Railway Schedule & Ticket Management System

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Abstract:

Railway plays an important role in the people of Bangladesh. 6 out of 10 people have use railway as their transport. Although Bangladesh Railway now using a digital system to maintain their Tickets but Ticket digitalization is still limited for the mango people of Bangladesh. In our project we have tried to make a project which can serve a digital platform to serve people about train time schedule and they can book tickets from it. We have used HTML, CSS and PHP as for serving the front-end and MySQL for back-end functionality.

Introduction:

The customers of Bangladesh Railway are fully dependent on mobile operator for knowing the time schedule. They (Mobile operators) serves this by sms (short messing system). So if we build a system by which customers can buy tickets and can know where the train at that time then the system will become more user friendly. In our project we are trying to build such project. At first we make E-R Diagram then we build Schema then we make our final Database. At section 3 we have discussed about our E-R Diagram then in section 4 we have discussed about our Schema and Section 5 we have describe our Database. Then in section 6 and 7 we discussed our webpages and Interesting Queries. Finally in Section 8 we made conclusion of our project.

Project Objectives:

1. **user will able see the schedule of all trains**
2. **user will able see the route of all trains**
3. **admin can add train and update train**
4. **user can buy tickets**

Security:

The password of all the user accounts is protected by using cryptographic hash function. The cryptographic hash function is a hash function that takes any arbitrary size of message as input and gives a message digest having alphanumeric strings as output. The passwords are stored in the database in the format of a hash value.

Required Software and Tools:

1. Front end: PHP, HTML
2. JavaScript Framework
3. Design: CSS
4. Sublime Text 3
5. Web server: XAMPP
6. Database: MySQL

Project Description:

In this Railway Schedule System we will try to build a web application from where anyone can access the current location of a train. Although it is not fully possible to give the exact location because the GPS access of the train in Bangladesh are restricted to the authority only thus we will make this by the time. If a train runs in delay schedule then the admin will notify and make change in time. Thus users can also see the delay schedule of the train.

Interesting Queries:

User can find:

1. The train details (route etc.)
2. Total number of seats available in train
3. The seat price
4. The time schedule
5. User can buy ticket

Schema Diagram:

The Schema is given bellow:

train_details (TRAINNO, TRAINTYPE, ORIGIN, DESTINATION, DEPARTURETIME, ARRIVALTIME, SEATPRICE, TOTALSEATS)

customer (C_ID, PHONENO, C_NAME, AGE, GENDER, ADDRESS, PASS, ROLE)

reservation(T_NO, CID, RECEIPTNO, SEATRESERVED, R_DATE, STATUS)

admin (PHONE, STATUS)

Functional Dependency:

IN train_details TABLE,

TRAINNO -> TRAINTYPE, ORIGIN, DESTINATION, DEPARTURETIME, ARRIVALTIME, SEATPRICE, TOTALSEATS

IN customer TABLE,

CID, PHONENO -> C_NAME, AGE, GENDER, PHONENO, ADDRESS, PASS, ROLE

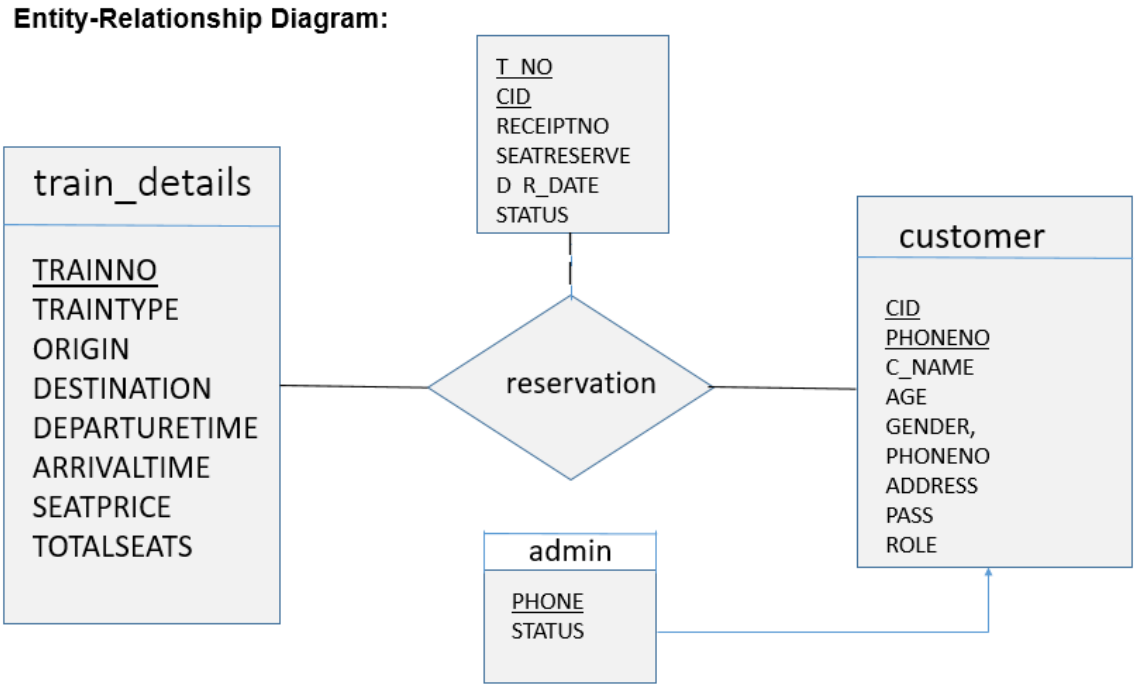
IN reservation TABLE,

T_NO, CID, RECEIPTNO -> SEATRESERVED, R_DATE, STATUS

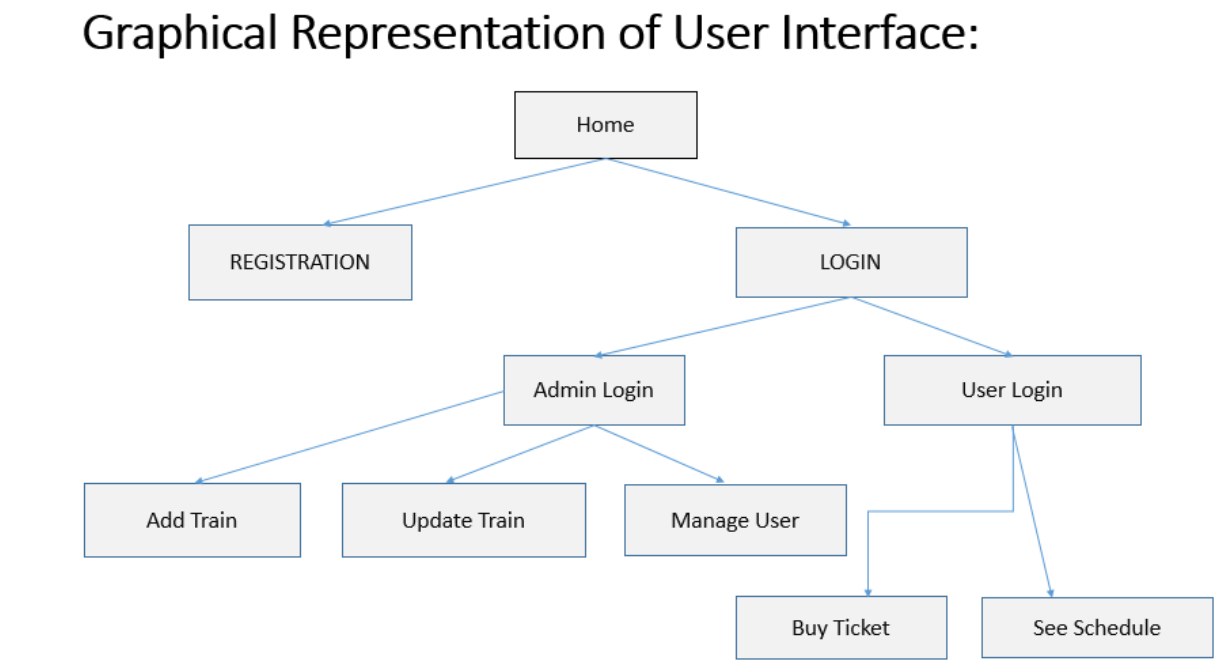
IN admin TABLE,

PHONE -> STATUS

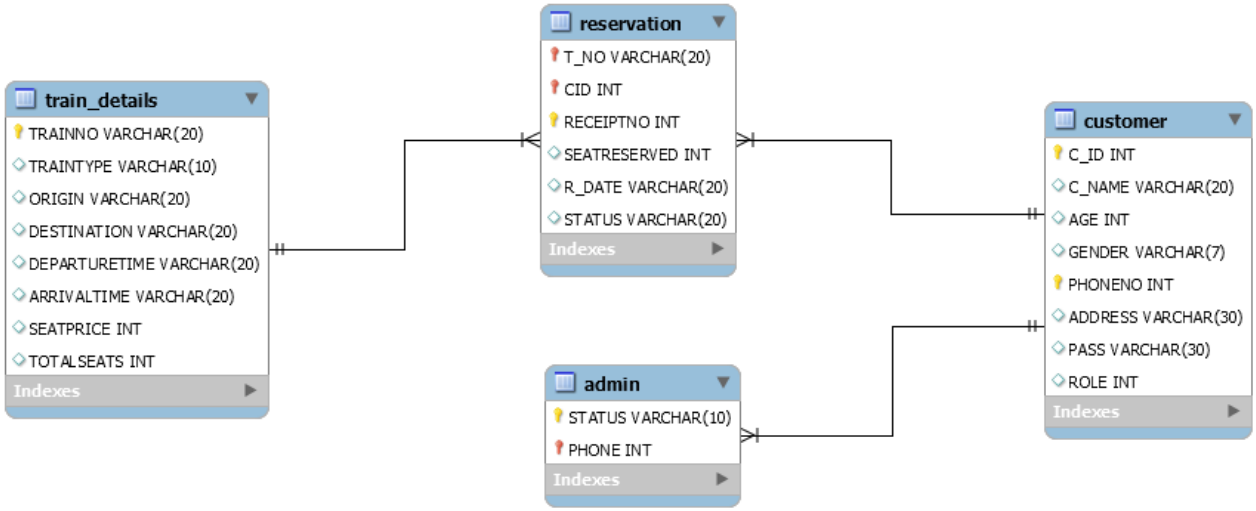
E-R Diagram:



Graphical Representation of User Interface:

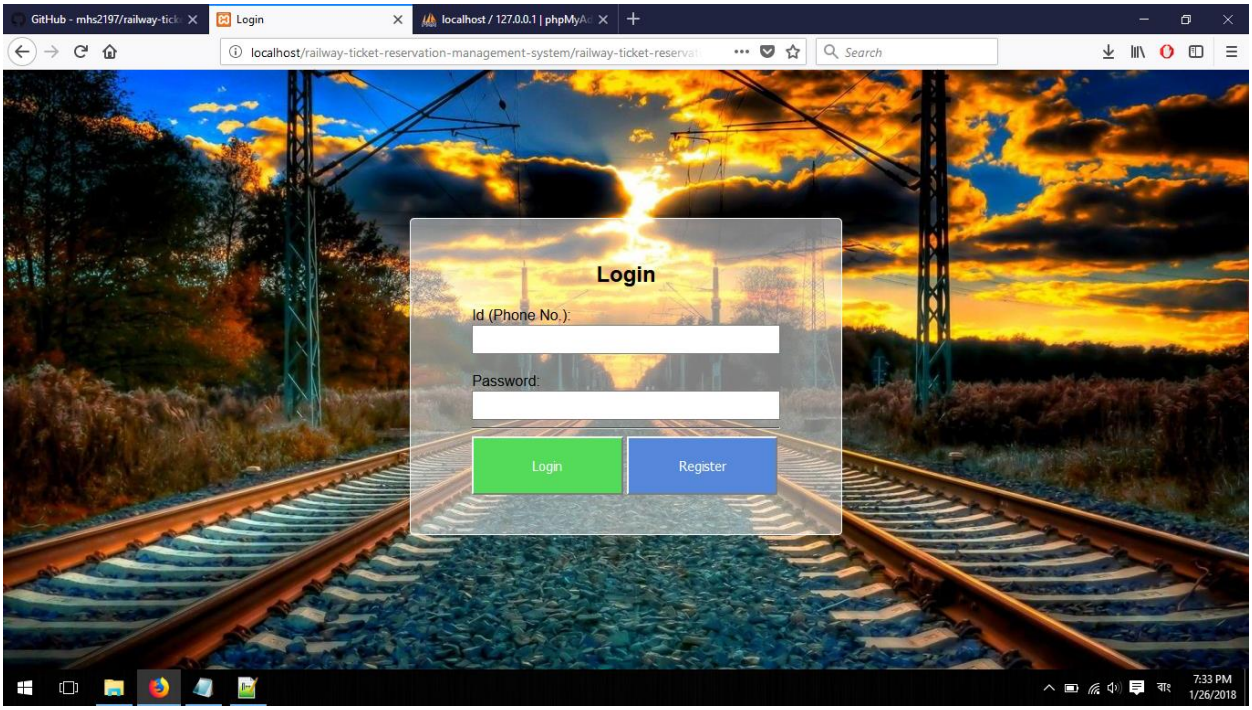


Database Design:

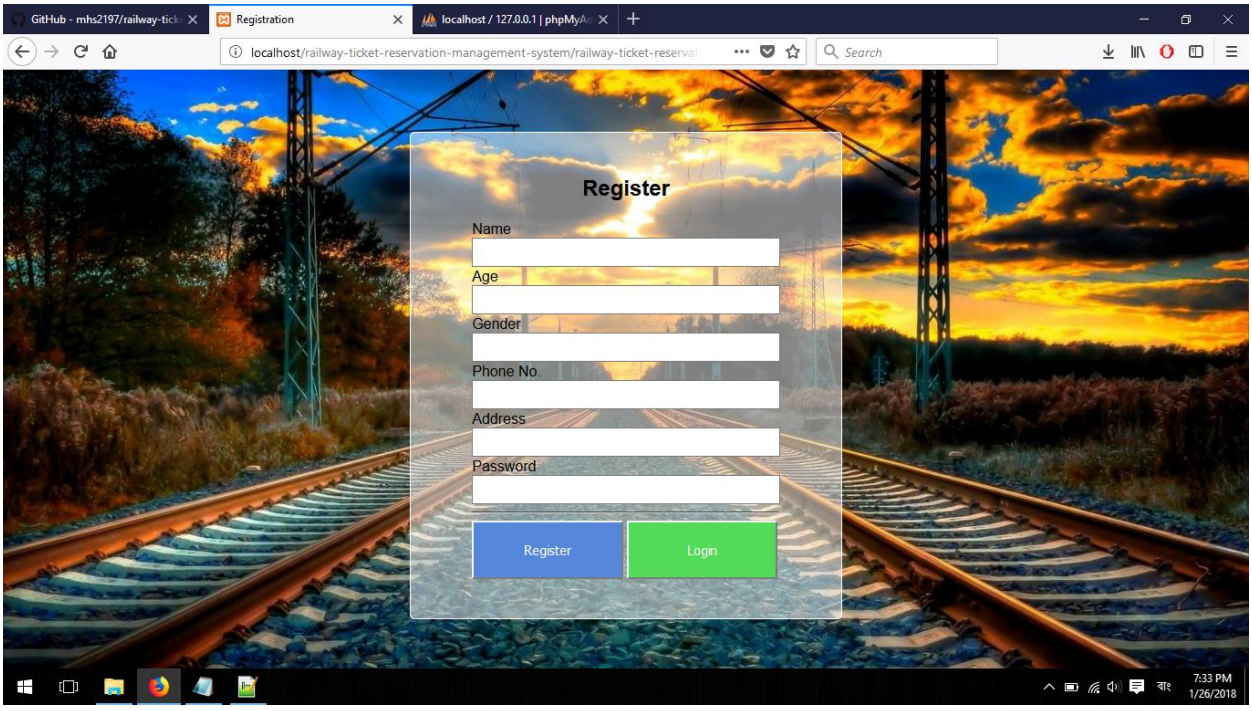


Website Layout:

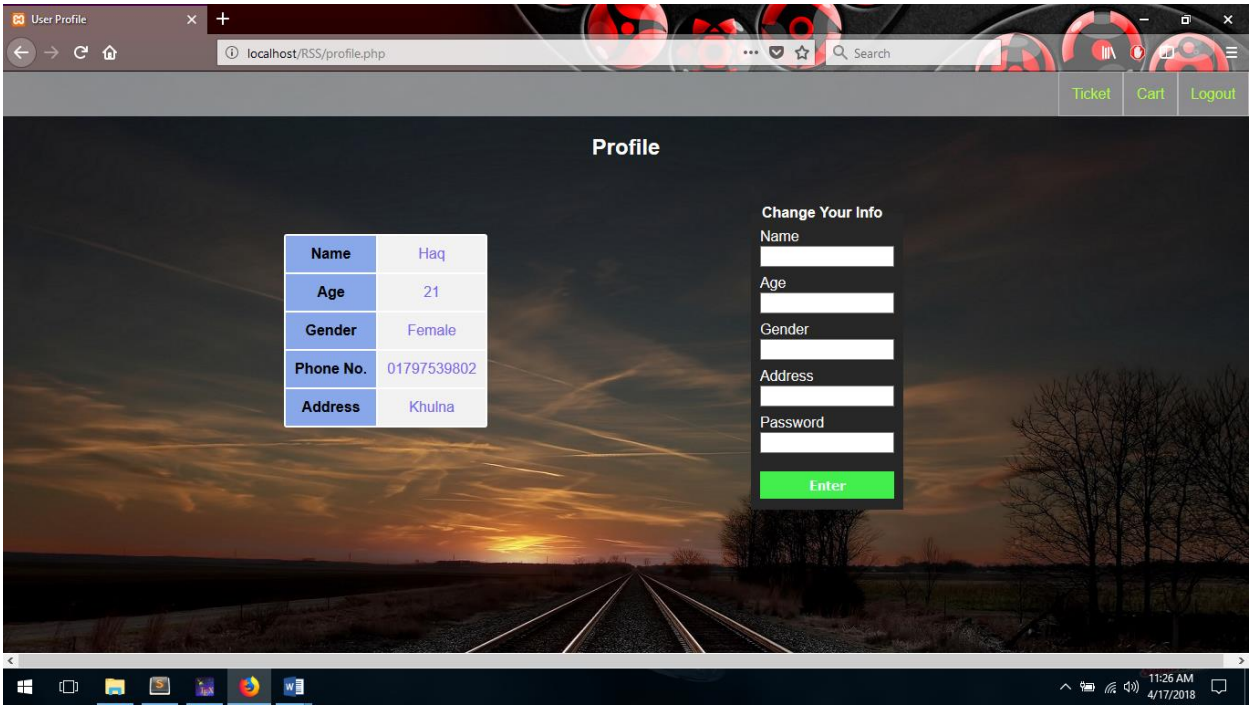
1. Home



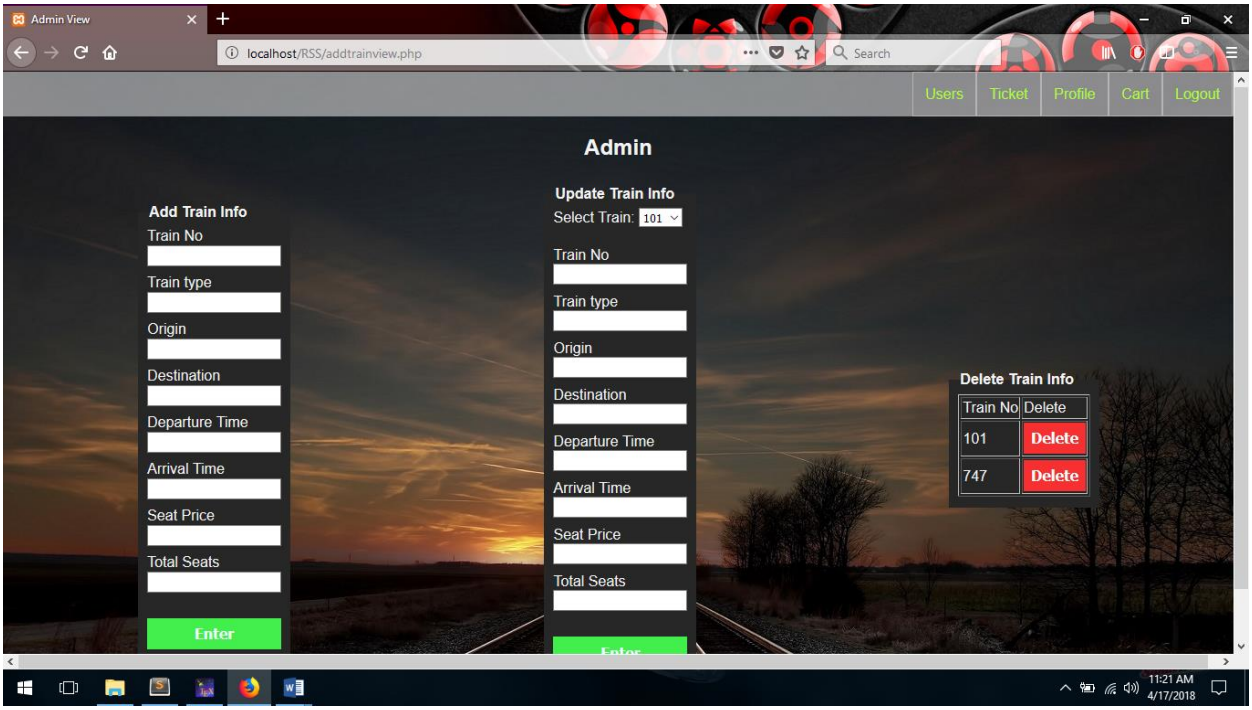
2. Registration:



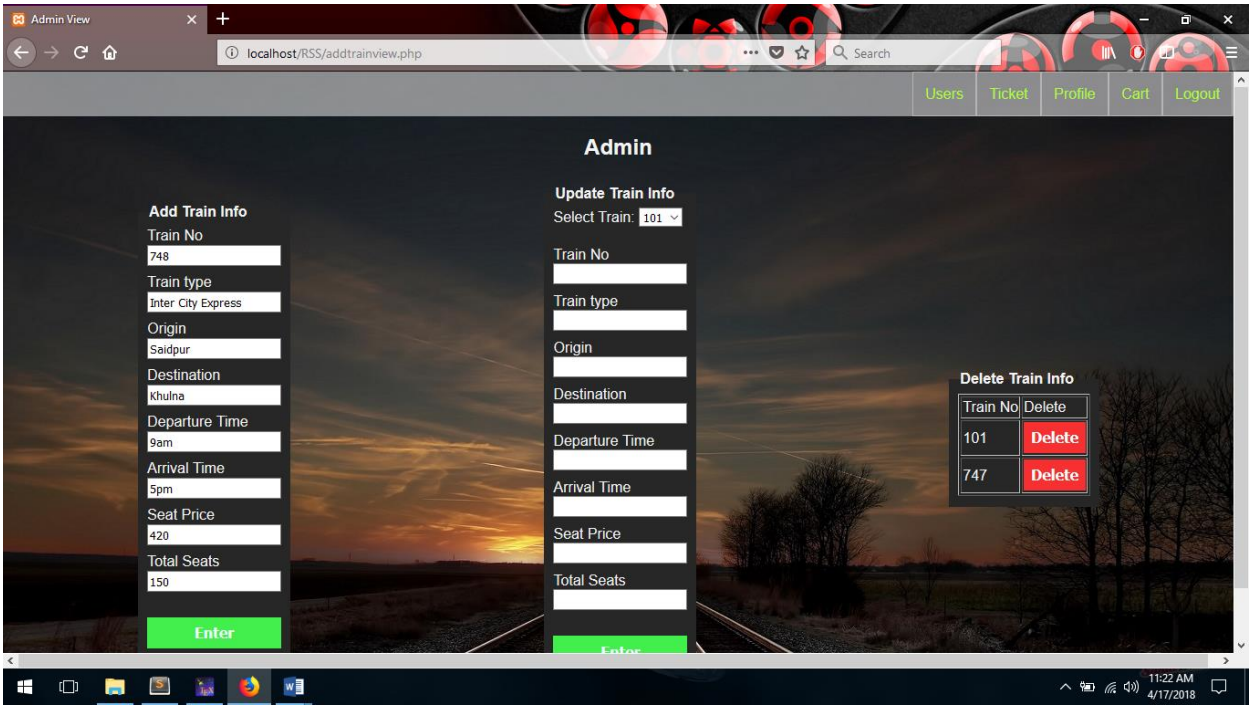
3. User Home

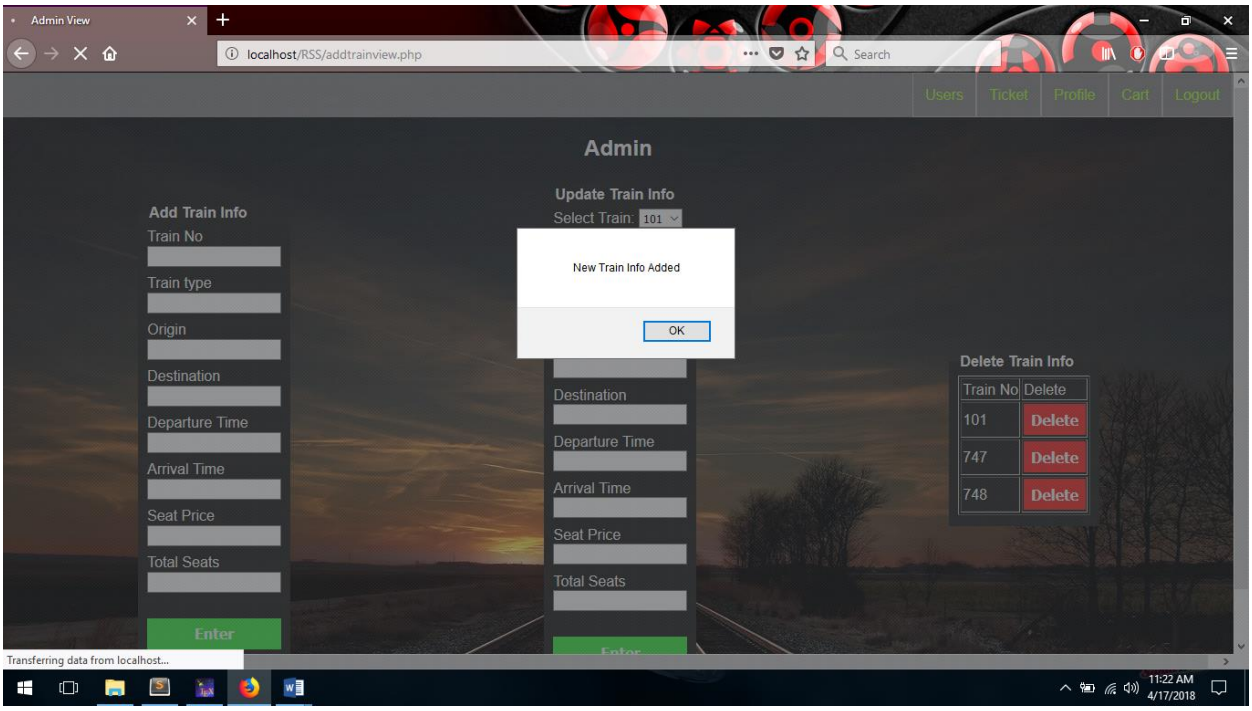


4. Admin Home:

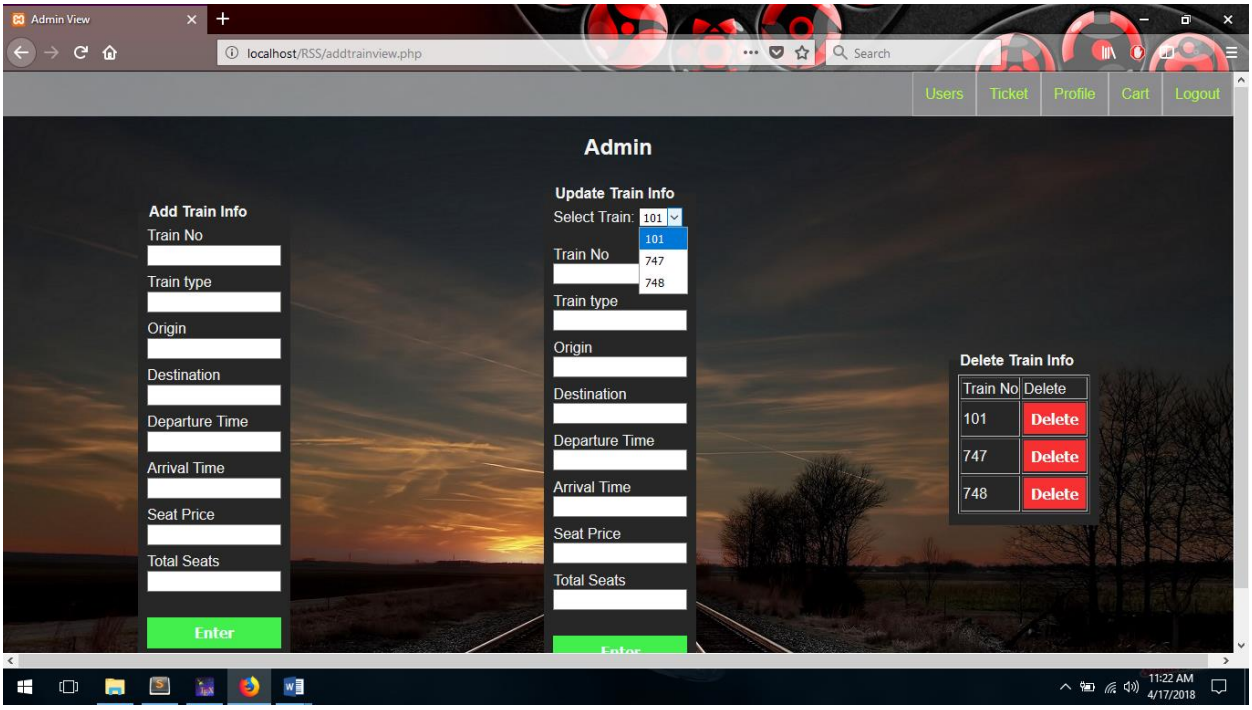


5. Add Train

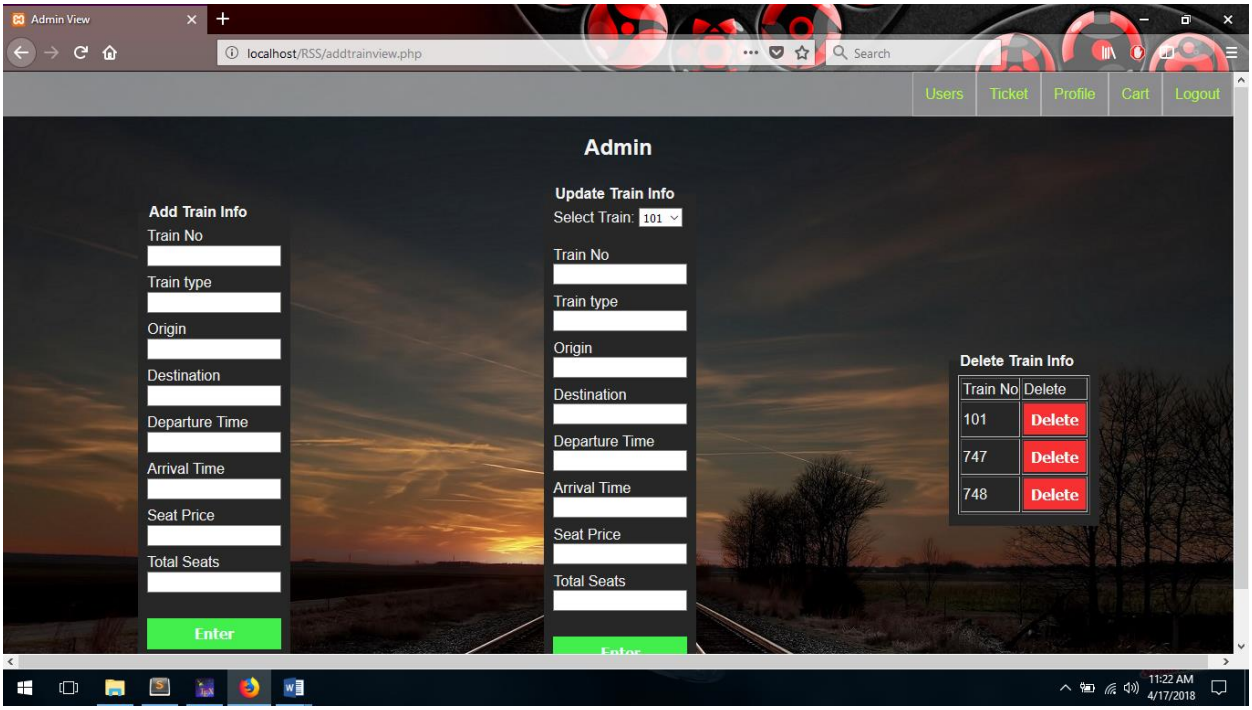

Admin View
localhost/RSS/addtrainview.php
Search
Users
Ticket
Profile
Cart
Logout
Admin
Add Train Info
Train No
748
Train type
Inter City Express
Origin
Saidpur
Destination
Khulna
Departure Time
9am
Arrival Time
5pm
Seat Price
420
Total Seats
150
Enter
Update Train Info
Select Train: 101
Train No
Train type
Origin
Destination
Departure Time
Arrival Time
Seat Price
Total Seats
Delete Train Info
Train No
Delete
101
Delete
747
Delete
11:22 AM
4/17/2018

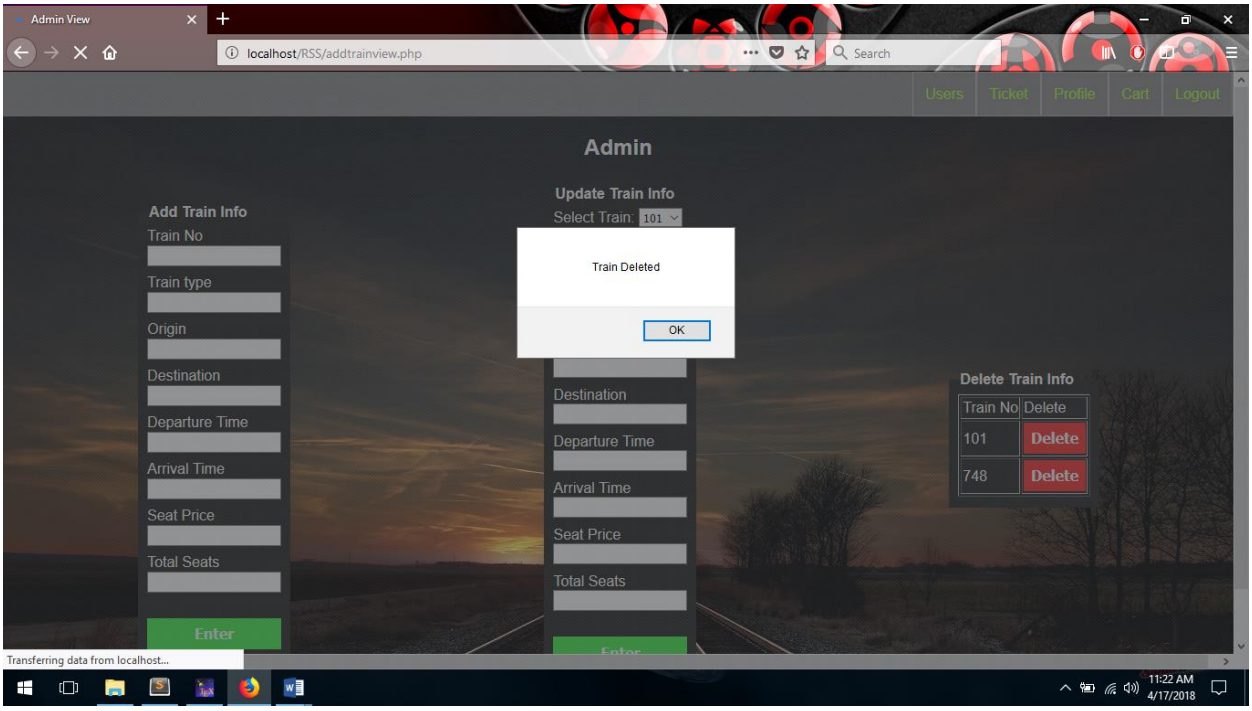

Admin View
localhost/RSS/addtrainview.php
Search
Users
Ticket
Profile
Cart
Logout
Admin
Add Train Info
Train No
Train type
Origin
Destination
Departure Time
Arrival Time
Seat Price
Total Seats
Enter
Update Train Info
Select Train: 101
New Train Info Added
OK
Destination
Departure Time
Arrival Time
Seat Price
Total Seats
Delete Train Info
Train No
Delete
101
Delete
747
Delete
748
Delete
Transferring data from localhost...
11:22 AM
4/17/2018

6. Update Train:

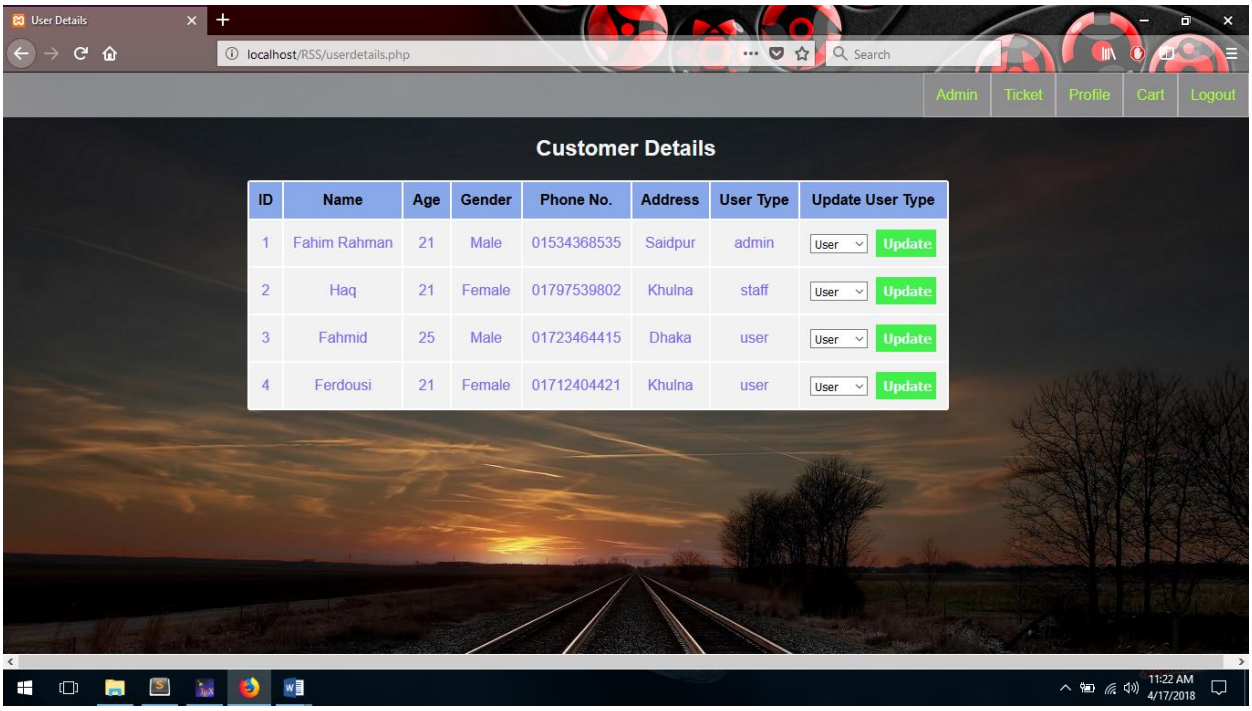


7. Delete Train:

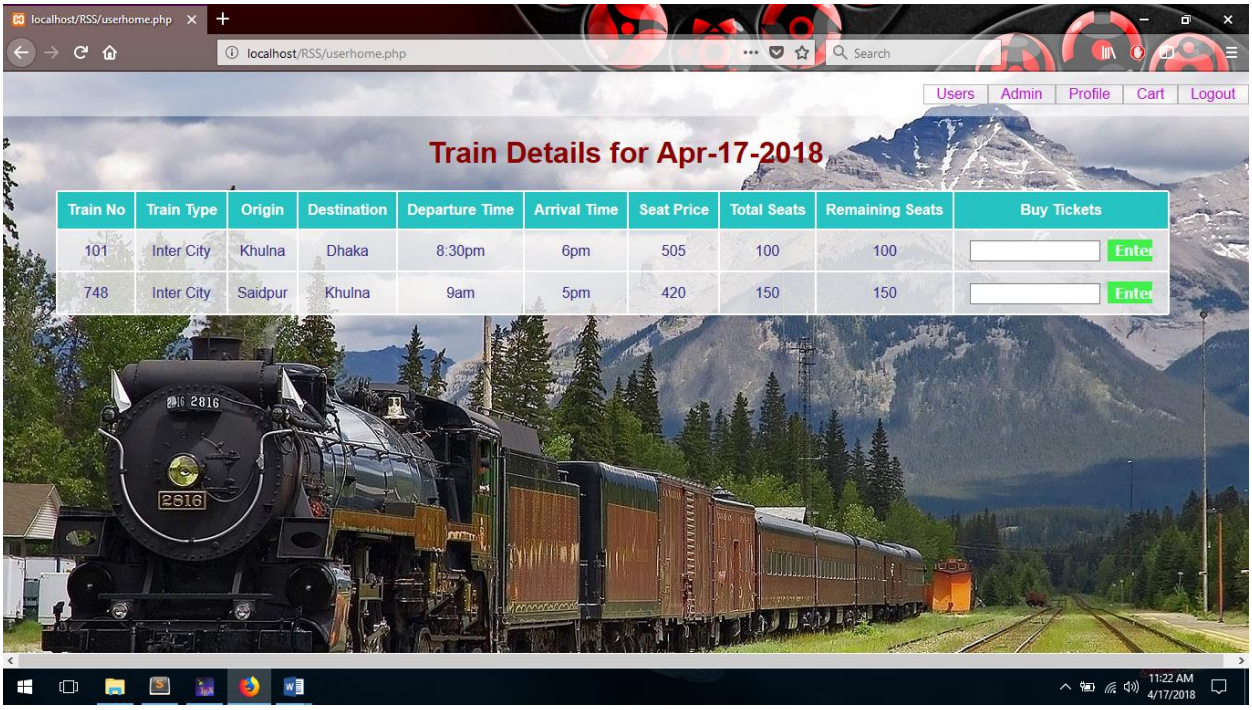


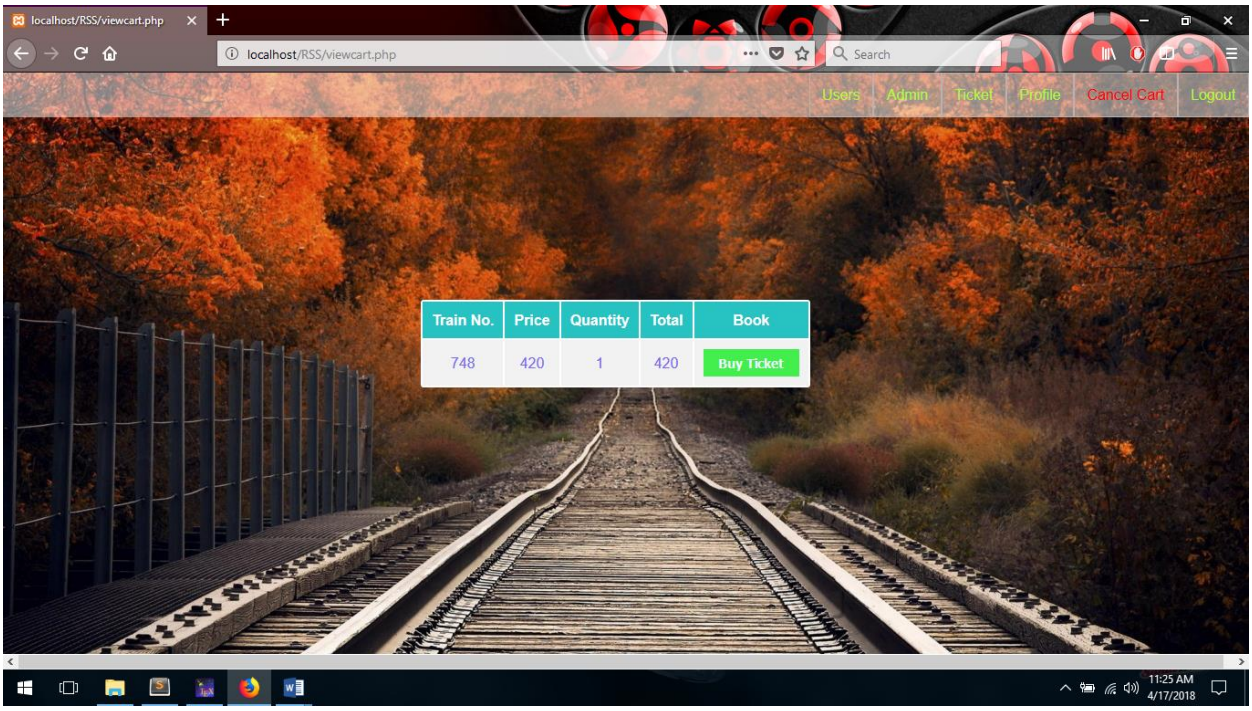


8. Manage User:



9. Buy Ticket:


localhost/RSS/userhome.php
localhost/RSS/userhome.php
Search
Users
Admin
Profile
Cart
Logout
Train Details for Apr-17-2018
Train No
Train Type
Origin
Destination
Departure Time
Arrival Time
Seat Price
Total Seats
Remaining Seats
Buy Tickets
101
Inter City
Khulna
Dhaka
8:30pm
6pm
505
100
100
Enter
748
Inter City
Saidpur
Khulna
9am
5pm
420
150
150
Enter
2816
11:22 AM
4/17/2018


localhost/RSS/viewcart.php
localhost/RSS/viewcart.php
Search
Users
Admin
Ticket
Profile
Cancel Cart
Logout
Train No.
Price
Quantity
Total
Book
748
420
1
420
Buy Ticket
11:25 AM
4/17/2018

Conclusion:

The railway schedule system can help people to see the time schedule and helps them to buy ticket from anywhere without going to railway station. This can be very helpful at the time of nation vacation like Eid-ul-Fitor or Eid-ul-Azha or Durga Puja.