EASY JOURNEY

Bus Ticketing System

A system that makes your journey easier

By

Kingston Polytechnic College
Students of final year Group B

Dissertation submitted in partial fulfilment of the requirements for the Diploma
(Computer Science and Technology)

Kinston Polytechnic College

Jessore Rd, Opp. Bimala Cinema,

Purbasha, South Bankimpally, Madhyamgram, Kolkata,

West Bengal 700129

By

CST Final Year Group B

Mr. Arvin Bera (Team MENTOR)

Anaita Pal

Narendra Nath Panda

Akash Saha

Ganesh Pradhan

Riya Mondal

Rima das

Subhangeeta Patra
Amitesh Hazra
Budhhadeb Bej
Raunak Gaian

A project dissertation submitted to the Kingston Polytechnic College in partial fulfilment of the requirement for the computer science technology.

(Final year 6th Semester Project)

Approved by,

_____

(Mr. Sovonesh Pal)

KINGSTON POLYTECHNIC COLLEGE

(A UNIT OF KINGSTON EDUCATIONAL INSTITUTE)
(AN ISO 9001-2000 Certified Institute)
BERUNANPUKURIA, BARASAT, 24 PGS (NORTH), KOLKATA-700126
PHONE N0- 254241642/25429800/25389508
Email: kingston_educational_institute@yahoo.com

DEPARTMENT OF COMPUTER SCIENCE

Date: 01.08.2021

CERTIFICATE

The undersigned members on behalf of the Department Of Computer Science & Technology acknowledges the effort made by Sri/Smt. Arvin Bera for the successful development of the project entitled " Easy Journey ".

This has been a culmination of task undertaken by him/her as a part of the final year project governed by the curricula requirement of the Diploma in Computer Science Technology , approved by West Bengal State Council of Technical and Vocational Education and Skill Development. It has been an honest and sincere attempt on his/her part to successfully complete the project work on time amidst all technical constraints. His /her performance was found to be satisfactory. We wish you success in all of your future endeavors.

Sri Arvin Bera
Lecturer, CST
Internal Guide

Sri Sovonesh Pal
H.O.D, CST

Signature
External Examiner

ACKNOWLEDGEMENT

First and foremost, I would like to thank everyone who has helped us during the period of our research and development. I would particularly like to thank **Mr. Arvin Bera** for his time and commitment advising and facilitating our progress and project until complete.

we have plenty of gratitude and appreciation towards college faculties for all the guidance and support given to us during our time as developing this project. We will be thankful to our HOD sir, for his advice, teachings, and assistance to us. We also would like to give tokens of appreciation to the final year project Coordinator, for his commitment making this year's Final Year Project course a success.

Finally, we would like to thank GOD for his grace and grants as we were made able to go through all pleasure and pain during this Final Year Project course time.

Thank you

By

CST Final Year Students GROUP B.

ABSTRACT

- Easy Journey Bus ticketing management system is related to the manages timing, fare details and booking ticket for journey.

- This system is useful in for to manage the system of buses in local and rural areas.

- This system is also removing the human mistake like missing buses and also help people to find, which bus will reach to his or her destination and they will be informed about fare and departure time of bus.

- We implemented some modules in our project, like registration and login module for both admin and customer, Bus management module, payment module etc.

- It provides functions i.e., Search available buses from nearest bus stop to destination, Bus ticket booking in advance, Bus maintenance, Record maintenance and remainder (information stores).

TABLE OF CONTENT

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND STUDY

Easy Journey bus ticketing system is a Local hosted website that allows KPC students to check bus ticket availability, buy bus ticket and pay for the bus ticket virtually in online.

Electronic tickets, or e-tickets, give evidence that their holders have permission to enter a place of entertainment, use a means of transportation, or have access to some internet services. Bus ticket reservation system enables the bus company's customer to buy bus ticket online. E-ticket is the easier and quickest way to take bus.
Sometimes, customers, needs to queue up a long queue to buy ticket and ask for information.

Our project is to computerize bus traveling system to manage data, booking ticket, so that all the transaction become fast and easier. Also, there should not be any error in transaction like calculation mistake, bill or ticket generation and other things. It replaces all the paperwork.

This ticketing system has three main modules. By the 1st module the customer can search bus and check the availability of seats in a particular bus at date. 2nd module will help customer to reserve a ticket by payment. And by using 3rd module customer can cancel a reserved ticket.

1.2 PROBLEM STATEMENT

Nowadays, the system that are using by the captain of a bus currently is an internal system and just used to sell bus ticket in the bus or at the

counter. Customer or passenger must go to the bus or counter to buy ticket or ask for bus schedule. Furthermore, customers need to pay cash when they buy tickets and sometimes needs to queue up long time to get the bus ticket.

1.3 OBJECTIVES

Why we choose this topic which is EASY JOURNEY bus ticketing system as our Final Year Project. The general purpose of the project that there is lot of problem related to buses route, timing, ticketing, trip details, bus stops in local areas, and more importantly to know the runtime of a bus and want to manipulate and store this information successfully.

1. To provide a web-based buying bus ticket function. Customer can buy bus ticket through online system.
2. To provide any time anyplace service for the customer. Customer can buy bus ticket 24 hours a day, 7 days a week over the internet.
3. To enable customer to check availability of the bus ticket online. Customer can check the time departure and know if the ticket is fully booked.
4. To ease and maintain the physical distance in the pandemic situation the bus ticket payment by online.

1.4 SCOPE OF STUDY

The online system is an easy-to-use self-service system which enables the customer to buy the ticket online and pay for the ticket through UPI, or net banking, debit, or credit card.

FUTURE SCOPE

- As mentioned above, although our system had been completed but it is not perfect, we had planned to make some enhancement in the future.
- We think that our system still has potential to grow. Besides, we will include more functions and introduce more widgets to the system. Like

1. Mobile app
2. Mobile version
3. Time reminder.

- In future we will add new routes and buses, spots according to need of passengers
- We will add unique identification system to identify our system.
- We also Plane to enhance the UI so that it looks more attractive and interactive.

1.5 FEASIBILITY STUDY

Feasibility study is the analysis of specific view or aspect in the project environment to help determine whether to continue or not with the project.

1.5.1 TECHNICAL FEASIBILITY

This project is still feasibility as of this progress report date. The problem was the laptop or pc the programmer uses because the XAMPP software running in 32-bit Windows but most of us use 64-bit windows. sometimes UTP connection is also poor and very slow. It also depends on time and not stable.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter defines the facts and finding on the electronic ticketing or e ticketing after reading some articles, books and websites that are related to the system. I will also state a few existing Bus Ticketing System that already be used in India.

2.2 FACTS AND FINDING ABOUT ELECTRONIC TICKETING

In this section, all the information related to the online system is found by surfing the Internet and go to library. Literature review is done, and findings are come out after read through all the information.

2.3 DOMAIN

This section discusses about the research that have been done for this project ware. The research includes the entire information that is related on the system proposed which focused on the research of e-management system. E-management is a quite big field to do research. E-management is including about the member profile, the finance, or others. Present some e-management system can found it in internet. For example, embanking, e-business, e-ticketing, e-booking are still in upgrade to be a best and user-friendly system.

Nowadays, a lot of people are busy with their work. Most of the time they use is in front of the computer. Computer is a most important thing in our life. Internet is one of the parts too. Every house they will have internet because it will be easier for them to do some research, E-payment, e-banking, E-shop, or any online booking to do a ticket reservation or an accommodation reservation. With wide use of internet, a lot of online shopping, online business, and online booking website is developing to

ease the user to do their work- User just need to use few fingers click then can buy all the things their need to. With this few finger click user not need to queue up for a long time to pay for the goods at the cashier.

2.4 ELECTRONIC MANAGEMENT

Management comprises directing and controlling a group of one or more people or entities for the purpose of coordinating and harmonizing that group towards accomplishing a goal. Management often encompasses the deployment and manipulation of human resources, financial resources, technological resources, and natural resources. Management can also refer to the person or people who perform the act of management. Management operates through various functions, often classified as planning organizing, leading motivating, and controlling.

E-Management also can call as electronic management. E-Management is computerized all the management. E-Management is included a lot of things. E-leave management system also can as an e-management system. E-management is about how to manage a resource by using computer and online.

With the e-management the management will be more efficient and systematic. The management does not have to use the manual technique that needs files and cupboards to store the forms. The forms are store in one place and references are easier to make.

2.5 ONLINE BOOKING OR RESERVATION

Widespread use of Internet has led to the emergence of a variety of electronic services, e-services. Electronic ticket, or e-ticket, is an example of such a class of e-services. E-tickets give evidence to their holders to have permission to enter a place of entertainment use a means of

transportation or have access to some Internet services. Users can get the e-tickets by purchasing them from a web server, or simply receiving from a vendor or from another user who previously acquired those E-Tickets can be stored in desktop computers or personal digital assistants for future use. For some cases, like e-tickets non-transferable example ticket airline, it must be validated to prevent duplication, and ensure authenticity and integrity.

A user first must relay it to server for validation before using an e-ticket. The validation process is called e-ticket problem here, results in the server either accepts or reject the e-ticket and intended to prevent duplication which avoids multiple use of an e-ticket by the same or different users. It is to ensure authenticity and integrity that e-tickets are only accepted if they have been issued by an authorized source and have not been tampered with. In addition, for privacy, it is desirable that E-tickets should not contain any information associated with their holders.

This conference state that e-ticket problems are user can't be trusted and servers may fail by crashing. Besides that, two specifications of the E-ticket problems are the at most once and the at least once e-ticket problems. Both specifications are requiring e-tickets to be accepted exactly once in executions without failures. But the former specification may result in some e-tickets never being accepted or accepted multiple times in executions with failures.

There were a few protocols that can be used to solve the e-ticket problem, which are quorum-based e-ticket protocol, simple e-ticket protocol, and the optimistic e-ticket protocol. Simple e-ticket protocol and the optimistic e-ticket protocol can be used to solve the ticket problem.

2.6 WEB BASED APPLICATION

In software engineering, a web-based application-sometimes called a web application. Web application is an application that is accessed with a web browser over a network such as the internet or intranet. Web applications are popular due to the ubiquity of the browser as a client sometimes called a thin client. The ability to update and maintain web applications without distributing and installing software on potentially thousands of client computers is a key reason for their popularity. Web applications are used to implement web mail, online retail sales, online auctions, wikies, discussion boards, web logs, MMORPGs, video logging and perform many other functions.

Though many variations are possible, a web application is commonly structured as a three-tiered application. In its most common form, a web browser is the first tier, an engine using some dynamic web content technology (e.g., CGI, PHP, Java servers or Active Server Pages) is the middle tier, and a database is the third tier. The web browser sends requests to the middle tier, which services them by making queries and updates against the database and generating a user interface. Therefore, the web-based application is chosen in the development of this system.

CIIAPTER 3: METHODOLOGY

3.1 DEVELOPMENT METHODOLOGY

The project methodology that used in the development of the system is the System Development Life Cycle (SDLC). SDLC is the process of understanding how an Information System (IS) can support business needs, designing the system, building it and delivering it to users. The SDLC is composing of four phases: Planning, Analysis, Design and implementation.

The SDLC traces the history (life cycle) of a developing information system. Structured design methodology is Waterfall Development. With Waterfall Development, analyst and users proceed is sequence from one phase to the next can mapped out an evaluated.

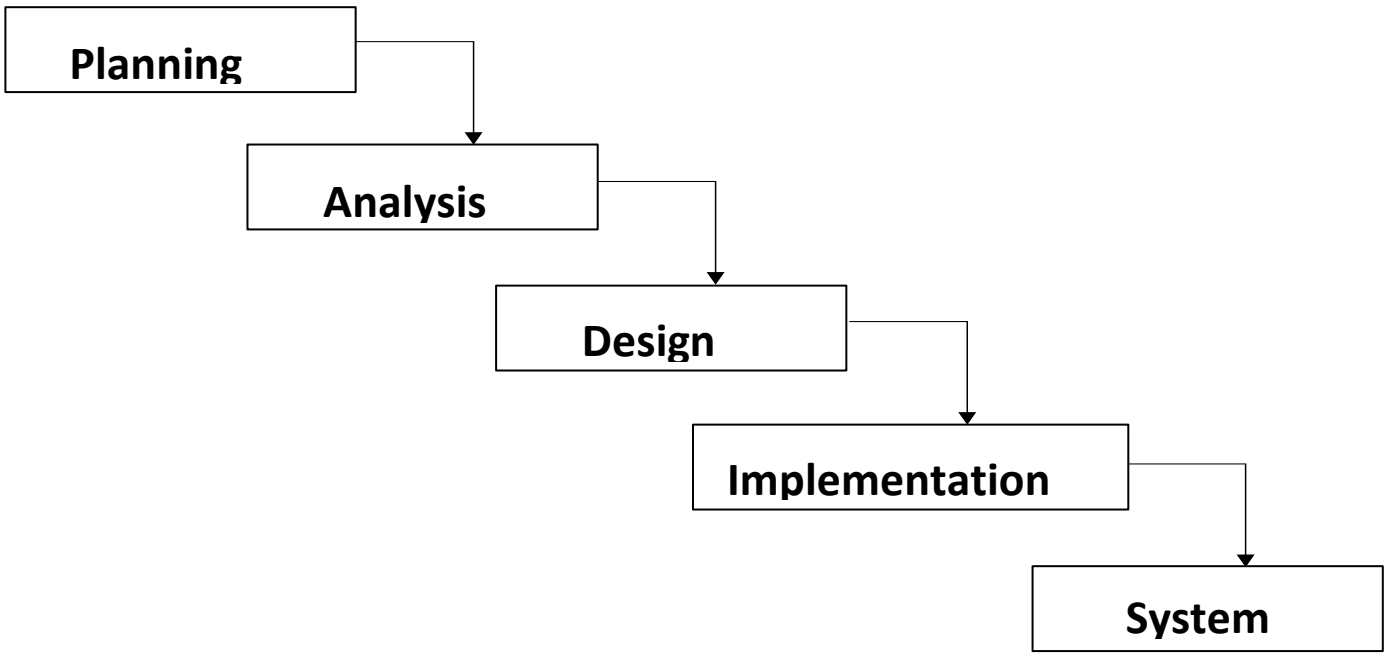


Figure 1: Waterfall Methodology

3.2.1 Planning

In planning phase, to develop a new system which is a first step is to identify a need for the EASY JOURNEY Online Bus Ticketing System, and also plan how to develop the functional requirements of a system. This will include determining whether a business problem or opportunity exists, conducting a feasibility study to determine the developing a project plan.

3.2.2 Analysis

In this phase, we have analysed considers the current systems and investigates any problems associated with it. Other sources of information about system and the new requirements would also be investigated at this time. The output from this stage would probably be no more than a set of notes.

3.2.3 Design

After the requirements have been determined, the necessary specifications for the hardware, software, people, and data resources, and the information products that will satisfy the functional requirements of the proposed system can be determined. The design will serve as a blueprint for the system and helps detect problems before these errors or problems are built into the final system. We will create the system design by review the work with the scope to ensure the design meets the objective and requirement of the EASY JOURNEY Online Bus Ticketing System.

3.2.4 Implementation

The implementation phase is described as those activities that begin when the system design has been completed. These phases are

producing software code according to plan, analysis and system design that have been done. Coding and debugging are the act of creating the final system. The requirements documentation should be referred to throughout the rest of the system development process to ensure the developing project aligns with the needs and requirements or scop€. The system also is tested to evaluate its actual functionality in relation to expected or intended functionality.

3.2.5 System

Last phase is system which is when development is complete, and the system is in daily use. It is the longest life-cycle phase. System involves correcting errors which were not discovered in earlier stages of life cycle; improving the implementation of system units and enhancing the Online Bus Ticketing System services as new requirement are discovered.

3.3 Tools

To complete this project the author, need some tools that required in assisting the author when develops the system. Below is the all the project requirement in doing the project.

Project Requirement

- Microsoft Word
- Microsoft Visio
- Adobe Photoshop
- SQL server
- XAMPP

3.3.1 Hardware

Hardware is one of the cores and important things in doing and completing this project
This is an IT project, so it requires the most important hardware which is personal computer. The author needs more than one computer because there will be a server, users, and computer for author himself to edit and develop the project.

3.3.2 Software

Tools or software that important in developing the project in PHP, CSS, Java script. All the software is needed to create the online form. The author also needs few images and need skills to edit the pictures as to create the workflow and editing in graphical user interface (GUI). In term of database, the author uses the My SQL server to hold and manage the database.

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Data Gathering

The main reasons that inspired the author to create this system is to solve all the known and identify problem the author has described in the problem statement. To ensure the system is develop based on the current problem, the author using the research to clarify the problem stated earlier. All the data gathered by the author using the research and reading regarding the problem statement and to identify the system requirement.

4.2 Data Analysing

Based on the research earlier, the author realized that the problem statement and the objectives are justified. The research and reading proves that General people need this kind of system to help and assisting them in making the bus ticket reservation.

4.3 Results

As for the results, the entire requirement for the system is already identified end documented in the author's journal and notebook No, evidence or proof to show since this system did not need the author to do a survey or interview.

4.4 Prototype Discussion

Introduction

Easy Journey is an Online Ticketing System that works within localhost network. The software program “Easy Journey” provides bus transportation system, a facility to reserved seats, cancellation of seats and different types of enquiries which need an instant and quick reservation. Easy Journey is built for manage and computerize the traditional database, ticket booking, and tracking bus and journey made easy. It maintains all data of users, bus details, reservation details, booking details, customer details.

Team Members

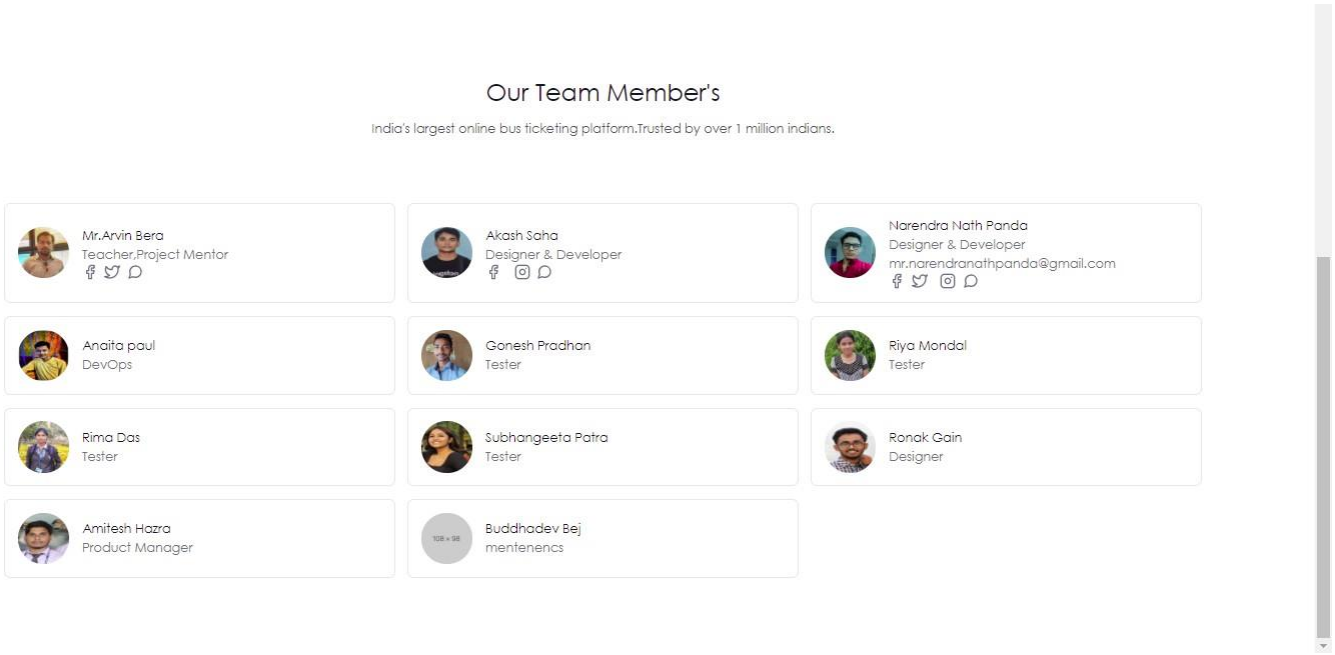


Figure 1: Team Member

Homepage

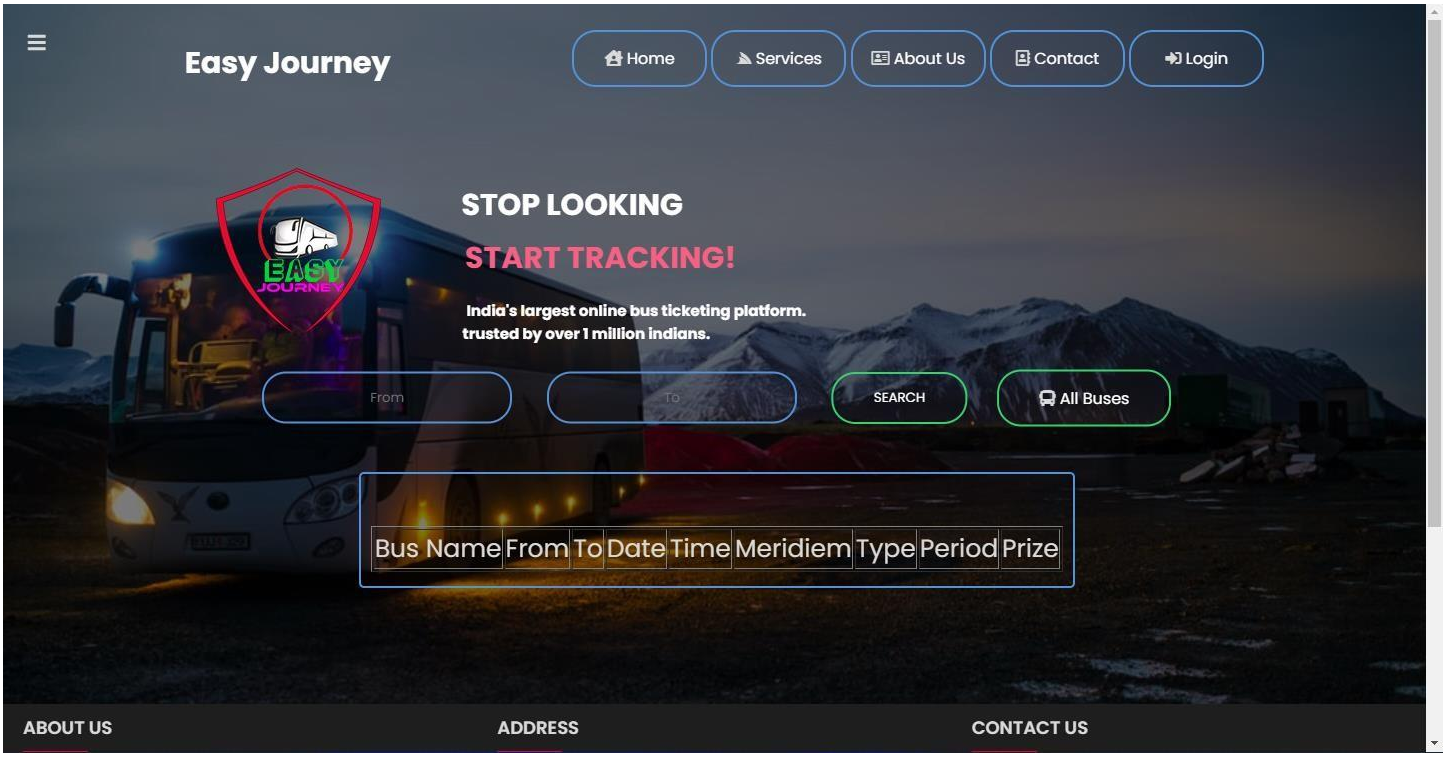


Figure 2: Homepage

Figure 6 is the Homepage for our website. In this homepage, as usual we have to register or sign in first to use my system. User can click at the top

right corner, there is a Log in section. User can click on that part and the registration form will appear. If the user is already registered, they can just log in by clicking the Login in button at top right corner. For the admin access, they can log in by clicking the Admin button beside Register button.

Register

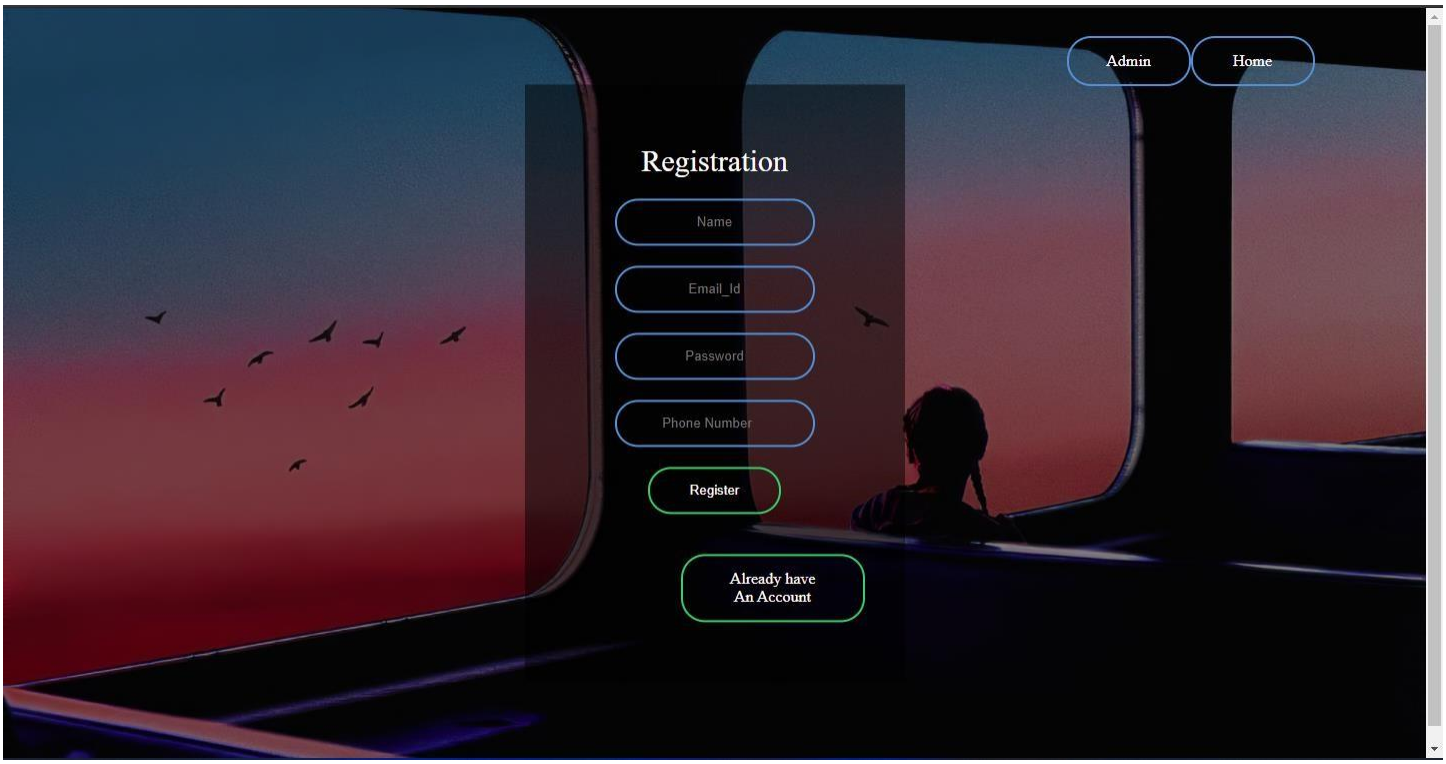


Figure 3: Register

For registration part user must fill the form that includes Username, name, password, email, and Telephone Number. When the user clicks a register button their account will be automatically activated, and our system need a conformation or verification through an email. User can sign in directly after registration.

User Login

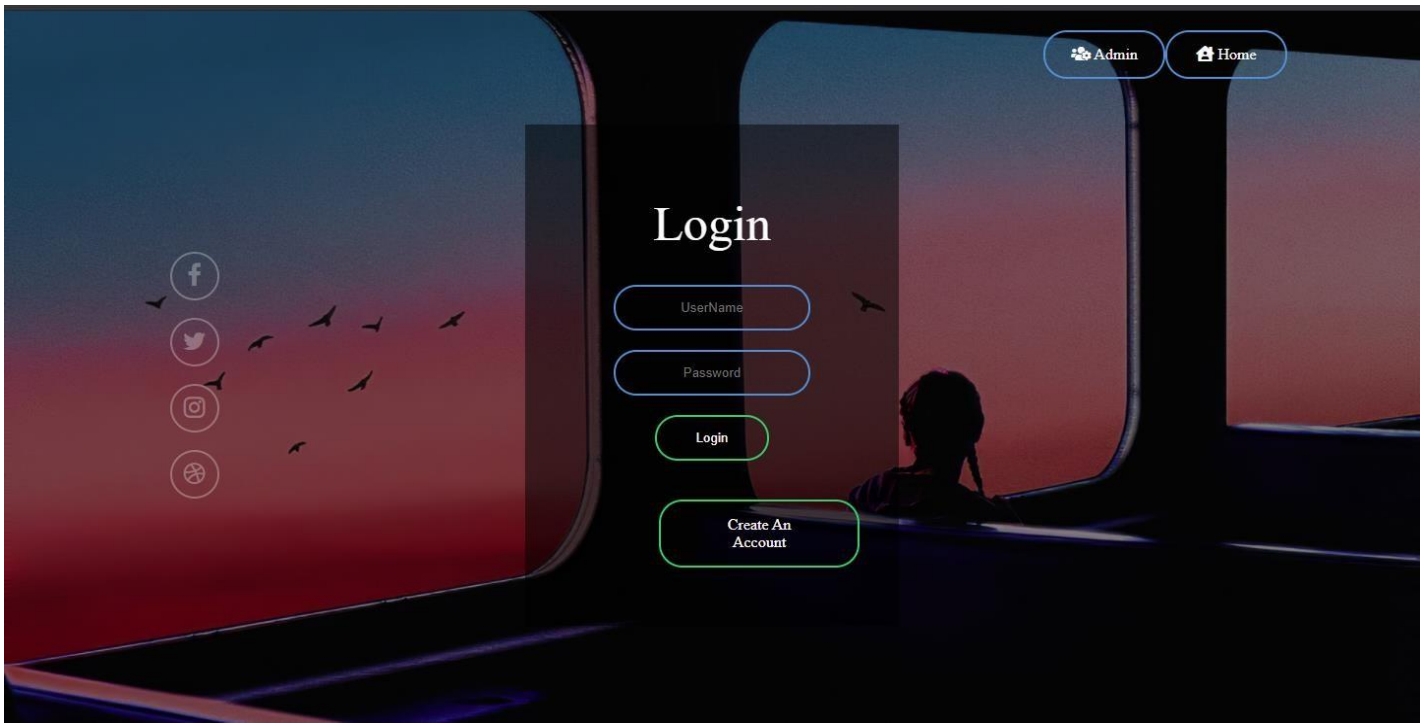


Figure 4: User Login

User can login to the system by filling the username and password" Then user can proceed to make a booking by pressing login button.

Admin Login

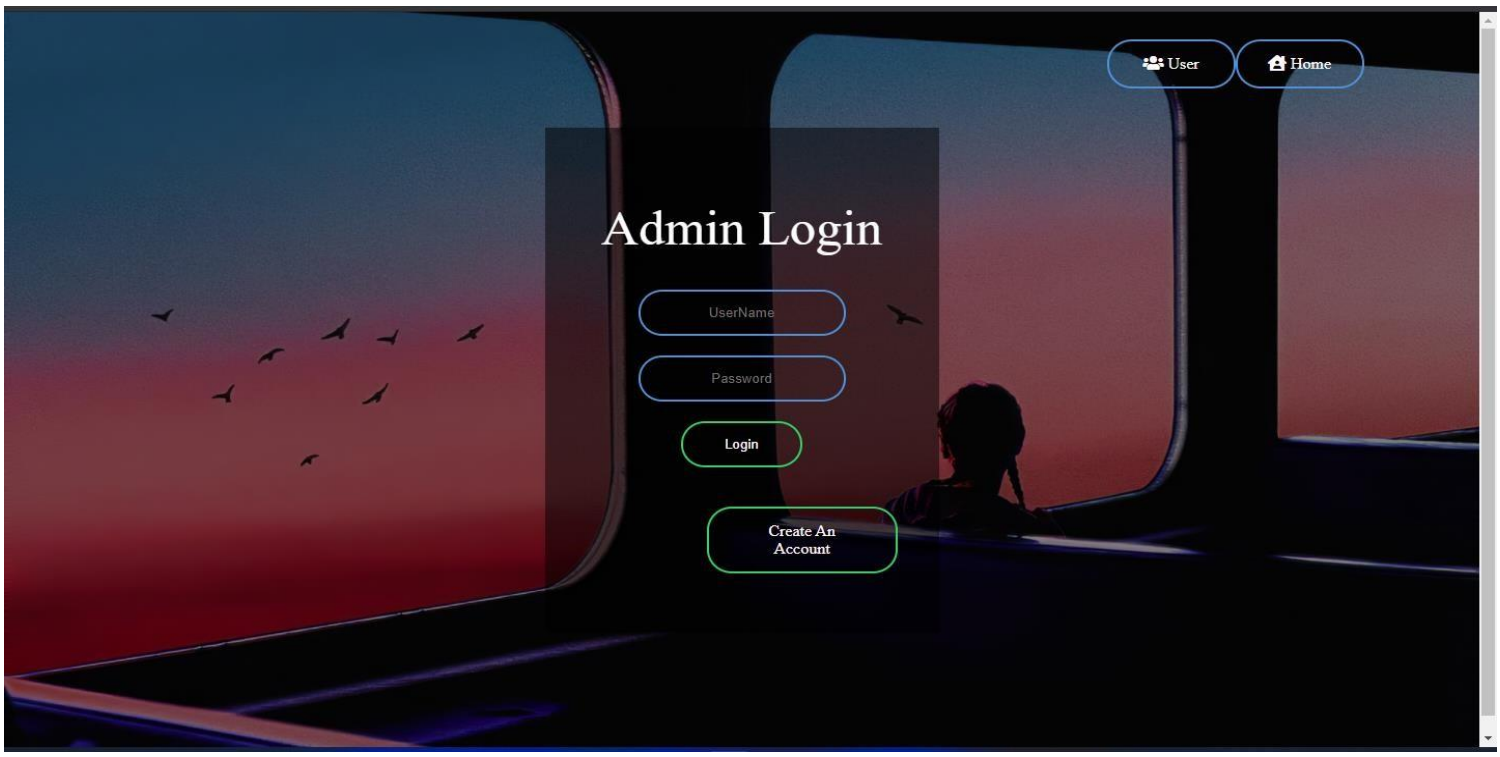


Figure 5: Admin Login

Admin can login to the system by filling the admin's username and password" Then Admin can proceed to make any changes by pressing login button.

To reserve a ticket" users can easily find the bus schedule by clicking the Schedule button at the right side of search bar and the entire bus available will be show to the users. Bus schedule is set by Admin.

Search Result

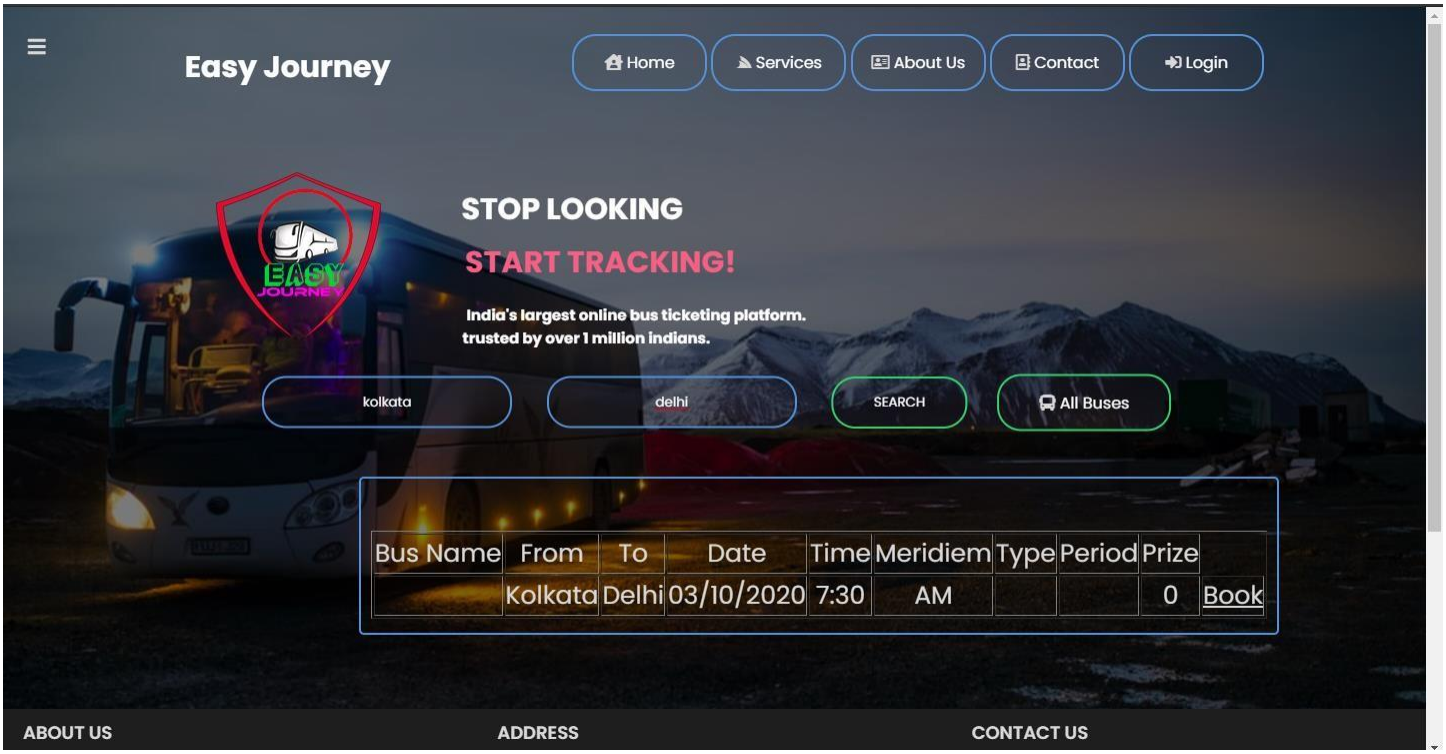


Figure 6: Search Result

This figure shows the result when users browsing for a ticket according to his or her destination in searching the tickets. If the user is confirming to buy the ticket, they can just click the next button for confirmation.

Admin Access

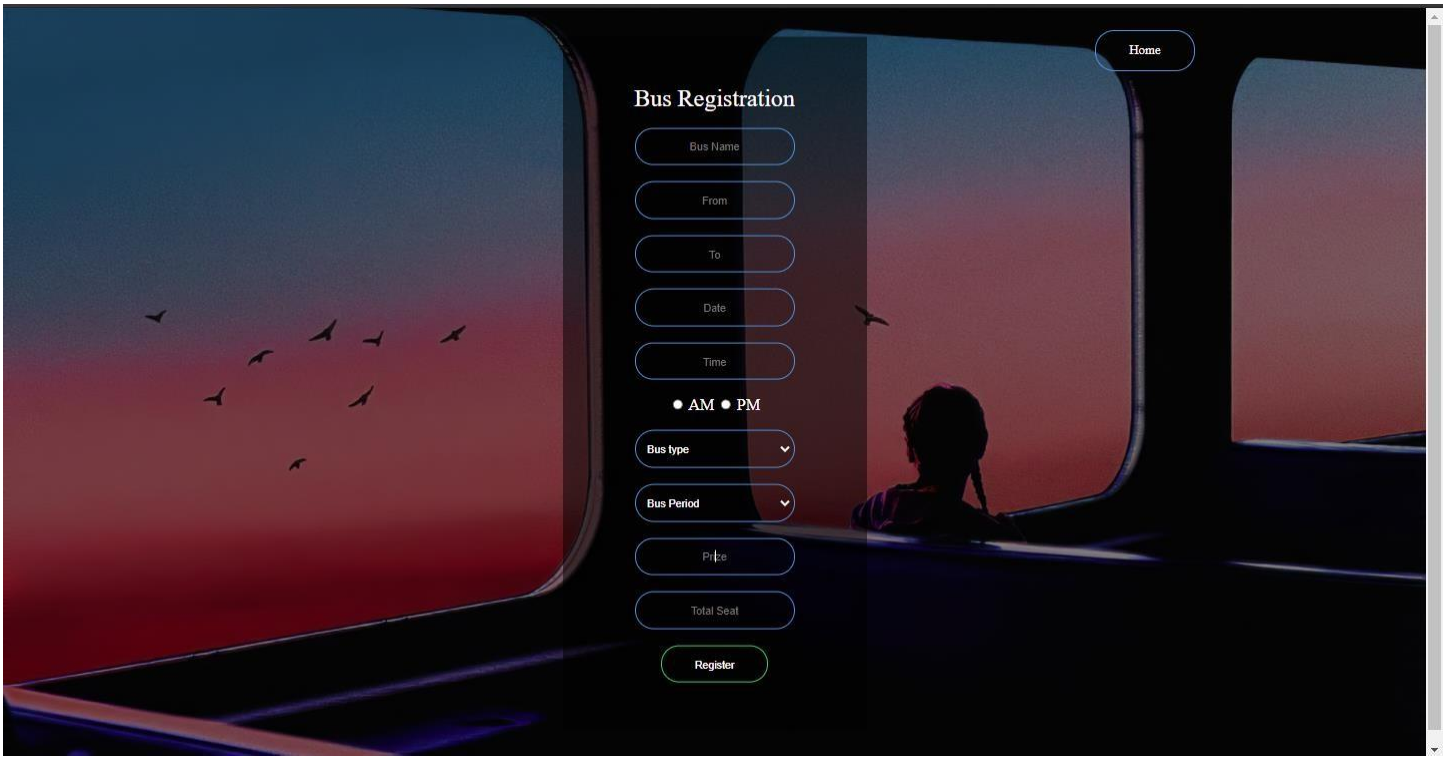


Figure 7: Admin Access

Since we are developing the system for Bus Operator, we need an admin access to make sure the system is stable and always in maintenance. Admin can login using the admin access section using administrator's username and password.

The upper screen shot is the user dashboard of the system **About Us**

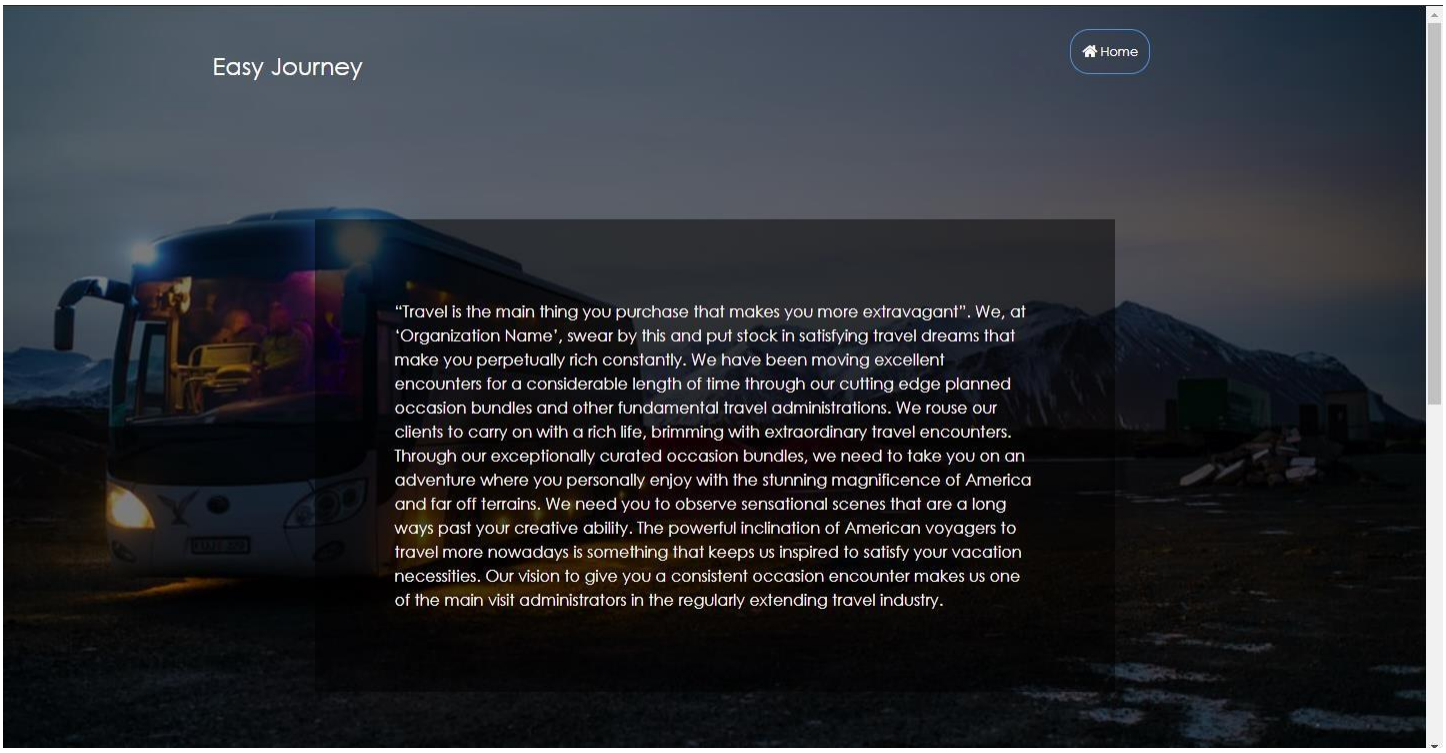


Figure 8: About Us

Example of Code

Index Page

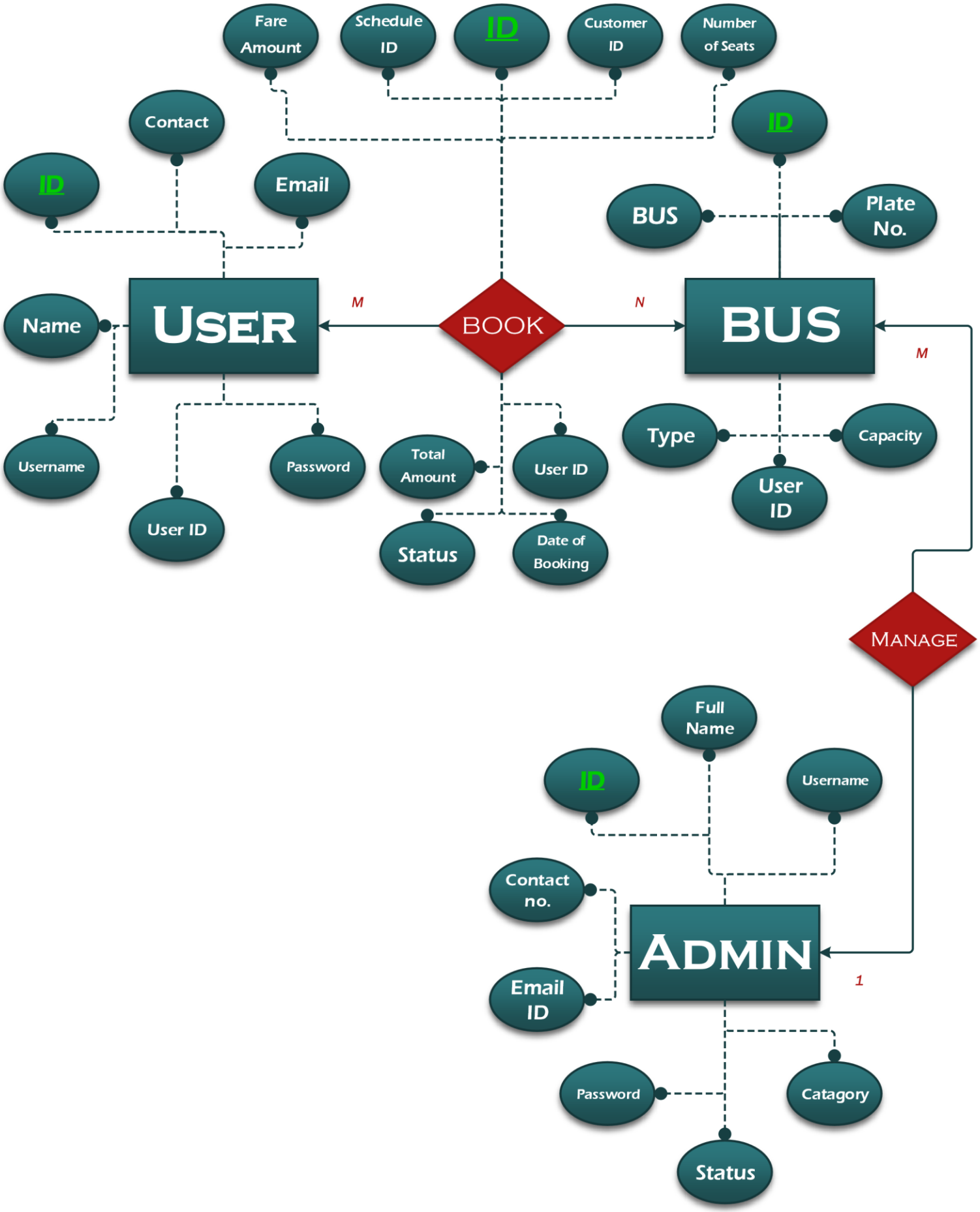
```
<!DOCTYPE html>
<html lang="en" dir="ltr">

<head>
   <meta charset="utf-8">
   <title>front body</title>
   <link rel="stylesheet" type="text/css" href="css/index.css">
   <link rel="stylesheet" type="text/css" href="css/sidebar.css">
   <link rel="stylesheet" type="text/css" href="css/footer.css">
   <link rel="stylesheet" type="text/css" href="css/slideshow.css">
   <link rel="stylesheet" type="text/css" href="css/Font-icon Tab.css">
</head>
<body>
```

```
   <header>
      <div class="title">
         <h1>Easy Journey</h1>
      </div>
      <div class="title1">
         <h1>A System That</h1>
      </div>
      <div class="title2">
         <h1>Makes Your Journey Easyer !</h1>
      </div>
      <div class="title3">
         <h1>India's largest online bus ticketing platform.</h1>
      </div>
      <div class="title4">
         <h1>trusted by over 1 million indians.</h1>
</div>


      <!--sidebar part-->
      <head>
         <meta charset="utf-8">
         <meta name="viewport" content="width=device-width,
initialscale=1.0">
         <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/5.15.1/css/all
.min.css">
         <script
src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.5.1/jquery.min.js"
charset="utf-8"></script>
         <script scr="js/jquery.min.js" charset="utf-8"></script>
</head>
      <body>
         <div class="menu-btn">
            <i class="fas fa-bars"></i>
         </div>
         <div class="side-bar">
            <div class="close-btn">
               <i class="fas fa-times"></i>
            </div>
            <div class="menu">
               <div class="item"><a href="user dashboard.php"><i class="fas
fa-desktop"></i>Dashboard</a></div>
               <div class="item">
```

```
                    <a class="sub-btn"><i class="fas fa-table"></i>Bus List<i
                  class="fas fa-angle-right dropdown"></i></a>
                   <div class="sub-menu">
                      <a href="#" class="sub-item">Daily</a>
                      <a href="#" class="sub-item">Weekly</a>
                      <a href="#" class="sub-item">Monthly</a>
                   </div>
                </div>
                <div class="item"><a href="login.php"><i class="fas
fath"></i>Login</a></div>
                <div class="item">
                      <a class="sub-btn"><i class="fas fa-cogs"></i>Settings<i
                  class="fas fa-angle-right dropdown"></i></a>
                   <div class="sub-menu">
                      <a href="#" class="sub-item">Profile</a>
                      <a href="#" class="sub-item">My Booking</a>
</div>
                </div>
                <div class="item"><a href="aboutus.php"><i class="fas fainfo-
circle"></i>About</a></div>
             </div>
          </div>

          <script type="text/javascript">
          $(document).ready(function() {
             //jquery for toggle sub menus
             $('.sub-btn').click(function() {
                $(this).next('.sub-menu').slideToggle();
                $(this).find('.dropdown').toggleClass('rotate');
             });
             //jquery for expand and collapse the sidebar
             $('.menu-btn').click(function() {
                $('.side-bar').addClass('active');
                $('.menu-btn').css("visibility", "hidden");
             });

             $('.close-btn').click(function() {
                $('.side-bar').removeClass('active');
                $('.menu-btn').css("visibility", "visible");
             });
          });
          </script>
```

```
        <!--sidebar part-->
        <div class="main">
            <div class="logo">
                <img src="/bus booking/logo/logo.png">
            </div>
            <ul>
                <li> <a href="#"><i class="fas fa-house-user"></i>
Home</a></li>
                <li> <a href="services.php"><i class="fab faservicestack"></i>
Services</a></li>
                <li> <a href="aboutus.php"><i class="far fa-addresscard"></i>
About Us</a></li>
                <li> <a href="contactus.php"><i class="far fa-
addressbook"></i> Contact</a></li>
                <li> <a href="login.php"><i class="fas fa-sign-in-alt"></i>
Login</a></li>
            </ul>
            <form method='post'>
                <div class="search">
                    <div class="from">
                        <li><input type="text" name="from"
placeholder="From"></li>
                    </div>
                    <div class="to">
                        <li><input type="text" name="to"
placeholder="To"></li>
                    </div>
                   <section>
                   <input type="submit" name="submit" value="SEARCH"/>
</section>
                    <a href="all bus.php"><i class="fas fa-bus"></i> All
Buses</a>
                </div>
            </form>
            <center>
                <div class="table">
                    <table border="1">
                        <tr>
                            <td>Bus Name</td>
                            <td>From</td>
                            <td>To</td>
                            <td>Date</td>
                            <td>Time</td>
```

```
                        <td>Meridiem</td>
                        <td>Type</td>
                        <td>Period</td>
                        <td>Prize</td>
                    </tr> <br>
                    <?php
$connection = mysqli_connect("localhost","root","","bus booking");
$db = mysqli_select_db($connection, 'bus');
if(isset($_POST['submit']) && ($_POST['submit']=='SEARCH'))
{
   $source = $_POST['from'];
   $destination=$_POST['to'];
   $query = "select * from bus where source='$source' and
destination='$destination'";
   $query_run = mysqli_query($connection, $query);

   while ($row = mysqli_fetch_array($query_run))
    {
      ?>
                    <tr>
                        <td> <?php echo $row['BusName']; ?></td>
                        <td> <?php echo $row['source']; ?></td>
                        <td> <?php echo $row['destination']; ?></td>
                        <td> <?php echo $row['date1']; ?></td>
                        <td> <?php echo $row['time1']; ?></td>
                        <td> <?php echo $row['meridiem']; ?></td>
                        <td> <?php echo $row['type']; ?></td>
                        <td> <?php echo $row['period']; ?></td>
                        <td> <?php echo $row['Prize']; ?></td>
                        <td><a href="booking.php?p_id=<?php echo
$row['id'] ;?>">Book</a></td>
                    </tr>
                    <?php
}
```



ER – Diagram of EASY JOURNEY

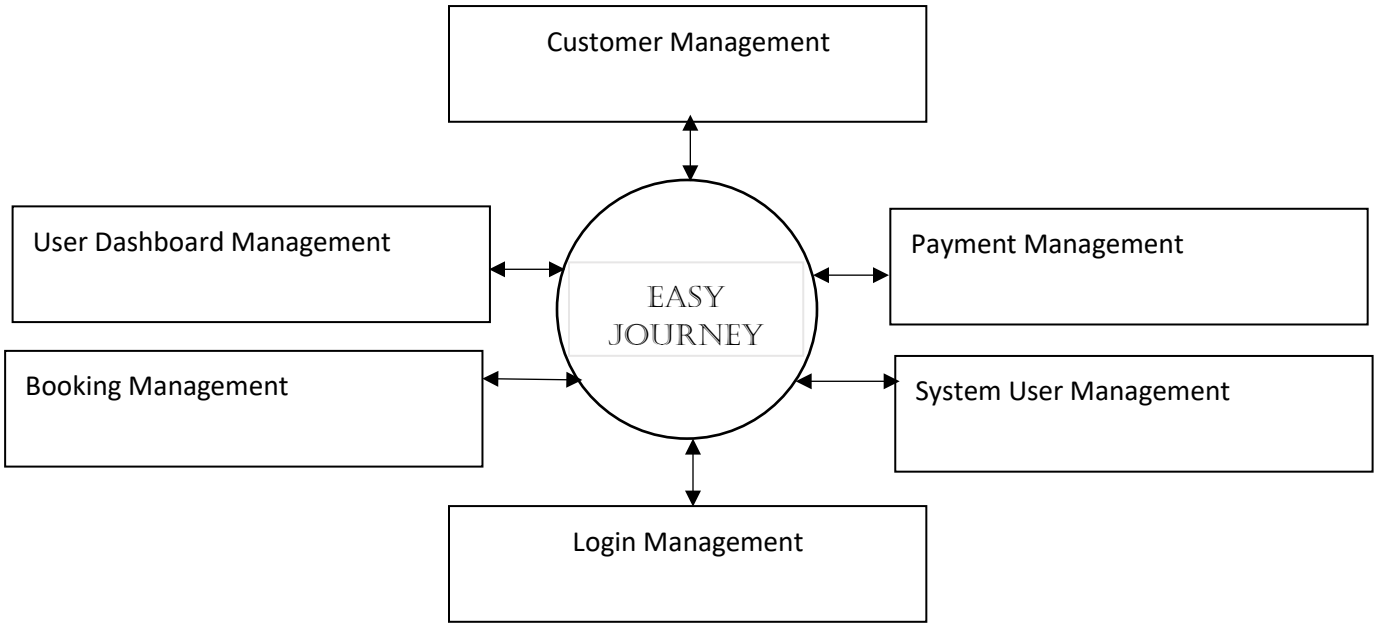
Context Level (DFD):- Working Processing :

STEP :- 1

STEP:- 2

High level entities and process flow Easy Journey System: -

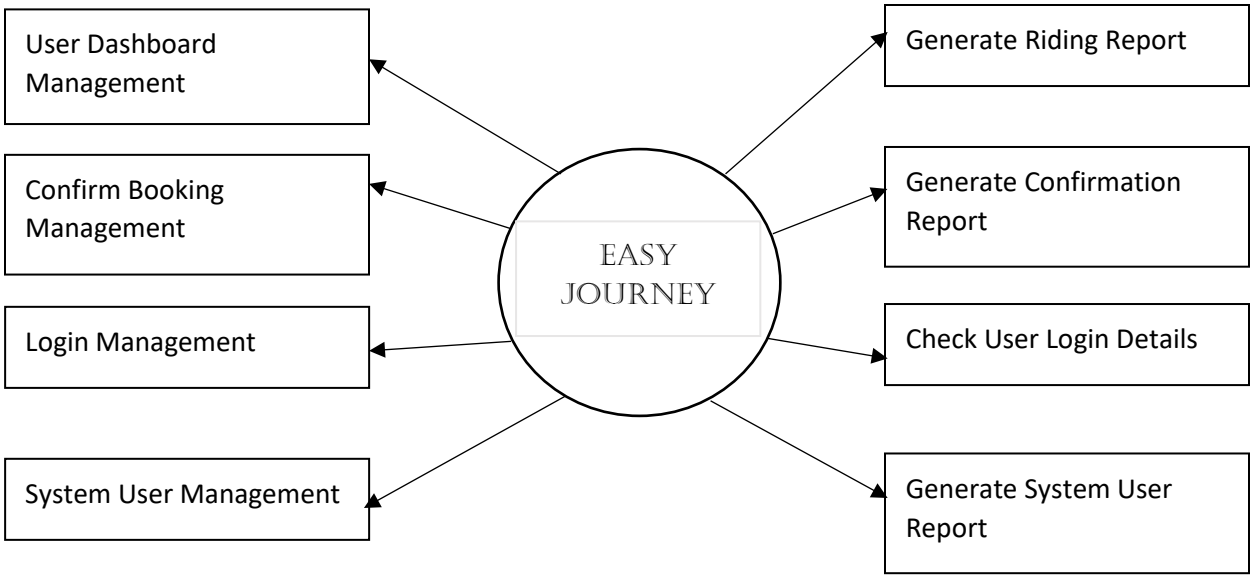
- Managing User Dashboard.
- Managing all the Booking
- Managing all the Payment.
- Managing all the Confirm Booking.



Level : 1

Main entities and output of first level DFD :-

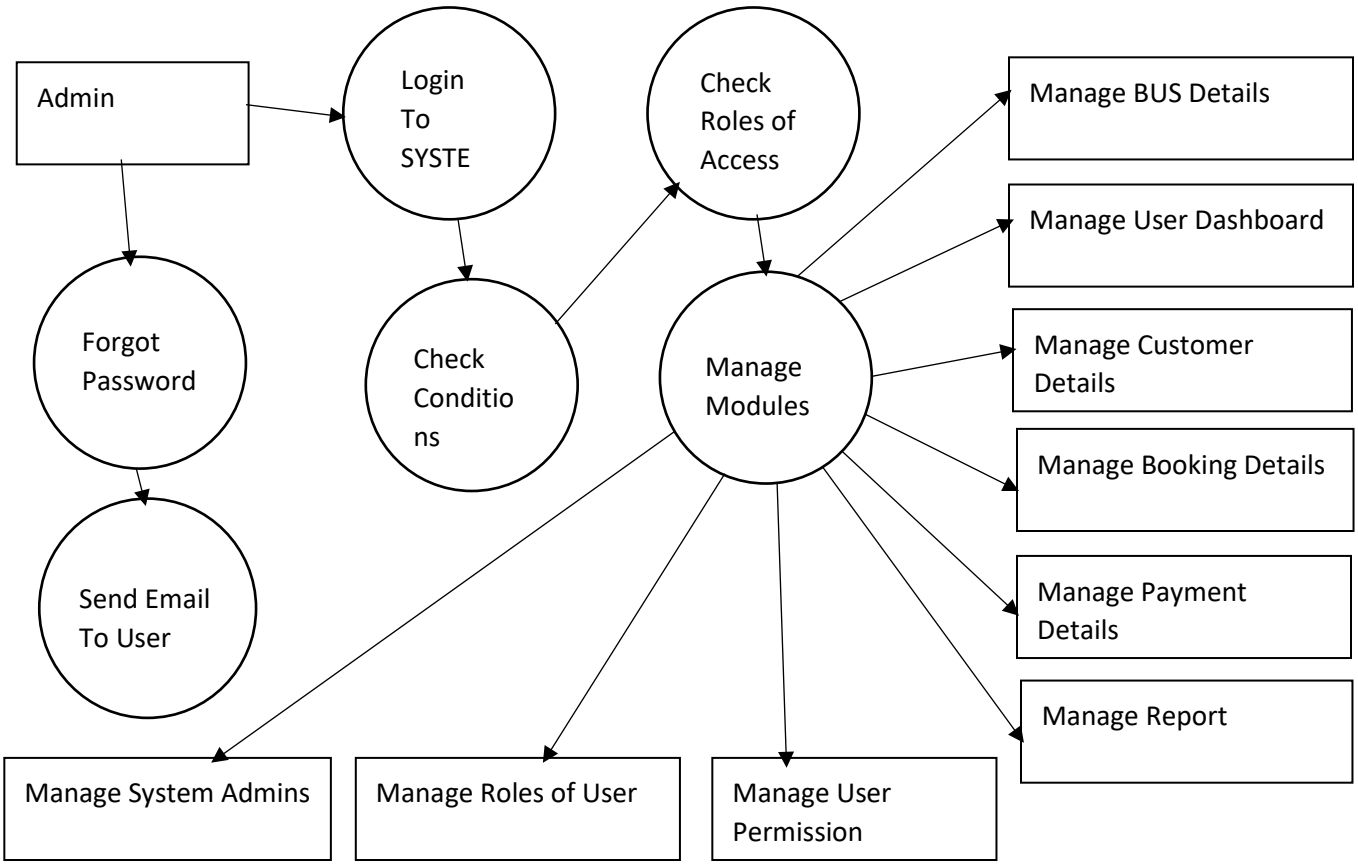
- Processing riding records and generate report of all riding.
- Processing booking records and generated report of all booking.
- Processing confirm booking records and generate report of all confirm records.
- Processing payment records and generate report of all payments.



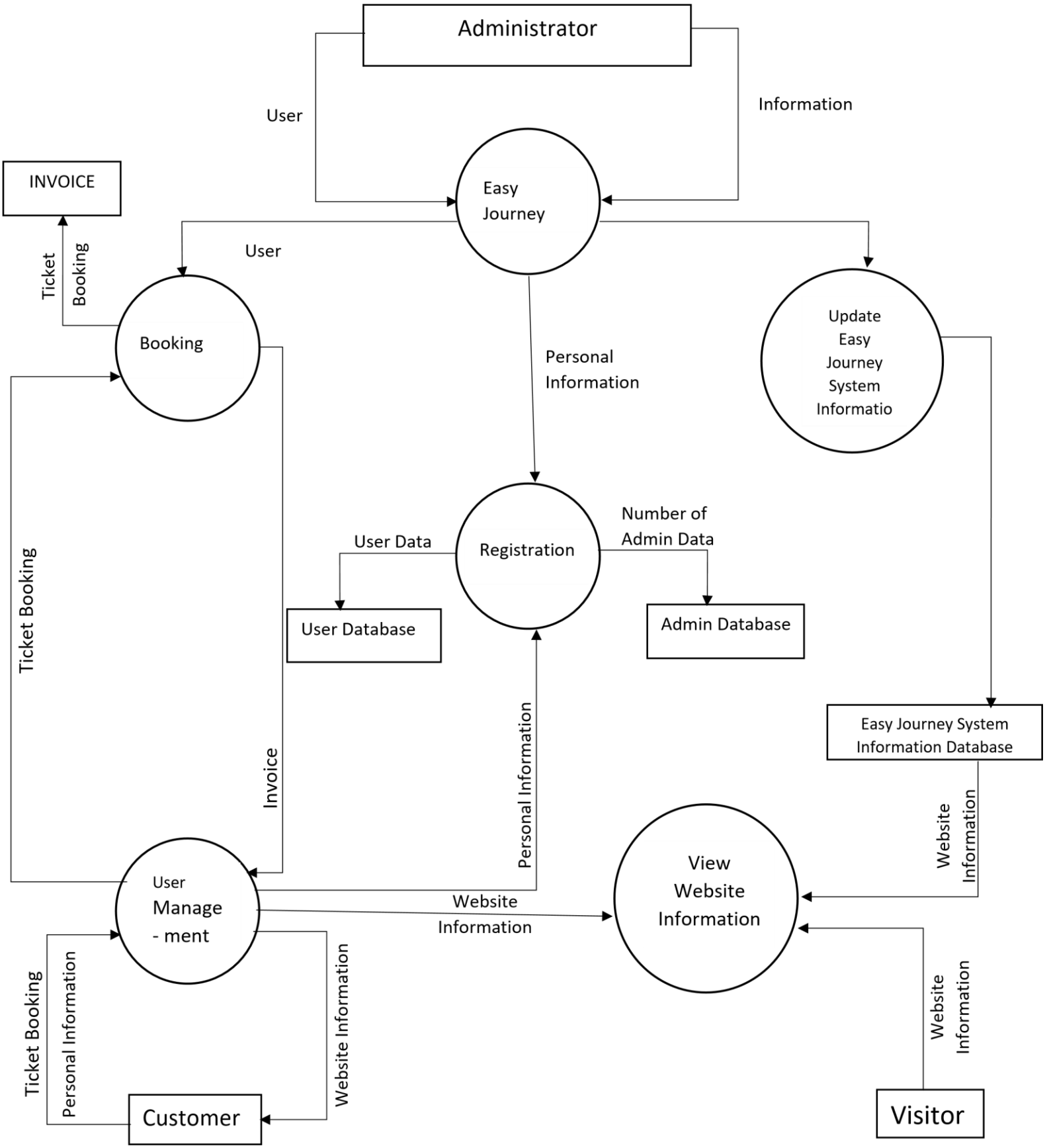
Level : 2

Low level Functionalities of Easy Journey: -

- Admin Login to the system and manage all the functionalities of Easy Journey.
- Admin can add, edit, delete and view records of booking, confirm booking.
- Admin can manage all the details of riding, booking.
- Admin can track the detailed information.



Level : 3



EASY JOURNEY SYSTEM (DFD)

CHAPTER 5

CONCLUSION

Easy Journey is an online bus ticketing system which provides online reservation of bus.

This system is user friendly and accurate.

This system is available 24hours and efficient in reservation.

It has no hidden costs in fares.

Bibliography

Websites :

https://scholar.google.com/
https://www.redbus.in/
https://wbtc.co.in/
https://www.wikipedia.org/
https://www.tutorialspoint.com/php/inde
x.htm https://www.w3schools.com/java/