management Studio: SQL Server Management Studio (SSMS) is an integrated environment for managing any SQL infrastructure, from SQL Server to Azure SQL.

JAVA (Language): Java is an object-oriented, cross platform, multi-purpose programming language produced by Sun Microsystems. First released in 1995, it was developed to be a machine independent web technology. It was based on C and C++ syntax to make it easy for programmers from those communities to learn. Since then, it has earned a prominent place in the world of computer programming.

Eclipse: Eclipse is an open-source Integrated Development Environment (IDE) supported by IBM. Eclipse is popular for Java application development (Java SE and Java EE) and Android apps. It also supports C/C++, PHP, Python, Perl, and other web project developments via extensible plug-ins.

Implementation

We have successfully implemented our whole project in java language using eclipse
Following are the main classes of our project

Main Classes:

1. Bookingdeatils.java ()
2. EmployeeControl.java ()
3. EmployeeLogin.java ()
4. Home.java ()
5. Passeneger.java ()
6. StationDetails.java ()
7. TrainDetails.java ()

GUI of Project

Following are the Interface screens of our project.

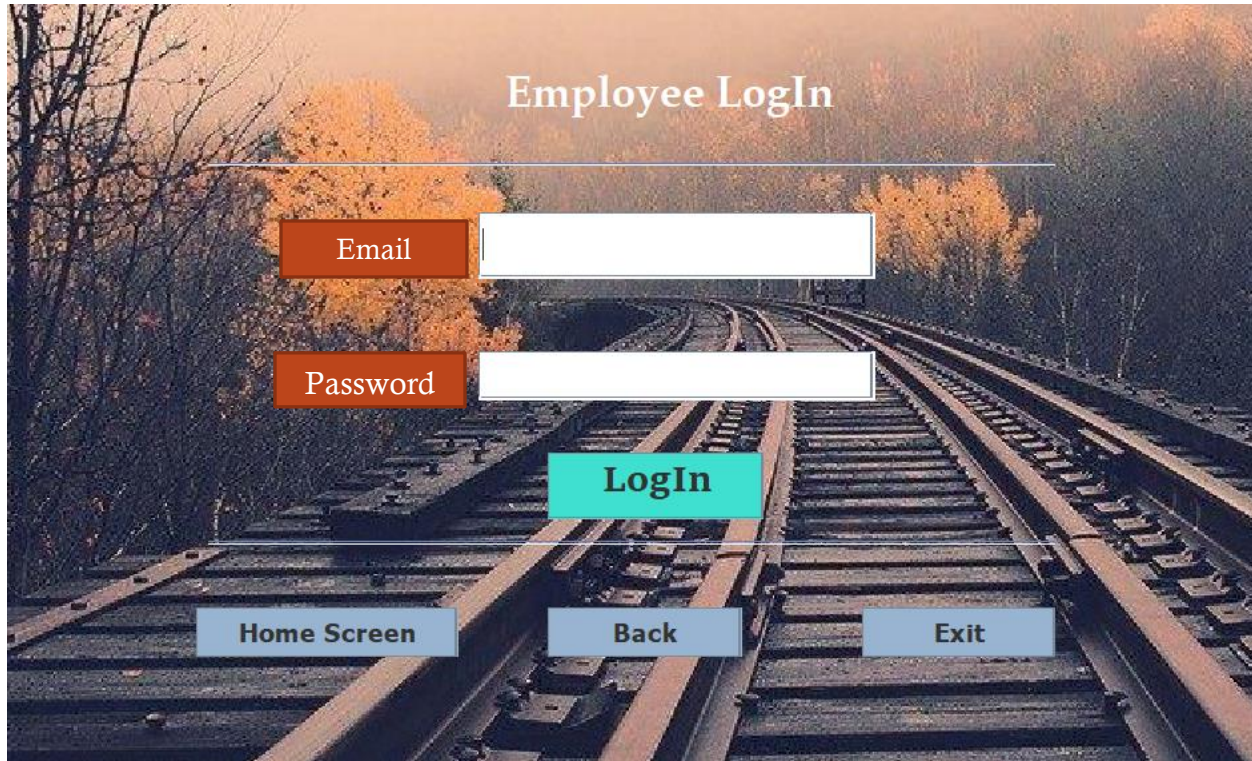
1. Home Page

Home page is showing main entities of project.



2. Employee Login

After entering email and password and then clicking on login, it will take you to the employee info screen.

The image shows a login screen titled "Employee Login" overlaid on a background of railroad tracks receding into the distance under a hazy, orange-tinted sky. The form includes two input fields: "Email" and "Password", both with orange labels and white text boxes. Below these is a teal "LogIn" button. At the bottom, there are three light blue buttons: "Home Screen", "Back", and "Exit".

Employee Login

Email

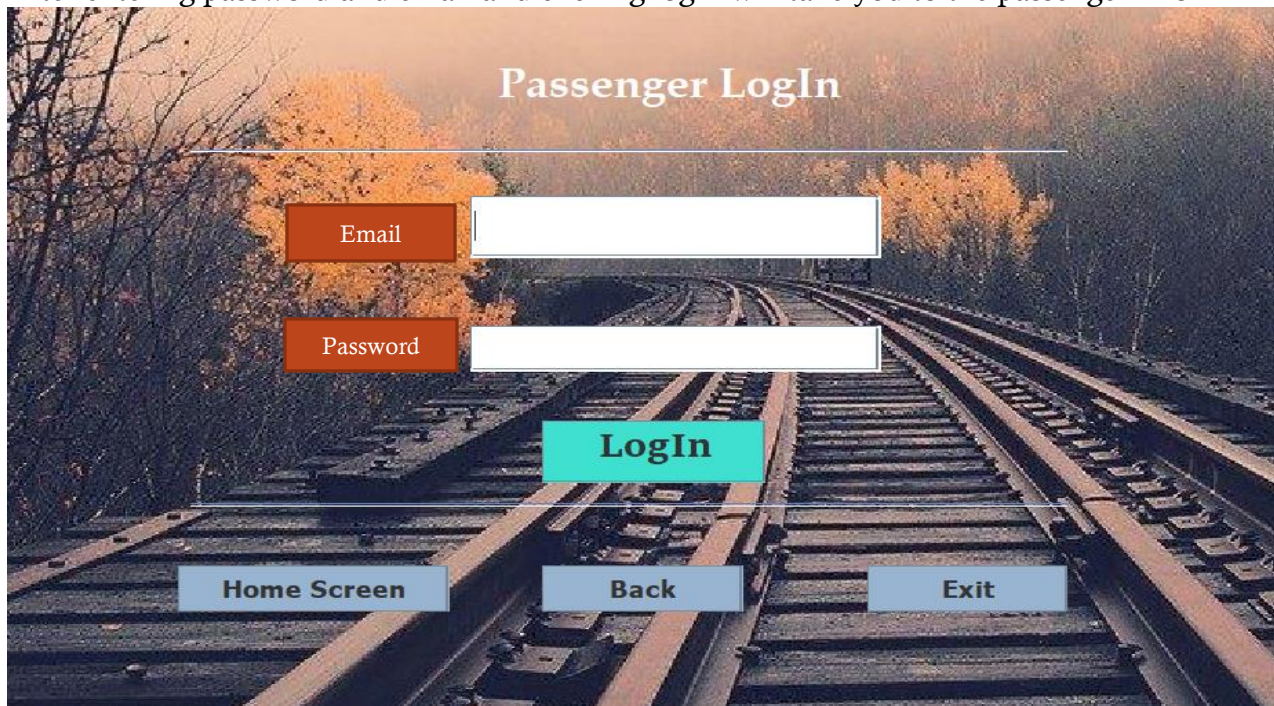
Password

LogIn

Home Screen Back Exit

3. PassengerLogin

After entering password and email and clicking login will take you to the passenger info

The image shows a login screen titled "Passenger Login" overlaid on the same railroad track background as the previous screen. The form includes two input fields: "Email" and "Password", both with orange labels and white text boxes. Below these is a teal "LogIn" button. At the bottom, there are three light blue buttons: "Home Screen", "Back", and "Exit".

Passenger Login

Email

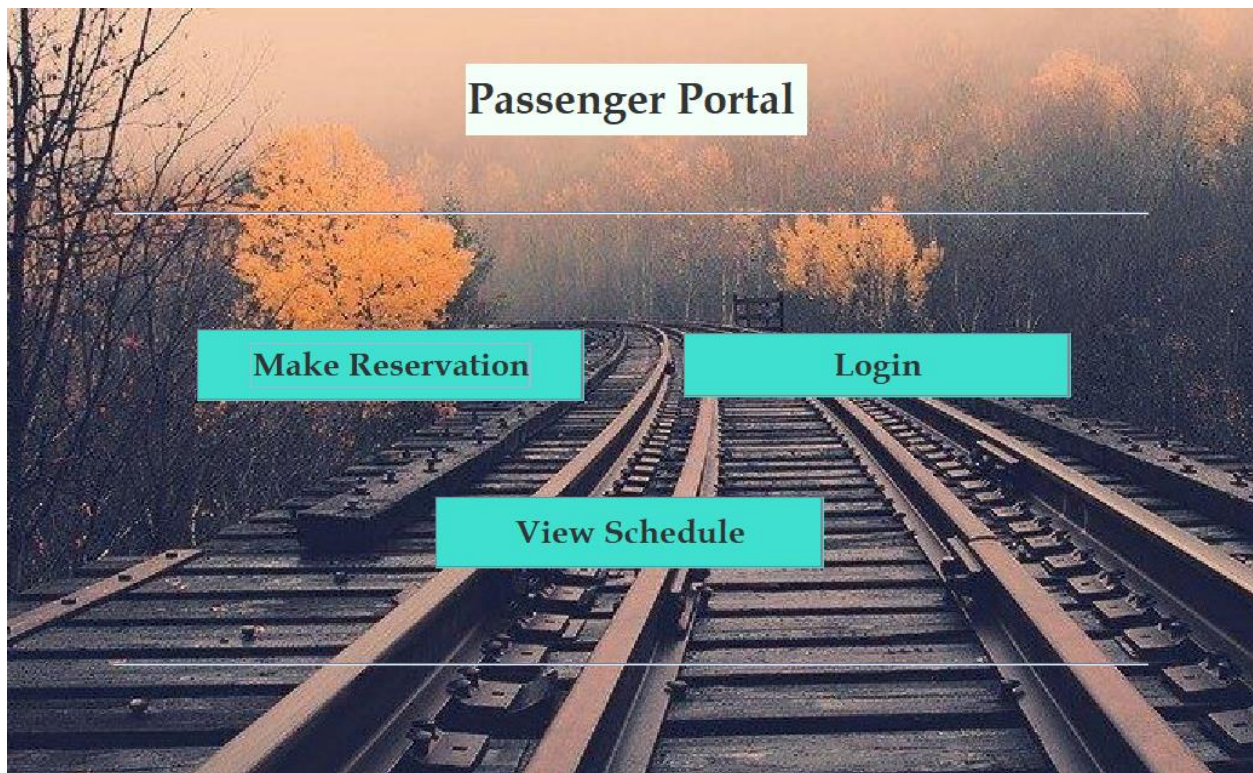
Password

LogIn

Home Screen Back Exit

4. Passenger Portal

This screen is connected with these three other screens on clicking on any ,it will take to the respective screen.



5. Passenger

The image shows a screenshot of the 'Passenger' registration form. The background is the same railway track photograph as the previous screen. At the top, the title 'Welcome To Railway SignUp System' is displayed in a white box. Below the title, there are several input fields for user registration: 'Passenger ID', 'CNIC No', 'Name', 'Age', 'Gender', 'Address', and 'Mobile Number'. Each field is represented by a white rectangular box with a thin border. To the right of the 'Sign Up' button, there is a 'Sign Up' button. At the bottom of the form, there are three blue buttons: 'Home Screen', 'Back', and 'Exit'. The buttons are semi-transparent, allowing the background image to be seen through them.

6. Station

Welcome To Railway SignUp System

Station Name	<input type="text"/>	Arival Time	<input type="text"/>
Train Name	<input type="text"/>	Departure Time	<input type="text"/>
Train Id	<input type="text"/>		

Conform

Home Screen Back Exit

7. Train Details

Welcome To Railway SignUp System

Train ID	<input type="text"/>	Arival Time	<input type="text"/>
Train Name	<input type="text"/>	Departured Time	<input type="text"/>
Destination	<input type="text"/>	Total seats	<input type="text"/>
Départured From	<input type="text"/>	Ticket Price	<input type="text"/>

Ok

Home Screen Back Exit

Database of Project

Entities/Objects

Main Entities/objects for the given system are:

- Employee
- Passenger/Customer
- Station
- Booking
- Train

Attributes of Objects

1. **Employee:** Emp_Id Password, First_name, Last_name, Gender, Age, Email, Mobile_No, Designation
2. **Passenger:** Passenger_Id, CNIC_No, Name, Gender, Age, Mobile_No, Address
3. **Station:** Station_ID, Station_Name, , Station_Type, City
4. **Train:** Train_Id, Train_Name, Destination, Source, Arrival_time, Departure_time, Total_Capacity, Ticket_Price
5. **Booking:** Passenger_Id, Train_ID, Booked_By, No_of_Bookings, Seat_No Destination, Booking_Date, Total_Fares, Source

Database Schema

Employee

Emp_ID	Password	First_Name	Last_Name	Gender	Age	Email	Mobile_No	Designation
--------	----------	------------	-----------	--------	-----	-------	-----------	-------------

Passenger

Passenger_ID	CNIC_No	Name	Gender	Age	Mobile_No	Job
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Station

Station_Id	Station_Name	Station_Type	City
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Train

Train_ID	Train_Name	Destination	Source	Arrival_Time	Departure_Time	Capacity	Ticket_Price
----------	------------	-------------	--------	--------------	----------------	----------	--------------

Booking

Passenger_ID	Train_ID	Booked_By	Destination	Source	No_Of_Bookings	Booking_Date	Total_Fare
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Data Stored in Respective tables

Employee

100 %

Results Messages

	Emp_ID	Password	First_Name	Last_Name	Gender	Age	Email	Mobile_No	Designation
1	1940	killer	Thomas	Shellby	Male	26	tshelby@hotmail.com	03348791234	Booking Manager
2	1941	life	Pablo	Escobar	Male	29	pbar@gmail.com	03317812351	Site Engineer
3	1942	death	Arya	Stark	Female	22	aryas@yahoo.com	03128714612	Accountant
4	1944	fear	Jon	Snow	Male	27	j.snow@outlook.com	03151264556	Station Manager

Passenger

	Passenger_ID	CNIC_No	Name	Gender	Age	Mobile_No	Job
1	7861	6110198293151	Awais Majeed	Male	56	03216571241	Professor
2	7862	6110123124151	Obaid Awan	Male	22	03154532362	Student
3	7863	6110141256547	Iqrar Ijaz	Male	21	03173231235	Famer
4	7864	6110112344557	Natasha	Female	21	03312512315	Student

Station

	Station_ID	Station_Name	Station_Type	City
	1431	Cant Station	Junction	Karachi
	1432	Saddar Station	Terminal	Rawalpindi
	1433	Golra Station	Terminal	Islamabad
	1434	Cantonment Station	Central	Multan

Train

	Train_ID	Train_Name	Destiantion	Source	Arival_Time	Deaparutire_Time	Total_Capacity	Ticket_Price
	4201	Tezgaam	Quetta	Pindi	9:00 AM	3:00 PM	450	4500
	4202	Awami	Mansehra	Chakwal	4:00 PM	12:00 PM	300	900
	4203	Green Line	Lahore	Multan	10:00 PM	2:00 PM	350	1200
	4204	Hazara	Peshawar	Islamabad	7:00 PM	4:00 PM	400	650

Booking

	Passeneger_ID	Train_ID	Booked_By	No_Of_Bookings	Seat_No	Source	Destination	Booking_Date	Total_Fares
	7861	4201	Awais Majeed	3	35-37	Rawalpindi	Multan	9th June 2020	4500
	7862	4202	Obaid Awan	1	22	Islamabad	Mansehra	22nd July 2020	2000
	7863	4203	Iqrar Ijaz	2	7,8	Chakwal	Karachi	4th June 2020	1500
	7864	4204	Natasha	2	9,10	Quetta	Swabi	7th July 2020	2200

Thank You!