**INTRODUCTION**

* 1. **OVERVIEW OF PROJECT**

This project is based on social service app which is especially for visually impaired people. There are about 285 million people in the world are visually impaired, of whom 39 million are blind and 246 million have moderate visual impairment. There are about 37 million people across the globe who are blind, over 15 million are from India.There are many types of hurdles during the reservation in ticket system for visually impaired and blind people. At present the current ticketing systems are not mature enough to work for visually impaired users. Only the normal users can be benefited out of this, whereas the visually impaired user needs the help of other people. One can say that today’s ticket vending machines are not user friendly for all types of users. In ticket vending systems there are two important aspects for visually impaired users which are; how to feed data and how to get the results. The web application was developed mainly to concentrate on people with low vision to reserve tickets online using mobile phones. Since we develop this project as a web application, this project provides an interactive system for the visually impaired**.**

**1.2 SCOPE OF PROJECT**

* The main scope of the project is to provide the web application in a systematic method to assist the blind people or the visually impaired people in booking their tickets.
* It is mainly developed to reduce the work in getting the travelling tickets for blind people when they go from one place to another place by just making a call to a toll free number and booking tickets.
* The system uses mobile OTP as the ticket to reduce the strain faced by the blind people while travelling.

* 1. **OBJECTIVE OF PROJECT**

The main objective of our project is to develop a complete system that works efficiently for the visually impaired user to book their tickets. The application assists the blind people and make their ease of travelling by issuing the single unique OTP to the user which is used as ticket by the blind user instead of carrying the normal tickets issued to avoid the loss of ticket while travelling. Using this application they can easily get the ticket by the phone call in the form of message.

* 1. **EXISTING SYSTEM**

In the existing system, there are no applications developed to aid visually impaired people based on travelling and ticketing. If they want to travel by train, they have to wait for a long time to get a ticket and are assisted by someone. This makes them feel dependent and is a time consuming process, since the visually impaired user have to stand in a long queue to get their tickets. In case they miss the tickets, they couldn’t get another ticket. In such situation, the visually impaired traveller have to pay penalty to the Travelling Ticket Examiner.

**1.4.1 DISADVANTAGES**

* In the existing system they have to spend more time to get the tickets.
* They have to stand in long queue to get their tickets.
* Alternate tickets cannot be purchased if the ticket is misplaced.
* They need to be assisted by someone to get their tickets.
  1. **PROPOSED SYSTEM**

In the proposed system, we develop an application to rectify the problems in the existing system. Using this web application, the blind people can easily get their tickets anytime and anywhere. The tickets are in the format of OTP. They get their OTP by calling the admin and informing the source and destination detail. Through this it is made easy for the blind people to travel in train. The main objective of this app is to help the blind people in their travelling. To assist the blind people and make their ease of travelling by issuing the single OTP to the user.

Through this they can easily get the ticket by the phone call at anytime and anywhere. To reduce the effects and difficulties in getting the tickets while travelling from one place to another place for the blind peoples. The work flow of our project is as follows: Our project contains two users namely admin and the blind people. Former, the blind people register their unique Aadhaar card number. The Aadhaar number which is provided is unique for each user. They have to register with that unique number and mobile number at first. On the other side the admin monitors all the blind people details.

If the user wants to get a ticket , they have to make a call to the toll free number. After that the user should mention the source and destination, location of their travel and the time and date of the travel. Based on the details given by the visually impaired user, the admin generates the OTP for that particular user. The generated OTP is shared with the user. The OTP is sent to the user’s mobile number. When they travel, they have to show the OTP to the ticket checker. The ticket checker verifies that the ticket is valid or not. After getting the OTP from user, they submit the OTP to the server. After submitting it to the server, it returns the full travelling details of the user. The details contain the source, destination, time and date of the travel with their unique Aadhaar number. With the help of this app the blind people get the tickets easily. Also the waiting time to get the ticket is reduced. Hence it is ensured that this is the useful for the visually impaired people.

**1.5.1 ADVANTAGES**

* In proposed system, it is made easy for the visually impaired people to get their tickets using the OTP issued to them.
* As the ticket is in the OTP format sent to their mobile number, there are no chances of missing the tickets.
* More secure system
* This also reduces the people effort in getting their tickets.
* They can book their tickets independently without any personal assistance.

**LITERATURE SURVEY**

**2.1 LITERATURE SURVEY**

A literature survey is an objective, critical summary of published research literature relevant to a topic under consideration for research. Its purpose is to create familiarity with current thinking and research on a particular topic, and may justify future research into a previously overlooked or understudied area. It is the most important part of the report as it gives a direction in the area of research. It helps to set a goal for the analysis thus giving out problem statement. A literature review in respect of the project, the researches made by various analysts – their methodology (which is basically their abstract) and the conclusions they have arrived at. It also gives an account of how this research has influenced the thesis.

**2.1.1 PURPOSE OF LITERATURE SURVEY**

* Identifies gaps in current knowledge.
* Helps to avoid reinventing the wheel by discovering the research already conducted on a topic.
* Sets the background on what has been explored on a topic so far.
* Increases the breadth of knowledge in area of research.
* Helps to identify seminal works in particular area.

**2.2 RELATED WORK**

Through a series of studies, we need to look at the available methods and practices, possibly to develop a complete system for the visually impaired people. If you have user friendly interface you can easily interact with computers or machines. The interaction will be Human Machine Interaction, where the visually impaired users will interact with the machine. It is essential that human computer interaction should be useful, flexible, actionable, efficient and user friendly. The thing which is very important to consider in human computer interaction is that the interface which is poorly designed might output some unwanted and unexpected results and may cause the customers or users (visually impaired persons) financial or time losses.

Visually impaired users have the same basic requirements as others when it comes to websites, but require a higher-grade compliance with these requirements. A website should be consistent, clear, logical, predictable and easy to use for visually impaired users. It is also a big advantage if the website can be navigated using only the keyboard, because the visually impaired may have difficulties using the mouse cursor. For the user to be in control of the website there should be no time limits or deadlines that cannot be stopped or extended, and the user must be allowed to correct errors and recover from errors without loss of data. All events and updates should also only happen on the visually impaired user’s request.

**2.3 COMPARISON WITH EXISTING SYSTEM**

**AUTHOR:** Adam Dabrowski, Damian Huderek, Marcin Iwanowski, Piotr Kardys

**TITLE:** A new android application for blind and visually impaired people

**YEAR:** 2016

**DESCRIPTION:** This project describes a new Android application supporting blind and partially sighted people in smart phone use. It enables them to call, send and receive text messages, make us of a “phone book” as well as of additional options such as positioning or battery monitoring, through voice commands. The software concept together of the structure of the respective

application has been presented in detail.

**AUTHOR:** Ahire Harshata, Dangare Sushanta, Jori Sayali, Kharmale Arati

**TITLE:** Object recognition in mobile phone application for visually impaired users

**YEAR:** 2015

**DESCRIPTION:** Blind people face a number of challenges when interacting with their environments because so much information is encoded visually. There are many problems when blind people need to access visualizations such as images, objects ,information in the form of text etc. Many tool and technologies seek to help blind people solve these problems by enabling them to query for information such as color or text shown on object. Blind use Braille technique to read. Also there are many applications like screen reader which help them to read. But there is a need of special training to use these techniques and also they are not so much portable. In this project main features of software modules developed for Android smart phones that are dedicated for the blind users. The main module can recognize and match scanned objects to a database of objects, e.g. food or medicine containers. The two other modules are capable of detecting major colors and locate direction of the maximum brightness regions in the captured scenes.

**AUTHOR:** Abhishek Srivastava, Adhar Vashishth, Akshay Sharma

**TITLE:** An assistive reading system for visually impaired using OCR and TTS

**YEAR:** 2014

**DESCRIPTION:** Reading machines are mechatronic devices which use optical character recognition and text-to-speech technology in order to output synthetic voice from printed text. In this project an assistive system has been proposed for visually impaired or blind persons. It reads textual information on papers and produces corresponding voice using OCR and TTS system. To localize text regions in images connected component labeling approach using histogram analysis is done on binarized image. TTS system using Concatenative synthesis based on SDK (Software Development Kit) platform is used. This system is operated via a voice-based user interface and also has a user friendly GUI (graphical user interface) to scan the text and to control various speech parameters. Speech signal produced can be saved and reproduced for later use.

**AUTHOR:** Baddar Rehmat, Muhammad Ishfaq

**TITLE:** Ticket vending machine for visually impaired

**YEAR:** 2010

**DESCRIPTION:** This machine was developed to make the process of getting ticket easy by buying ticket at their own from the ticketing machine. The visually impaired can book their tickets using this vending machine. These machines are kept at railway stations. This machine is connected with various aiding devices for the visually impaired people. Devices that are used by visually impaired people include Braille keyboard, Keyboard pedal, Headphones, Goggles, 3D special mouse, Screen reader etc. Using these devices along with the developed system the visually impaired person can book their tickets.

**AUTHOR:** Robert Nygren, Veronica Bergman.

**TITLE:** Websites for visually impaired

**YEAR:** 2009

**DESCRIPTION:** The purpose of this project is to improve the accessibility of the websites for the visually impaired users. The visually impaired users cannot access and use all websites since their aiding devices cannot always interpret all the contents of the website or they freeze sometimes or even crash. It is important to follow the accessibility standards and guidelines of all the websites to improve their functionality for the visually impaired users.

**2.3.1 COMPARISON TABLE OF EXISTING SYSTEM**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.NO** | **TITLE** | **AUTHOR** | **ADVANTAGE** | **DISAVANTAGE** |
| 1 | A new android application for blind and visually impaired people | Adam Dabrowski, Damian Huderek, Marcin Iwanowski, Piotr Kardys | The application enables them to call, text and also helps in positioning or battery monitoring, through voice commands. | The application does not work properly when the word is misspelled during speech recognition. |
| 2 | Object recognition in mobile phone application for visually impaired users | Ahire Harshata, Dangare Sushanta, Jori Sayali, Kharmale Arati | The application is used to enable the visually challenged to access visualizations such as images, objects, information in the form of text etc. | There are some connectivity problems of devices used in the application. |
| 3 | An Assistive reading system for visually impaired using OCR and TTS | Abhishek Srivastava, Adhar Vashishth, Akshay Sharma | The system is used to convert digital information in text to voice. It provides good GUI between blind people and system. | The system cannot convert images to voice format. |
| 4 | Ticket vending machine for visually impaired | Baddar Rehmat, Muhammad Ishfaq | The machine is easily operable by visually impaired users. | This machine is not located in care centers .  There occurs disconnectivity  between devices. |
| 5 | Websites for visually impaired | Robert Nygren, Veronica Bergman | It is understandable operable and interactive. | It supports only text and audio format. |

**REQUIREMENT AND SPECIFICATION**

**3.1 HARDWARE REQUIREMENTS**

* PROCESSOR : Pentium P4
* MOTHERBOARD : Genuine Intel
* RAM : Minimum 1GB
* HARD DISK : 80GB

**3.2 SOFTWARE REQUIREMENTS**

* OPERATING SYSTEM : Windows OS
* TECHNOLOGY USED : PHP 4.2
* IDE : Dreamweaver CS6
* DATABASE : MySQL
* TOOLS USED : PHP Studio, NVDA
* MOBILE : Smart Phone

**3.3 PHP PROGRAMMING LANGUAGE**

PHP is a [server-side scripting](https://en.wikipedia.org/wiki/Server-side_scripting) language designed primarily for [web development](https://en.wikipedia.org/wiki/Web_development) but also used as a [general-purpose programming language](https://en.wikipedia.org/wiki/General-purpose_programming_language). PHP code may be embedded into [HTML](https://en.wikipedia.org/wiki/HTML) or HTML5 code, or it can be used in combination with various [web template systems](https://en.wikipedia.org/wiki/Web_template_system), [web content management systems](https://en.wikipedia.org/wiki/Web_content_management_system) and [web frameworks](https://en.wikipedia.org/wiki/Web_framework). PHP code is usually processed by a PHP [interpreter](https://en.wikipedia.org/wiki/Interpreter_(computing)) implemented as a [module](https://en.wikipedia.org/wiki/Plugin_(computing)) in the web server or as a [Common Gateway Interface](https://en.wikipedia.org/wiki/Common_Gateway_Interface) (CGI) executable. The web server combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a [command-line interface](https://en.wikipedia.org/wiki/Command-line_interface) (CLI) and can be used to implement [standalone](https://en.wikipedia.org/wiki/Computer_software) [graphical applications](https://en.wikipedia.org/wiki/Graphical_user_interface).PHP Studio (formerly Top PHP Studio) is a commercial [code editor](https://en.wikipedia.org/wiki/Code_editor) which is specialized in [PHP](https://en.wikipedia.org/wiki/PHP) programming language.

**3.4 ADOBE DREAMWEAVER**

Adobe Dreamweaver is a [proprietary](https://en.wikipedia.org/wiki/Proprietary_software) [web development](https://en.wikipedia.org/wiki/Web_development) tool. Adobe Dreamweaver is available for [macOS](https://en.wikipedia.org/wiki/MacOS) and for [Windows](https://en.wikipedia.org/wiki/Windows).

Adobe Dreamweaver CC is a web design and development application that combines a visual design surface known as Live View and a code editor with standard features such as [syntax highlighting](https://en.wikipedia.org/wiki/Syntax_highlighting), [code completion](https://en.wikipedia.org/wiki/Code_completion), and code collapsing as well as more sophisticated features such as real-time [syntax checking](https://en.wikipedia.org/wiki/Syntax_analysis#Programming_languages) and code introspection for generating code hints to assist the user in writing code. Combined with an array of site management tools, Dreamweaver lets its users design, code and manage websites as well as mobile content. Dreamweaver is positioned as a versatile web design and development tool that enables visualization of web content while coding.

Dreamweaver, like [other HTML editors](https://en.wikipedia.org/wiki/Comparison_of_WYSIWYG_HTML_editors#Editor_features), edits [files](https://en.wikipedia.org/wiki/Computer_file) locally then uploads them to the remote web server using [FTP](https://en.wikipedia.org/wiki/File_Transfer_Protocol), [SFTP](https://en.wikipedia.org/wiki/SSH_file_transfer_protocol), or [WebDAV](https://en.wikipedia.org/wiki/WebDAV" \o "WebDAV).

**3.4.1 Language availability**

Adobe Dreamweaver CS6 is available in the following languages: Brazilian Portuguese, Simplified Chinese, Traditional Chinese, Czech, Dutch, English, French, German, Italian, Japanese, Korean (Windows only), Polish, Russian, Spanish, Swedish and Turkish.

**3.4.2 Starting and Quitting Dreamweaver**

**Starting Dreamweaver**

On a Microsoft Windows platform, to start Adobe Dreamweaver, double-click the Dreamweaver shortcut icon on your Windows desktop.

After starting Dreamweaver, the Dreamweaver window opens . You can use existing items available or can create a new PHP application.

**Quitting MATLAB**

To end your Dreamweaver session, select Exit from the File menu in the Dreamweaver window or press Ctrl+Q. To save the specified created application , select Save from the File menu or press Ctrl+S.

**3.5 NVDA SCREEN READER**

NonVisual Desktop Access (NVDA) is a free, open source, portable [screen reader](https://en.wikipedia.org/wiki/Screen_reader) for [Microsoft Windows](https://en.wikipedia.org/wiki/Microsoft_Windows). NVDA is programmed in [Python](https://en.wikipedia.org/wiki/Python_(programming_language)). It currently works exclusively with accessibility [APIs](https://en.wikipedia.org/wiki/Application_programming_interface) such as [UI Automation](https://en.wikipedia.org/wiki/UI_Automation), [Microsoft Active Accessibility](https://en.wikipedia.org/wiki/Microsoft_Active_Accessibility), [IAccessible2](https://en.wikipedia.org/wiki/IAccessible2) and the Java Access Bridge, rather than using specialized video drivers to "intercept" and interpret visual information.

****

**Figure 3.5 NVDA version**

**3.5.1 Features and API support**

NVDA uses [eSpeak](https://en.wikipedia.org/wiki/ESpeak" \o "ESpeak) as its integrated speech synthesizer. It also supports the Microsoft Speech platform synthesiser, ETI Eloquence and also supports [SAPI](https://en.wikipedia.org/wiki/Speech_Application_Programming_Interface) synthesizers. NVDA works with software such as Microsoft office applications, [WordPad](https://en.wikipedia.org/wiki/WordPad), [Notepad](https://en.wikipedia.org/wiki/Notepad_(Windows)), [Internet Explorer](https://en.wikipedia.org/wiki/Internet_Explorer), [google chrome](https://en.wikipedia.org/wiki/Google_chrome" \o "Google chrome), etc. It supports the basic functions of [Outlook Express](https://en.wikipedia.org/wiki/Outlook_Express), [Microsoft Word](https://en.wikipedia.org/wiki/Microsoft_Word), [Microsoft PowerPoint](https://en.wikipedia.org/wiki/Microsoft_PowerPoint) and Microsoft Excel.

**3.5.2 Technical features**

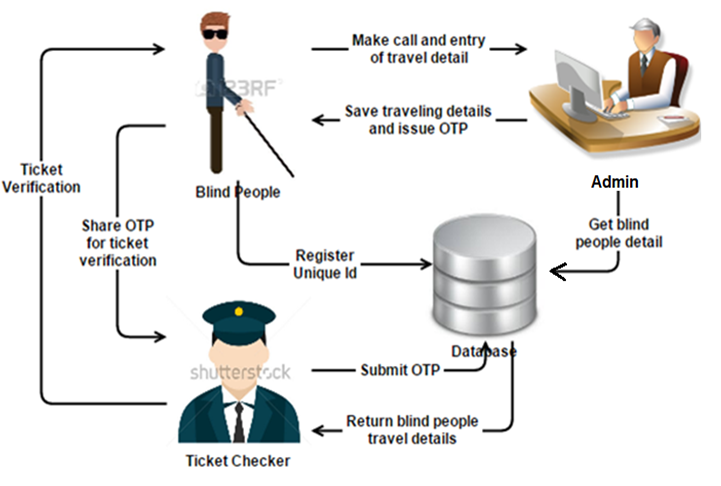
NVDA is organized into various subsystems, including the [core loop](https://en.wikipedia.org/wiki/Event_loop), add-ons manager, app modules, event handler and input and output handlers, along with modules to support accessibility API's such as [Microsoft Active Accessibility](https://en.wikipedia.org/wiki/Microsoft_Active_Accessibility). NVDA also features various graphical user interfaces of its own powered by [wxPython](https://en.wikipedia.org/wiki/WxPython" \o "WxPython), such as various preference dialogs, and setup and update management dialogs.

NVDA uses objects to represent elements in an application such as menu bars, status bars and various foreground windows. Various information about an object such as its name, value and screen coordinates are gathered by NVDA through accessibility API's exposed by an object, such as through [UIA](https://en.wikipedia.org/wiki/Microsoft_UI_Automation) (User Interface Automation). The gathered information is passed through various subsystems, such as speech handler and presented to the user in speech, braille and via on-screen window. NVDA also provides facilities to handle events such as key presses, name changes and when an application gains or losses focus.

NVDA provides facilities to examine an application's object hierarchy and implement ways to enhance accessibility of a program. It provides dedicated commands to move through object hierarchy within an application, as well as an interactive python console to perform focus manipulation, monitoring objects for events and test code for improving accessibility of an application to be packaged in an app module.

**SYSTEM DESIGN**

**4.1 ARCHITECTURE DIAGRAM**

****

**Figure 4.1 Architecture Diagram**

**4.2 USE CASE DIAGRAM**

Use case diagram are referred as behaviour diagram used to describe set of actions (use cases) that some system or systems (subject) perform in collaboration with one or more external users of the system.

**4.2.1 ADVANTAGES OF USECASE DIAGRAM**

* Provides comprehensive summary of the whole software system in a single illustration.
* Can be used in several aspects of software development.



**Figure 4.2 Use Case Diagram**

**4.3 SEQUENCE DIAGRAM**

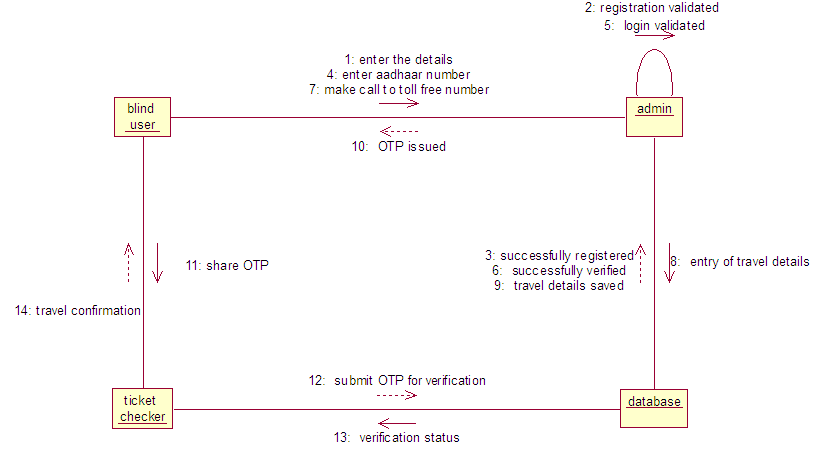
A sequence diagram is an interaction diagram that shows how objects operate with one another and in what order. It is a construct of a message sequence chart. A sequence diagram shows object interaction arranged in time sequence.



**Figure 4.3 Sequence Diagram**

**4.4 COLLABORATION DIAGRAM**

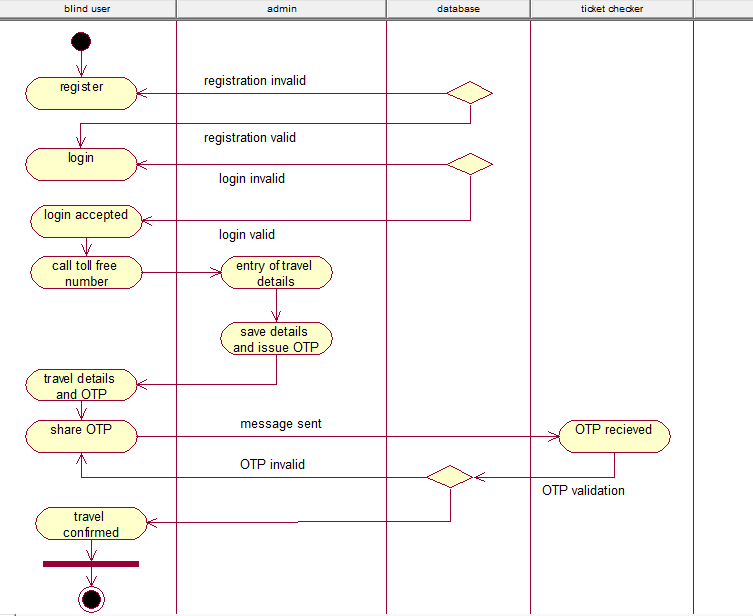
A collaboration diagram, also called a communication diagram or interaction diagram, is an illustration of the relationships and interactions among software objects in the Unified Modeling Language.



**Figure 4.4 Collaboration Diagram**

**4.5 ACTIVITY DIAGRAM**

Activity diagram in UML is used to describe the dynamic aspects of the system. Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system. So the control flow is drawn from one operation to another.

****

**Figure 4.5 Activity Diagram**

**4.6 CLASS DIAGRAM**

A class diagram in UML is a type of static structure diagram that describes the structure of the system by showing the system’s classes, their attributes, operations ,and the relationships among objects.

****

**Figure 4.6 Class Diagram**

**MODULE DESCRIPTION**

**5.1 UNIQUE ID REGISTRATION AND LOGIN**

The blind people register in the PHP application using unique Aadhaar number and mobile number. The registered user details are stored in a separate database. The blind user can login into his/her account using the unique Aadhaar number provided during registration.

**5.2 GET BLIND PEOPLE DETAILS**

The administrator gathers the necessary details of the registered user using the unique number provided by the visually impaired person. The information are gathered from the database which stores all the details of the registered user.

**5.3 TRAVEL DETAIL ENTRY**

The user can reserve tickets by just calling a toll free number. By making a call to the toll free number, the travel details like the source, destination, date and time of travel are provided by the blind user to the administrator.

**5.4 ISSUE OTP**

Based on the details given by the blind user in the call, the administrator generates the OTP for that particular user. The user travel details with the generated OTP is saved into the database. Also the generated OTP is shared with the user. The OTP is sent to the user’s mobile number. OTP is used as the ticket by the blind user.

**5.5 SUBMIT OTP**

When they travel, the visually impaired person needs to show the generated OTP to the Ticket Checker for verification.

**5.6 TICKET VERIFICATION**

The ticket checker verifies whether the OTP (ticket) is valid or not. After getting the OTP from the user, they submit the OTP to the server. After submitting it, the server returns the full travel details of the blind user to the Ticket Checker. The details contain the source, destination, time of the travel, date of the travel and cost with the unique Aadhaar number id.

**CODE AND SNAPSHOT**

**6.1 CODE**

**6.1.1 Unique ID registration**

<div id=”site\_title” style=”width: 504px; position: absolute”>

<h2 style=”color:#FFF”><br />

<img src=”images/unnamed.jpg” alt=”Image 04” width=”61” height=”42” title=”Etiam faucibus felis eget metus tempor.” />

TicketReservation</h2>

</div>

</div>

<div id=”tooplate\_mid\_wrapper”>

<div id=”tooplate\_mid\_home”>

<div id=”slider-wrapper”>

<div id=”slider” class=”nivoSlider”>

<img src=”images/new.jpg” style=”height:250” />

</div>

<div id=”htmlcaption” class=”nivo-html-caption”>

<strong>This</strong> is an example of a HTML caption with <a ref=”#”>a link</a>.

</div>

</div>

<script type=”text/javascript” src=”js/jquery-1.4.3.min.js”></script>

<script type=”text/javascript” src=”js/jquery.nivo.slider.js”></script>

<script type=”text/javascript”>

$(window).load(function() {

$(‘#slider’).nivoSlider();

});

</script>

<div id=”mid\_left”>

<div id=”mid\_title” style=”margin-left:100px; margin-top:-50px; height:500px; width:400px”>

<div style=”margin-left:350px; position:absolute”>

<a href=”admin.php”><img src=”images/admin\_icon.png” width=”75” height=”75” /></a>

</div>

<br /> <br /> <br /> <br />

&nbsp; &nbsp;

<label style=”color:#000”>Signup For Free!!!</label>

<br /> <br />

<form name=”regform” action=”#” method=”POST”>

<label style=”color:#000; font-size:20px”> Adhar Number</label>&nbsp;&nbsp;&nbsp;<input type=”text” name=”aadarnum” placeholder=”Enter Adhar Number” />

<br /><br />

<label style=”color:#000; font-size:20px”> Mobile Number</label>&nbsp;&nbsp;&nbsp;<input type=”text” name=”mobnum” placeholder=”Enter 10 digit Number”/>

<br /><br /> &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;

<input type=”submit” value=”Submit” name=”submit1” />

</form>

</div>

<?php

if($\_SERVER[‘REQUEST\_METHOD’]==”POST”)

{

if(isset($\_POST[‘submit1’]))

{

$MobileNumber=mysql\_real\_escape\_string($\_POST[‘mobnum’]);

$AadharNumber=mysql\_real\_escape\_string($\_POST[‘aadarnum’]);

$bool=true;

$ros=false;

$mob=false;

mysql\_connect(“localhost”,”root”,””) or die(mysql\_error());

mysql\_select\_db(“ticket”) or die(“cannot connect to database”);

$query=mysql\_query(“select \* from aadardetails where AadharNumber=$AadharNumber”);

$numb=mysql\_num\_rows($query);

if($numb>=1)

{

$query1=mysql\_query(“Select \* from register where MobileNumber=$MobileNumber”);

$norows=mysql\_num\_rows($query1);

if($norows>=1)

{

$bool=false;

$mob=true;

}}

else

{

$bool=false;

$ros=true;

}

if($ros)

{

print ‘<script>alert(“Aadhar Number Does not Exist in the database”)</script>’;

}

if($bool)

{

mysql\_query(“insert INTO register(MobileNumber,AadharNumber) values ($MobileNumber,$AadharNumber)”);

print ‘<script>alert(“registered Sucessfully”)</script>’;

print ‘<script>window.location.assign(register.php)</script>’;

}

if($mob)

{

print ‘<script>alert(“Mobile No Already Exist”)</script>’;

print ‘<script>window.location.assign(register.php)</script>’;

}}}

?>

**6.1.2 User Login**

<!DOCTYPE html PUBLIC “-//W3C//DTD XHTML 1.0 Transitional//EN” “http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd”>

<html xmlns=”http://www.w3.org/1999/xhtml”>

<head>

<meta http-equiv=”Content-Type” content=”text/html; charset=utf-8” />

<title>Blind People Ticket Reservation System</title>

<meta name=”keywords” content=”” />

<meta name=”description” content=”” />

<!—

Template 2052 Orange Bond

<http://www.tooplate.com/view/2052-orange-bond>

🡪

<link href=”css/tooplate\_style.css” rel=”stylesheet” type=”text/css” />

<link rel=”stylesheet” href=”css/nivo-slider.css” type=”text/css” media=”screen” />

<script language=”javascript” type=”text/javascript”>

function clearText(field)

{

if (field.defaultValue == field.value) field.value = ‘’;

else if (field.value == ‘’) field.value = field.defaultValue;

}

</script>

<link rel=”stylesheet” type=”text/css” href=”css/ddsmoothmenu.css” />

<script type=”text/javascript” src=”js/jquery.min.js”></script>

<script type=”text/javascript” src=”js/ddsmoothmenu.js”>

</script>

<script type=”text/javascript”>

ddsmoothmenu.init({

mainmenuid: “tooplate\_menu”, //menu DIV id

orientation: ‘h’, //Horizontal or vertical menu: Set to “h” or “v”

classname: ‘ddsmoothmenu’, //class added to menu’s outer DIV

//customtheme: [“#1c5a80”, “#18374a”],

contentsource: “markup” //”markup” or [“container\_id”, “path\_to\_menu\_file”]

})

</script>

</head>

<body>

<div style=”width:1350px; height:100px; background

image:url(images/tooplate\_top.png); margin-top:10px”>

<div id=”tooplate\_titlebar”>

<div id=”tooplate\_menu” class=”ddsmoothmenu”>

<form action=”#” method=”POST”>

<label style=”color:#FFF; font-size:20px”>Enter Adhar Number</label>&nbsp;&nbsp;&nbsp;

<input type=”text” name=”AadharNumber” placeholder=”Enter the Adhar Code Here” />&nbsp;&nbsp;&nbsp;

<input type=”submit” value=”Login” name=”Login” />

</form>

</div>

</div>

<?php

if($\_SERVER[‘REQUEST\_METHOD’]==”POST”)

{

if(isset($\_POST[‘Login’]))

{

mysql\_connect(“localhost”,”root”,””);

mysql\_select\_db(“ticket”);

$AadharNumber=mysql\_real\_escape\_string($\_POST[‘AadharNumber’]);

$result=mysql\_query(“select \* from register where AadharNumber=$AadharNumber”);

$row=mysql\_fetch\_array($result);

if($row[‘AadharNumber’]==$AadharNumber)

{

print ‘<script>alert(“Login Sucess !! Welcome “)</script>’.$row[‘Username’];

$\_SESSION[‘AadharNumber’]=$AadharNumber;

header(“Location:userdetails1.php”);

}

else

{

print ‘<script>alert(“Failed to login”)</script>’;

}}}

?>

**6.1.3 Mobile number updation**

<!DOCTYPE html PUBLIC “-//W3C//DTD XHTML 1.0 Transitional//EN” “http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd”>

<html xmlns=”http://www.w3.org/1999/xhtml”>

<head>

<meta http-equiv=”Content-Type” content=”text/html; charset=utf-8” />

<title>Blind People Ticket Reservation System</title>

<meta name=”keywords” content=”” />

<meta name=”description” content=”” />

<style>

.color

{

color:#000;

text-align:center;

margin-left:350px;

}

table

{

border-radius:20px 20px 20px 20px;

color:#000;

}

td

{

color:#000;

width:200px;

font-style:italic;

font-weight:bold;

font-size:large;

font-family:”Lucida Console”, Monaco, monospace, “Agency FB”;

}

th

{

border:none;

border-radius:5px;

text-transform:uppercase;

font-size:larger;

}

.txtcolor

{

color:#FFF;

text-align:center;

}

Input

{

border-radius:8px 8px 8px 8px;

width:200px;

height:25px;

}

</style>

</head>

<body>

<form action=”#” method=”post”>

<?php

$dbhost = ‘localhost’;

$dbuser = ‘root’;

$dbpass = ‘’;

$conn = mysql\_connect($dbhost, $dbuser, $dbpass);

if(! $conn )

{

die(‘Could not connect: ‘. mysql\_error());

}

if($\_SERVER[‘REQUEST\_METHOD’]==”POST”)

{

if(isset($\_POST[“Update”]))

{

$newnum=mysql\_real\_escape\_string($\_POST[‘newnum’]);

$addar=$\_SESSION[‘AadharNumber’];

$addar1=$\_SESSION[‘AadharNumber’];

$sql = “UPDATE aadardetails SET MobileNo=$newnum WHERE AadharNumber=$addar”;

$sql1 = “UPDATE register SET MobileNo=$newnum WHERE AadharNumber=$addar1”;

mysql\_select\_db(‘ticket’);

$retval = mysql\_query( $sql, $conn );

$retval1 = mysql\_query( $sql1, $conn );

if(! $retval && $retval1)

{

die(‘Could not update data: ‘ . mysql\_error());

}

print ‘<script>alert(“Updated data successfully”)</script>’;

//mysql\_close($conn);

}

if(isset($\_POST[“Request”]))

{

$newnum=$\_GET[“oldnum”];

$addar=$\_SESSION[‘AadharNumber’];

echo date(‘Y-m-d G:i:s’);

$sql = “insert into ticketrequest(AadharNum,MobileNumber,Date,Status) values(‘$addar’,’$newnum’,’”.date(‘Y-m-d’).”’,’Pending’)”;

mysql\_select\_db(‘ticket’);

$retval1 = mysql\_query( $sql, $conn );

if(!$retval1)

{

die(‘Could not sent Request data: ‘ . mysql\_error());

}

print ‘<script>alert(“Request sent successfully”)</script>’;

}}

**6.1.4 Get blind people details**

<!DOCTYPE html PUBLIC “-//W3C//DTD XHTML 1.0 Transitional//EN” “http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd”>

<html xmlns=”<http://www.w3.org/1999/xhtml>”>

<head>

<meta http-equiv=”Content-Type” content=”text/html; charset=utf-8” />

<title>Blind People Ticket Reservation System</title>

<meta name=”keywords” content=”” />

<meta name=”description” content=”” />

<style>

<style>

.color

{

color:#000;

text-align:center;

margin-left:350px;

}

table

{

border-radius:20px 20px 20px 20px;

color:#000;

}

td

{

color:#000;

width:200px;

font-style:italic;

font-weight:bold;

font-size:large;

font-family:”Lucida Console”, Monaco, monospace, “Agency FB”;

}

th

{

border:none;

border-radius:5px;

text-transform:uppercase;

font-size:larger;

}

.txtcolor

{

color:#FFF;

text-align:center;

}

input

{

border-radius:8px 8px 8px 8px;

width:200px;

height:25px;

}

</style>

</style>

<link href=”css/tooplate\_style.css” rel=”stylesheet” type=”text/css” />

<link rel=”stylesheet” href=”css/nivo-slider.css” type=”text/css” media=”screen” />

<script language=”javascript” type=”text/javascript”>

function clearText(field)

{

if (field.defaultValue == field.value) field.value = ‘’;

else if (field.value == ‘’) field.value = field.defaultValue;

}

</script>

<link rel=”stylesheet” type=”text/css” href=”css/ddsmoothmenu.css” />

<script type=”text/javascript” src=”js/jquery.min.js”></script>

<script type=”text/javascript” src=”js/ddsmoothmenu.js”>

</script>

<script type=”text/javascript”>

ddsmoothmenu.init({

mainmenuid: “tooplate\_menu”, //menu DIV id

orientation: ‘h’, //Horizontal or vertical menu: Set to “h” or “v”

classname: ‘ddsmoothmenu’, //class added to menu’s outer DIV

//customtheme: [“#1c5a80”, “#18374a”],

contentsource: “markup” //”markup” or [“container\_id”, “path\_to\_menu\_file”]

})

</script>

</head>

<body>

<div style=”width:1350px; height:100px; background-image:url(images/tooplate\_top.png)”>

<div id=”tooplate\_mid\_wrapper”>

<div id=”tooplate\_mid\_home”>

<script type=”text/javascript” src=”js/jquery-1.4.3.min.js”></script>

<script type=”text/javascript” src=”js/jquery.nivo.slider.js”></script>

<script type=”text/javascript”>

$(window).load(function() {

$(‘#slider’).nivoSlider();

});

</script></div>

</div>

</div>

<div id=”site\_title” style=”width: 504px; position: absolute”>

<h2 style=”color:#FFF”><br />

<img src=”images/unnamed.jpg” alt=”Image 04” width=”61” height=”42” title=”Etiam faucibus felis eget metus tempor.” />

TicketReservation</h2>

</div>

<br /><br /><br /><br />

<div style=”color: #0A2CF0; font-size: 16px; position: absolute; left: 1166px; top: 49px;”>

<a href=””>Back</a> &nbsp; &nbsp;&nbsp;<a href=”index1.php”>Logout</a>

</div>

<div style=”color: #0A2CF0; font-size: 16px; position: absolute; left: 1087px; top: 112px; width: 256px;”>

<a href=”Requests.php”>View Requests</a> &nbsp; &nbsp;&nbsp;<a href=”ConfirmedDetails.php”>Confirmed Details</a>

</div>

<?php

mysql\_connect(“localhost”,”root”,””);

mysql\_select\_db(“ticket”);

$result1 = mysql\_query(“select \* from register”);

echo “<table border=’1’ width=’50%’ align=’center’ height=’250px’>

<tr>

<th>Mobile Number</th>

<th>Aadhar Number</th></tr>”;

while($row = mysql\_fetch\_array($result1))

{

echo “<tr align=’center’>”;

echo “<td>” . $row[‘MobileNumber’] . “</td>”;

echo “<td>” . $row[‘AadharNumber’] . “</td>”;

echo “</tr>”;

}

echo “</table>”;

?>

**6.1.5 Travel detail entry**

<?php

if($\_SERVER[‘REQUEST\_METHOD’]==”POST”)

{

$aadhar=$\_POST[‘Aadhar’];

$mobile=$\_POST[‘Mobile’];

$Source=$\_POST[‘Source’];

$Dest=$\_POST[‘Destination’];

$Time=$\_POST[‘Time’];

$Date=$\_POST[‘Date’];

$Class=$\_POST[‘Class’];

$Birth=$\_POST[‘Birth’];

$Cost=$\_POST[“Cost”];

$Seat=$\_POST[‘seatno’];

$otp = mt\_rand(10000, 99999);

$con=mysql\_connect(“localhost”,”root”,””);

mysql\_select\_db(“ticket”);

$text=”Thank you for using Ticket Reservation, your Journey is confirmed Your OTP Number”.$otp.”Aadhar number”.$aadhar.”,”.$mobile.”From”.$Source.”To”.$Dest.”On”.$Date.”,”.$Time.”in”.$Class.”,”.$Birth.”,Total Cost”.$Cost.”Seat No: “.$Seat;

$sender\_mobile = $mobile;

$message\_text = $text;

$fp=fopen(“http://bhashsms.com/api/sendmsg.php?user=uniq&pass=123456&sender=UNIQTE&phone=”.$sender\_mobile.”&text=”.urlencode($message\_text).”&priority=ndnd&stype=normal”,”r”);

$response = stream\_get\_contents($fp);

echo “Success : “.$response;

$result1 = mysql\_query(“insert into traveldetails(AadharNum,MobileNumber,Source,Destination,Time,Date,Class,Couch,Cost,Seat,OTP) values(‘$aadhar’,’$mobile’,’$Source’,’$Dest’,’$Time’,’$Date’,’$Class’,’$Birth’,’$Cost’,’$Seat’,’$otp’);”);

$result=mysql\_query(“update ticketrequest set Status=’Completed’ where AadharNum=’$aadhar’”);

if($result1)

{

print ‘<script>alert(“Confirmed successfully”)</script>’;

}}

?>

**6.1.6 Issue OTP**

<!doctype html>

<html>

<head>

<meta charset=”utf-8”>

<title>Untitled Document</title>

</head>

<body>

<?php

$otp = mt\_rand(10000, 99999);

echo $otp;

?>

</body>

</html>

**6.1.7 Ticket checker login**

<?php

if(isset($\_POST[“submit”]))

{

$name=mysql\_real\_escape\_string($\_POST[‘name’]);

$password=mysql\_real\_escape\_string($\_POST[‘password’]);

if($name==’admin’ && $password==’admin’)

{

header(“Location:adminview.php”);

}

else if($name==”TicketChecker” && $password==”Checker”)

{

header(“Location:ConfirmedDetailsTC.php”);

}

else

{

print ‘<script>alert(“Check username and Password”)</script>’;

}}

?>

**6.1.8 Ticket checker view details**

<?php

mysql\_connect(“localhost”,”root”,””);

mysql\_select\_db(“ticket”);

$result1 = mysql\_query(“select \* from traveldetails”);

echo “<table border=’1’ width=’50%’ align=’center’ height=’250px’>

<tr>

<th>Id</th>

<th>OTP</th>

<th>Aadhar Number</th>

<th>Mobile Number</th>

<th>Source</th>

<th>Destination</th>

<th>Time</th>

<th>Date</th>

<th>Class</th>

<th>Couch</th>

<th>Cost</th>

</tr>”;

while($row = mysql\_fetch\_array($result1))

{

echo “<tr align=’center’>”;

echo “<td>” . $row[‘Id’] . “</td>”;

echo “<td>” . $row[‘OTP’] . “</td>”;

echo “<td>” . $row[‘AadharNum’] . “</td>”;

echo “<td>” . $row[‘MobileNumber’] . “</td>”;

echo “<td>” . $row[‘Source’] . “</td>”;

echo “<td>” . $row[‘Destination’] . “</td>”;

echo “<td>” . $row[‘Time’] . “</td>”;

echo “<td>” . $row[‘Date’] . “</td>”;

echo “<td>” . $row[‘Class’] . “</td>”;

echo “<td>” . $row[‘Couch’] . “</td>”;

echo “<td>” . $row[‘Cost’] . “</td>”;

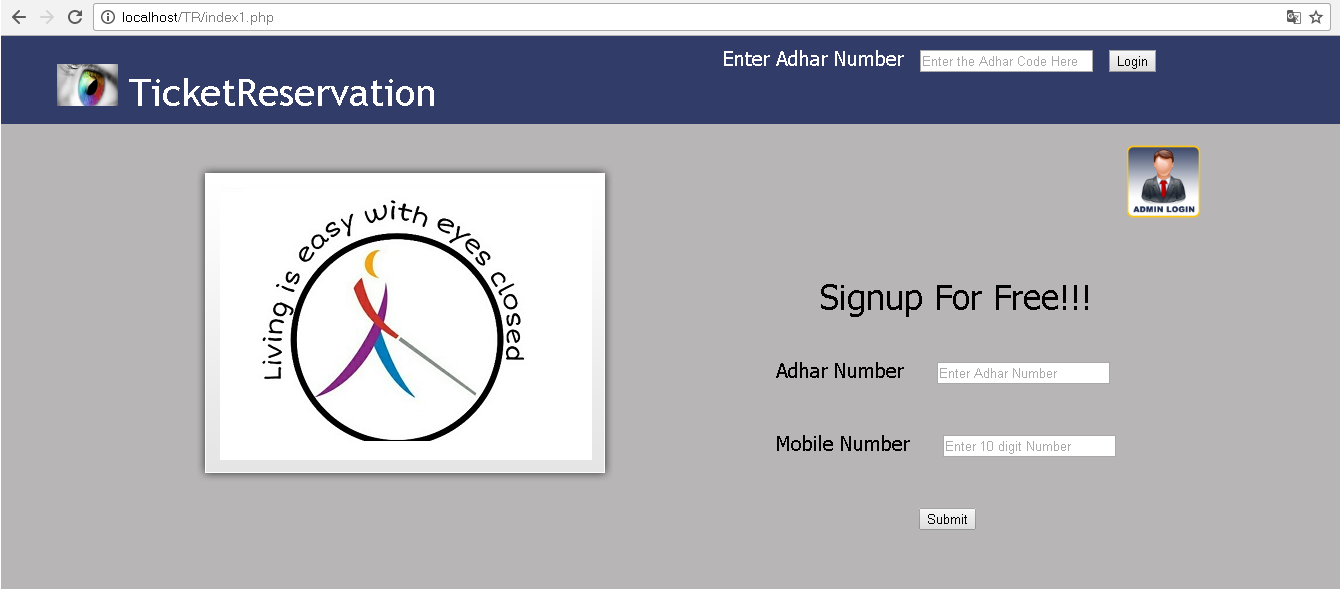
echo “</tr>”;

}

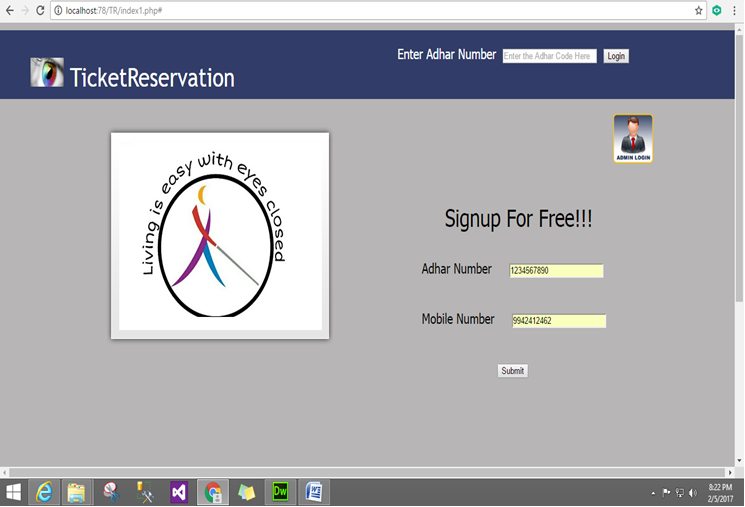
echo “</table>”;

?>

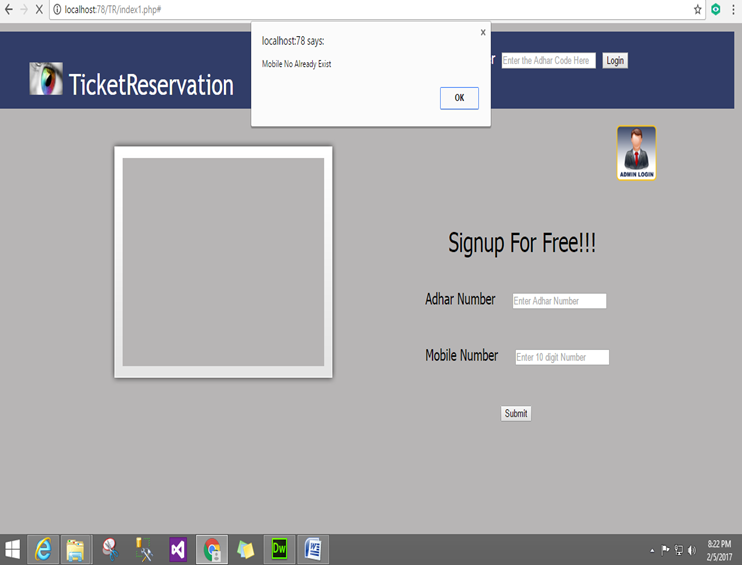
**6.2 SNAP SHOT:**



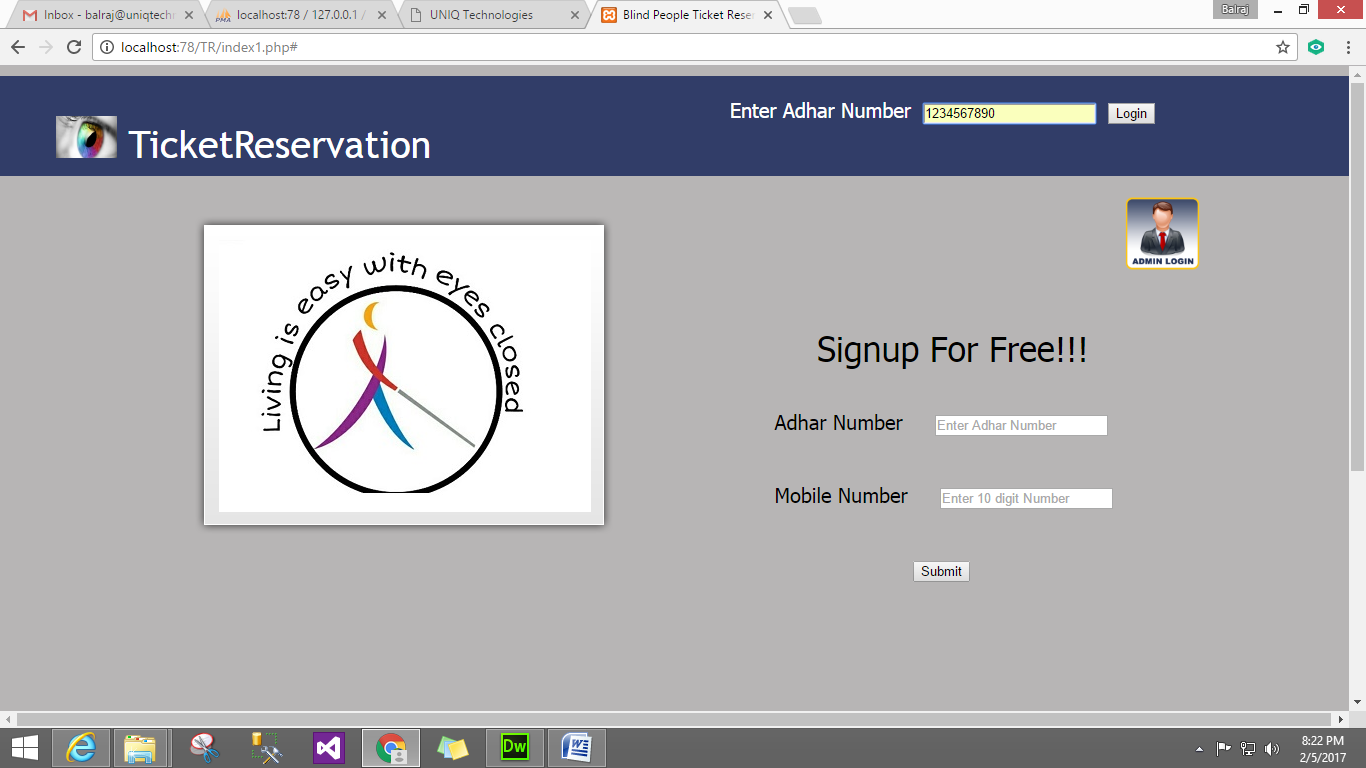
**Figure 6.2.1 Snap Shot of Homepage**

****

**Figure 6.2.2 Snap Shot of Unique ID registration**

****

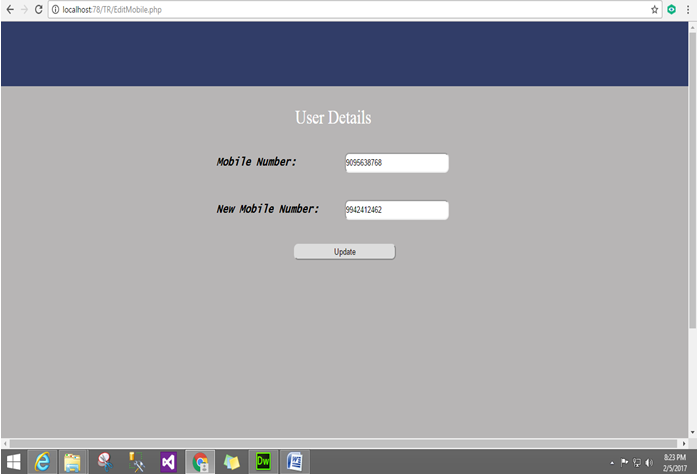
**Figure 6.2.3 Snap Shot of Already registered user**

****

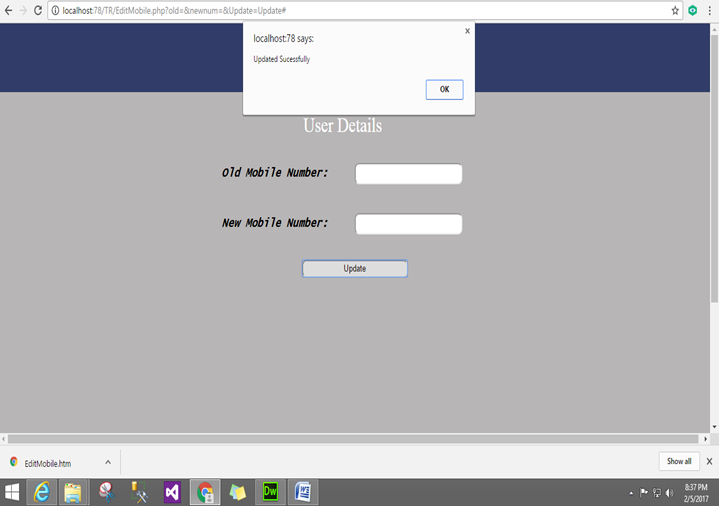
**Figure 6.2.4 Snap Shot of Login page**

****

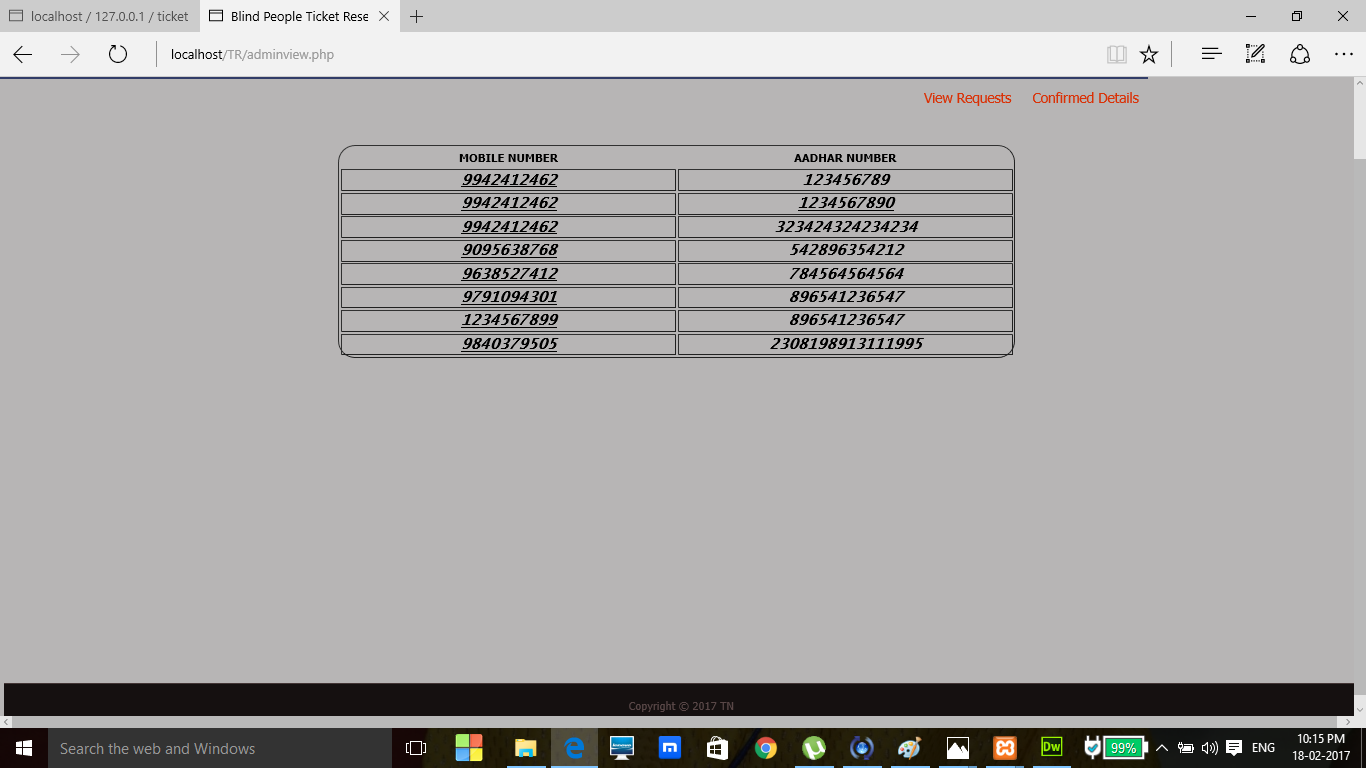
**Figure 6.2.5 Snap Shot of User details page**

****

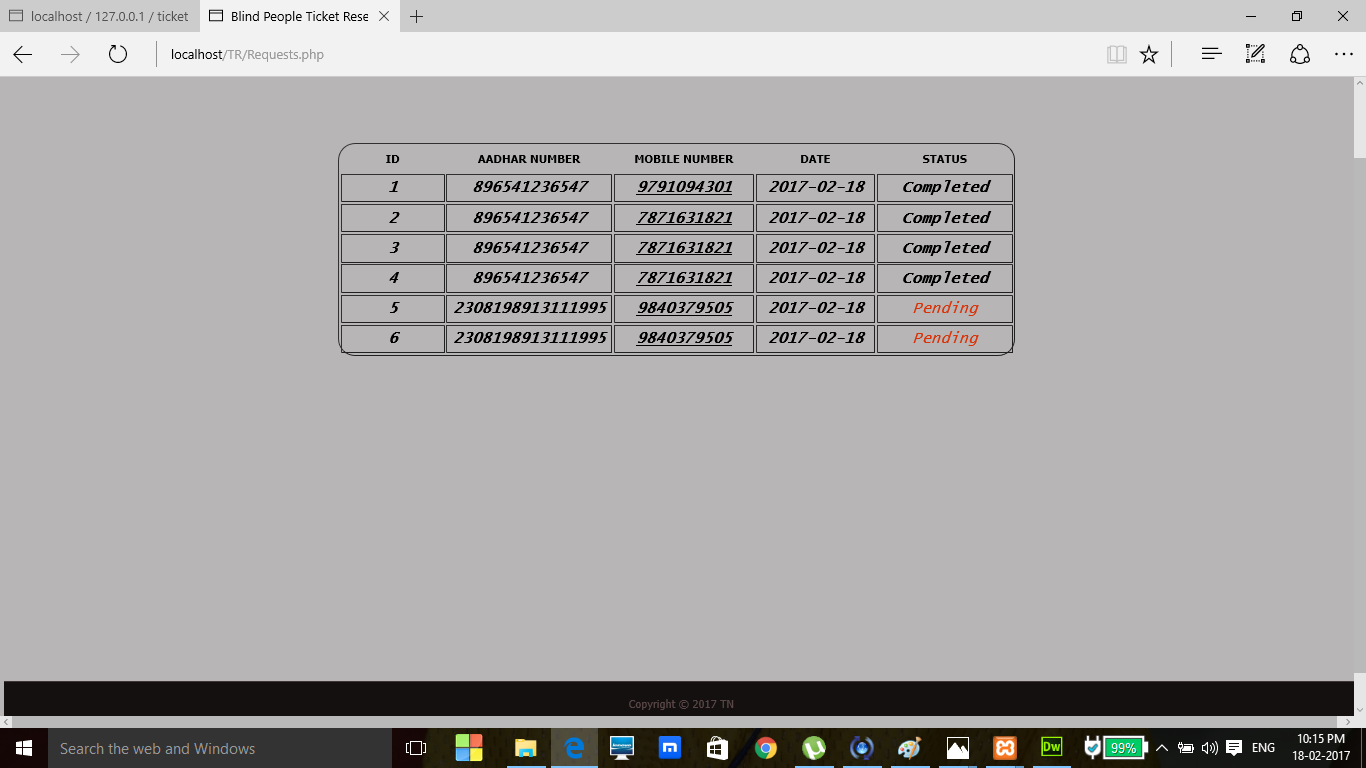
**Figure 6.2.6 Snap Shot of Mobile number updation**

****

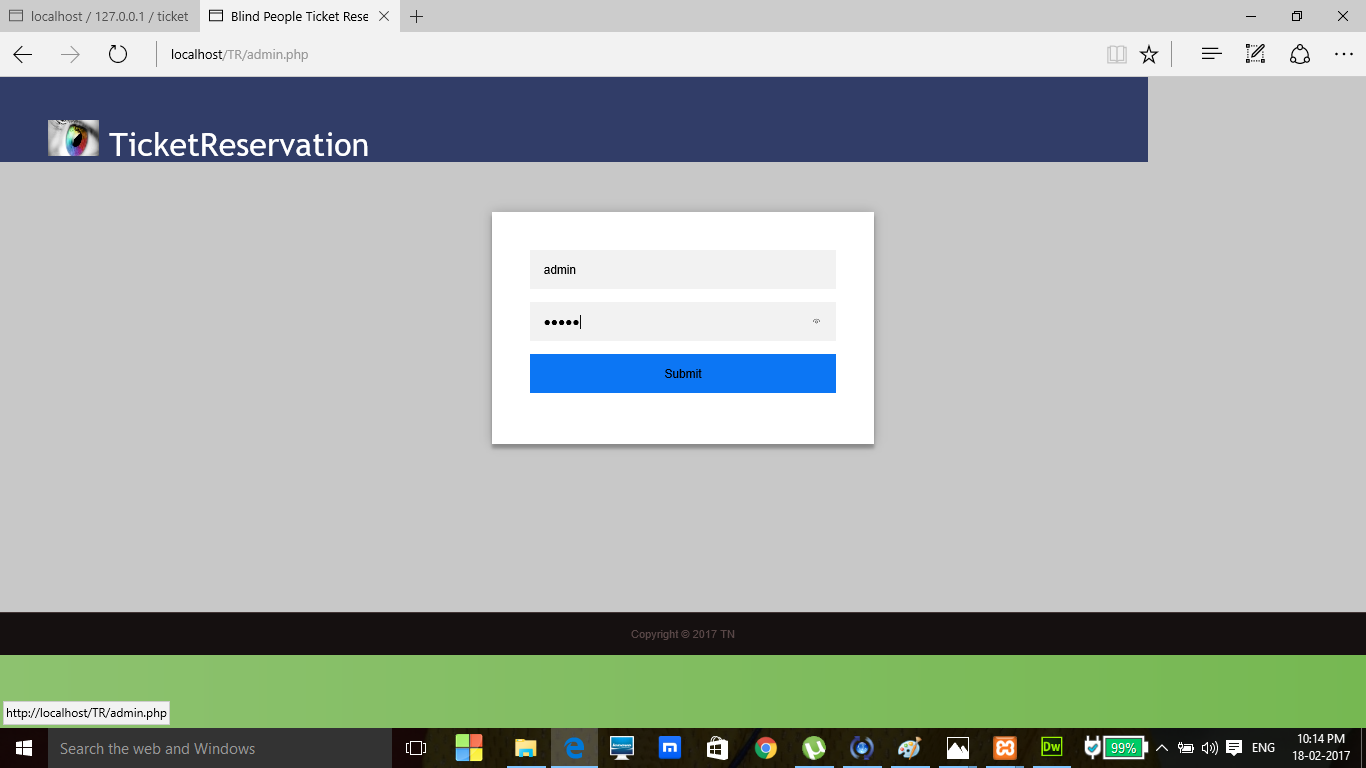
**Figure 6.2.7 Snap Shot of Successful updation**

****

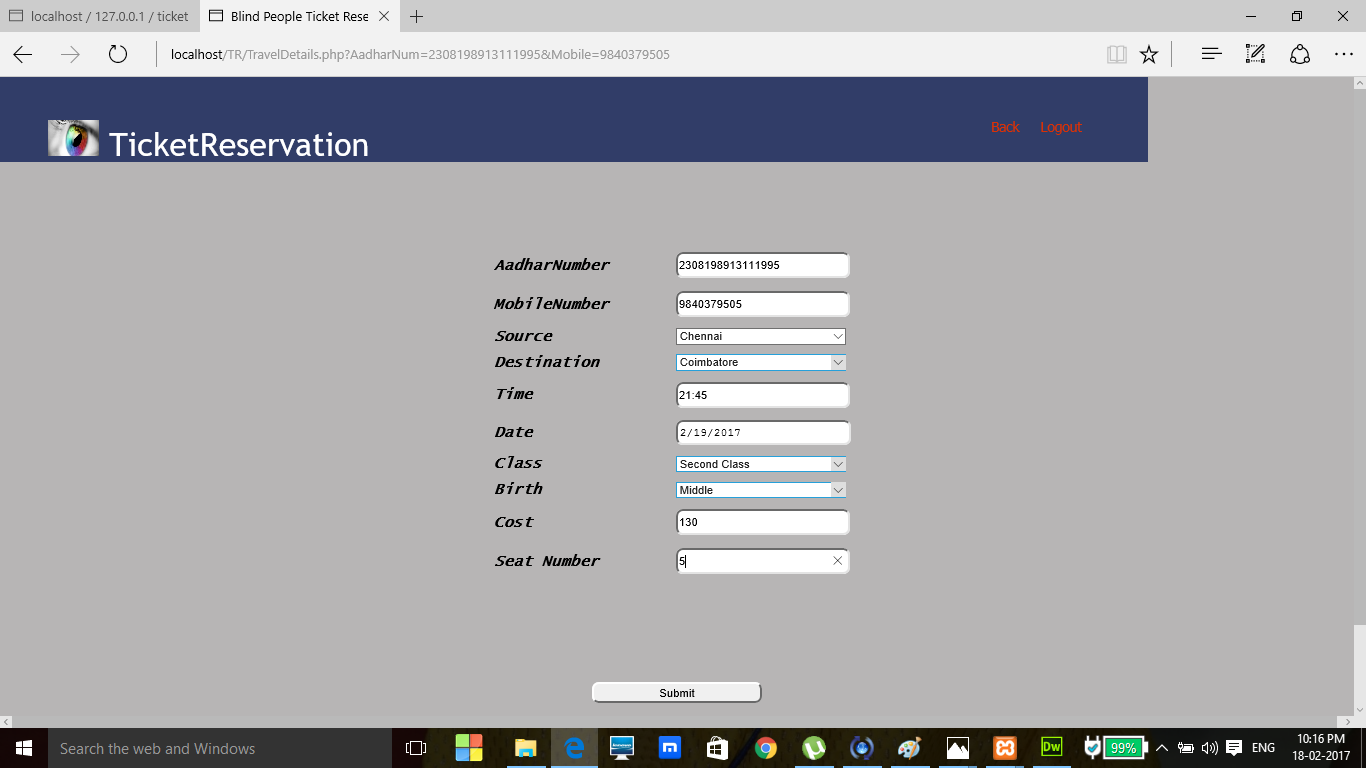
**Figure 6.2.8 Snap Shot of blind people details**

****

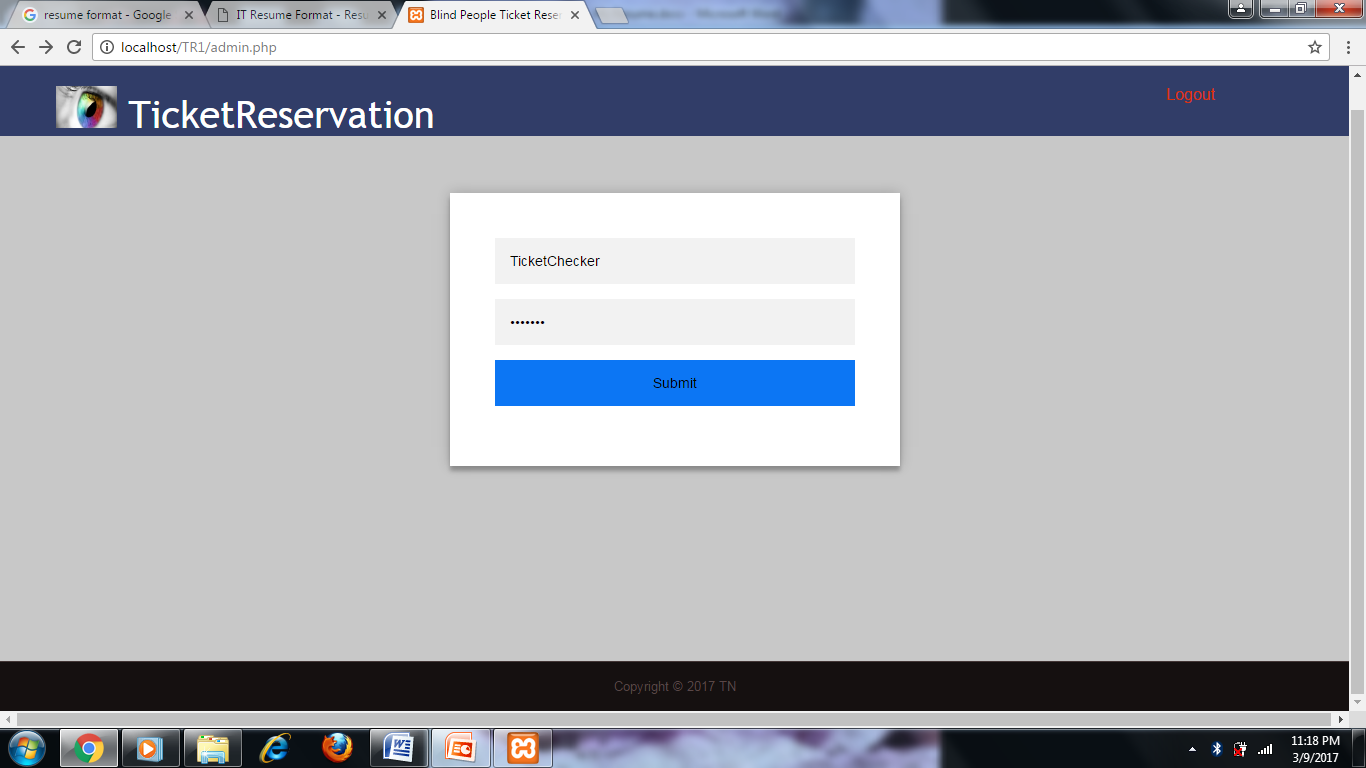
**Figure 6.2.9 Snap Shot of Number of ticket request**

****

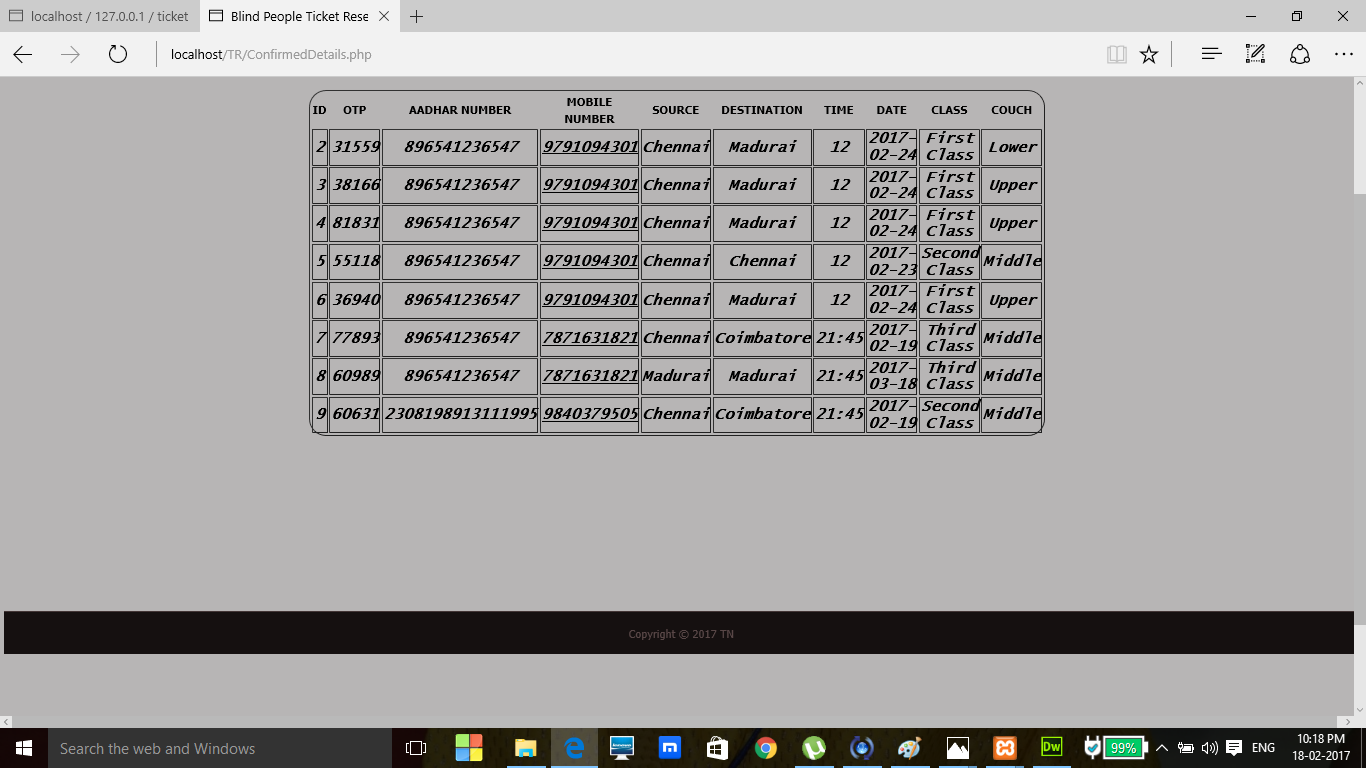
**Figure 6.2.10 Snap Shot of Admin login**

****

**Figure 6.2.11 Snap Shot of Travel details**

****

**Figure 6.2.12 Snap Shot Ticket checker login**

****

**Figure 6.2.13 Snap Shot of Confirmed traveler details**

**TESTING**

**7.1 INTRODUCTION**

* Testing is a process of executing a program or application with the intent of finding the software bugs.
* **It is a process of validating and verifying** that a software program or application or product.

**7.1.1 OBJECTIVES**

The software is tested to validate whether it meets the following requirements that guided its design and development, responds correctly to all kinds of inputs, performs its functions within an acceptable time, is sufficiently usable, can be installed and run in its intended environment, and achieves the general result its stakeholders desire.

**7.2 UNIT TESTING**

Unit testing is a [software](http://searchsoa.techtarget.com/definition/software) development process in which the smallest testable parts of an [application](http://searchsoftwarequality.techtarget.com/definition/application), called units, are individually and independently scrutinized for proper operation. Unit testing is often automated but it can also be done manually. This testing mode is a component of [Extreme Programming](http://searchsoftwarequality.techtarget.com/definition/Extreme-Programming) (XP), a pragmatic method of software development that takes a meticulous approach to building a product by means of continual testing and revision. We use unit testing to test the login information of the blind user and stored set of login information in the database.

**7.3 INTEGRATION TESTING**

Integration testing (sometimes called integration and testing, abbreviated I&T) is the phase in [software testing](https://en.wikipedia.org/wiki/Software_testing) in which individual software modules are combined and tested as a group. It occurs after [unit testing](https://en.wikipedia.org/wiki/Unit_testing) and before [validation testing](https://en.wikipedia.org/wiki/Verification_and_validation_%28software%29). Integration testing takes as its input [modules](https://en.wikipedia.org/wiki/Module_%28programming%29) that have been [unit tested](https://en.wikipedia.org/wiki/Unit_testing), groups them in larger aggregates, applies tests defined in an integration [test plan](https://en.wikipedia.org/wiki/Test_plan) to those aggregates, and delivers as its output the integrated system ready for [system testing](https://en.wikipedia.org/wiki/System_testing).

In our project we used the integration testing to test the functional, performance, and reliability [requirements](https://en.wikipedia.org/wiki/Requirement).

**7.4 WHITE BOX TESTING**

White-box testing (also known as clear box testing, glass box testing, transparent box testing, and structural testing) is a method of testing [software](https://en.wikipedia.org/wiki/Software) that tests internal structures or workings of an application, as opposed to its functionality (i.e. [black-box testing](https://en.wikipedia.org/wiki/Black-box_testing)).

In our project we use the white box testing with unique registration details for each individual blind user.

**7.5 BLACK BOX TESTING**

Black-box testing is a method of software [testing](https://en.wikipedia.org/wiki/Software_testing) that examines the functionality of an application without peering into its internal structures or workings

In black box testing we designed the test cases that are relevant to the functions and specifications of our software like accuracy in the detection of the blind user.

**Example:**

A blind user’s aadhaar number and mobile number is given as input and tested with the database.

**7.6 USER ACCEPTANCE TESTING**

User acceptance testing (UAT) is the last phase of the software testing process. During UAT, actual software users test the software to make sure it can handle required tasks in real-world scenarios, according to specifications. In our project the user of the system is the visually impaired or the blind user, the software is presented to the blind user and tested.

**7.7 TEST CASE RESULTS:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test case**  **No** | **Input** | **Excepted**  **Output** | **Obtained**  **Output** | **Pass/Fail** | **Remark** |
| 1 | Registration validation | Registered  successfully | Registered  successfully | Pass | Registration accepted |
| 2 | Registration  validation | Registered  successfully | Mobile number already exists | Pass | Already registered user |
| 3 | User login validation | Login successful | Login successful | Pass | Login ID accepted |
| 4 | Mobile number updation | Updated data successfully | Updated data successfully | Pass | Mobile number is updated to database |
| 5 | Travel detail confirmation | Confirmed successfully | Confirmed successfully | Pass | Travel details are updated in the database and OTP is generated |
| 6 | Ticket Checker login validation | Redirected to confirmed travel details | Redirected to confirmed travel details | Pass | Ticket Checker views the list of confirmed details for ticket verification |

**CONCLUSION AND FUTURE ENHANCEMENT**

**8.1 CONCLUSION**

There are many problems for visually impaired and blind people in the society. They face many types of hurdles in performing everyday routine work, the barrier of low vision doesn't let them to become a part of this society. At present the current ticketing systems are not mature enough to work for visually impaired users. Only the normal users are benefited out of this, whereas the visually impaired user needs the help of other people . The usability, actability and user-centred aspects should be considered while designing ticket reservation system for visually impaired users. Using the above mentioned aspects, it is ensured that an useful application was created for the blind people to book their tickets at ease.

**8.2 FUTURE ENHANCEMENT:**

Our project can be enhanced in the future by using esight3 which is an electronic glass that lets the legally blind and visually impaired people to see and read text. We have developed an ticket reservation application for visually impaired or blind people which can be further enhanced and used for people with other disabilities.

**REFRENCES**

1. Adam Dąbrowski, Damian Huderek, Marcin Iwanowski, Piotr Kardyś, “A new android application for blind and visually impaired people”, IEEE Transaction on Computers, Poland 2016.
2. R. Guha, V. Gupta, V. Raghunathan, R. Srikant, “User modeling for a personal assistant”, The 8th WSDM International Conference, Shanghai 2015.
3. S. M. Kulkarni, Rupa N. Digole, ”Smart navigation system for visually impaired person”, International Journal of Advanced Research in Computer and Communication Engineering, India 2015.
4. Pooja Sharma, Shimi S. L, “Design and Development of Virtual Eye for the blind”, International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering, India 2015.
5. J. Hildenbrand, “What is Google TalkBack”, AndroidCentral.com, 2014.
6. Bairoju Vishwa Rupa Chary, B.Santosh Kumar, “Rescue system for visually impaired blind persons”, International Journal of Engineering Trends and Technology (IJETT), India 2014.
7. Harshad Girish Lele, Mrunmayi Mohan Modak, Viten Vilas Lonkar, Varun Vasant Marathe, “Electronis path guidance for visually impaired people”, The International Journal Of Engineering And Science (IJES), India 2013.
8. Abhishek Srivastava, Adhar Vashishth, Akshay Sharma, “An assistive reading system for visually impaired using OCR and TTS”, International Journal of Computer Applications, India 2014.
9. L. Katz, “Ray turns Android phone into device for the blind”, Cnet.com, 2012.
10. Amanda Hastings, Ravi Kuber, Matthew Tretter, “Determining the accessibility of mobile screen readers for blind users”, IASTED Conference on Human-Computer Interaction, Baltimore, USA 2012.
11. A. Ruthruff, “How to use Voice Dialer on an Android phone”, Groovy Post LLC, Port Orchard 2010.

**APPENDIX**

**APPENDIX**

**COPYRIGHTS DETAILS**

**PAPER TITLE** Application for visually impaired people

**DAIRY NUMBER** 3197/2017-CO/SW

**COPRIGHT REG OF** Computer Software

**MONTH AND YEAR** February 2017