ONLINE TOLL PLAZA SYSTEM

SOFTWARE ENGINEERING LAB (CSE3001)

J COMPONENT PROJECT REPORT

Winter 2020-21

Submitted by

SPARSH SHARMA(19BCE0702)
ANUJ AGRAWAL(19BCE0725)
B ADITYA KRISHNA (19BCE0743)
AMAN ANAND (19BCE0751)
ANSH SHARMA (19BCE0752)

in partial fulfillment for the award of the degree of

B. Tech

In

Computer Science and Engineering

VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

Vellore-632014, Tamil Nadu, India

School of Computer Science and Engineering

May, 2021

1.ABSTRACT

Along with growing number of vehicles in major cities, Online Toll plaza is an option for smooth transportation. Manual toll plazas are widely used for toll fee collection in India but manual system requires lot of paperwork and are also prone to errors, also increasing the processing time. Also, during festive seasons this system may cause congestion leading to fuel wastage and causing pollution.

To overcome these issues, we introduce an online system to pay toll fee. This will help to reduce the traffic at the toll plaza and will also help to save fuel resources and reduce pollution which a major topic of concern these days.

The Toll system is available for use by both the **administration** and the **user**. The administrator and users will use the **webpage** as a **front end**. The browser goes through **http** server. **Application server** manages the connection between the front end and backend, all types of information and data, that are necessary for the users are stored in **database** server.

1. Application should support payment for users to pay for the application service.
2. Administration should be able to set charge for a toll when client passes through it.
3. Website should have facility to retrieve forgot password.
4. This application is to facilitate the department in maintaining the repositories of the report about the toll tax collected at a specific time period.
5. The user should be able to check the number of Toll Plaza for a journey and estimate the final cost of toll throughout the journey based on it.

2.INTRODUCTION

MOTIVATION

Transportation has emerged as a prevailing part of India. Toll plazas play a vital role in maintaining the road transportation. At present, manual toll collection is most widely used collection method in India. Due to manual intervention, the processing time at toll plazas is highest. Traffic congestion at Toll plazas leads to huge economical loss in terms of fuel wastage and also causes pollution. Also, keeping in the mind, the current pandemic situation, the workforce(staff) has to be reduced and physical interaction must be minimized.

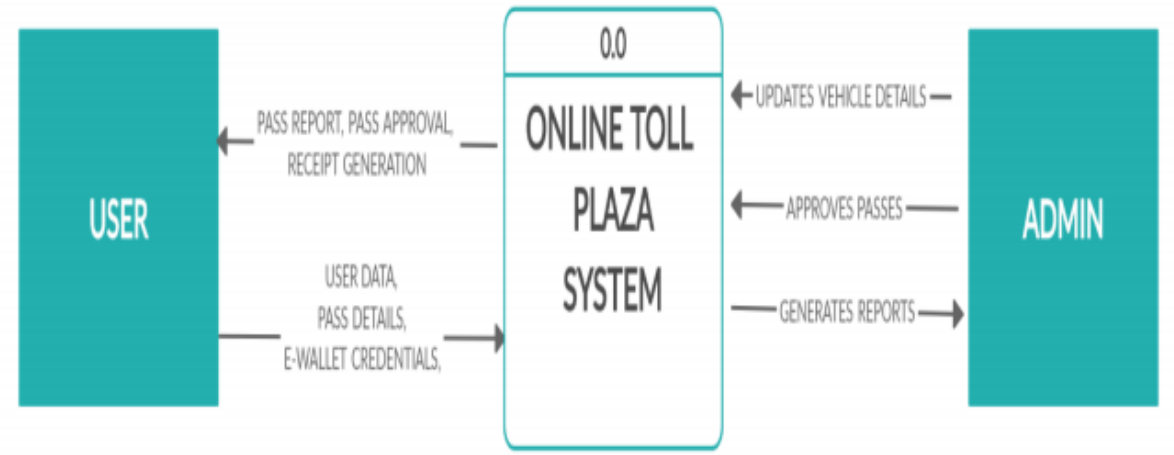
AIM OF PROPOSED WORK

The main aim of our project is to transport the traditional toll collection architecture to an online platform for convenience. Our system will work as a platform to support not just cash-less transaction, but also will minimize the physical interaction between the vehicle drivers and the staff at the booth. It will help in saving a considerable amount of time spent waiting in queues and will eventually help in minimizing traffic collection, pollution and fuel wastage. It will also replace the huge amount of workforce required at the toll booth which is the need of the hour given the whole pandemic situation.

OBJECTIVES OF THE PROPOSED WORK

1. Make the system user friendly to use.
2. Develop an online system for reducing the congestion rate, fuel wastage, pollutions and man power at the toll plaza.
3. Provide toll statistics.
4. Improve work speed and accuracy.
5. To get instant detailed information at a terminal.
6. Help in effective record storing and retrieving of data.
7. To avoid fraud toll collection of money in the name of toll taxes in some areas.

3.ARCHITECTURE DIAGRAM



4.BACKGROUND STUDY

SURVEY OF EXISTING SYSTEMS

There are various kinds of existing gates like slide gates, swing gates, barrier gates etc. These are the commonly used types apart from these there are hydraulic gates etc. They are controlled mostly manually. To avoid these issues an automated systems are implemented. It uses microcontrollers and RFID and opens the gate when a vehicle with a known tag enters. But this system consists of microcontroller, pc with server. Until somewhat recently, the most Common approach for collecting tolls was to have the driver stop and pay a toll collector sitting in a Tollbooth.

A. "FASTAG" : FASTag is a toll collection system in India, operated by the National Highway Authority of India (NHAI).It employs Radio Frequency Identification (RFID) technology for making toll payments directly from the prepaid or savings account linked to it. A radio-frequency identification system uses tags, or labels attached to the objects to be identified. The tag can be purchased from official Tag issuers or participating Banks. It also includes either fixed or programmable logic for processing the data. In this system sensors were placed above roads and vehicles get charged, a sensor identifies the vehicle number and the details were sent to server, which is processed and toll is collected. But this technology has some risks. RFID technology is based on image processing technique in which number plate is scanned as an image, afterwards further processing on that image is done and remaining task get finished regarding toll collection of particular vehicle. In the current scenario number of lanes following Fastag is utmost one, remaining are operated normally. But problem with this system is that, if due to mud or any other reason number plate of vehicle gets covered and not visible properly then sensors cannot detect it properly. So, it raises a problem while identifying the vehicle and obviously toll collection cannot be completed.

B. "Development of a GPS-based highway toll collection system" by Jin Yeong Tan, Pin Jern Ker in 6th IEEE International Conference on Control System , Computing and Engineering in 2016: The necessity for vehicles to stop or slow down for toll fee payment results in traffic congestion and reduces fuel efficiency.Hence, a system that enables road users to pay the toll fees without stopping or slowing down was proposed and developed. Hardware and software designs were carried out to develop a Global Positioning System (GPS)-based highway toll collection system. This system was developed using a Raspberry Pi 2 microcontroller. Different modules such as GPS module, Liquid Crystal Display (LCD) module, speaker, wireless Wi-Fi router modem and wireless Wi-Fi adapter were incorporated and integrated with the microcontroller to perform a few specific functions. In general, the system utilized GPS coordinates to detect whether a vehicle passed through predefined locations in the database and the travel details were recorded. The Raspberry Pi 2 microcontroller was configured as a personal cloud server to allow online access of travel logs. This developed system presents a different approach for highway toll collection which eliminates travel delays and construction of expensive gantries or toll booths.

C.“TOLL PLAZA PAYMENT USING QR CODE” :

It is very challenging to handle a vehicular flow by a manual system of revenue collection. An automated electronic application which makes easy for user by the help of Android and QR code as media access automatically without manual service. User register to get own login id and password and using the login id and password the user can enter in to the application. The current location i.e. the source address willbe automatically generated by map using GPS locator and the destination address will be selected by the user. Then the vehicle registration can also be done in the add vehicle page .the user can add as many number of vehicles desires. In details page the vehicle detail, duration for the travel, number of tollgates present in that route, amount to be paid will be displayed. The payment can be done in the payment session by the use through online. The QR code will be generated after the user pays so that it is used as gate pass for user to cross the tollgates. QR code is designed to speed up services for users in toll plaza. Administrator will scan the users QR code and it will generate information of payment details. The most crucial stage in achieving a new successful system is that it will work efficiently and effectively

SUMMARY/GAPS IDENTIFIED IN THOSE SYSTEMS

1. Vehicles have to wait on toll gates due to various reasons:
   - Need of Exact Change for an absurd amount of Rs27 or Rs54 etc.
   - Malfunctioning systems.

     Changeover of staff, taking two minutes to log off and log in as per the attendant and balancing cash.
   - Drivers chatting with attendants too.
2. Manual collection of tolls.
3. No Record Generation.
4. No provision of E-wallet.

5.METHODOLOGY

Modules

The Online toll plaza system has been split up into various modules:-

Registration module: This Module collects data of the user or admin and stores it in the database.

Authentication Module: This module authenticates the user or admin to the portal.

Check Toll: This module checks the number of toll plazas for a journey and estimates a cost based on it.

Pass: This module is related to pass which is required to check-in and out of the toll. It is further divided into three sub-modules:
Apply pass: This is for the user from where he/she can apply for the pass by filling in required details.
View pass: This is for both the admin and user. • The admin can view and approve a particular pass registered by the user. • The user can view and check whether the pass has been approved or not.
Reports of pass**:** This is for the admin • The admin can view and generate the reports of the pass applied by users.

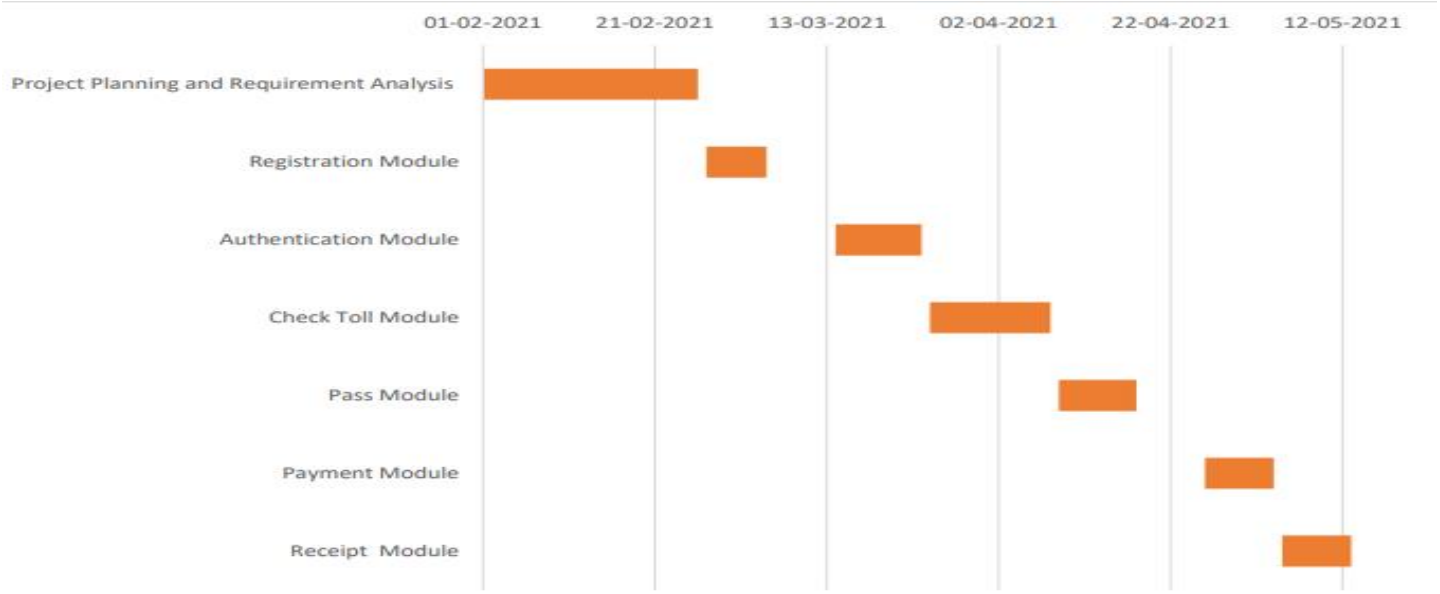
Payment: This module is related to the transactions performed by the user.

Receipt: This module is related to the receipts of the transactions performed by the user. It is further divided into two submodules:
Add receipt: This is for the admin where he/she can add receipts depending on the transactions performed by the user.
View receipt**:** This is for both the admin and user. • The admin can view receipt of a particular user or simultaneously view the receipts of similar transactions of users. • The user can view his/her receipt which was generated for their transaction

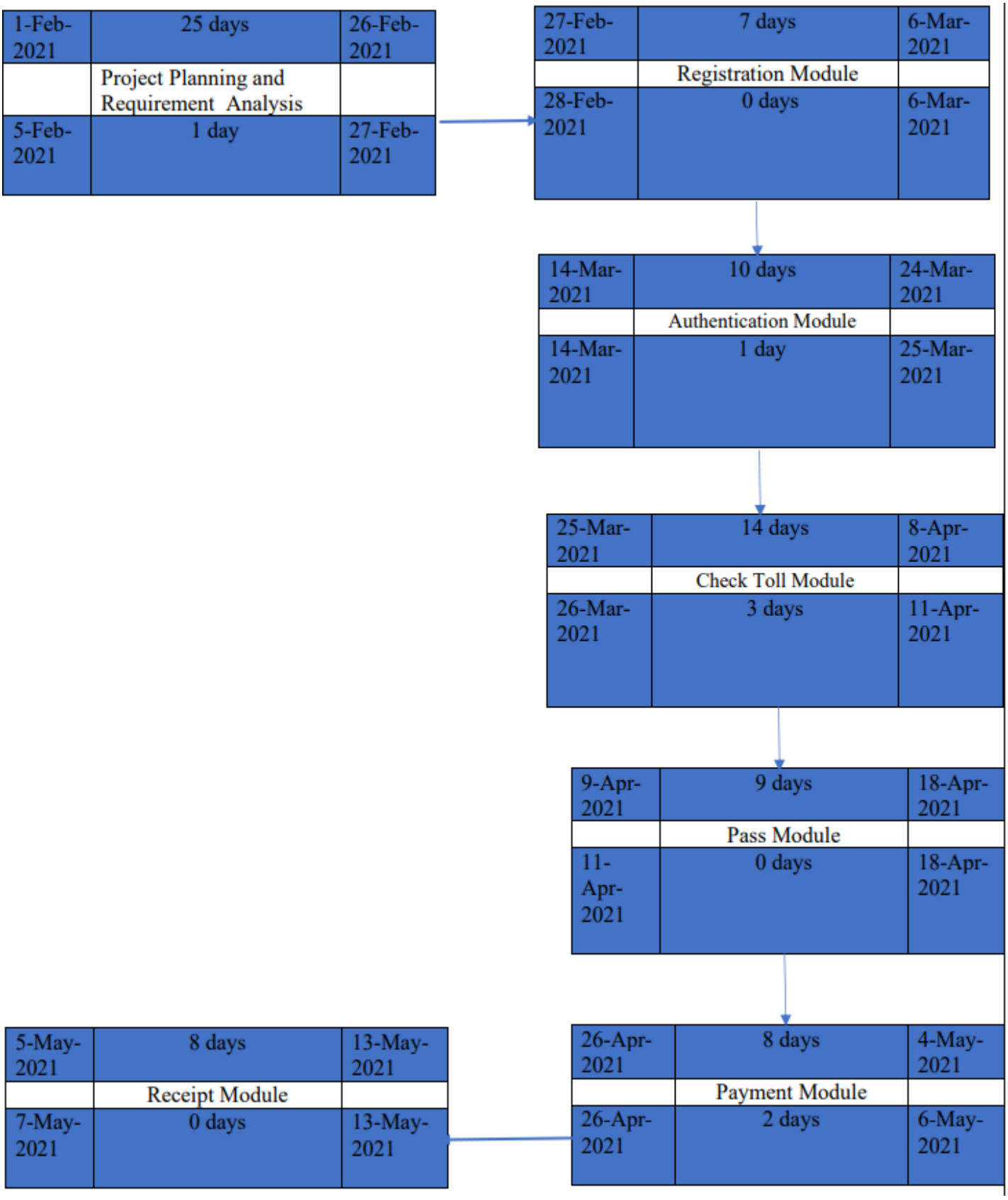
SCHEDULING DIAGRAMS

GANTT CHART

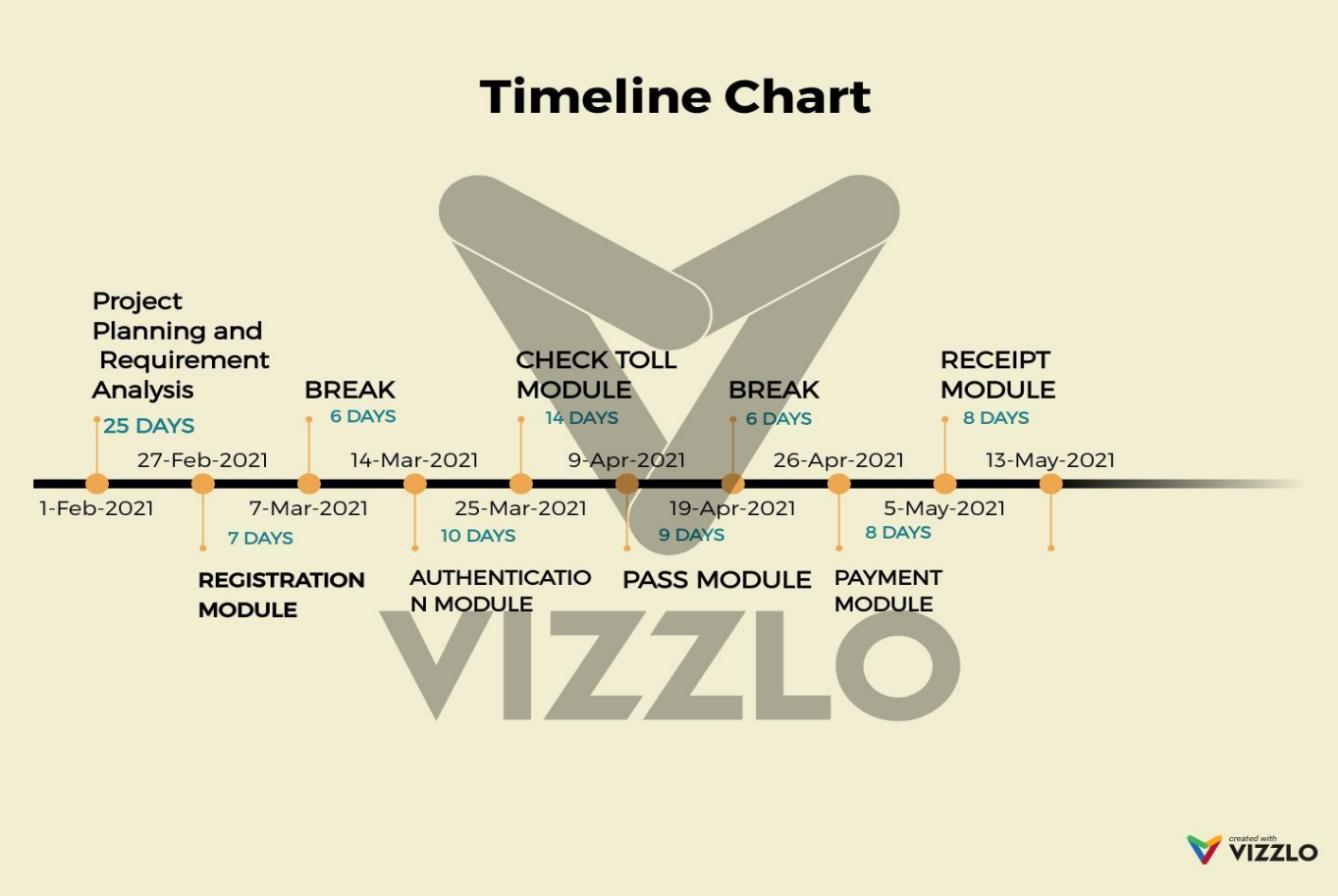
ID	Task	Start Date	End Date	Duration
1	Project Planning and Requirement Analysis	01-02-2021	26-02-2021	25
2	Registration Module	27-02-2021	06-03-2021	7
3	Authentication Module	14-03-2021	24-03-2021	10
4	Check Toll Module	25-03-2021	08-04-2021	14
5	Pass Module	09-04-2021	18-04-2021	9
6	Payment Module	26-04-2021	04-05-2021	8
7	Receipt Module	05-05-2021	13-05-2021	8
	BREAK	07-03-2021	13-03-2021	6
	BREAK	19-04-2021	25-04-2021	6



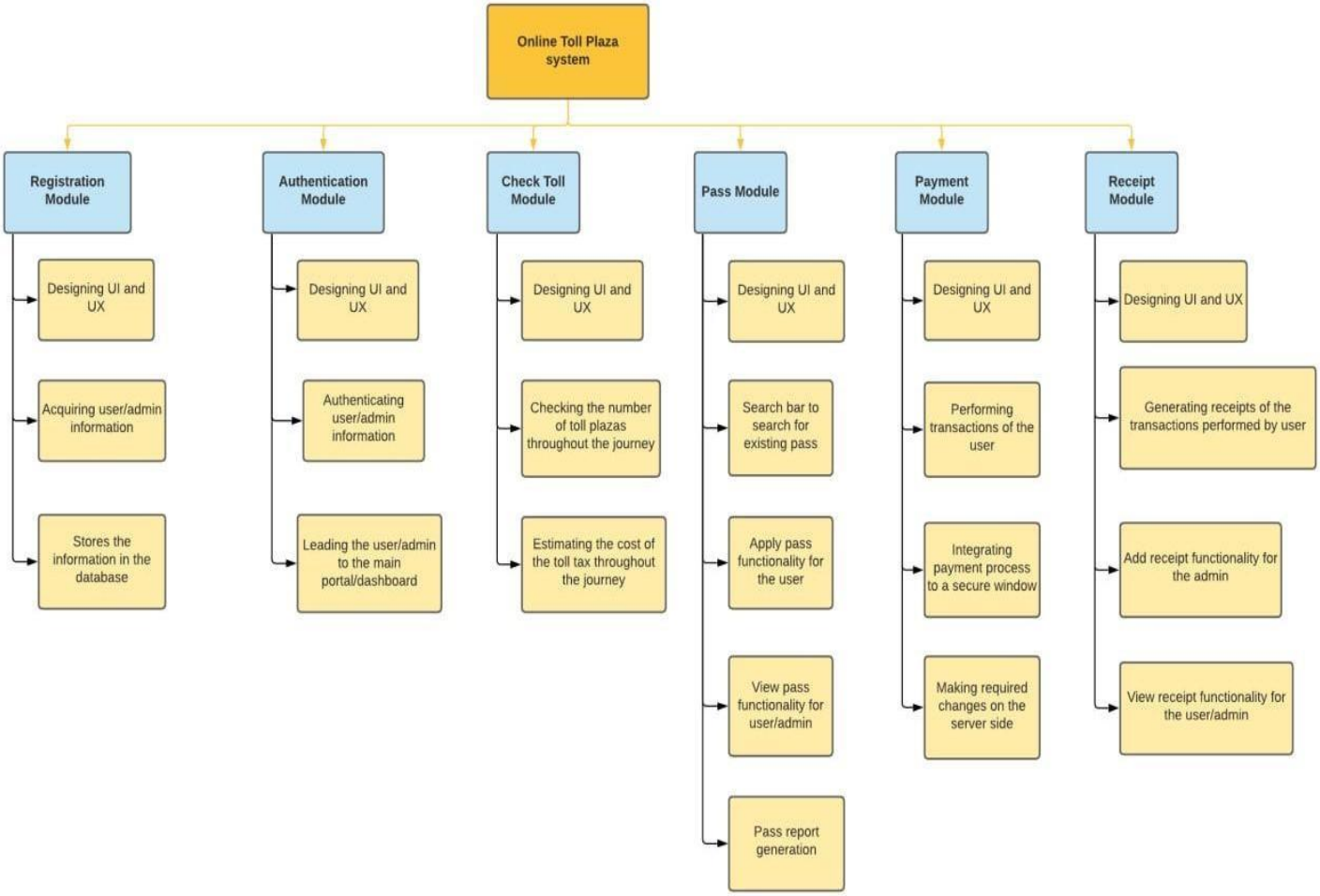
PERT CHART


1-Feb-2021
25 days
26-Feb-2021
Project Planning and Requirement Analysis
5-Feb-2021
1 day
27-Feb-2021
27-Feb-2021
7 days
6-Mar-2021
Registration Module
28-Feb-2021
0 days
6-Mar-2021
14-Mar-2021
10 days
24-Mar-2021
Authentication Module
14-Mar-2021
1 day
25-Mar-2021
25-Mar-2021
14 days
8-Apr-2021
Check Toll Module
26-Mar-2021
3 days
11-Apr-2021
9-Apr-2021
9 days
18-Apr-2021
Pass Module
11-Apr-2021
0 days
18-Apr-2021
26-Apr-2021
8 days
4-May-2021
Payment Module
26-Apr-2021
2 days
6-May-2021
5-May-2021
8 days
13-May-2021
Receipt Module
7-May-2021
0 days
13-May-2021

TIMELINE


Timeline Chart
Project Planning and Requirement Analysis
25 DAYS
1-Feb-2021
27-Feb-2021
7 DAYS
REGISTRATION MODULE
7-Mar-2021
BREAK
6 DAYS
14-Mar-2021
25-Mar-2021
10 DAYS
AUTHENTICATION MODULE
CHECK TOLL MODULE
14 DAYS
9-Apr-2021
19-Apr-2021
9 DAYS
PASS MODULE
BREAK
6 DAYS
26-Apr-2021
PAYMENT MODULE
8 DAYS
RECEIPT MODULE
8 DAYS
5-May-2021
13-May-2021
created with VIZZLO

Work Breakdown Structure(WBS)



6.PROPOSED MODEL

The Software Development Life Cycle (SDLC) Model that will be used for this project is the Spiral Model. In this model each phase has well defined starting and ending points, with clearly identifiable deliverables to the next phase. It emphasizes risk management so we find major problems earlier in the development cycle. With the spiral model, you break up the project into a set of risks that you need to deal with. The following illustration shows the spiral life cycle model.

Phases in a spiral model:

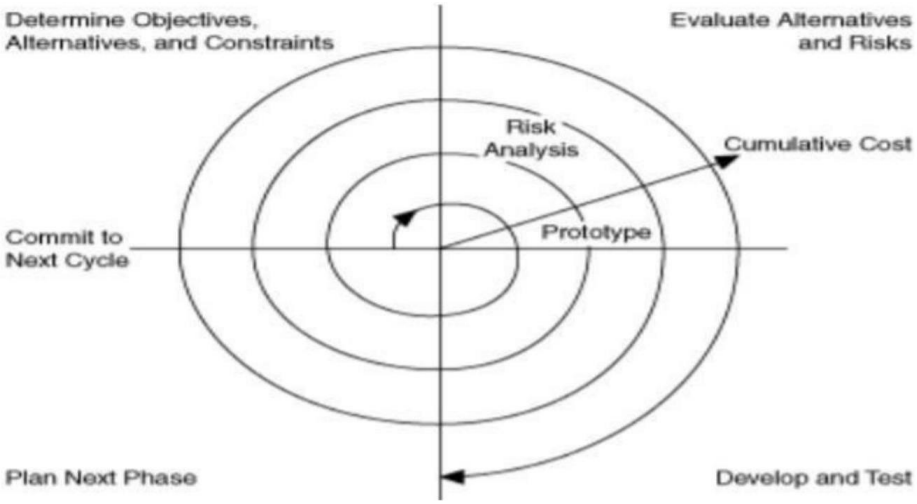
Determine objectives.

Specify Constraint.
Generate Alternatives.

Identify risks.
Resolve risks.

Develop next level product.

Plan next cycle.



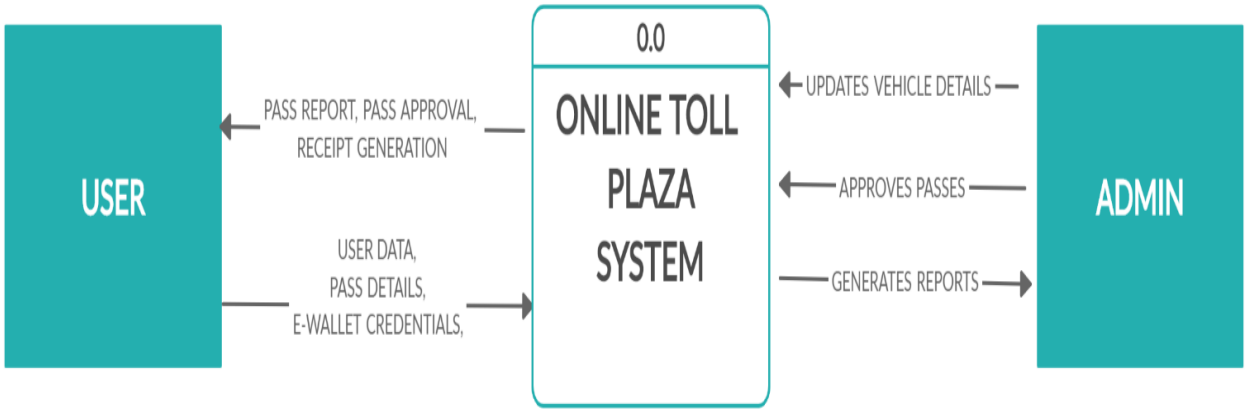
Justification: Spiral model insists refinement. For this project refinement is required as already techniques are available and in order to make this product better than the existing approaches a lot of refinement is needed. This model allows development teams to include user feedback early on and create a highly customized product. So, spiral model is best suited for our project.

UML Diagrams

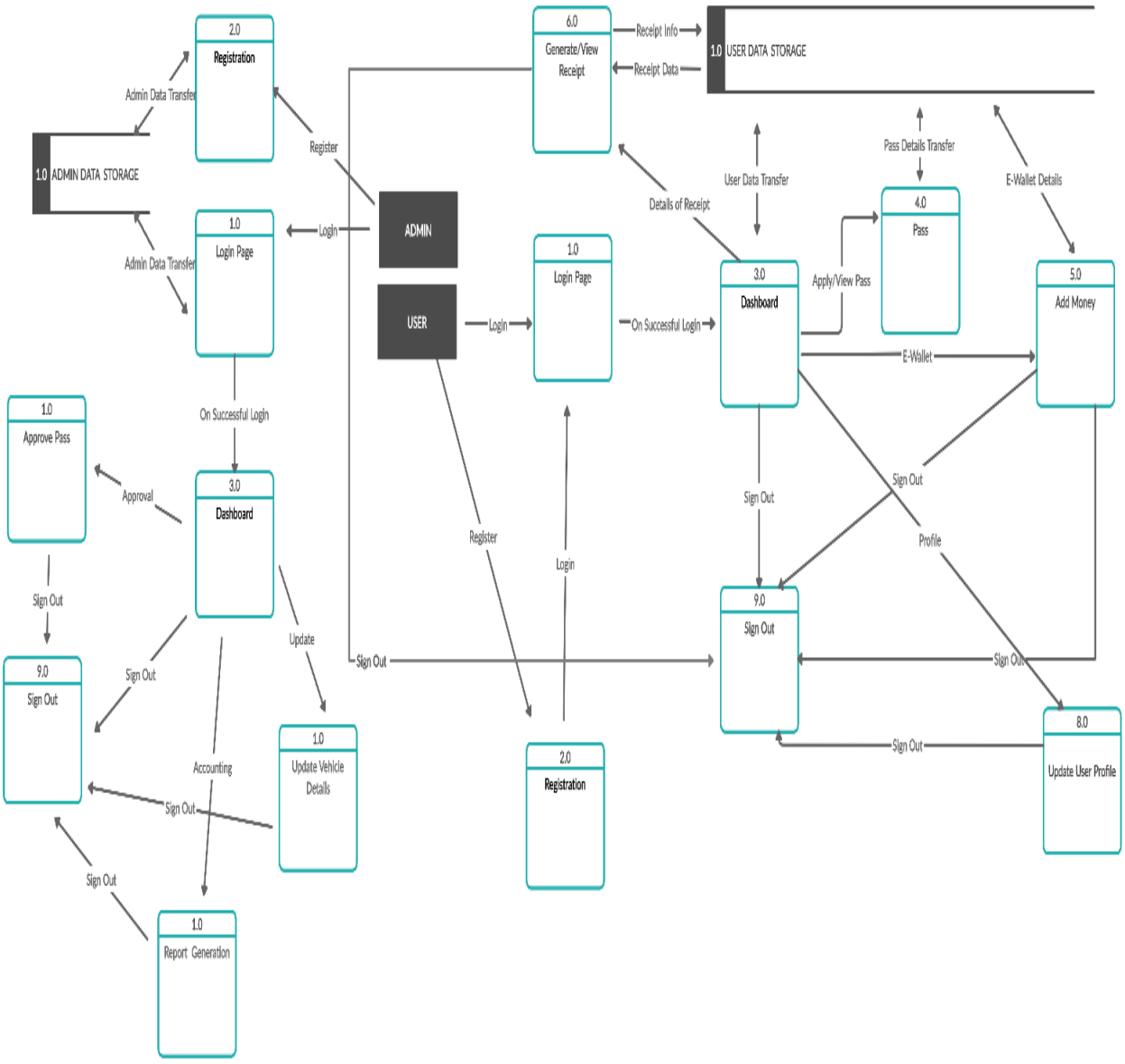
Data Flow Diagram

LEVEL 0:

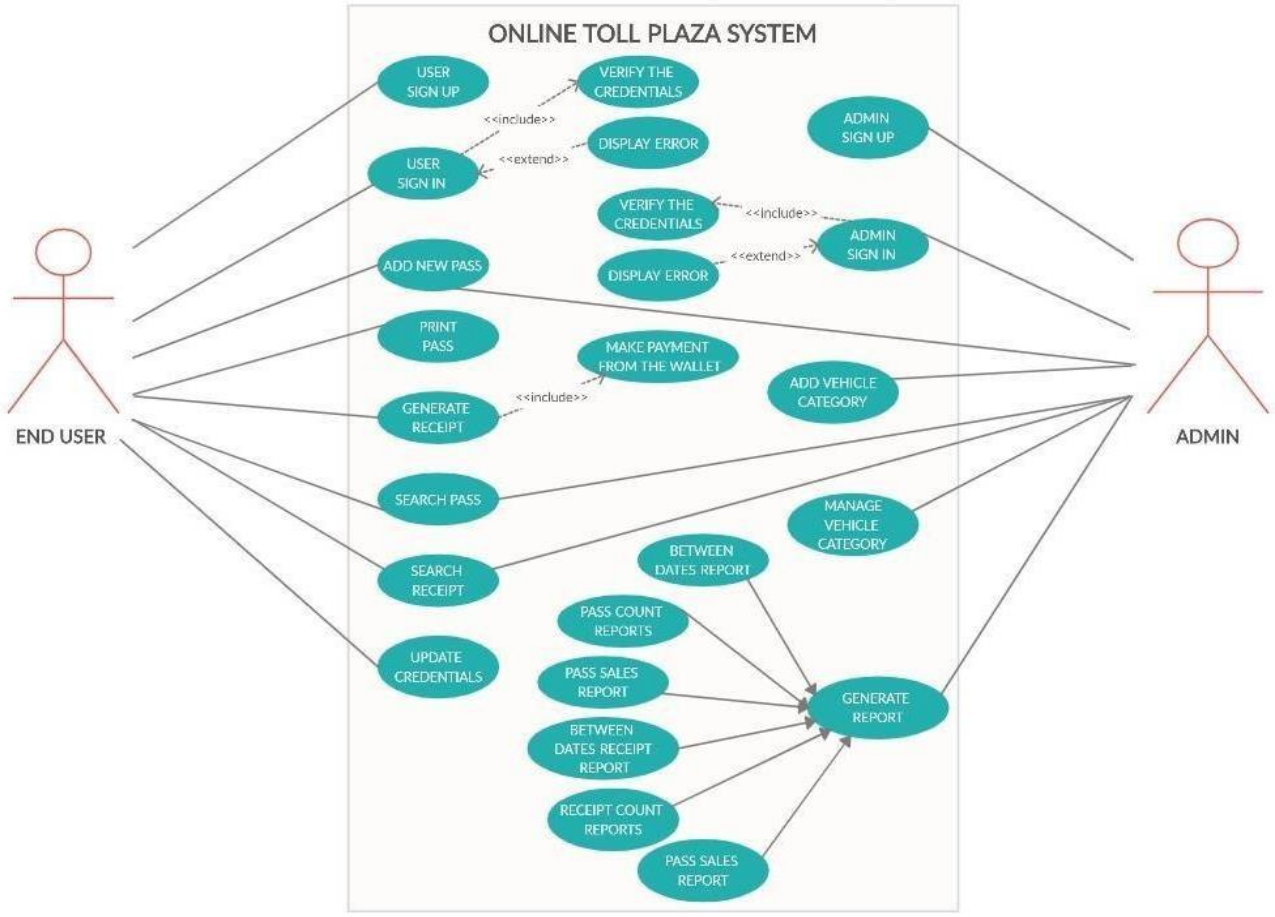
Here in Level 0 DFD, we have given a basic overview of whole Online Toll Plaza System. The process are being analyzed or modelled in this diagram. It's an at-a-glance view of user, admin, pass, receipts, reports and e-wallet.

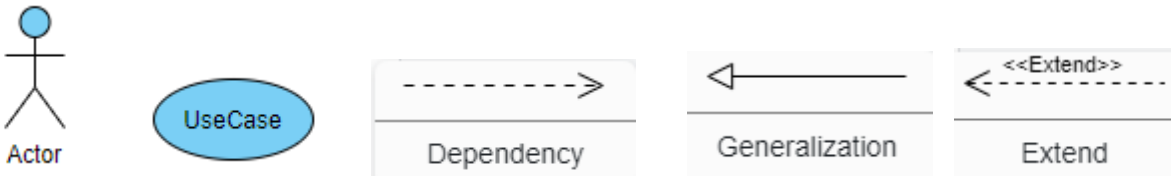


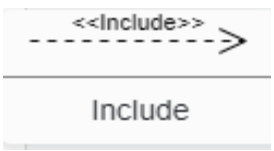
LEVEL 1:


2.0
Registration
Admin Data Transfer
1.0 ADMIN DATA STORAGE
Register
6.0
Generate/View Receipt
Receipt Info
Receipt Data
1.0 USER DATA STORAGE
Pass Details Transfer
E-Wallet Details
User Data Transfer
Details of Receipt
4.0
Pass
1.0
Login Page
Login
ADMIN
Admin Data Transfer
USER
Login
1.0
Login Page
On Successful Login
3.0
Dashboard
Apply/View Pass
5.0
Add Money
E-Wallet
1.0
Approve Pass
On Successful Login
Approval
3.0
Dashboard
Register
Login
Sign Out
Sign Out
Profile
Sign Out
9.0
Sign Out
Update
Sign Out
Sign Out
9.0
Sign Out
Sign Out
8.0
Update User Profile
Accounting
Sign Out
1.0
Update Vehicle Details
2.0
Registration
Sign Out
1.0
Report Generation

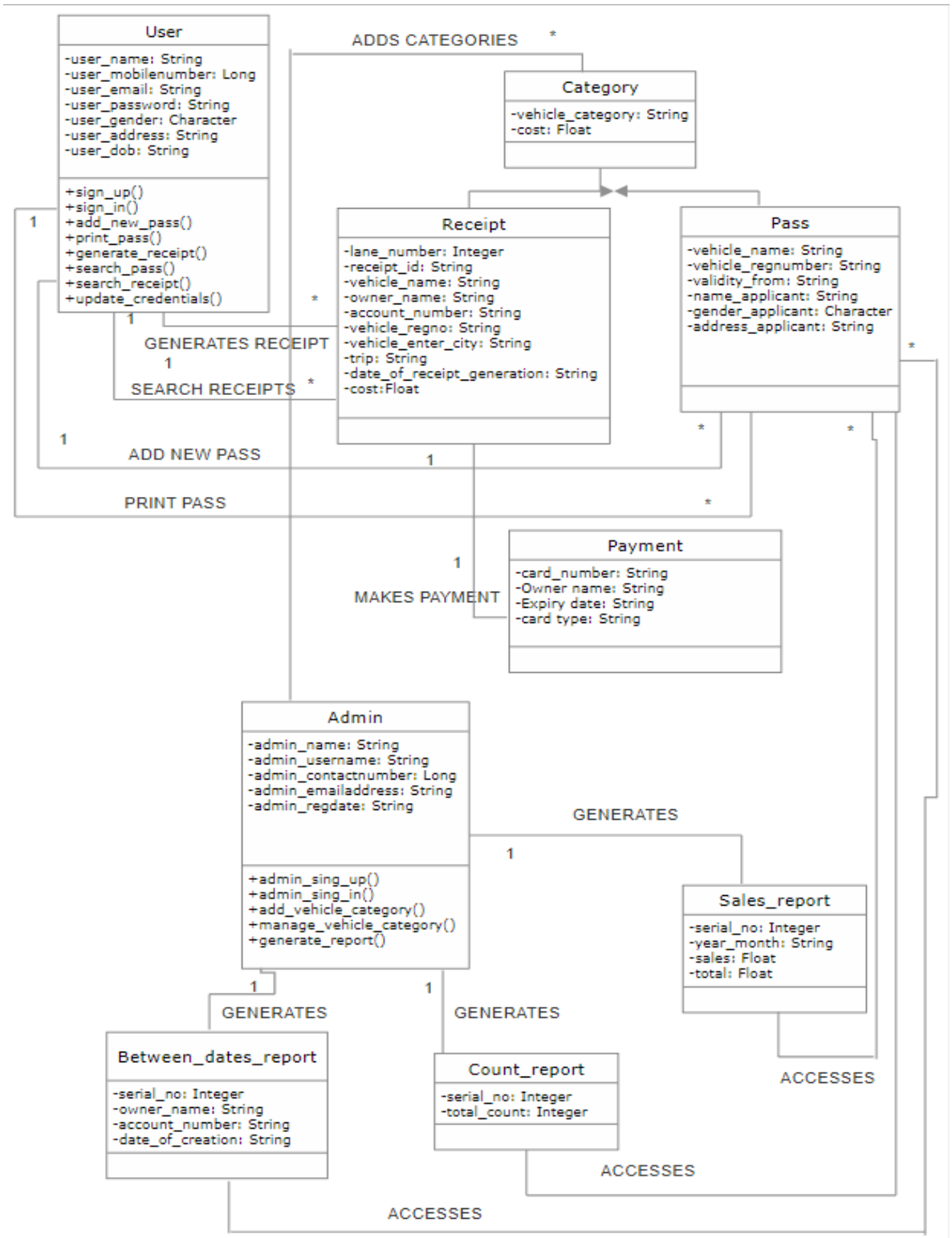
Use case Diagram



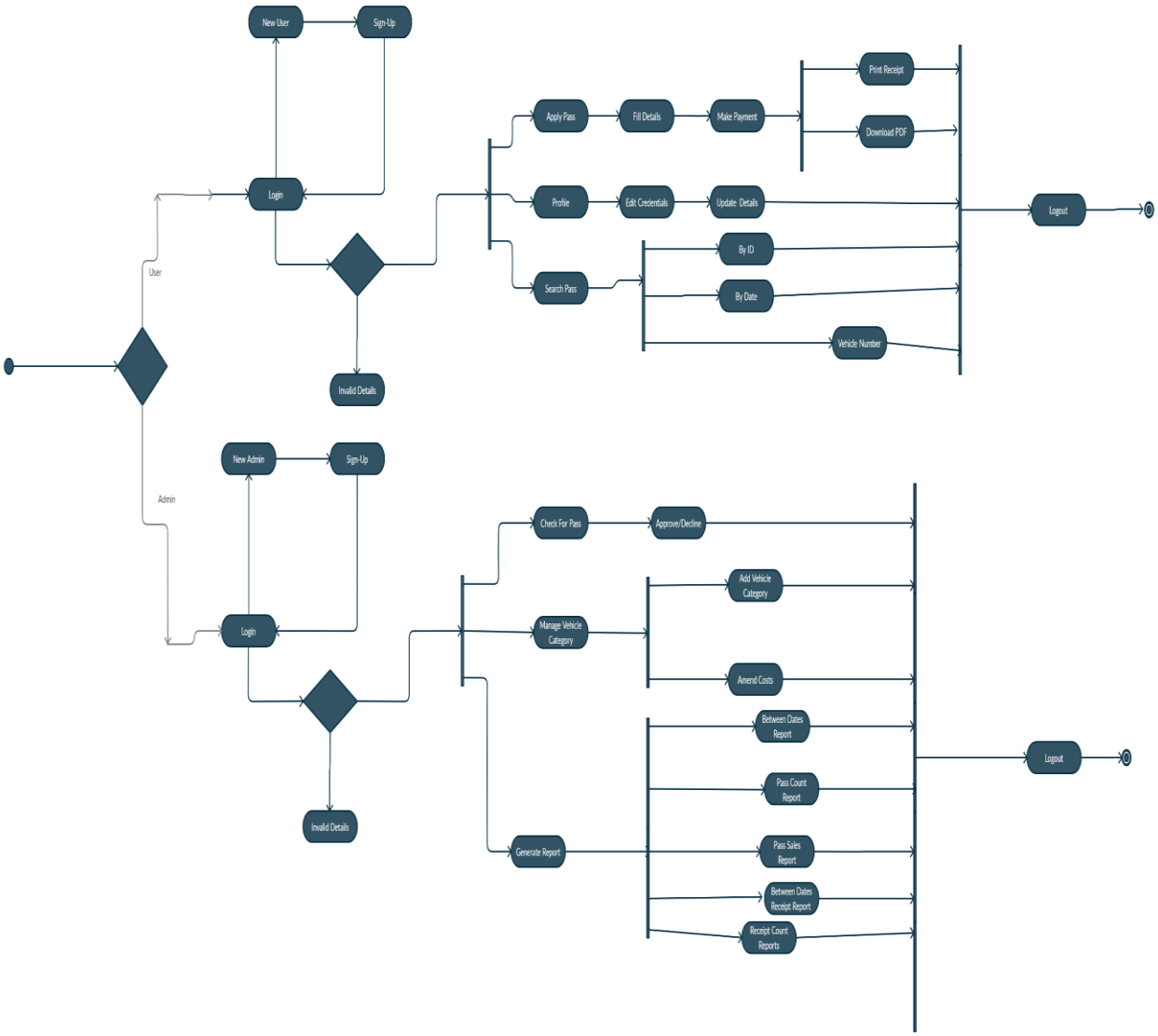




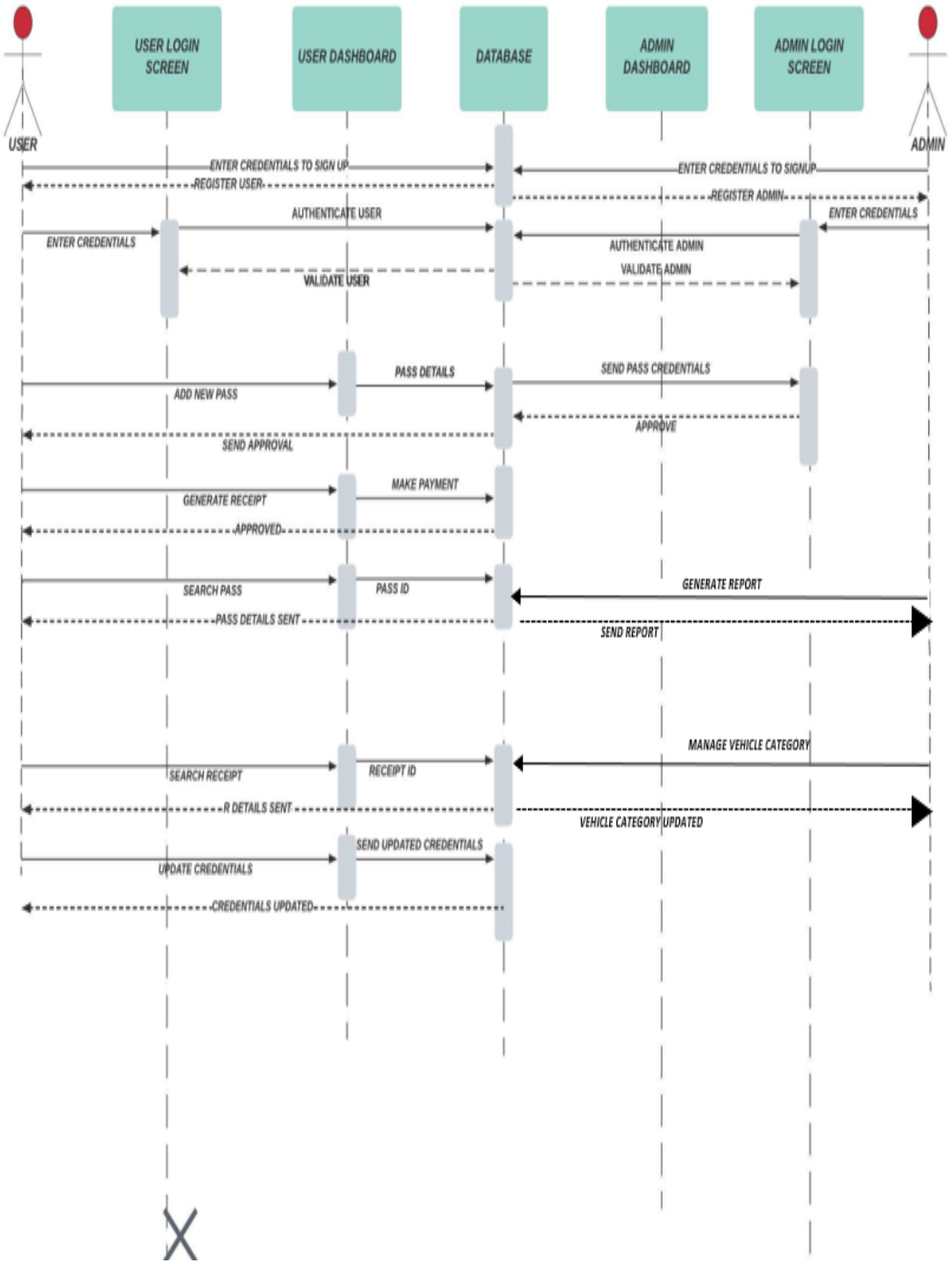
Class Diagram



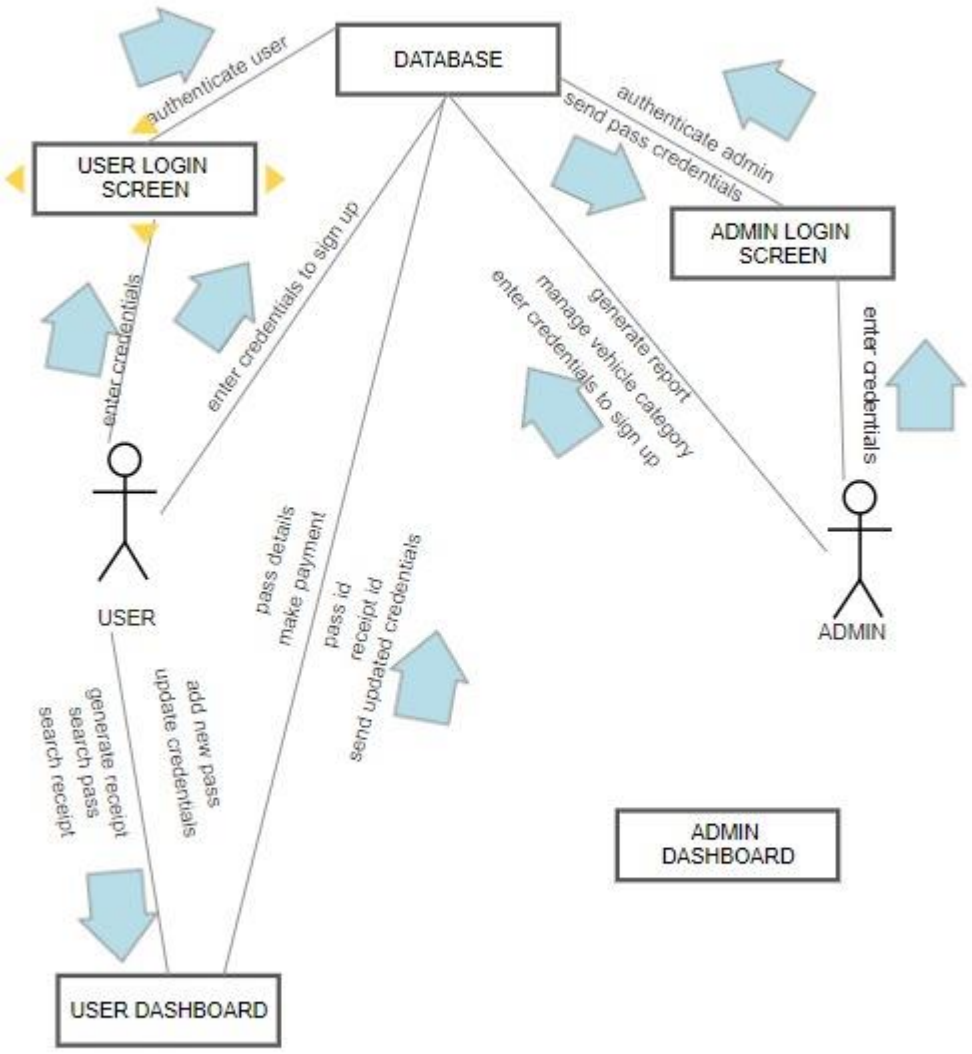
Activity Diagram



Sequence Diagram



Collaboration Diagram



7.RESULTS AND DISCUSSION

Test Case Report

Table1-Test case Scenario name- Registration[Module-1]

TEST CASE ID	ACTIVITY	INPUT	EXPECTED RESULTS	ACTUAL RESULTS	STATUS [PASS/ FAIL]	COMMENTS
Toll_ 1	**User Sign Up** Enter invalid email & any password, name,gender,address,mobile number and press signup button	(invalid input) name: DJ Mobile Number :9988774453 Email Id: abcde Password: a12345* Gender: Male Address :Delhi	Must display an error as the email id is invalid.	Error message is displayed.	FAIL	Invalid Email Id Registration Failed. Retry.
Toll_ 2	**User Sign Up** Enter valid email & any password, name,gender,address,mobile number and press signup button	(valid input) name: DJ Mobile Number :9988774453 Email Id: abcde@gmail.com Password: a12345* Gender: Male Address :Delhi	Must be registered successfully.	Registered successfully.	PASS	Valid Inputs Registration successful.

Table2-Test case Scenario name- -Login[Module-2]

TEST CASE ID	ACTIVITY	INPUT	EXPECTED RESULTS	ACTUAL RESULTS	STATUS [PASS/ FAIL]	COMMENTS
Toll_3	**Login** Enter invalid email & any password and press login button	(invalid input) Email Id: adityakrishna@gmail.com Password: aditya0000	Must display an error as the password entered does not match with the password associated with this account .	Error message is displayed.	FAIL	Invalid Password Login Failed. Retry.
Toll_4	**Login** Enter valid email & valid password and press login button	(valid input) Email Id: adityakrishna@gmail.com Password: aditya1234	Must login successfully.	Login successful.	PASS	Valid Inputs Login successful.

Table3-Test case Scenario name- Check Toll[Module-3]

TEST CASE ID	ACTIVITY	INPUT	EXPECTED RESULTS	ACTUAL RESULTS	STATUS [PASS/ FAIL]	COMMENTS
Toll_5	**Check Toll** Enter same source and destination and press check button	(invalid input) Source: Vellore Destination: Vellore	Must display an error as source and destination cannot be same.	Error message is displayed.	FAIL	source and destination cannot be same. .
Toll_6	**Check Toll** Enter different source and destination and press check button	(valid input) Source: Vellore Destination: Chennai	Must display number of tolls and estimated cost.	Displays number of tolls and estimated cost.	PASS	number of tolls and estimated cost are dispayed.

Table4-Test case Scenario name- Pass[Module-4]

TEST CASE ID	ACTIVITY	INPUT	EXPECTED RESULTS	ACTUAL RESULTS	STATUS [PASS/ FAIL]	COMMENTS
Toll_7	**Search Pass** Enter invalid applicant name and click search	(invalid input) Applicant name: Bhargav	Must display an error message as the applicant doesn't exist in the database.	Error message is displayed.	FAIL	Applicant name doesn't exit. Retry.
Toll_8	**Search Pass** Enter valid applicant name and click search	(valid input) Applicant name: Aditya Krishna	Must display the pass details	Pass details displayed successfully.	PASS	Valid applicant name. Pass details displayed.

Table5-Test case Scenario name- Receipt[[Module-5]

TEST CASE ID	ACTIVITY	INPUT	EXPECTED RESULTS	ACTUAL RESULTS	STATUS [PASS/ FAIL]	COMMENTS
Toll_9	**Search Receipt** Enter invalid receipt number and click search	(invalid input) ReceiptID: testreceipt007	Must display an error message as the receipt number doesn't exist in the database	Error message is displayed.	FAIL	Invalid receipt number. Retry.
Toll_10	**Search Receipt** Enter valid receipt number and click search	(valid input) ReceiptID: 614545707	Must display the receipt details.	Receipt details displayed successfully	PASS	Receipt found.

Table6-Test case Scenario name- Payment[Module-6]

TEST CASE ID	ACTIVITY	INPUT	EXPECTED RESULTS	ACTUAL RESULTS	STATUS [PASS/ FAIL]	COMMENTS
Toll_11	**Make payment** Enter invalid card number & any expiry date , cvv and press pay button	(invalid input) Card Number: 101111 Expiry:04/24 CVV: ***	Must display an error as the card number is invalid	Error message is displayed.	FAIL	Payment failed due to invalid card number
Toll_12	**Make payment** Enter valid card number (16 Digits) & valid expiry date , cvv and press pay button	(valid input) Card Number: 4111111111111111 Expiry:04/24 CVV: ***	Must deduct the appropriate amount from the bank account and generate the receipt.	Payment was successful.	PASS	Payment successful.

Our Online Toll Plaza provides a solution to the age old manual procedure of collecting the toll. The Toll system is available for use by both the administration and the user. Both the user and the admin can create new accounts as well as login-in into already existing account. The user applies for a pass from his/her end. Then the admin approves/declines it, based on his discretion. Now, the user can make a payment from his/her e-wallet. Our system will not only work as a platform to support cash-less transaction, but also will minimize the physical interaction between the vehicle drivers and the staff at the booth.

Sample Source Code

Index.php

```
<!DOCTYPE HTML>
<html>
<head>

<title>Toll Tax Management System-Home Page</title>
<link href="css/bootstrap.css" rel='stylesheet' type='text/css' />
<link rel="shortcut icon" href="images/fav.png" />
<!-- jQuery (necessary for Bootstrap's JavaScript plugins) -->
<script src="js/jquery.min.js"></script>
<!---- start-smoth-scrolling---->
<script type="text/javascript" src="js/move-top.js"></script>
<script type="text/javascript" src="js/easing.js"></script>
<script type="text/javascript">
jQuery(document).ready(function($) {
$(".scroll").click(function(event){
event.preventDefault();
$('html,body').animate({scrollTop:$(this.hash).offset().top},1000);
});
});
</script>
<!-- Custom Theme files -->
<link href="css/style.css" rel='stylesheet' type='text/css' />
<!-- Custom Theme files -->

<script type="application/x-
javascript"> addEventListener("load", function() { setTimeout(hideURLbar, 0); }, false); function hideURLbar(){ window.scrol
lTo(0,1); } </script>
</script>
<!----webfonts---->
<link href='http://fonts.googleapis.com/css?family=Open+Sans:400,300,600,800,700' rel='stylesheet' type='text/css'>
<!----//webfonts---->
<!----start-top-nav-script---->
<script>


$(function() {
var pull        = $('#pull');
menu        = $('nav ul');
menuHeight  = menu.height();
$(pull).on('click', function(e) {
e.preventDefault();
```

```
menu.slideToggle();
});
$(window).resize(function(){
var w = $(window).width();
if(w > 320 && menu.is(':hidden')) {
menu.removeAttr('style');
}
});
});
</script>
<!----//End-top-nav-script---->
</head>
<body>
<!-----start-container----->
<!-----header-section------>
<div class="header-section">
<!----- start-header---->

<div id="home" class="header">

<div class="container">
<div class="top-header">

<div class="logo">
<a href="index.php"><img src="images/logo3.jpg" height='63' width="164" title="logo" /></a>
</div>
<!----start-top-nav---->
<nav class="top-nav">
<ul class="top-nav">
<li class="active"><a href="index.php">Home </a></li>
<li ><a href="admin/index.php">Admin</a></li>
<li><a href="user/index.php">User</a></li>

</ul>
<a href="#" id="pull"><img src="images/nav-icon.png" title="menu" /></a>
</nav>
<div class="clearfix"> </div>
</div>
</div>
</div>
<!----- //End-header---->
<!----- start-slider---->
<!----start-slider-script---->
<script src="js/responsiveslides.min.js"></script>
<script>
// You can also use "$(window).load(function() {"
$(function () {
// Slideshow 4
$("#slider4").responsiveSlides({
```

```
auto: true,
pager: true,
nav: true,
speed: 500,
namespace: "callbacks",
before: function () {
$('.events').append("<li>before event fired.</li>");
},
after: function () {
$('.events').append("<li>after event fired.</li>");
}
});

});
</script>
<!----//End-slider-script---->
<!-- Slideshow 4 -->
<div  id="top" class="callbacks_container">
<ul class="rslides" id="slider4">
<li>
<img src="images/slide5'.jpg" alt="">
<div class="caption text-center">
<div class="slide-text-info">
<h1><span>ONLINE TOLL PLAZA SYSTEM</span>

</h1>

<div class="slide-text">


</div>
<div class="clearfix"> </div>

</div>
</div>
</li>


</ul>
</div>
<div class="clearfix"> </div>
<!-----divice----->

<!---//divice----->
<!----- //End-slider---->
</div>
```

```
</body>
</html>
```

Apply-pass.php

```
<?php
session_start();


error_reporting(0);
include('includes/dbconnection.php');




if (strlen($_SESSION['ttmssid']==0)) {
  header('location:logout.php');
  } else{
    if(isset($_POST['submit']))
  {
    echo $passtype;
    $passid = mt_rand(100000000, 999999999);
    $catname=$_POST['catname'];
    $vehname=$_POST['vehname'];
    $regname=$_POST['regname'];
    $vfrom=$_POST['vfrom'];
    $passtype=$_POST['passtype'];
    $appname=$_POST['appname'];
    $appgender=$_POST['appgender'];
     $appage=$_POST['appage'];
     $EnterVehiclecity=$_POST['EnterVehiclecity'];
    $appadd=$_POST['appadd'];
    $reason=$_POST['costpass'];

    $sid=$_SESSION['ttmssid'];
    if ($passtype=="Monthly"){
      $date = new DateTime($vfrom);
$date->add(new DateInterval('P30D')); // P1D means a period of 1 day
$vto = $date->format('Y-m-d');
    }
    else
    {
      $date = new DateTime($vfrom);
$date->add(new DateInterval('P1D')); // P1D means a period of 1 day
$vto = $date->format('Y-m-d');
```

```
    }

    if ($passtype=="Single Journey")
    {
     $ret=mysqli_query($con,"select * from category where VehicleCat='$catname'");
     while ($row=mysqli_fetch_array($ret)) {

      $cost=$row['cost'];




  }

}
else if ($passtype=='Return Journey')
{
 $ret=mysqli_query($con,"select * from category where VehicleCat='$catname'");
 while ($row=mysqli_fetch_array($ret)) {

  $cost=$row['returncost'];




}

}
else
{
$ret=mysqli_query($con,"select * from category where VehicleCat='$catname'");
while ($row=mysqli_fetch_array($ret)) {

$cost=$row['monthlycost'];




}

}
       $query=mysqli_query($con, "insert into  pass(ID,UserId,VehicleCat,VehicleName,RegNumber,passtype,Validityfrom,Validityto,AppName,AppAge,AppAdd,PassCost,EnterVehiclecity) value('$passid','$sid','$catname','$vehname','$regname','$passtype','$vfrom','$vto','$appname','$appage','$appadd','$cost','$EnterVehiclecity')");
    if ($query) {

     echo '<script>alert("Applied for Pass successfully.")</script>';

echo "<script>window.location.href ='apply-pass.php'</script>";
```

```
 }
 else
   {
    echo '<script>alert("Something Went Wrong. Please try again")</script>';
   }

}
 ?>
<!DOCTYPE HTML>
<html>
<head>
<title>Toll Tax Management System || Apply Pass</title>

<script type="application/x-
javascript"> addEventListener("load", function() { setTimeout(hideURLbar, 0); }, false); function hideURLbar(){ window.scrol
lTo(0,1); } </script>
 <!-- Bootstrap Core CSS -->
<link href="css/bootstrap.min.css" rel='stylesheet' type='text/css' />
<!-- Custom CSS -->
<link href="css/style.css" rel='stylesheet' type='text/css' />
<link href="css/font-awesome.css" rel="stylesheet">
<!-- jQuery -->
<script src="js/jquery.min.js"></script>
<!----webfonts--->
<link href='http://fonts.googleapis.com/css?family=Roboto:400,100,300,500,700,900' rel='stylesheet' type='text/css'>
<!---//webfonts--->
<!-- Bootstrap Core JavaScript -->
<script src="js/bootstrap.min.js"></script>

</head>
<body>
<div id="wrapper">
    <!-- Navigation -->
       <?php include_once('includes/sidebar.php');?>
       <?php include_once('includes/header.php');?>
       <div id="page-wrapper">
       <div class="col-md-12 graphs">
    <div class="xs">
       <h3>Apply Pass</h3>
       <div class="well1 white">
       <form class="form-floating ng-pristine ng-invalid ng-invalid-required ng-valid-email ng-valid-url ng-valid-
pattern" method="post">
         <p style="font-size:16px; color:red" align="center"> <?php if($msg){
   echo $msg;

  }  ?> </p>
         <fieldset>

           <div class="form-group">
```

```
          <label class="control-label">Name of Applicant</label>
          <?php
          $ssid=$_SESSION['ttmssid'];
           $ret=mysqli_query($con,"select * from user where ID='$ssid'");
           while ($row=mysqli_fetch_array($ret)) {
            $name=$row['username'];
            $address=$row['address'];




         }


           ?>

          <input type="text" class="form-control1 ng-invalid ng-invalid-required ng-
touched"  required="true" id="appname" name="appname" value='<?php echo $name;?>'>


        </div>
        <div class="form-group">
          <label class="control-label">Age of Applicant</label>
          <input type="text" class="form-control1 ng-invalid ng-invalid-required ng-
touched"  required="true" id="appage" name="appage" value="">
        </div>

        <div class="form-group">
        <label for="passtype">Choose passtype:</label>

        <select type="text" class="form-control1 ng-invalid ng-invalid-required ng-
touched"  required="true" id="passtype" name="passtype" value="">
       <option value="Single Journey">Single Journey</option>
       <option value="Return Journey">Return Journey</option>
       <option value="Monthly">Monthly</option>


</select>
        </div>

        <div class="form-group">
          <label class="control-label">Vehicle Category</label>
          <select type="text" class="form-control1 ng-invalid ng-invalid-required ng-
touched"  required="true" id="catname" name="catname" value="">
            <option value="">Choose Category</option>
                    <?php $query=mysqli_query($con,"select * from category");
          while($row=mysqli_fetch_array($query))
          {
          ?>
```

```
          <option value="<?php echo $row['VehicleCat'];?>"><?php echo $row['VehicleCat'];?></option>
            <?php } ?>
          </select>
        </div>
        <div class="form-group">
          <label class="control-label">Vehicle Name</label>
          <input type="text" class="form-control1 ng-invalid ng-invalid-required ng-
touched"  required="true" id="vehname" name="vehname" value="">
        </div>
        <div class="form-group">
          <label class="control-label">Vehicle Reg Number</label>
          <input type="text" class="form-control1 ng-invalid ng-invalid-required ng-
touched"  required="true" id="regname" name="regname" value="">
        </div>
        <div class="form-group">
          <label class="control-label">Validity From</label>
          <input type="date" class="form-control1 ng-invalid ng-invalid-required ng-
touched"  required="true" id="vfrom" name="vfrom" value="">
        </div>




        <div class="form-group">
          <label class="control-label">Address of Applicant</label>
          <?php
          $ssid=$_SESSION['ttmssid'];
           $ret=mysqli_query($con,"select * from user where ID='$ssid'");
           while ($row=mysqli_fetch_array($ret)) {

            $address=$row['address'];




        }


          ?>

          <input type="text" class="form-control1 ng-invalid ng-invalid-required ng-
touched"  required="true" id="appadd" name="appadd" value='<?php echo $address;?>'>
        </div>
        <div class="form-group">
          <label class="control-label">Enter City</label>
          <select type="text" class="form-control1 ng-invalid ng-invalid-required ng-
touched"  required="true" id="EnterVehiclecity" name="EnterVehiclecity" value="">
            <option value="">Choose city</option>
```

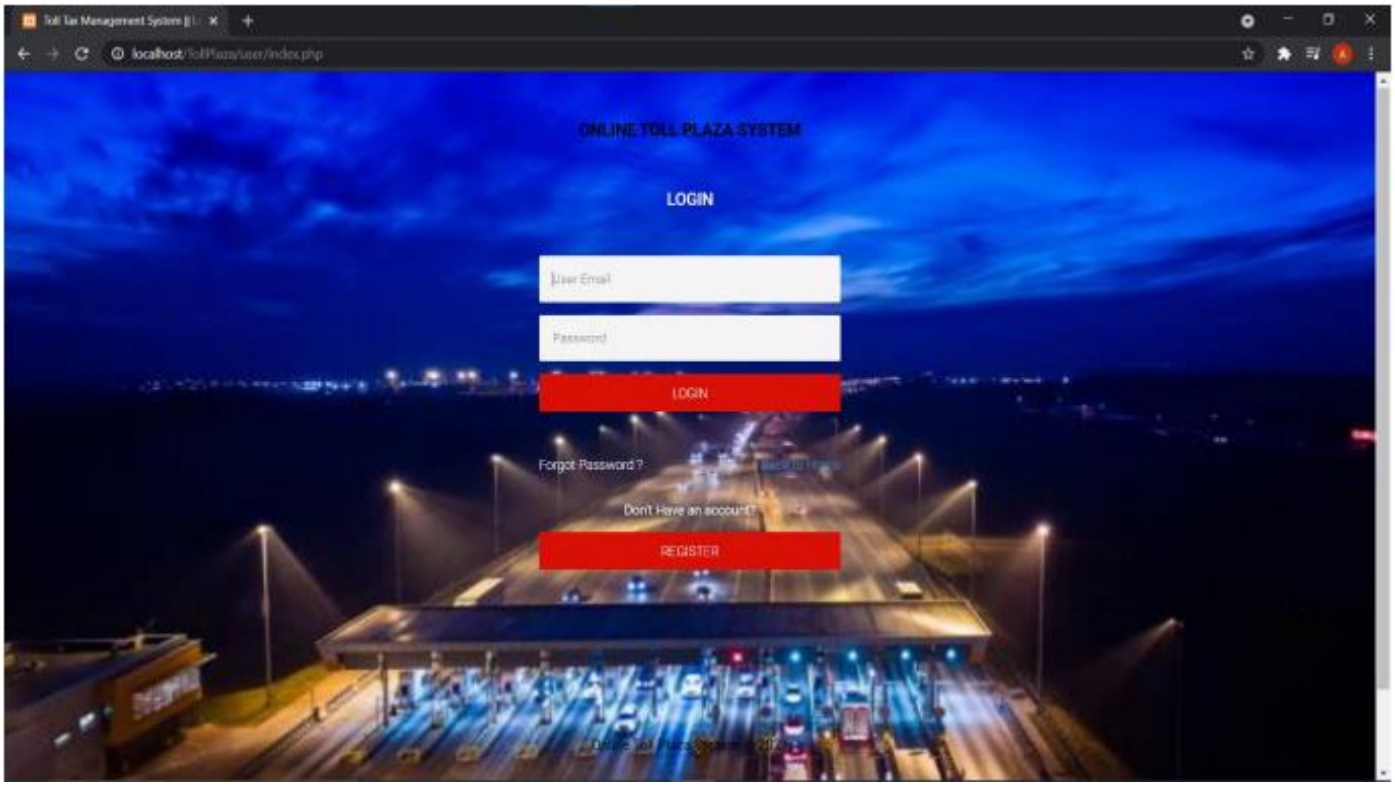
```
                        <?php $query=mysqli_query($con,"select distinct source from toll");
            while($row=mysqli_fetch_array($query))
            {
            ?>
            <option value="<?php echo $row['source'];?>"><?php echo $row['source'];?></option>
               <?php } ?>
              </select>
           </div>

           <div class="form-group">
            <p style="text-align: center;"> <button type="submit" name="submit" class="btn btn-
primary">Apply Pass</button></p>

           </div>



         </fieldset>
       </form>
     </div>
   </div>
   <?php include_once('includes/footer.php');?>
  </div>
    </div>
    <!-- /#page-wrapper -->
  </div>
   <!-- /#wrapper -->
<!-- Nav CSS -->
<link href="css/custom.css" rel="stylesheet">
<!-- Metis Menu Plugin JavaScript -->
<script src="js/metisMenu.min.js"></script>
<script src="js/custom.js"></script>
</body>
</html>
<?php } ?>
```

This is only sample code . Entire code is uploaded in Google drive

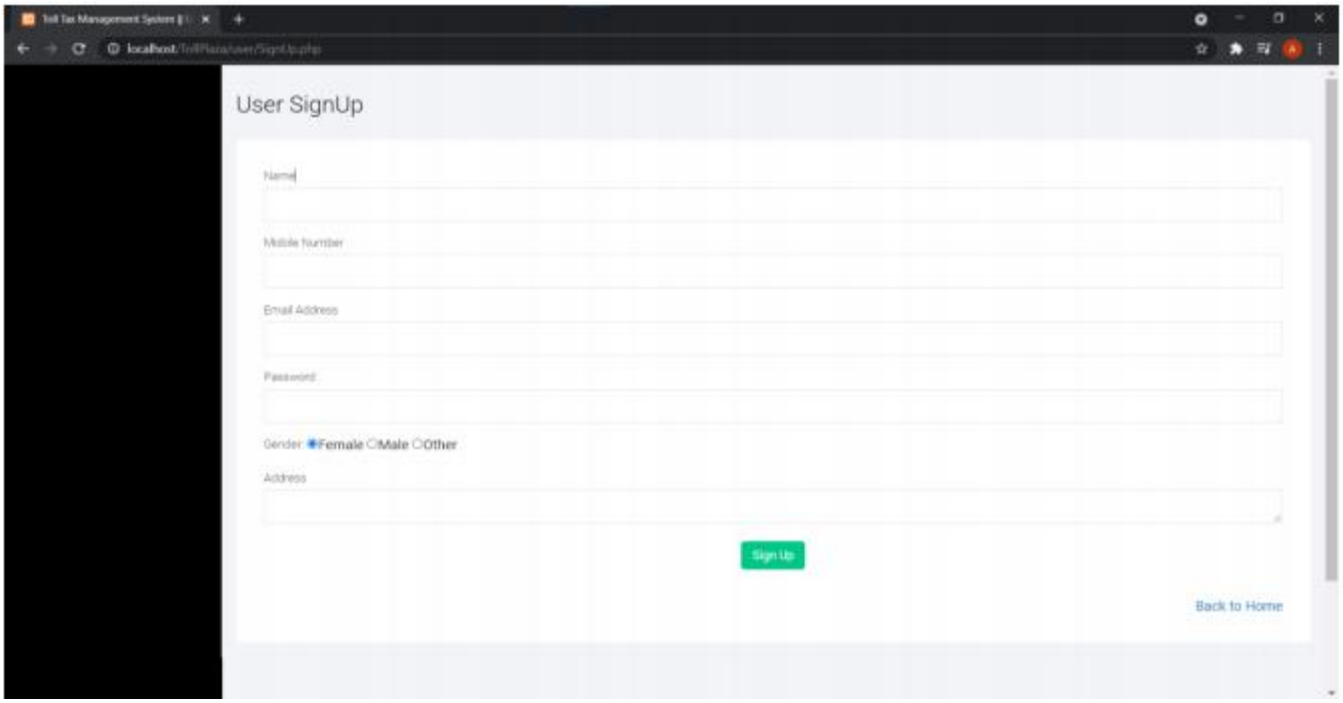
Screenshots

1.Home Page

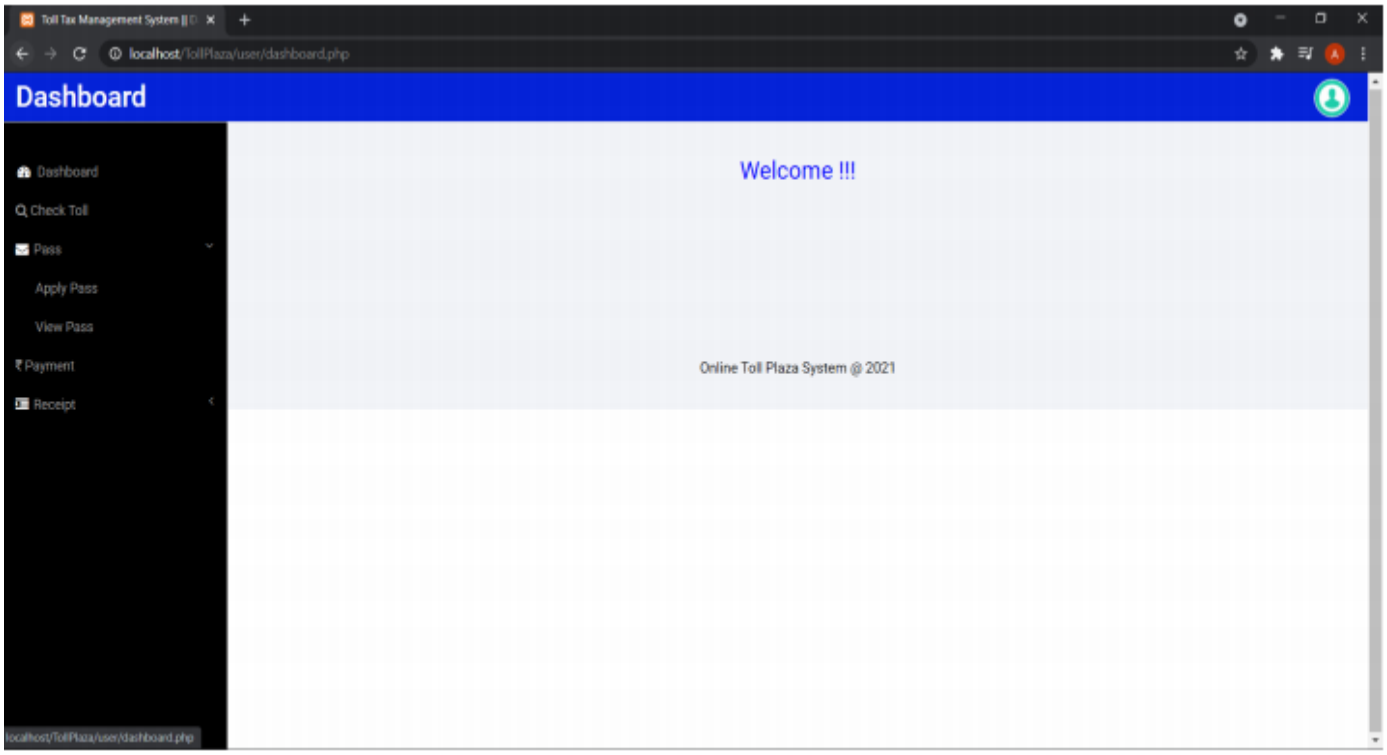
2.User login



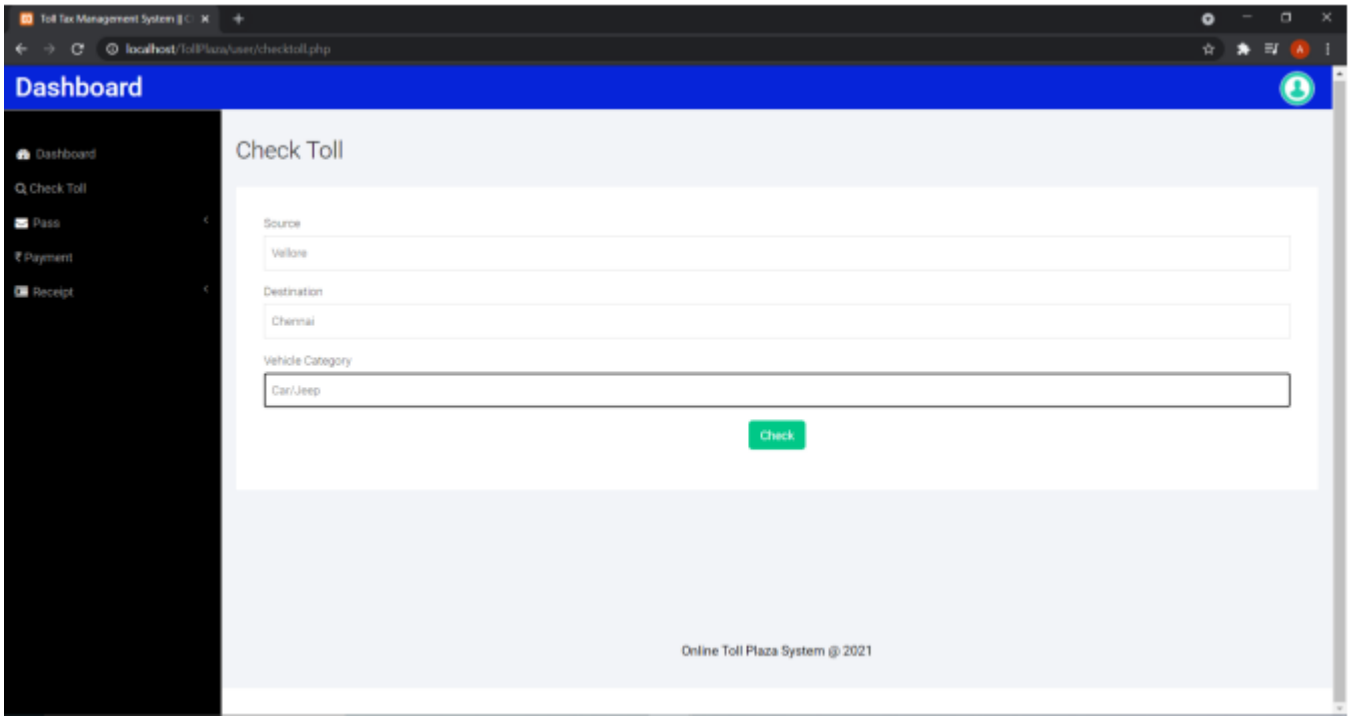
3.User Sign up



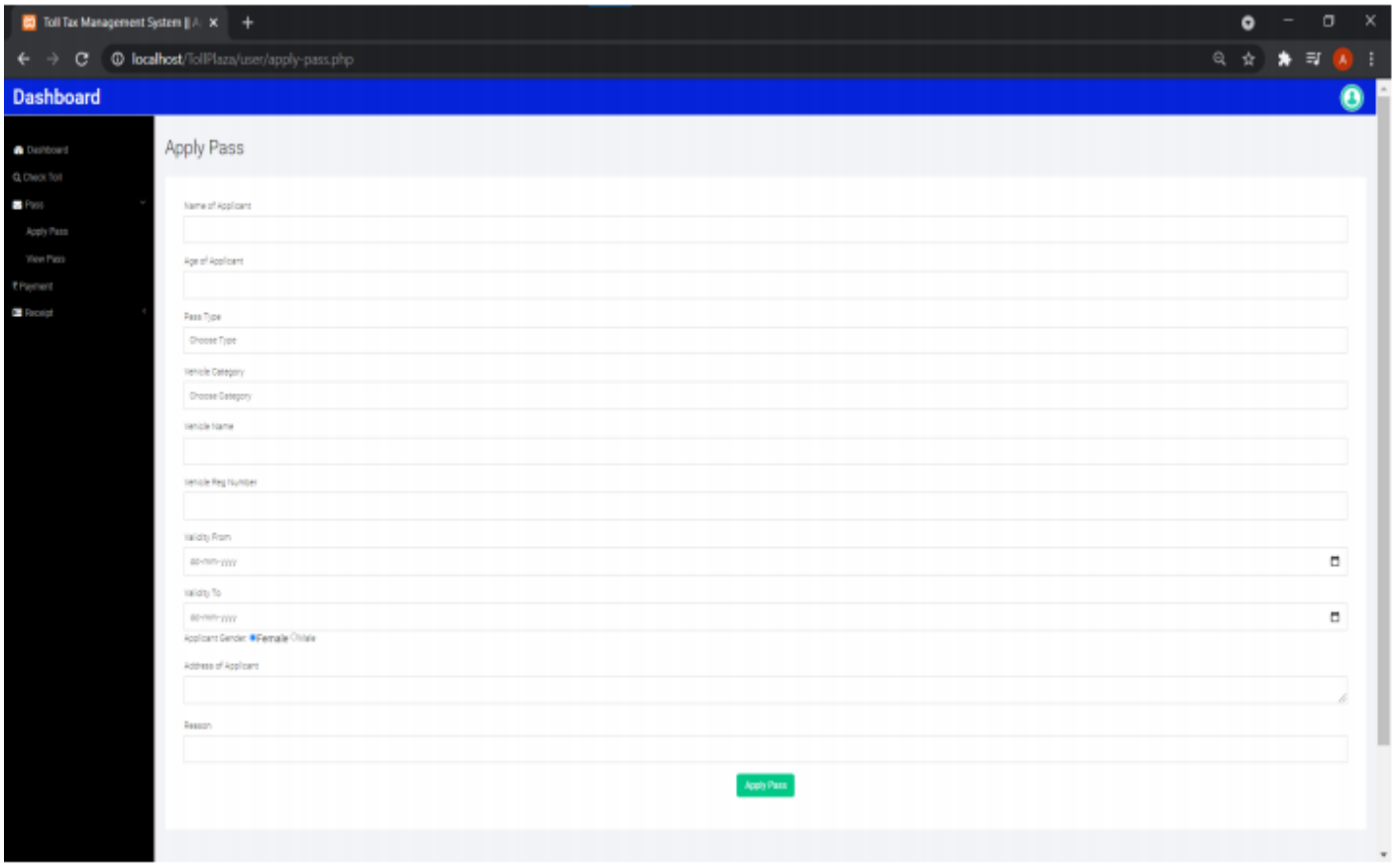
4.User DashBoard



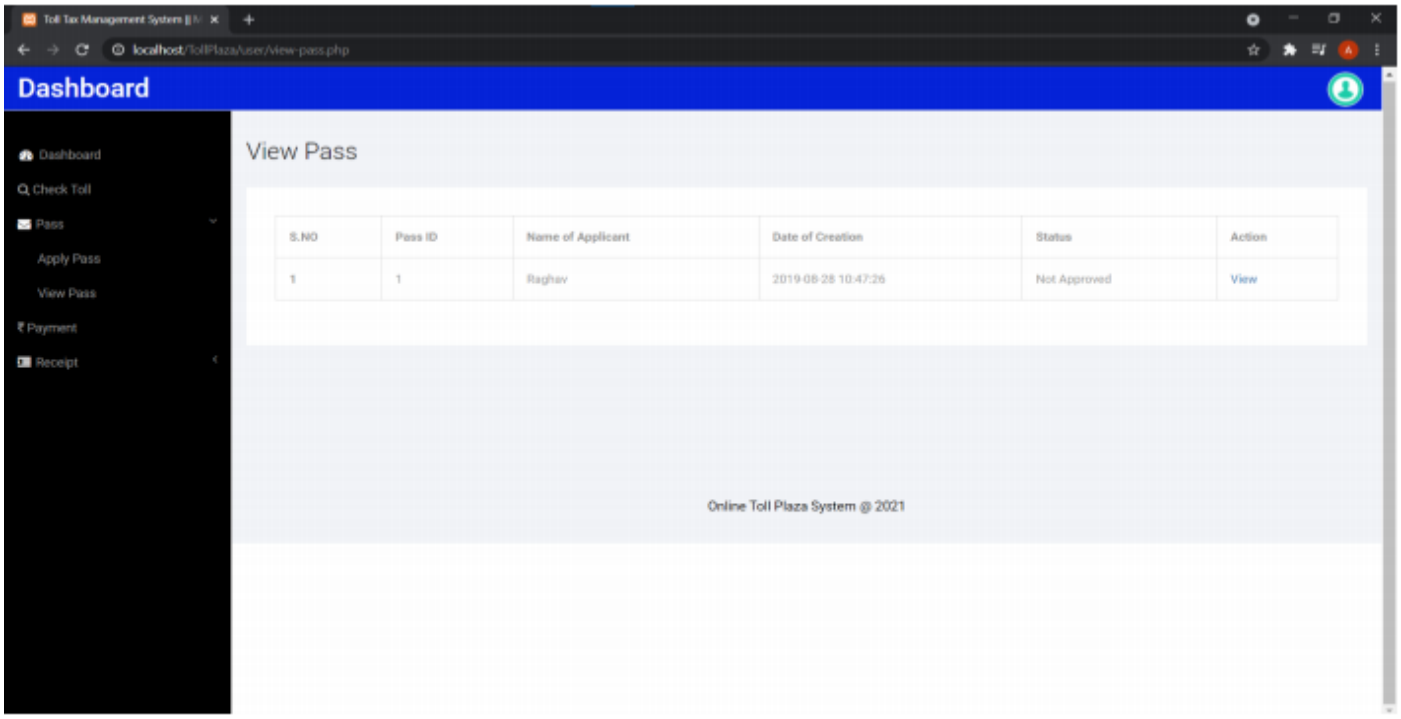
5.Check Toll



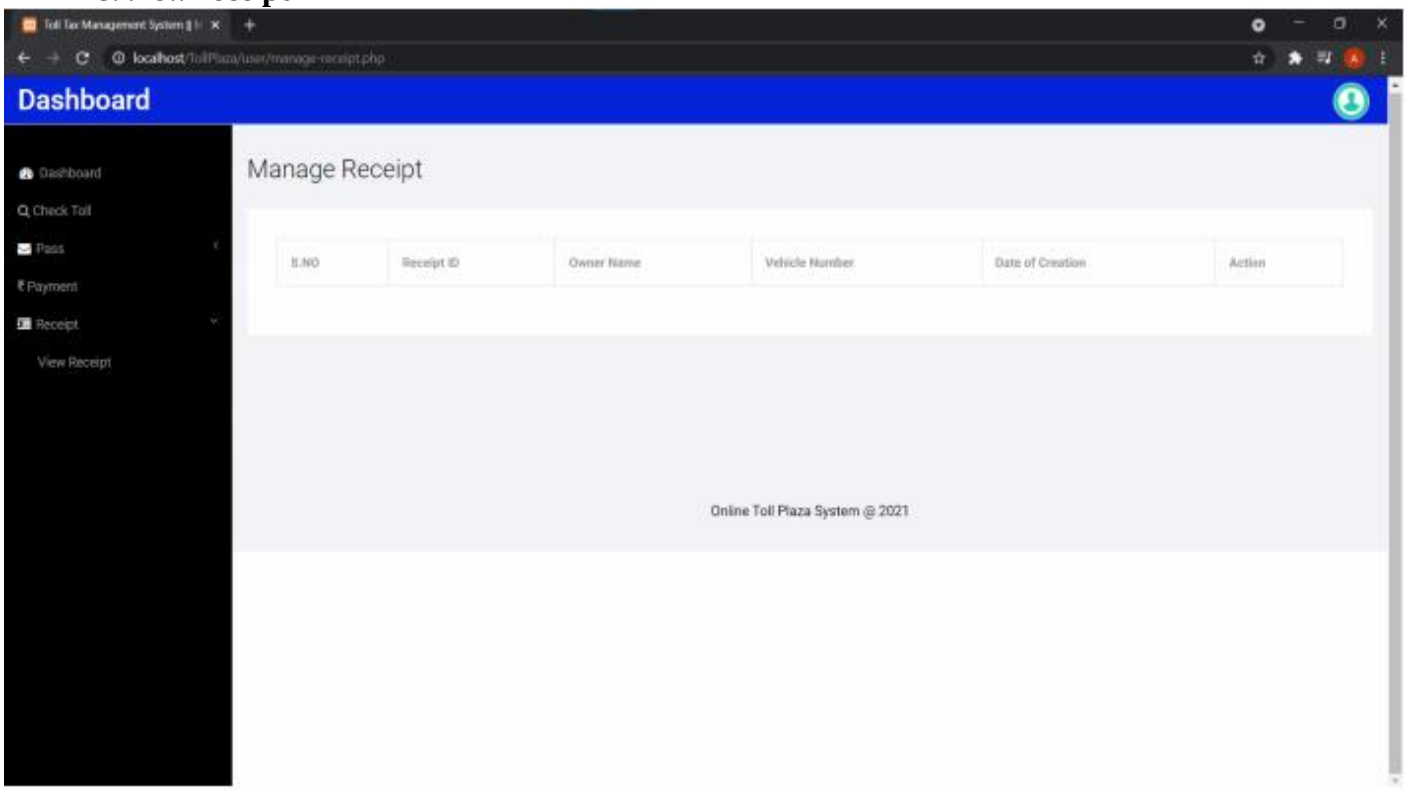
6.Apply Pass



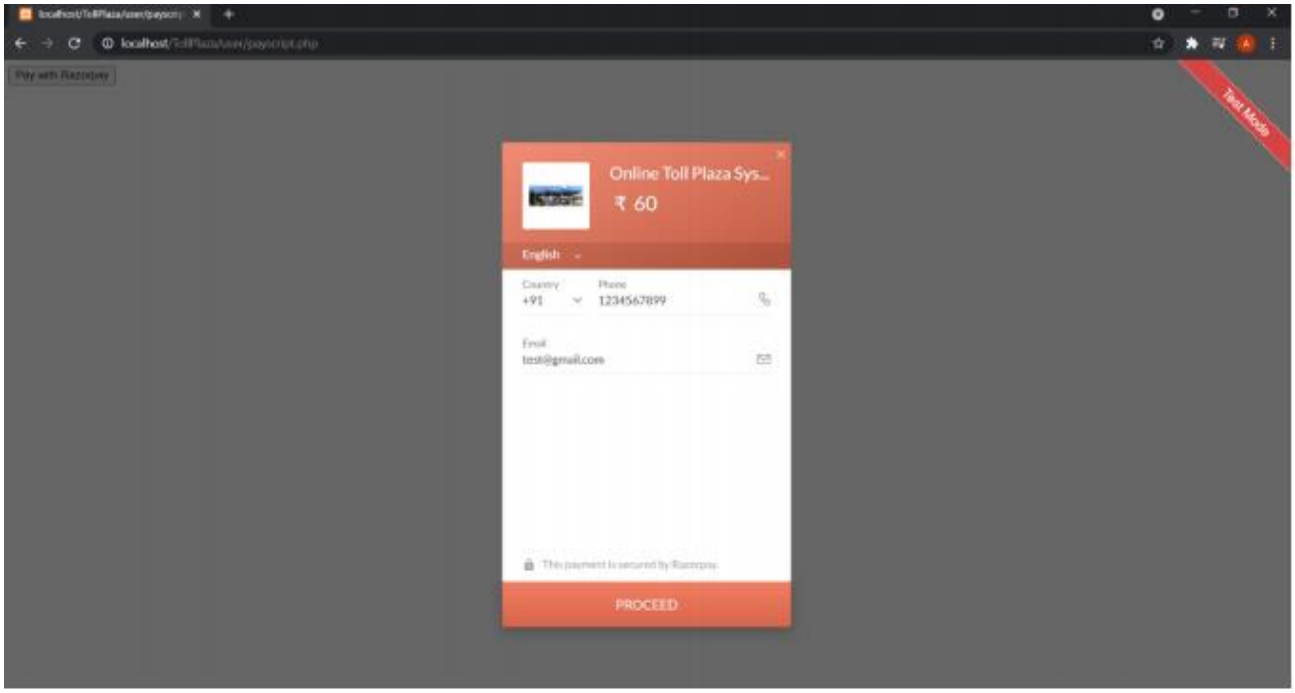
7.View Pass

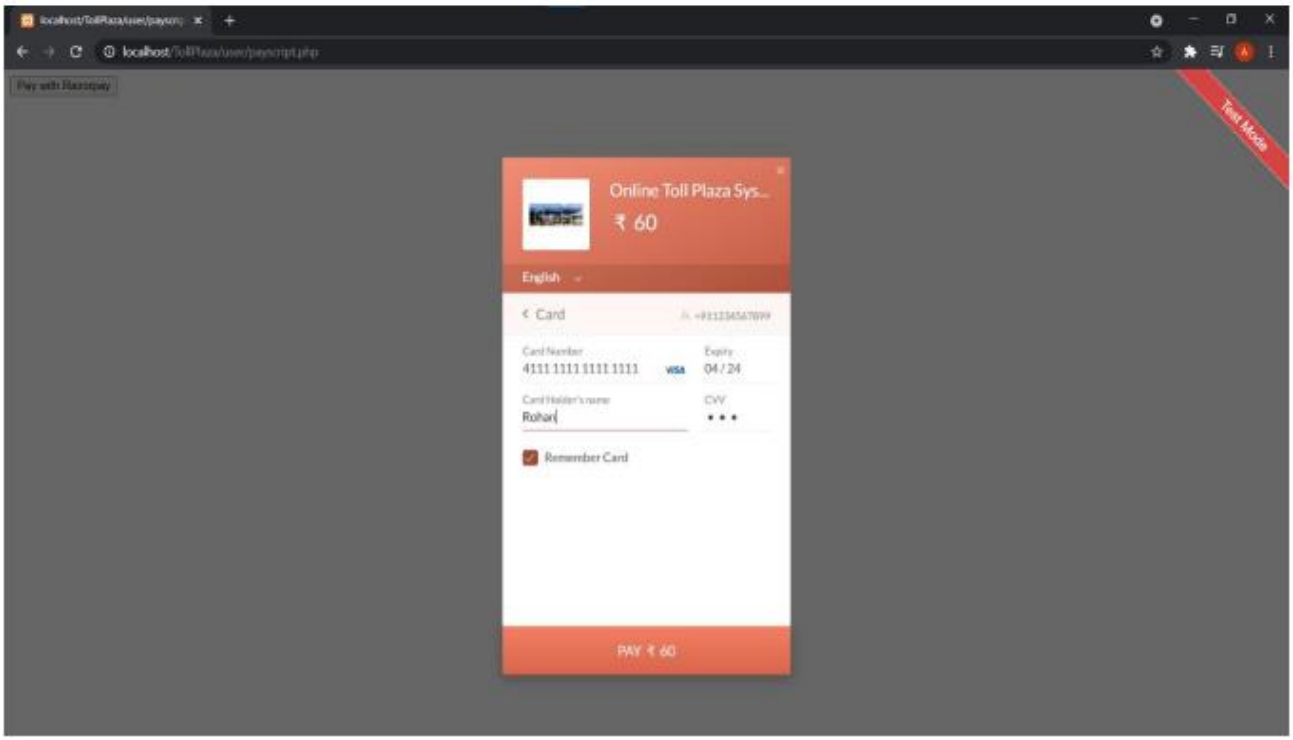


8.View receipt

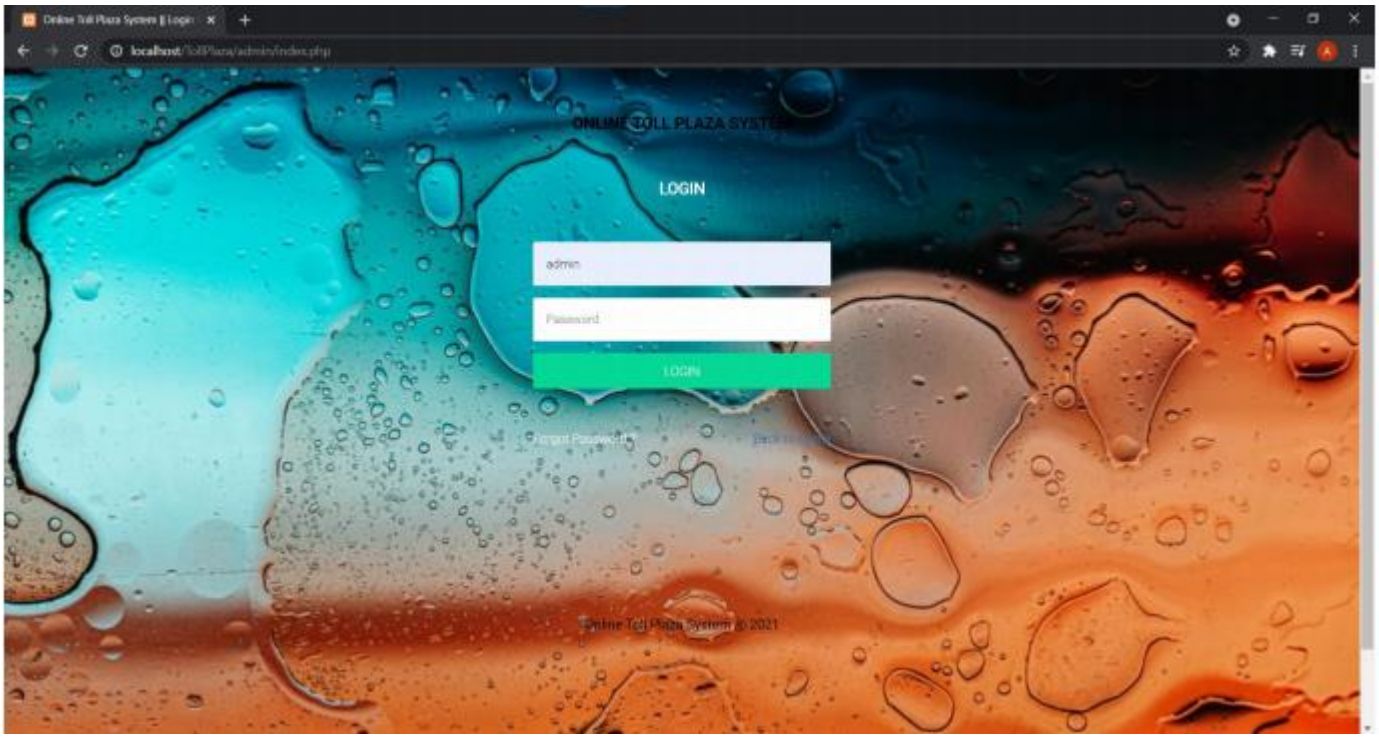


9.Payment

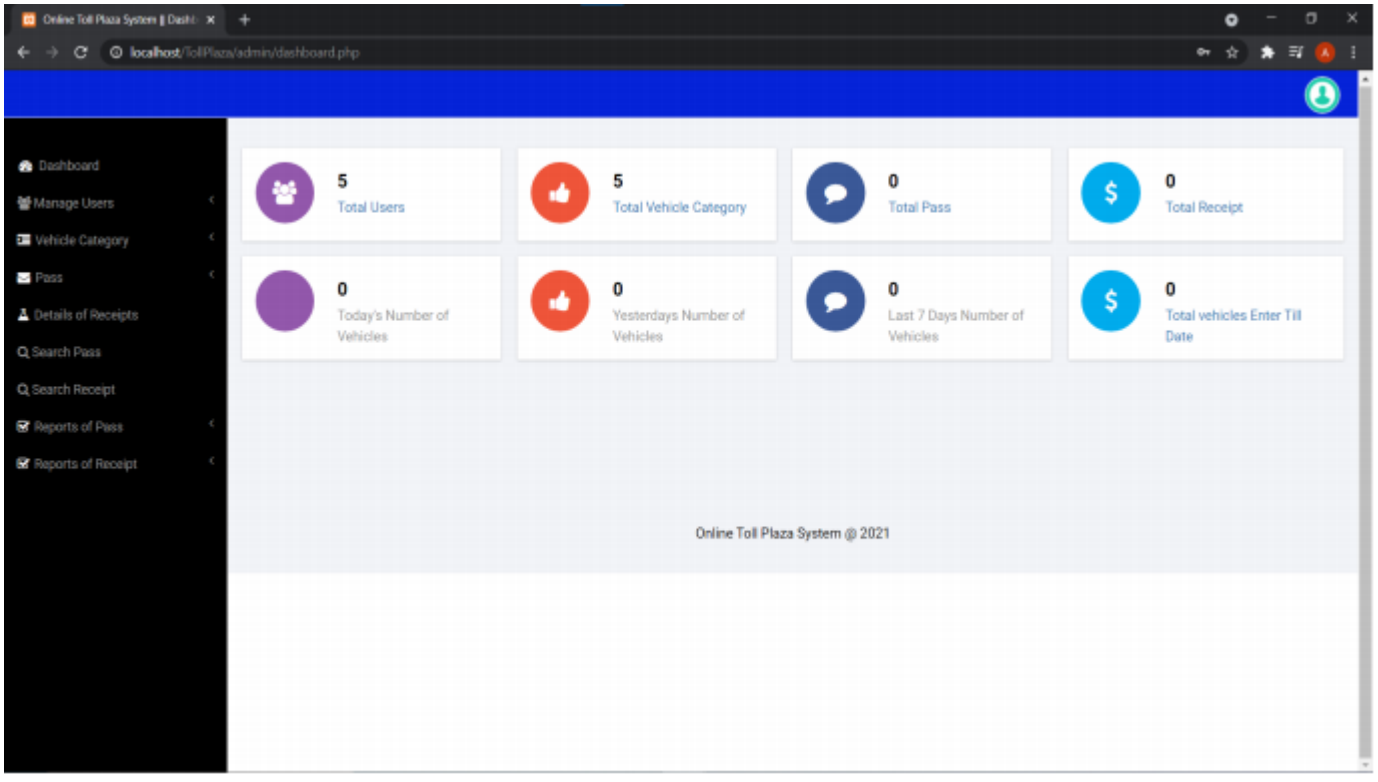

Pay with Razorpay
Test Mode
Online Toll Plaza Sys...
₹ 60
English
Country
+91
Phone
1234567899
Email
test@gmail.com
This payment is secured by Razorpay
PROCEED


Pay with Razorpay
Test Mode
Online Toll Plaza Sys...
₹ 60
English
< Card
Card Number
4111 1111 1111 1111
Expiry
04 / 24
Card Holder's name
Rohan
CVV
Remember Card
PAY ₹ 60

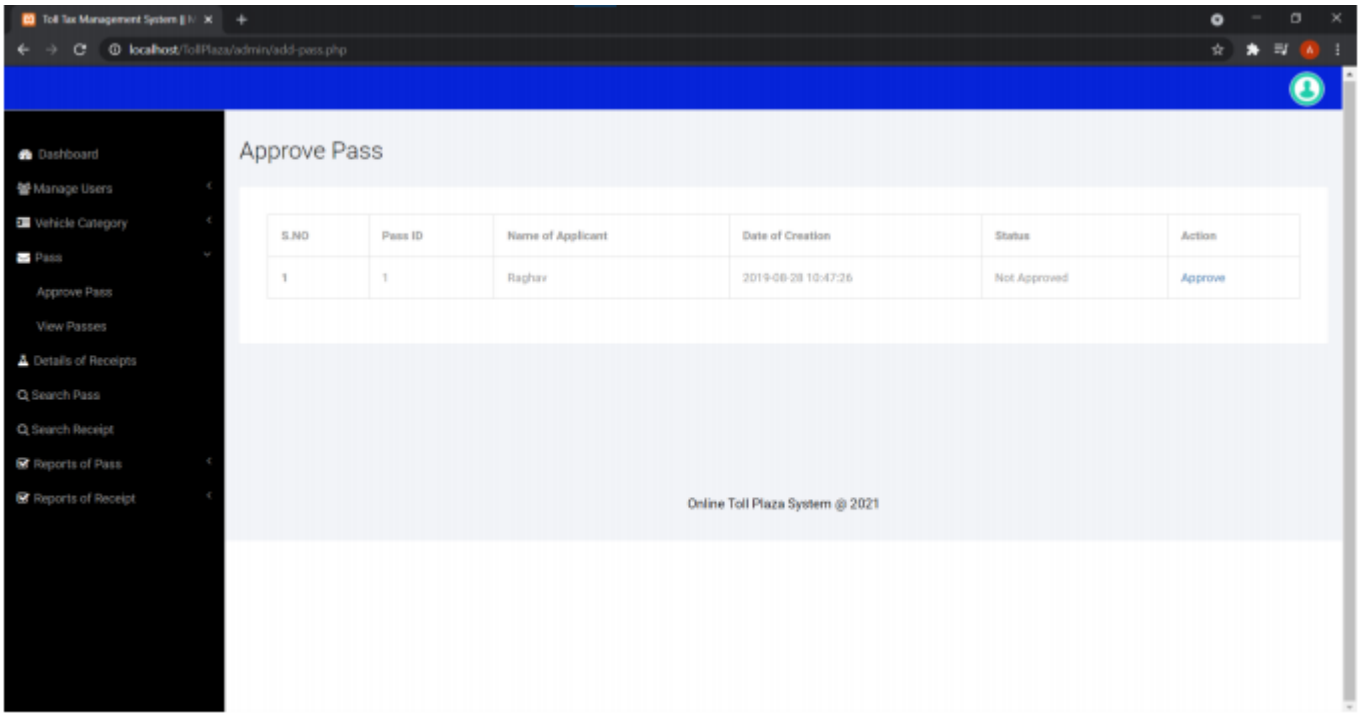
10.Admin Login



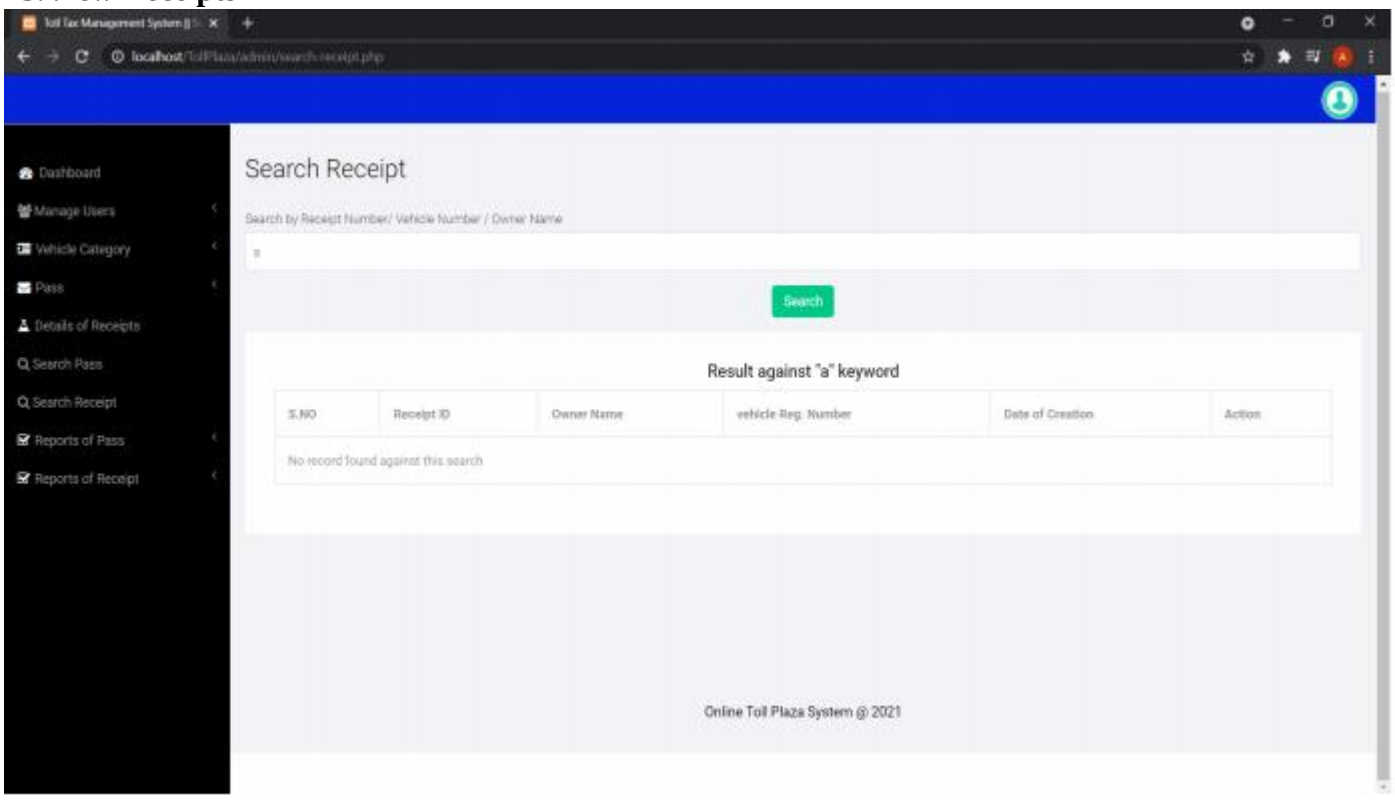
11.Admin DashBoard



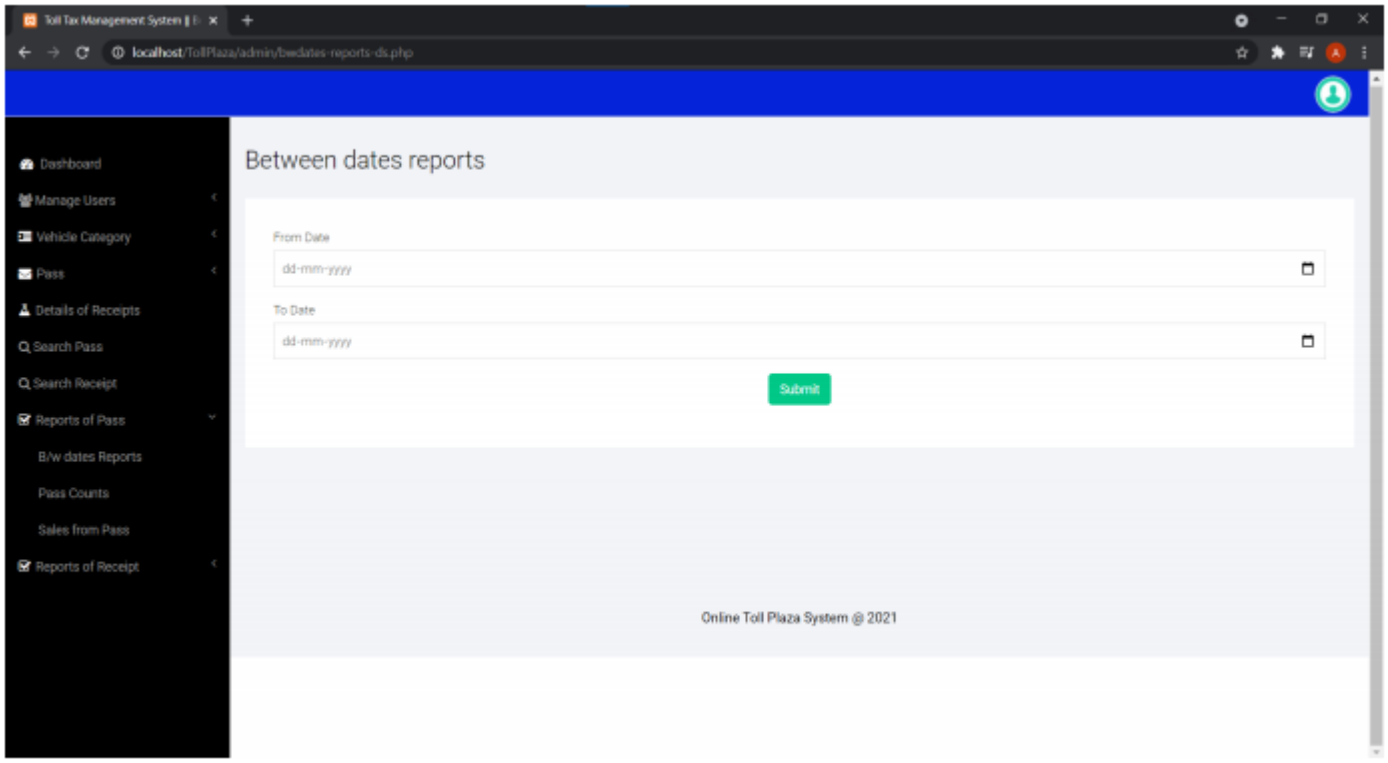
12.Approve Pass



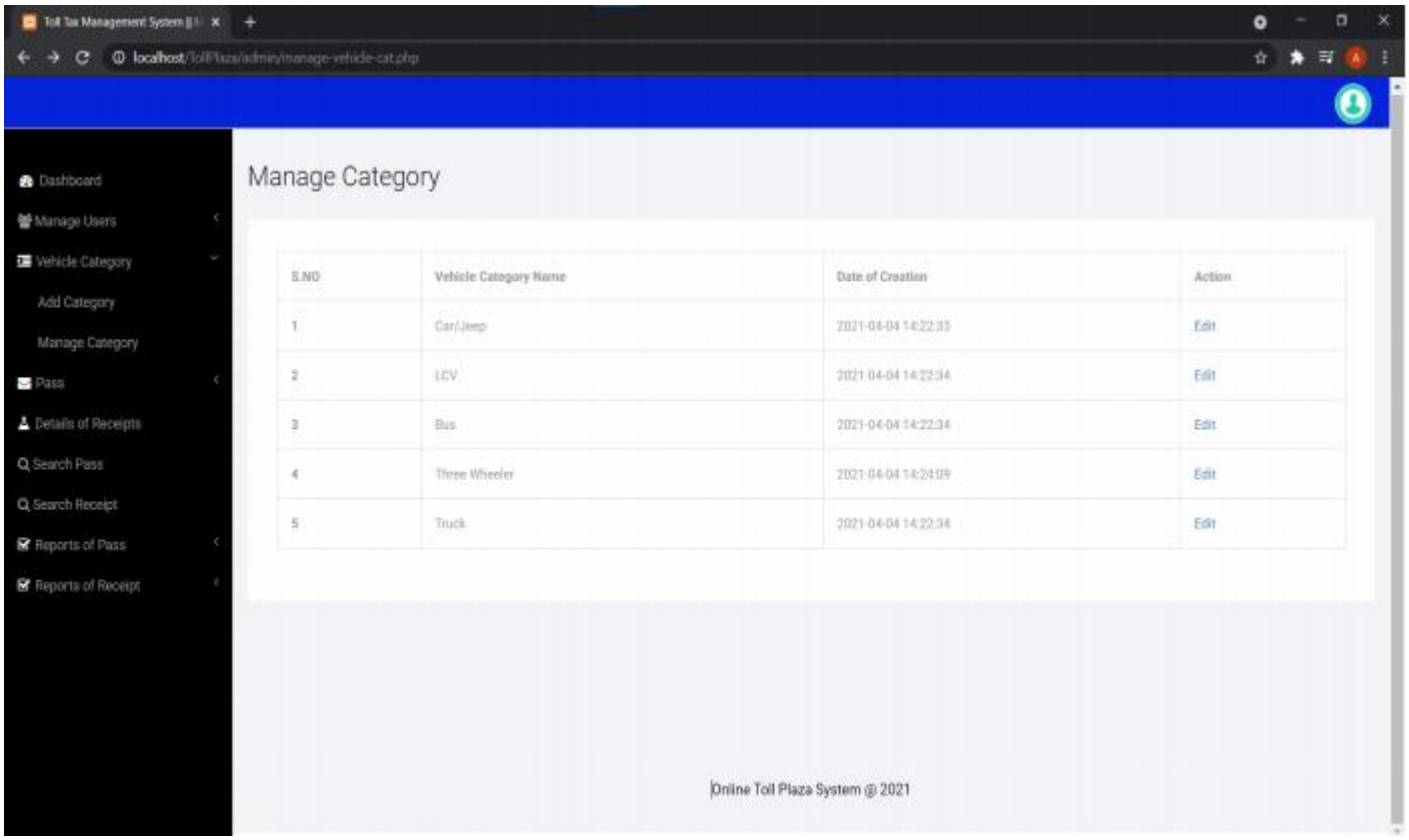
13.View Receipts



14.View Reports



15.Manage Vehicle Category



8.CONCLUSION

Our Online Toll Plaza provides a solution to the age old manual procedure of collecting the toll. It is completely password protected. It also helps the user to retrieve their passwords if they have forgotten it. It has two primary modules: the user and the admin. Both the user and the admin can create new accounts as well as login-in into already existing account. The user applies for a pass from his/her end. Then the admin approves/declines it, based on his discretion. Now, the user can make a payment from his/her e-wallet. The admin can change the cost of various passes. Our web application also allows report generation at the admin's end.

The project titled as Online Toll Plaza System was deeply studied and analyzed to design the code and implement. It was done under the guidance of the experienced project guide. All the current requirements and possibilities have been taken care during the project time. Online Toll Plaza System can be used for daily operations in any organization to maintain or access toll related information for internal administration purposes.

9.REFERENCES

1. *F. Don, "Electronic Toll Collection: An Introduction and Brief Look at Potential Vulnerabilities," in SANS Institute infoSec Reading Room, 1.4b ed. 2004.*
2. *Khali, C.W. Michael, H. Shahriyar "Toll Collection Technology and Best Practices", Project 0-5217: Vehicle/License Plate Identification for Toll Collection Application, January 2007.*
3. *Radhika, "Electronic Toll Collection System". Raadhikaa et al, UNIASCIT, Vol 1 (1), 2011, 05-08.*
4. *SoniRani," Wi-Fi Approach for Toll Tax Application"http://dspace.thapar.edu:8080/dspace/bitstream/123456789/260/1/ 91889.PDF*
5. *Tom Matthew,"Toll operation",Chapter46,http://nptel.ac.in/courses/105101008/downloads/c Ete_46.pdf.*