Green University of Bangladesh
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Course Title: Web Programming Lab
Course Code: CSE-302   Section: D-2

PROJECT REPORT
ON THE PROJECT:

"A Web Site for Bangladesh Metro Rail"

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<u>Lab Project Status</u>

Marks: …………………………   **Signature: ....**

Comments: ....   **Date: ....**

Table of Contents

Chapter 1

Introduction

1.1 Introduction

Now a day Bangladesh is building many mega project and Metro Rail is one of them. This project will be finished near soon so there will need a reliable web side. In this project there will be a ticketing system. Every kind of people will be able to book ticket using this web side. Not only ticketing but also it will contain all the information of the metro rails, routes and fair. There will also an admin panel to control all the system.

1.2 Design Goals/Objective

Metro Rail Web Site is a solution that is designed to track, maintain and manage all the data and ticketing system of metro rail. The project aims and objectives that will be achieved after completion of this project is discussed in this subchapter. The aims and objectives are as follow:

i. To build a ticketing System (User Log in, new registration, Book ticket)

ii. To design Route Tracker (Metro route all over the Dhaka)

iii. To separate Admin Panel (Control all the system such as add route, add train, change and update).

iv. To separate User Panel (Booking ticket, View the ticket, Download the ticket).

Chapter 2

Design/Development/Implementation of the Project

2.1   Tools & Technology

To implement this project, we have used these tools:

2.1.1   VS Code

I have used this tool to implement the coding, structure and all necessary steps using this VS Code by Microsoft. I implemented several pages using HTML, CSS, JS & PHP.

2.1.2   Xampp

I have used it to implement the database and for local hosting of my project.

2.1. 3 Design

I have implemented the design using several scripting and programming language. To implement the design I have used the following existing technologies-

- HTML
- CSS
- Java Script
- PHP
- Bootstrap
- JQuary

2.2   Procedure

We divided our procedure in some subsections. The procedure will known after reading all subsections.

2.2.1 Getting Ready

In this phase we collected all the required resource required and set up our environment. We used VS Code and MySQL database and HTML, CSS, JS & PHP programming language to implement the web site.

2.2.2 ER-Diagram
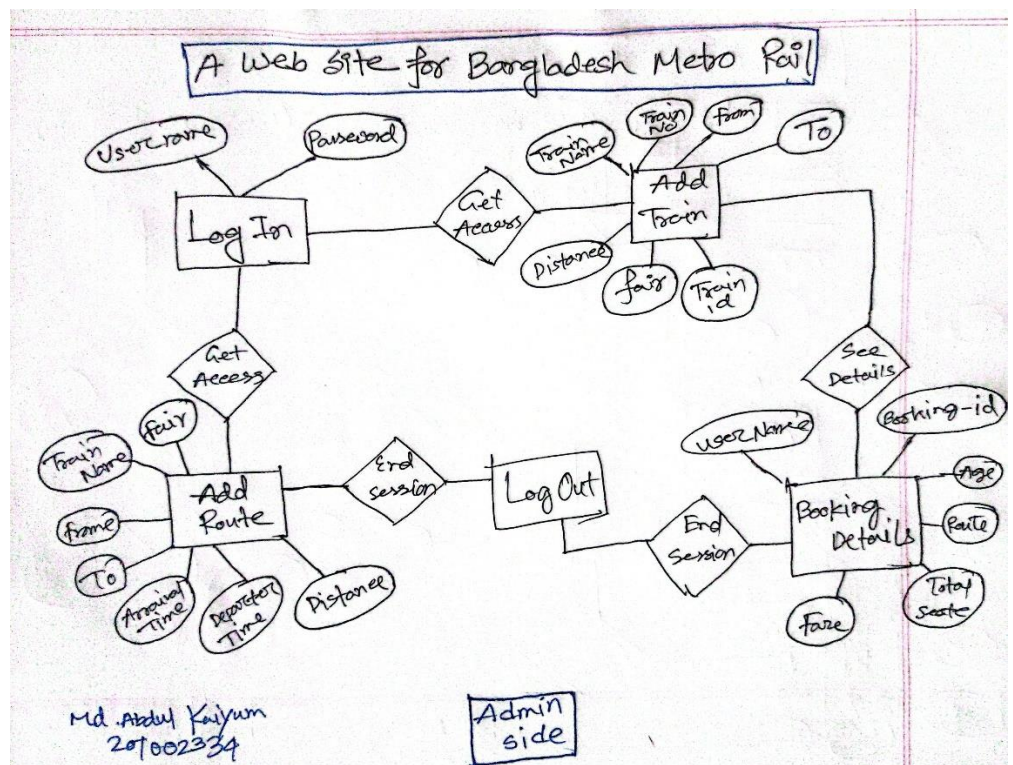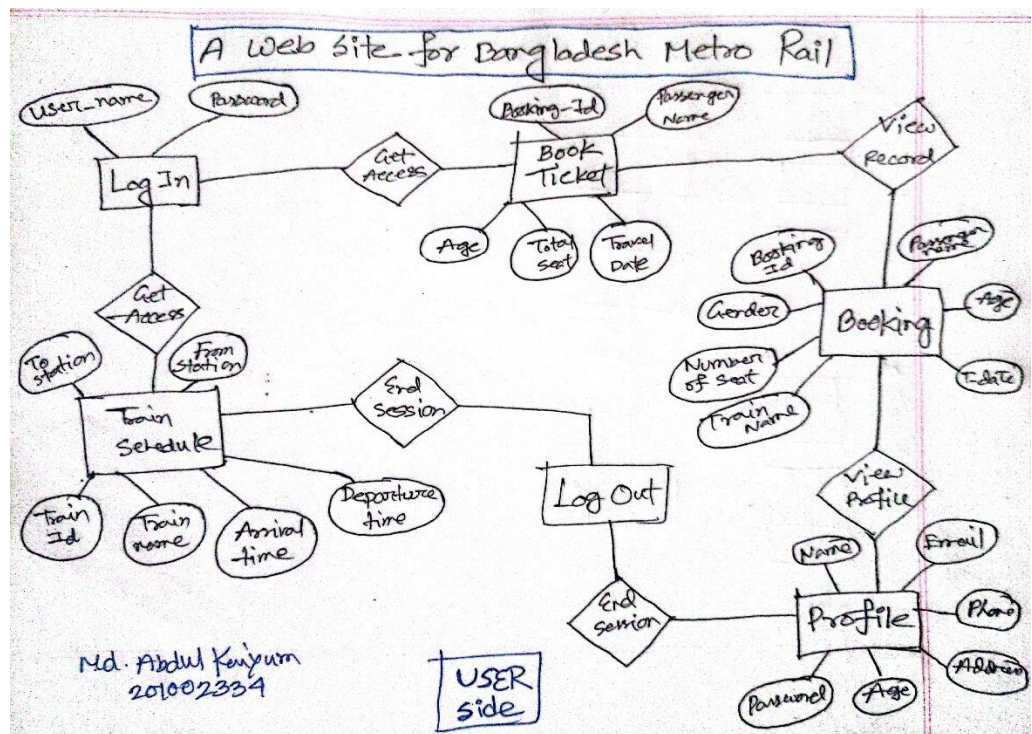
2.3   Implementation

In this following the procedure we had successfully implemented the Web Site for Bangladesh Metro Rail-

2.3.1 Sample Design Code

In this following the procedure we had successfully implemented the web site-

Log In Code_PHP:

```php
<?php
session_start();
if (isset($_POST['submit']))
{
    $conn = mysqli_connect("localhost","root","","myrailway");
if(!$conn){
    echo "<script type='text/javascript'>alert('Database failed');</script>";
    die('Could not connect: '.mysqli_connect_error());
}
$Username=$_POST['Username'];
$Passwords=$_POST['Passwords'];
$sql = "SELECT * FROM user_login WHERE Username = '$Username' AND Passwords = '$Passwords';";
$sql_result = mysqli_query ($conn, $sql) or die ('request "Could not execute SQL query" '.$sql);
$user = mysqli_fetch_assoc($sql_result);
        if(!empty($user)){
            $_SESSION['user_info'] = $user['Username'];
            $message='User logged in successfully';
              $_SESSION["Username"] = $user["Username"];
              echo $user["Username"];
            header("location:passenger_home.php");
        }
        else{
            $message = 'Wrong email or password.';
        }
    echo "<script type='text/javascript'>alert('$message');</script>";


}
```

```php
if (isset($_POST['done']))
{
    $conn = mysqli_connect("localhost","root","","myrailway");
if(!$conn){
    echo "<script type='text/javascript'>alert('Database failed');</script>";
    die('Could not connect: '.mysqli_connect_error());
}
$AdminUsername=$_POST['AdminUsername'];
$Password=$_POST['Password'];
$sql = "SELECT * FROM admins WHERE AdminUsername = '$AdminUsername' AND Passwords = '$Password';";
$sql_result = mysqli_query ($conn, $sql) or die ('request "Could not execute SQL query" '.$sql);
$user = mysqli_fetch_assoc($sql_result);
        if(!empty($user)){
            $_SESSION['user_info'] = $user['AdminUsername'];
            $message='Admin logged in successfully';
            header("location:admin_add_train.php");
        }
        else{
            $message = 'Wrong email or password.';
        }
    echo "<script type='text/javascript'>alert('$message');</script>";
}
?>
```

Nav Bar Design:

```html
<nav  class="navbar navbar-expand-lg navbar-dark bg-info fixed-top" style="font-family:Comic Sans MS">
            <a class="navbar-brand" href="#" ><img class="logo1" src="dk_metro.png" alt=""> <b><span class="sp3">Bangladesh</span> Metro <span class="sp1">Rail</span></b></a>
            <button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle navigation">
                <span class="navbar-toggler-icon"></span>
            </button>

            <div class="collapse  navbar-collapse" id="navbarSupportedContent">
```

```html
<li class="nav-item">
            <a class="nav-link" href="search_train.php"><span class="spn">Search</span></a>
        </li>


        <li class="nav-item ">
          <a class="nav-link " href="places.php" ><span class="spn">Metro Station</span></a>


        </li>


    <li class="nav-item">
            <a class="nav-link" href="registration_page.php"><span
class="spn">Register</span></a>
        </li>


        <li class="nav-item">
          <a class="nav-link " id="log_in" data-toggle="Modal" data-target="#loginmodal"
href="#" aria-disabled="true"><span class="spn">Login</span></a>
        </li>


    <li class="nav-item">
            <a class="nav-link" href="#process"><span class="spn">Contact</span></a>
        </li>
    <li class="nav-item">
            <a class="nav-link " id="log_in_admin" data-toggle="Modal" data-
target="#loginmodaladmin" href="#" aria-disabled="true"><span class="spn">Admin</span></a>
        </li>
      </ul>


      </div>
    </nav>
```

Footer Design:

```html
<footer class="foot">
<div class="footer-content">

    <img class="logo" src="dk_metro.png" alt="">

    <h3 class="h3"><span class="sp3">Bangladesh</span> Metro <span class="sp1">Rail</span></h3>

    <p>For more about us and get touched throw:</p>

    <ul class="social">

        <li><a href=""><i class="fa fa-facebook"></i></a></li>

        <li><a href=""><i class="fa fa-twitter"></i></a></li>

        <li><a href=""><i class="fa fa-google-plus"></i></a></li>

        <li><a href=""><i class="fa fa-youtube"></i></a></li>

    </ul>
</div>
<div class="footer-bottom">

    <p>copyright &copy;2022 Md.Abdul <span class="sp2">Kaiyum</span></p>
</div>
</footer>
```

Form Design:

```html
        <form id="clr1" action="login.php"  method="POST" name="login" >

        <div class="mylogin">

        <div class="form">
 <input type="text"id="Username" name="Username" class="form__input"autocomplete="off"placeholder="" /

        <label for="Username" class="form__label"> Username </label>

        </div>

        <br>

        <div class="form">
<input type="password"id="Passwords"name="Passwordsclass="form"autocomplete="off"placeholder=""/>

        <label for="Passwords" class="form__label"> Password </label>

        </div>

        <br>

        <div class="text-center">
<button style=" width:40%" type="button" class="btn btn-danger " class="close" data

dismiss="modal"><a> Close </a> </button>

        </div>

        </form>
```

Other Body Design Tags:

```html
<h1 class="welcome">Welcome to Bangladesh Metro Rail</h1>
<marquee class="marque" bgcolor="#50AAB4 "  scrolldelay="1"><h5>Welcome To <span
class="spn1">Bangladesh</span> <span class="metro">Metro</span> <span class="spn2">Rail</span>. Thank
you for visiting <span class="spn1">Bangladesh</span> <span class="metro">Metro</span> <span
class="spn2">Rail</span> web site. You are just one step away of booking ticket and make a dream
journey in <span class="spn1">Bangladesh</span> <span class="metro">Metro</span> <span
class="spn2">Rail</span>.</h5></marquee>
        <p id="p1">Dhaka is a city of traffic congestion. A lot of time is spent on traffic every day.
For this, it is necessary to work on removing traffic congestion. Metro rail is one such step. Metro
rail is the second largest project of the current government of Bangladesh. It's a long-time dream of
Dhaka city. </p>
```

2.3.2 Database

To implement the database, I have used XAMPP. I have used several commands to create the database –
- Create table
- Insert Into
- Alter Table
- On delete and On Update

2.3.1 Database Codes :

Here is the code for creating the Database-

Database: `myrailway`

-- Table structure for table `admins`
--
CREATE TABLE `admins` (
  `AdminUsername` varchar(30) NOT NULL,
`AdminName` varchar(30) NOT NULL,
  `AdminEmail` varchar(40) NOT NULL,
  `Passwords` varchar(40) NOT NULL
)

Dumping data for table `admins`
--

INSERT INTO `admins` (`AdminUsername`, `AdminName`, `AdminEmail`, `Passwords`) VALUES
('kaiyum', 'Md. Abdul Kaiyum', 'kaiyum.gub@gmail.com', '1122');

Table structure for table `bookings`
--

```
CREATE TABLE `bookings` (
 `BookingID` int(11) NOT NULL,
 `Username` varchar(30) NOT NULL,
 `NameOfPassenger` varchar(20) NOT NULL,
 `Gender` varchar(6) NOT NULL,
 `Age` int(11) NOT NULL,
 `TrainName` varchar(30) NOT NULL,
 `SeatClass` varchar(10) NOT NULL,
 `BookingDate` date NOT NULL,
 `TotalBookedSeats` int(11) NOT NULL,
 `FromStation` varchar(50) NOT NULL,
 `ToStation` varchar(50) NOT NULL,
 `TravelingDate` date NOT NULL,
 `TotalFare` int(11) NOT NULL
)
```

Table structure for table `customers`
--

```
CREATE TABLE `customers` (
 `username` varchar(30) NOT NULL,
 `name` varchar(30) NOT NULL,
 `email` varchar(40) NOT NULL,
 `phoneno` varchar(12) NOT NULL,
 `address` varchar(50) NOT NULL,
 `gender` varchar(10) NOT NULL,
 `age` int(11) NOT NULL
)
```

```
CREATE TABLE `seatavailablility` (
 `ID` int(11) NOT NULL,
 `TrainName` varchar(30) NOT NULL,
 `BusinessBookedseats` int(11) DEFAULT NULL,
 `BusinessAvailableseats` int(11) DEFAULT NULL,
 `EconomicalBookedseats` int(11) DEFAULT NULL,
 `EconomicalAvailableseats` int(11) DEFAULT NULL,
 `StandardBookedseats` int(11) DEFAULT NULL,
 `StandardAvailableseats` int(11) DEFAULT NULL
)
```

Dumping data for table `seatavailablility`
--

```
INSERT INTO `seatavailablility` (`ID`, `TrainName`, `BusinessBookedseats`, `BusinessAvailableseats`,
`EconomicalBookedseats`, `EconomicalAvailableseats`, `StandardBookedseats`, `StandardAvailableseats`)
VALUES
(1, 'Uttara Metro', 0, 50, 0, 80, 0, 150),
(2, 'Mirpur Metro', 0, 50, 0, 80, 0, 150),
(3, 'GUB Metro', 0, 50, 0, 80, 0, 150),
(4, 'Azimpur Metro', 0, 50, 2, 78, 0, 150),
(5, 'Motijheel Metro', 0, 50, 0, 80, 0, 150),
(6, 'Shabag Metro', 0, 50, 0, 80, 0, 150),
(7, 'Drutojan Metro', 0, 50, 0, 80, 2, 148),
(8, 'Ekota Metro', 0, 50, 2, 78, 0, 150),
(9, 'Dinajpur Metro', 0, 50, 0, 80, 0, 150),
(10, 'Nil Sagor Metro', 0, 50, 0, 80, 0, 150),
(11, 'Sundarban Metro', 0, 50, 0, 80, 0, 150),
(12, 'Chitra Metro', 0, 50, 0, 80, 0, 150);
```

Table structure for table `route`
--

```
CREATE TABLE `route` (
 `id` int(11) NOT NULL,
 `TrainName` varchar(30) NOT NULL,
 `FromStation` varchar(50) NOT NULL,
 `ToStation` varchar(50) NOT NULL,
 `BusinessClassFare` int(11) NOT NULL,
 `EconomicalClassFare` int(11) NOT NULL,
 `StandardClassFare` int(11) NOT NULL,
 `ArrivalTime` time NOT NULL,
 `DepartureTime` time NOT NULL,
 `TotalDistance` int(11) NOT NULL
)
```

Dumping data for table `route`
--

```
INSERT INTO `route` (`id`, `TrainName`, `FromStation`, `ToStation`, `BusinessClassFare`,
`EconomicalClassFare`, `StandardClassFare`, `ArrivalTime`, `DepartureTime`, `TotalDistance`) VALUES
(1, 'Uttara Metro', 'Uttara ', 'Motijheel', 70, 50, 30, '07:40:00', '07:00:00', 20),
(2, 'Mirpur Metro', 'Mirpur 10', 'Motijheel', 60, 40, 20, '08:40:00', '08:00:00', 15),
(3, 'GUB Metro', 'Green University of Bangladesh', 'Azimpur', 100, 80, 50, '20:30:00', '19:30:00', 18),
(4, 'Azimpur Metro', 'Azimpur', 'Green University of Bangladesh', 100, 80, 50, '08:30:00', '07:30:00', 18),
(5, 'Motijheel Metro', 'Motijheel', 'Uttara ', 70, 50, 30, '11:40:00', '10:00:00', 20),
(6, 'Shabag Metro', 'Shahbag', 'Uttara ', 50, 40, 30, '13:00:00', '14:00:00', 15),
(7, 'Drutojan Metro', 'Dhaka', 'Parbatipur', 1170, 770, 440, '10:00:00', '20:00:00', 330),
(8, 'Ekota Metro', 'Parbatipur', 'Dhaka', 1170, 770, 440, '11:30:00', '21:30:00', 330),
(9, 'Dinajpur Metro', 'Dinajpur', 'Dhaka', 1250, 820, 520, '13:30:00', '23:40:00', 350),
(10, 'Nil Sagor Metro', 'Dhaka', 'Dinajpur', 1250, 820, 520, '07:00:00', '12:00:00', 350),
(11, 'Sundarban Metro', 'Dhaka', 'Kustia', 920, 660, 480, '14:30:00', '08:30:00', 220),
(12, 'Chitra Metro', 'Kustia', 'Dhaka', 920, 660, 480, '10:00:00', '23:30:30', 220);
```

Table structure for table `station`
--

```
CREATE TABLE `station` (
  `StationID` int(11) NOT NULL,
  `StationName` varchar(50) NOT NULL
)
```

Dumping data for table `station`
--

```
INSERT INTO `station` (`StationID`, `StationName`) VALUES
(7, 'Azimpur'),
(11, 'Chattagram'),
(8, 'Dhaka'),
(9, 'Dinajpur'),
(4, 'Farmgate'),
(3, 'Green University of Bangladesh'),
(12, 'Kustia'),
(2, 'Mirpur 10'),
(5, 'Motijheel'),
(10, 'Parbatipur'),
(6, 'Shahbag'),
(13, 'Sylhet'),
(1, 'Uttara ');
```

Table structure for table `trains`

--
```
CREATE TABLE `trains` (
  `TrainNo` varchar(10) NOT NULL,
  `TrainName` varchar(30) NOT NULL,
  `FromStation` varchar(50) NOT NULL,
  `ToStation` varchar(50) NOT NULL,
  `TotalDistance` int(11) NOT NULL,
  `BusinessSeats` int(11) NOT NULL,
  `EconomicalSeats` int(11) NOT NULL,
  `StandardSeats` int(11) NOT NULL,
  `id` int(11) NOT NULL
)
```

Dumping data for table `trains`

```
INSERT INTO `trains` (`TrainNo`, `TrainName`, `FromStation`, `ToStation`, `TotalDistance`,
`BusinessSeats`, `EconomicalSeats`, `StandardSeats`, `id`) VALUES
('metro-1', 'Uttara Metro', 'Uttara ', 'Motijheel', 20, 50, 80, 150, 1),
('metro-2', 'Mirpur Metro', 'Mirpur 10', 'Motijheel', 15, 50, 80, 150, 2),
('metro-3', 'GUB Metro', 'Green University of Bangladesh', 'Azimpur', 18, 50, 80, 150, 3),
('metro-4', 'Azimpur Metro', 'Azimpur', 'Green University of Bangladesh', 18, 50, 80, 150, 4),
('metro-5', 'Motijheel Metro', 'Motijheel', 'Uttara ', 20, 50, 80, 150, 5),
('metro-6', 'Shabag Metro', 'Shahbag', 'Uttara ', 15, 50, 80, 150, 6),
('metro-7', 'Drutojan Metro', 'Dhaka', 'Parbatipur', 330, 50, 80, 150, 7),
('metro-8', 'Ekota Metro', 'Parbatipur', 'Dhaka', 330, 50, 80, 150, 8),
('metro-9', 'Dinajpur Metro', 'Dinajpur', 'Dhaka', 350, 50, 80, 150, 9),
('metro-10', 'Nil Sagor Metro', 'Dhaka', 'Dinajpur', 350, 50, 80, 150, 10),
('metro-11', 'Sundarban Metro', 'Dhaka', 'Kustia', 220, 50, 80, 150, 11),
('metro-12', 'Chitra Metro', 'Kustia', 'Dhaka', 220, 50, 80, 150, 12);
```

Chapter 3

Performance Evaluation

3.1 Results and Discussions

3.1.1 Results

After completing all steps and objects we got the desired and satisfied result. We were able to grasp the core requirement of our project and able to Implement our project which is a Web Site for Bangladesh Metro Rail.

Database Tables:

Landing Page:

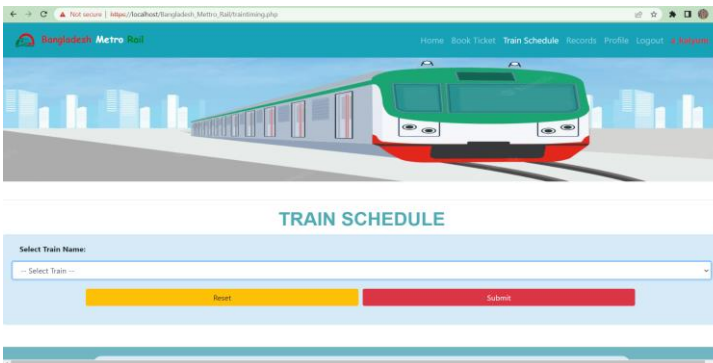**User Login**
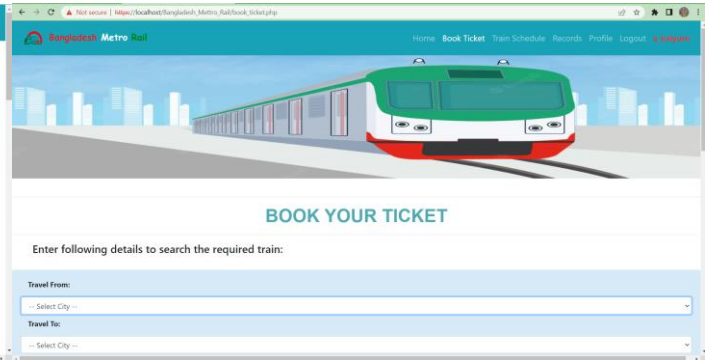
Username

Password

Close   Login

Admin Login

Username

Password
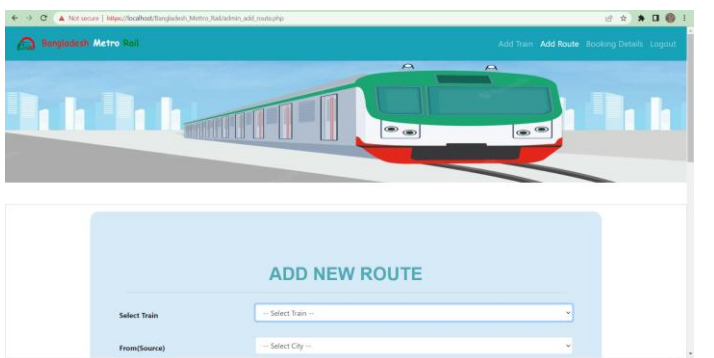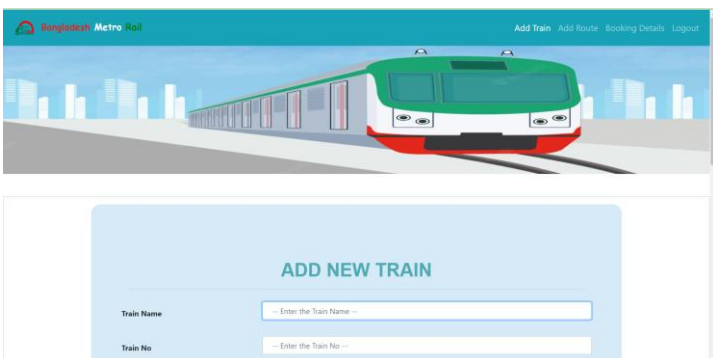
Close   Login

User Site:
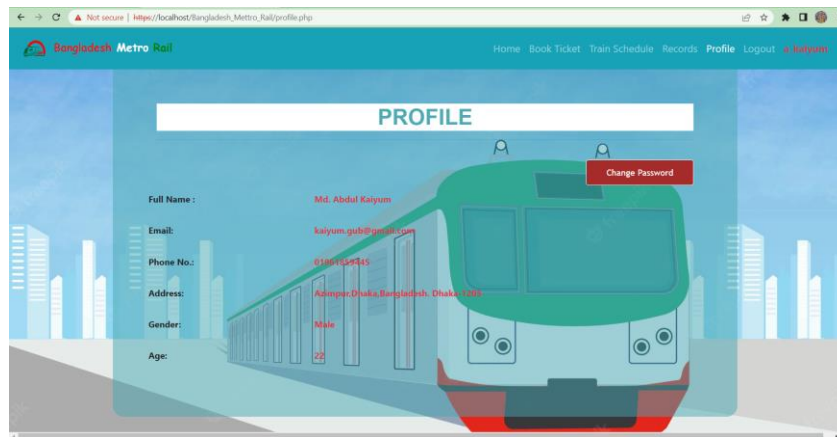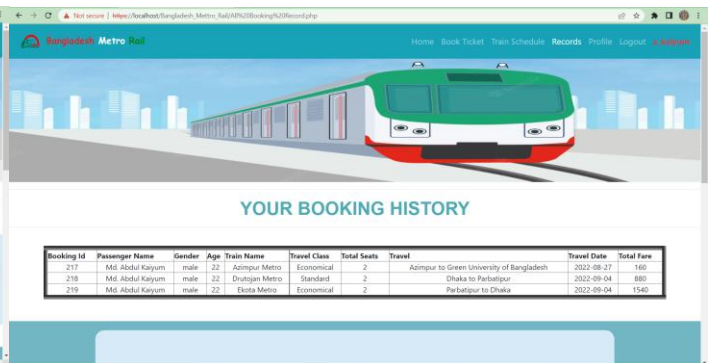
Admin Site:

3.1.2 Analysis and Outcome

Although we finished our project as we desired but there were a lot of obstacles that we had to overcome during making the project. Some of the main obstacles were:

 a) We faced some problem in implementing part.
b) Also faced some problem when we run our code because lagging.

When user put some value the program work very slowly.

Chapter 4

Conclusion

4.1   Introduction

I basically decided to implement A Web Site for Bangladesh Metro Rail because, Dhaka is a city of traffic congestion. A lot of time is spent on traffic every day. For this, it is necessary to work on removing traffic congestion. Metro rail is one such step and there will need a web site to maintain and usable to the user. This project also helps the institutional workload. In this project I have tried to add more features. But there is no domain and host used. I only implemented it into my localhost server. Mainly I focus to implement user friendly and reliable web site for both users and the organization admins.

4.1   Practical Implications

This Web Site is basically use for institutional work load. The practical uses can be as follows-

- ➢ Can be use in any institutional transport sector.
- ➢ Both User and Organization can use.
- ➢ All options are in one place.
- ➢ Updatable according to our need.
- ➢ Simple & easy to use.

4.2   Scope of Future Work

This project has a lot of potentiality.
1. By using this project an organization and users can have better utilization of time & resources.
2. This project certainly will enhance productivity.
3. This project will improve inter-relations between organization and the users.
4. So given the facts, if the logic behind this project is on point, then this project will run perfectly and as a result any organization would definitely want to buy this project.

So, it is clear that this project will help us personally and professionally.

References

[1] HTML and CSS: Design and Build Websites by "Jon Duckett"

[2] https://www.w3schools.com/

[3] https://stackoverflow.com/

[4] https:// codepen.io/

[5] https://www.youtube.com