Project Report (2022 – 23)

On

Cloud Based Bus Pass System

Institute of Engineering and Technology

Submitted by:

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Supervised By:

Mr. Sachin Upadhyay

Declaration

We hereby declare that the work which is being presented in the Cloud Computing Project **"Cloud Based Bus Pass System",** in partial fulfilment of the requirements for Cloud Based Bus Pass System Project viva voce, is an authentic record of our own work carried by the team members under the supervision of our mentor **Mr. Sachin Upadhyay**.

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Course: B. Tech

(CS-CCV) Year: 3rd

Semester: 5th

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Certificate

This is to certify that the above statements made by the candidates are correct to the best of my/our knowledge and belief.

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Mr. Sachin Upadhyay

_____ _____

Project Mentor | Program Coordinator

(Mr. Sachin Upadhyay) | (Dr. Hitendra Garg)

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1. ACKNOWLEDGEMENT

It gives us a great sense of pleasure to present the synopsis of the BTech mini project undertaken during BTech III Year. This project is going to be an acknowledgement to the inspiration, drive and technical assistance will be contributed to it by many individuals. We owe specialdebt of gratitude to Mr. Manish Jain, Technical Trainer, for providing us with an encouraging platform to develop this project, which thus helped us in shaping our abilities towards a constructive goal and for his constant support and guidance to our work.

His sincerity, thoroughness and perseverance has been a constantsource of inspiration for us. We believe that he will shower us with allhis extensively experienced ideas and insightful comments at differentstages of the project & also taught us about the latest industry-orientedtechnologies. We also do not like miss the opportunity to acknowledgethe contribution of all faculty members of the department for their kindguidance and co-operation.

Anubhavi Gahoi (201510002)

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2. INTRODUCTION

We are creating a Cloud based Buss Pass System, which helps the passengers to book their tickets online and generate a bus pass for themselves. Through this Bus Pass System, a passenger can book a ticket for themselves that will prevent them from standing all day long in long queues at the bus stand.

We wanted to try something new and challenging while doing our first mini project. So, we decided to create something that can be used on the regular basis and a platform that has a on groundapplication, and from there only we got this idea in our mind and nowwe are working on it to implement this as soon as possible.

In this project we are creating a bus-pass generating system that is solving a real life problem and this is a problem that we face on dailybasis due to the overpopulation and crowd around us that makes travelling in public transport such as bus very difficult, and then we did some brainstorming and come up with the idea that we can do this by using a simple technique called as cloud deployment that can be applied and the users can be provided with a system where they can auto-generate their bus-passes on their own.

3. CLOUD COMPUTING

Cloud computing means storing and accessing the data and programs on remote servers that are hosted on the internet instead of the computer's hard drive or local server. Cloud computing is also referred to as Internet-based computing. **Cloud Computing Architecture:** Cloud computing architecture refers to the components and sub-components required for cloud computing. These components typically refer to:

1. Front end(fat client, thin client)
2. Back-end platforms(servers, storage)
3. Cloud-based delivery and a network(Internet, Intranet, Intercloud).

Amazon Web Services (AWS): One of the most successful cloud-based businesses is Amazon Web Services (AWS), which is an Infrastructure as a Service (Iaas) offering that pays rent for virtual computers on Amazon's infrastructure.

Microsoft Azure Platform: Microsoft is creating the Azure platform which enables the .NET Framework Application to run over the internet as an alternative platform for Microsoft developers. This is the classic Platform as a Service (PaaS).

Google: Google has built a worldwide network of data centers to service its search engine. From this service, Google has captured the world's advertising revenue. By using that revenue, Google offers free software to users based on infrastructure. This is called Software as a Service (SaaS).

4. TECHNOLOGIES USED

4.1 AMAZON WEB SERVICES(AWS)

Amazon Web Services (AWS), a subsidiary of Amazon.com, has invested billions of dollars in IT resources distributed across the globe. These resources are shared among all the AWS account holders across the globe. These account themselves are entirely isolated from each other. AWS provides on-demand IT resources to its account holders on a pay-as-you-go pricing model with no upfront cost. Amazon Web services offers flexibility because you can only pay for services you use or you need. Enterprises use AWS to reduce capital expenditure of building their own private IT infrastructure (which can be expensive depending upon the enterprise's size and nature). AWS has its own Physical fiber network that connects with Availability zones, regions and Edge locations. All the maintenance cost is also bared by the AWS that saves a fortune for the enterprises.

4.2 HTML

HTML is an acronym which stands for **Hyper Text Markup Language** which is used for creating web pages and web applications. Let's see what is meant by Hypertext Markup Language, and Web page.

Hyper Text: HyperText simply means "Text within Text." A text has a link within it, is a hypertext. Whenever you click on a link which brings you to a new webpage, you have clicked on a hypertext. HyperText is a way to link two or more web pages (HTML documents) with each other.

Markup language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

Web Page: A web page is a document which is commonly written in HTML and translated by a web browser. A web page can be identified by entering an URL. A Web page can be of the static or dynamic type. **With the help of HTML only, we can create static web pages**.

Hence, HTML is a markup language which is used for creating attractive web pages with the help of styling, and which looks in a nice format on a web browser. An HTML document is made of many HTML tags and each HTML tag contains different content.

4.3 CSS

CSS tutorial or CSS 3 tutorial provides basic and advanced concepts of CSS technology. Our CSS tutorial is developed for beginners and professionals. The major points of CSS are given below:

- CSS stands for Cascading Style Sheet.
- CSS is used to design HTML tags.
- CSS is a widely used language on the web.
- HTML, CSS and JavaScript are used for web designing. It helps the web designers to apply style on HTML tags.

4.4 JAVASCRIPT

JavaScript (js) is a light-weight object-oriented programming language which is used by several websites for scripting the webpages. It is an interpreted, full-fledged programming language that enables dynamic interactivity on websites when applied to an HTML document. It was introduced in the year 1995 for adding programs to the webpages in the Netscape Navigator browser. Since then, it has been adopted by all other graphical web browsers. With JavaScript, users can build modern web applications to interact directly without reloading the page every time. The traditional website uses js to provide several forms of interactivity and simplicity.

Although, JavaScript has no connectivity with Java programming language. The name was suggested and provided in the times when Java was gaining popularity in the market. In addition to web browsers, databases such as CouchDB and MongoDB uses JavaScript as their scripting and query language.

4.5 PHP

PHP is an open-source, interpreted, and object-oriented scripting language that can be executed at the server-side. PHP is well suited for web development. Therefore, it is used to develop web applications (an application that executes on the server and generates the dynamic page.). Some important points need to be noticed about PHP are as followed:

- PHP stands for Hypertext Preprocessor.
- PHP is an interpreted language, i.e., there is no need for compilation.
- PHP is faster than other scripting languages, for example, ASP and JSP.
- PHP is a server-side scripting language, which is used to manage the dynamic content of the website.
- PHP can be embedded into HTML.

5. PROJECT DESCRIPTION

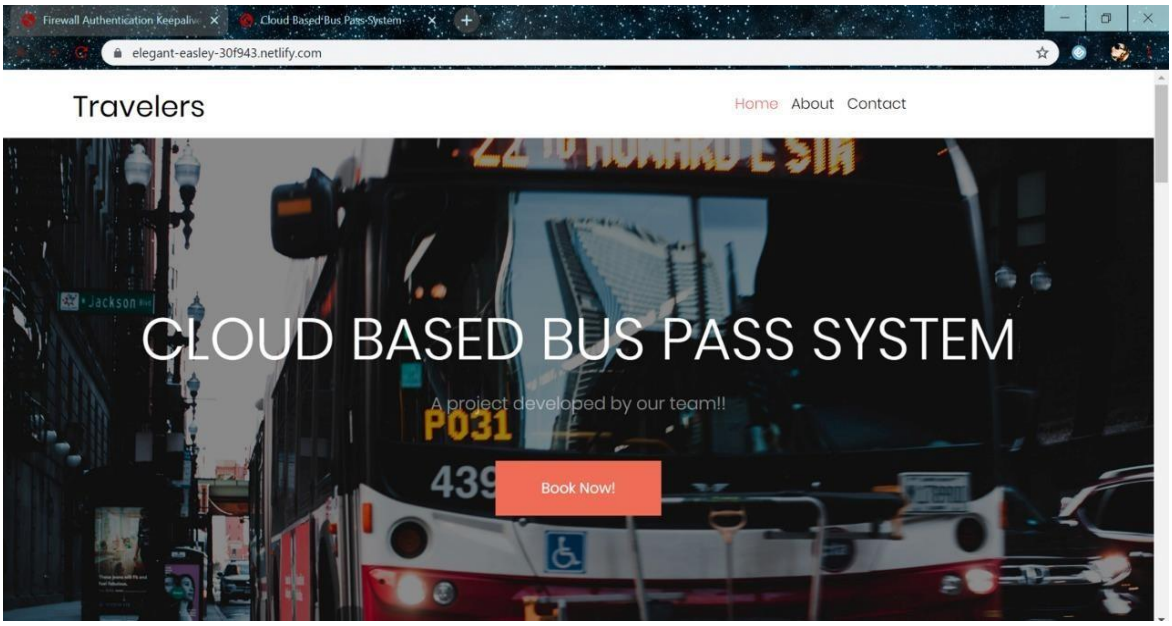
This project aims to provide an effective solution for maintaining Bus pass information using a database. The system has two logins, one for user and other for admin. Online bus pass Generation system is a web application for people to get Bus passes through online. This system was intended to develop an application to perform functionalities like accessing the basic information for authentication and provide Bus pass to a particular person without placing him/her in a queue for a long time. Online bus pass generation system is helpful as it reduces the paper work, time consumption and makes the process of getting bus pass in simple and faster way. User can refill their account and extend the validity every time when the pass expires. Admin can view all users' details and balance through its login. This system is helpful to people to get bus pass from anywhere in the Karnataka state and no need to worry about renewal of the Bus pass.

This project is accessible for two users:

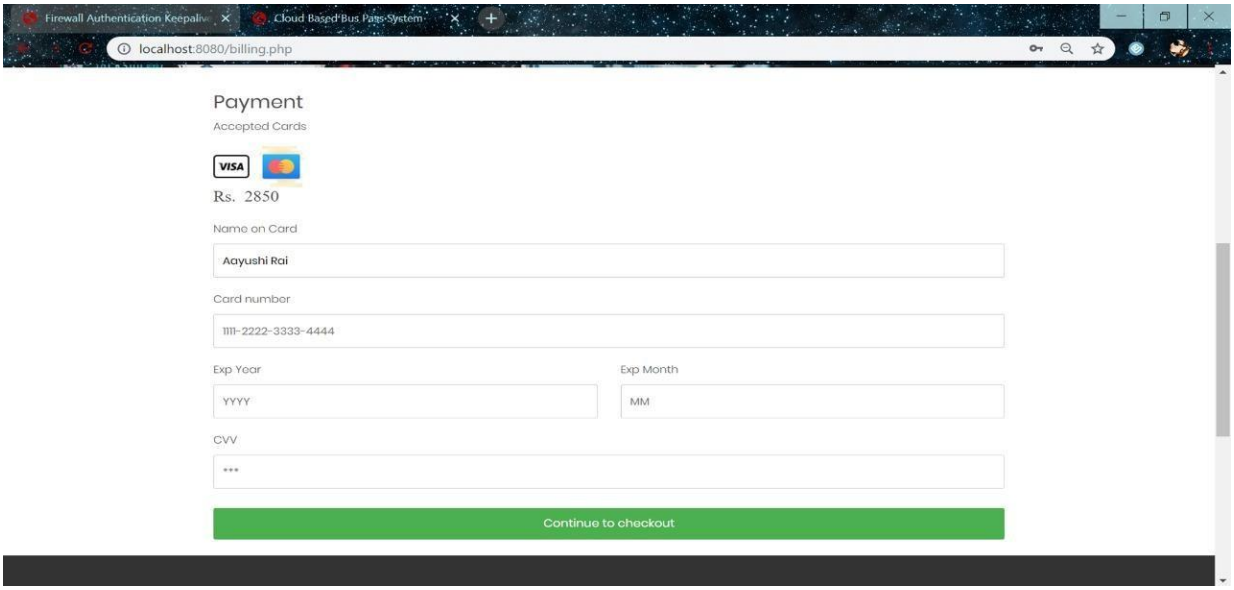
1. Admin: Their responsibilities include planning and supervisingall services—including monitoring and updating solutions.
2. Client: As an end user it will be a platform for you to raise your queries rather than generating manual tickets for a single problem.

6. SCREENSHOTS

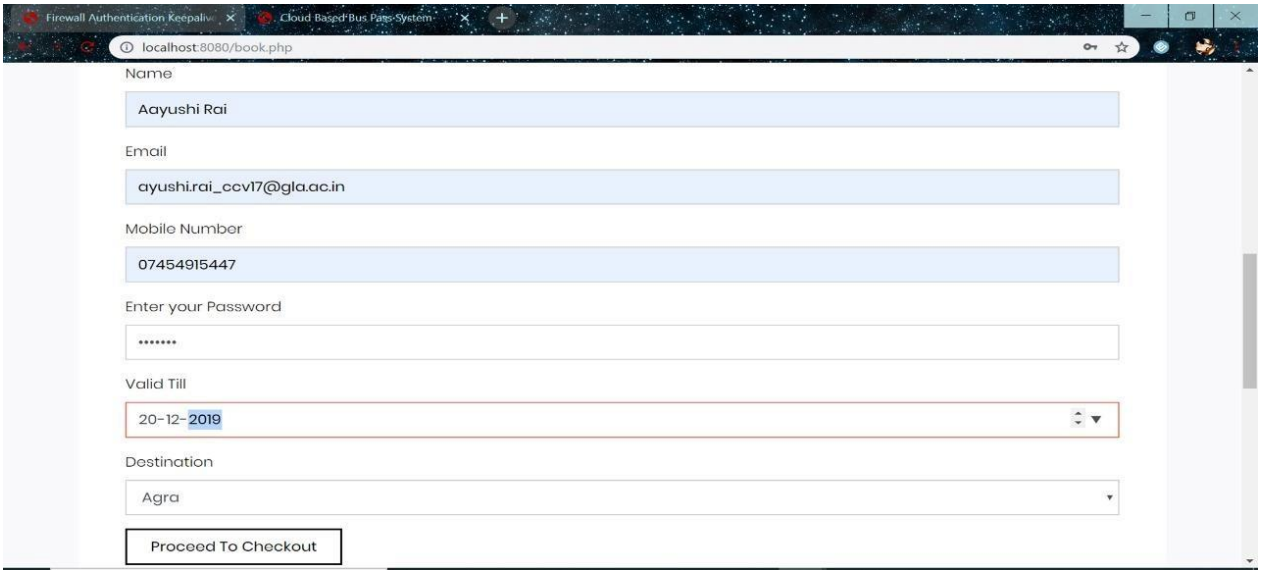
6.1 WEBSITE



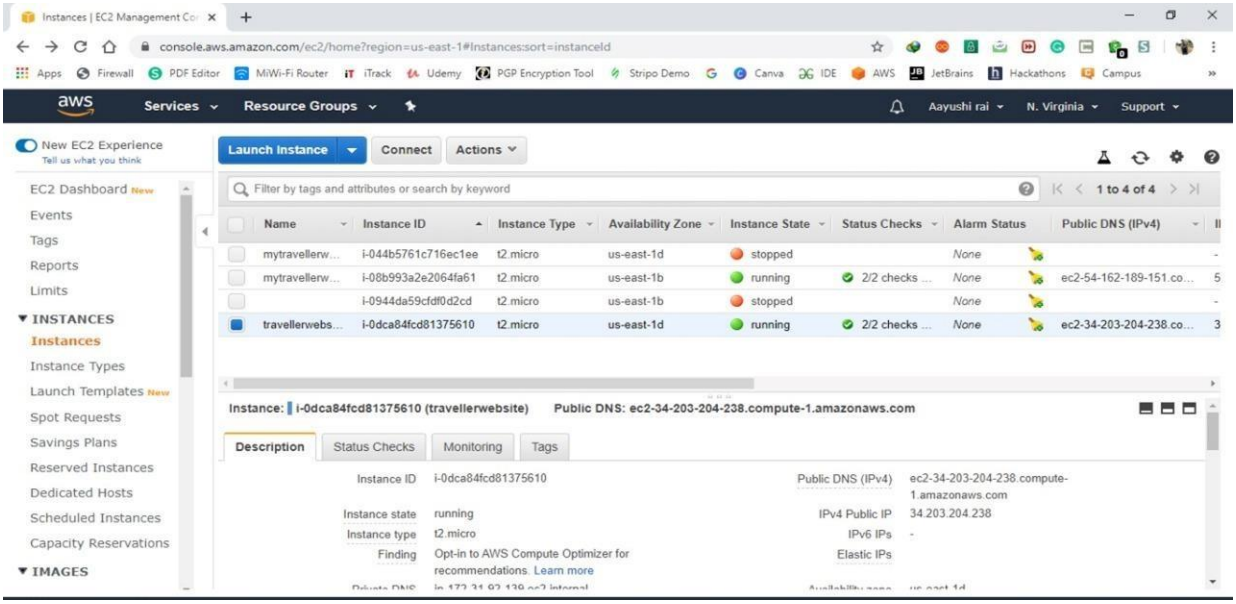
6.2 PAYMENT FORM



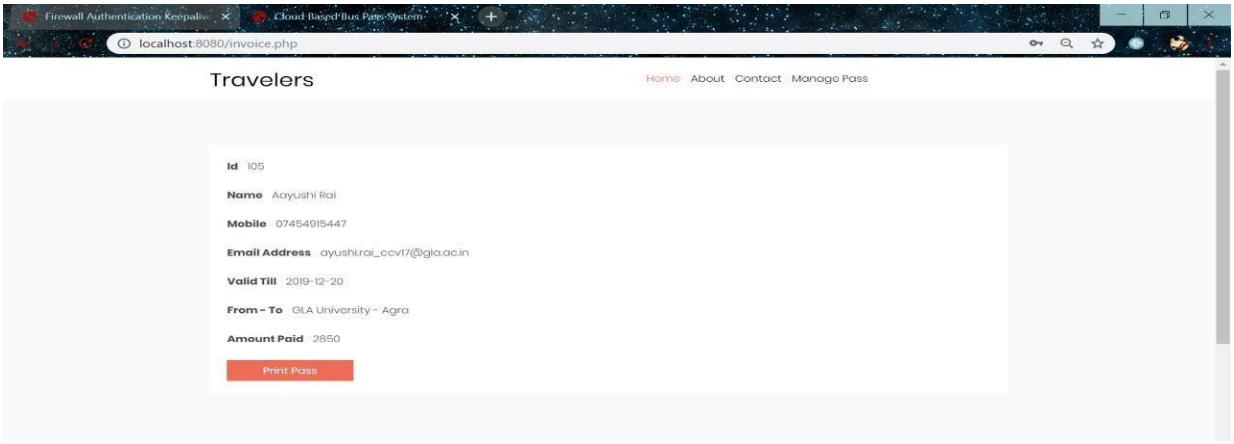
6.3 REGISTRATION PAGE



6.4 AWS-EC2 INSTANCE



6.5 PASS GENERATED



7. CODE

7.1 HTML

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Cloud Based Bus Pass System</title>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">

    <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Poppins:200,300,400,700,900|Display+Playfair:200,300,400,700">
    <link rel="stylesheet" href="fonts/icomoon/style.css">

    <link rel="stylesheet" href="css/bootstrap.min.css">
    <link rel="stylesheet" href="css/magnific-popup.css">
    <link rel="stylesheet" href="css/jquery-ui.css">
    <link rel="stylesheet" href="css/owl.carousel.min.css">
    <link rel="stylesheet" href="css/owl.theme.default.min.css">

    <link rel="stylesheet" href="css/bootstrap-datepicker.css">

    <link rel="stylesheet" href="fonts/flaticon/font/flaticon.css">

    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/mediaelement@4.2.7/build/mediaelementplayer.min.css">


    <link rel="stylesheet" href="css/aos.css">

    <link rel="stylesheet" href="css/style.css">

  </head>
  <body>

  <div class="site-wrap">

    <div class="site-mobile-menu">
      <div class="site-mobile-menu-header">
        <div class="site-mobile-menu-close mt-3">
          <span class="icon-close2 js-menu-toggle"></span>
        </div>
      </div>
```

```
    <div>

      <div class="site-blocks-cover overlay" style="background-image: url(images/hero_bg_2.jpg);" data-aos="fade" data-stellar-background-ratio="0.5
        <div class="container">
          <div class="row align-items-center justify-content-center text-center">

            <div class="col-md-12" data-aos="fade-up" data-aos-delay="400">
              <h1 class="text-white font-weight-light">Cloud Based Bus Pass System</h1>
              <p class="mb-5">A project developed by our team!!</p>
              <p><a href="book.php" class="btn btn-primary py-3 px-5 text-white">Book Now!</a></p>
            </div>
          </div>
        </div>
      </div>
    </div>

  </div>


  <div class="site-section">

    <div class="container overlap-section">
      <div class="row">
        <div class="col-md-6 col-lg-4 mb-4 mb-lg-0">
          <a href="#" class="unit-1 text-center">
            <img src="images/img_2.jpg" alt="Image" class="img-fluid" style="height: 353px">
            <div class="unit-1-text">
              <h3 class="unit-1-heading">Saksham Johri</h3>
            </div>
          </a>
        </div>
        <div class="col-md-6 col-lg-4 mb-4 mb-lg-0">
          <a href="#" class="unit-1 text-center">
            <img src="images/img_1.jpg" alt="Image" class="img-fluid" style="height: 353px">
            <div class="unit-1-text">
              <h3 class="unit-1-heading">Pranjul Singhal</h3>
            </div>
          </a>
        </div>
```

```
                <li><a href="#">Home</a></li>
                <li><a href="#">About Us</a></li>
                <li><a href="#">Contact Us</a></li>
              </ul>
            </div>
          </div>
        </div>
      </div>
      <div class="row pt-5 mt-5 text-center">
        <div class="col-md-12">
          <p>
          Copyright &copy;<script>document.write(new Date().getFullYear());</script> All rights reserved
          </p>
        </div>
      </div>
    </div>
  </footer>
</div>
<script src="js/jquery-3.3.1.min.js"></script>
<script src="js/jquery-migrate-3.0.1.min.js"></script>
<script src="js/jquery-ui.js"></script>
<script src="js/popper.min.js"></script>
<script src="js/bootstrap.min.js"></script>
<script src="js/owl.carousel.min.js"></script>
<script src="js/jquery.stellar.min.js"></script>
<script src="js/jquery.countdown.min.js"></script>
<script src="js/jquery.magnific-popup.min.js"></script>
<script src="js/bootstrap-datepicker.min.js"></script>
<script src="js/aos.js"></script>

<script src="js/main.js"></script>

</body>
</html>
```

7.2 CSS

```
body {
  line-height: 1.7;
  color: #4d4d4d;
  font-weight: 300;
  font-size: 1rem; }

::-moz-selection {
  background: #000;
  color: #fff; }

::selection {
  background: #000;
  color: #fff; }

a {
  -webkit-transition: .3s all ease;
  -o-transition: .3s all ease;
  transition: .3s all ease; }
  a:hover {
    text-decoration: none; }

h1, h2, h3, h4, h5,
.h1, .h2, .h3, .h4, .h5 {
  font-family: "Poppins", -apple-system, BlinkMacSystemFont, "Segoe UI", Roboto, "Helvetica Neue", Arial, sans-serif, "Apple Color Emoji", "Segoe U

.border-2 {
  border-width: 2px; }

.text-black {
  color: #000 !important; }

.bg-black {
  background: #000 !important; }

.color-black-opacity-5 {
  color: rgba(0, 0, 0, 0.5); }
```

```
    position: absolute;
    -webkit-transform: translate(-50%, -50%);
    -ms-transform: translate(-50%, -50%);
    transform: translate(-50%, -50%);
    left: 50%;
    top: 50%; }
  .player h2 {
    font-size: 20px;
    letter-spacing: .2em;
    text-transform: uppercase; }
  .player .position {
    font-size: 14px;
    color: #b3b3b3;
    text-transform: uppercase; }

.site-block-27 ul, .site-block-27 ul li {
  padding: 0;
  margin: 0; }

.site-block-27 ul li {
  display: inline-block;
  margin-bottom: 4px; }
  .site-block-27 ul li a, .site-block-27 ul li span {
    text-align: center;
    display: inline-block;
    width: 40px;
    height: 40px;
    line-height: 40px;
    border-radius: 50%;
    border: 1px solid #ccc; }
  .site-block-27 ul li.active a, .site-block-27 ul li.active span {
    background: #ef6c57;
    color: #fff;
    border: 1px solid transparent; }

.site-block-feature-7 .icon {
  -webkit-transition: .2s all ease-in-out;
```

```
      -webkit-transform: translate(-60%, -50%);
      -ms-transform: translate(-60%, -50%);
      transform: translate(-60%, -50%); }

  .block-25 ul, .block-25 ul li {
    padding: 0;
    margin: 0; }

  .block-25 ul li a .image {
    -webkit-box-flex: 0;
    -ms-flex: 0 0 90px;
    flex: 0 0 90px; }
    .block-25 ul li a .image img {
      border-radius: 4px;
      max-width: 100%;
      opacity: 1;
      -webkit-transition: .3s all ease-in-out;
      -o-transition: .3s all ease-in-out;
      transition: .3s all ease-in-out; }

  .block-25 ul li a .text .heading {
    font-size: 18px;
    line-height: 1.5;
    margin: 0;
    padding: 0;
    -webkit-transition: .3s all ease;
    -o-transition: .3s all ease;
    transition: .3s all ease;
    color: #999999; }

  .block-25 ul li a .meta {
    color: #ef6c57; }

  .block-25 ul li a:hover img {
    opacity: .5; }

  .block-25 ul li a:hover .text .heading {
    color: #fff; }
```

```
@media (max-width: 991.98px) {
  .img-md-fluid {
    max-width: 100%; } }

@media (max-width: 991.98px) {
  .display-1, .display-3 {
    font-size: 3rem; } }

.play-single-big {
  width: 90px;
  height: 90px;
  display: inline-block;
  border: 2px solid #fff;
  color: #fff !important;
  border-radius: 50%;
  position: relative;
  -webkit-transition: .3s all ease-in-out;
  -o-transition: .3s all ease-in-out;
  transition: .3s all ease-in-out; }
  .play-single-big > span {
    font-size: 50px;
    position: absolute;
    top: 50%;
    left: 50%;
    -webkit-transform: translate(-40%, -50%);
    -ms-transform: translate(-40%, -50%);
    transform: translate(-40%, -50%); }
  .play-single-big:hover {
    width: 120px;
    height: 120px; }

.overlap-to-top {
  margin-top: -150px; }

/* Navbar */
.site-navbar {
  margin-bottom: 0px;
  z-index: 1999;
```

```
    width: 100%; }
    .unit-1 .unit-1-text .unit-1-heading {
      font-size: 1.2rem;
      position: relative; }
  .unit-1:hover .unit-1-text {
    bottom: 30px; }
  .unit-1:hover img {
    -webkit-transform: scale(1.05);
    -ms-transform: scale(1.05);
    transform: scale(1.05); }

.overlap-section {
  margin-top: -150px;
  position: relative;
  z-index: 9; }

.unit-4 .unit-4-icon span {
  line-height: 0;
  font-size: 3rem; }

.unit-4 h3 {
  font-size: 20px; }

.h-entry img {
  margin-bottom: 30px; }

.h-entry .meta {
  color: #b3b3b3;
  font-size: 14px; }

.h-entry h2 {
  font-size: 20px; }

.overlap-left {
  margin-left: -100px; }
  @media (max-width: 991.98px) {
    .overlap-left {
      margin-left: 0px; } }
```

7.3 JAVASCRIPT

```
AOS.init({
    duration: 800,
    easing: 'slide',
    once: true
});

jQuery(document).ready(function($) {

    "use strict";



    var siteMenuClone = function() {

        $('.js-clone-nav').each(function() {
            var $this = $(this);
            $this.clone().attr('class', 'site-nav-wrap').appendTo('.site-mobile-menu-body');
        });


        setTimeout(function() {

            var counter = 0;
      $('.site-mobile-menu .has-children').each(function(){
        var $this = $(this);

        $this.prepend('<span class="arrow-collapse collapsed">');

        $this.find('.arrow-collapse').attr({
          'data-toggle' : 'collapse',
          'data-target' : '#collapseItem' + counter,
        });

        $this.find('> ul').attr({
          'class' : 'collapse',
          'id' : 'collapseItem' + counter,
        });
    };
    siteCarousel();

    var siteStellar = function() {
        $(window).stellar({
        responsive: false,
        parallaxBackgrounds: true,
        parallaxElements: true,
        horizontalScrolling: false,
        hideDistantElements: false,
        scrollProperty: 'scroll'
      });
    };
    siteStellar();

    var siteCountDown = function() {

        $('#date-countdown').countdown('2020/10/10', function(event) {
          var $this = $(this).html(event.strftime(''
            + '<span class="countdown-block"><span class="label">%w</span> weeks </span>'
            + '<span class="countdown-block"><span class="label">%d</span> days </span>'
            + '<span class="countdown-block"><span class="label">%H</span> hr </span>'
            + '<span class="countdown-block"><span class="label">%M</span> min </span>'
            + '<span class="countdown-block"><span class="label">%S</span> sec</span>'));
        });

    };
    siteCountDown();

    var siteDatePicker = function() {

        if ( $('.datepicker').length > 0 ) {
            $('.datepicker').datepicker();
        }

    };
    siteDatePicker();
```

7.4 PHP

```
<?php
        $servername = "localhost";
        $username = "root";
        $password = "usbw";
        $conn = mysql_connect ($servername , $username , $password) or die("unable to connect to host");
    $sql = mysql_select_db ('travel',$conn) or die("unable to connect to database");
?>
```

8. CONCLUSION

Bus pass Registration and Renewal System Project is a real time project which is useful for the people who are facing problems with the current manual work of bus pass Registration and renewal. It also increases the validity period, frequently Warns to the student before completion of his validity period by website. His / Her Renewal or Registration can be done using a voucher or even by a credit card.

This online bus pass registration application will help students save their time and renewal bus passes without standing in a line for hours near counters. Initially people need to register with the application by submitting details of photo, address proof, and required details and submit through online. They will verify your details and if they are satisfied they will approve bus pass. You can even renewal using credit card or other wire transfer methods.

9.REFERENCES

9.1 WEBPAGES

(i) www.google.com
(ii) www.javatpoint.com
(iii) www.geeksforgeeks.com

9.2 FACULTY GUIDELINES

Mr. Manish Jain (Technical Trainer-GLA University, Mathura)

9.3 GITHUB REPOSITORY LINK

https://github.com/anubhavigahoi/BusPass