Course Code: CSE3150

Course Title: Front End Full Stack Development

Lab sheet 1 - Module 1

Problem Statement:

Mr. Kiran Student of Presidency University wants to create an attractive web page for Presidency University using HTML and CSS with following specifications.

- Split the web page into two parts using frames, top section 20% and bottom section 80%. • Place your college logo at the top of the page withmenu's (About, Academic, Admission, Facilities, etc). Createhyperlink for all menus.
- Create a web page about the college linked at the bottom of the frame.
- Create a web page about the Academic linked at the bottom of the frame. • Create a web page about the admission, list out the departments, click any deportment name that connects to the registration page and apply the position concept in CSS. • Create a web page about the Facilities, list out the college facilities and display the images using floating concepts in CSS.
- Create a web page about the login page linked at the bottom of the frame.

Solution

Home.html

```
frameset rows="25%,*">
   <frame src="top.html" name="top">
   <frame src="bottom.html" noresize name="bottom" >
   </frameset>
   </frameset>
```

Top.html

```
<html>
<head>
      <style>
            * {
margin:0;
padding:1;
box-sizing: border-box;
}
.two{
```

```
display:flex;
justify-content: center;
align-items: center;
height: 95vh;
background-color: yellow;
font-family: sans-serif;
font-weight: bold;
}
        .one{
        justify-content:left;
        float:left; }
a {
padding:25px 15px;
margin:20px 10px;
color: blue;
overflow: hidden;
margin-right:20px;
}
a:hover {
background: red;
color:white;
}
</style>
</head>
<body>
        <div class="one">
<img src="pulogo.png" alt="PU Logo"
                    style="background-color:white;
                    padding:10px;border-radius:5px;
                    margin-top:1px;margin-bottom: 1px;
                    height:120px; border:2px solid lightgrey">
</div>
<div class="two">
 <a href="About.html" target="bottom"> Home </a>  <a
href="Admissions.html" target="bottom"> Admissions </a>  <a
href="login.html" target="bottom"> Login
 </a>
  <a href="Register.html" target="bottom"> Register </a> </div>
 </body>
</html>
<html>
   <head>
      <style>
         body
         {
            background-color: rgb(193, 193, 189);
```

```
        }
      </style>
  </head>
<body>
  <h1> Over View</h1>
  <p><b>About the University</p>
  <imgsrc="pu.jpg">
</body>
</html>
```

Academics.html

```
<html>
<body>

  <h1 style="text-align:center"> WELCOME<br> TO <br>PRESIDENCY UNIVERSITY
</h1>

  </body>
</html>
```

Admission.html

```
<html>
<head>
 <style>
 body
 {
 background-color: rgba(189, 189, 188, 0.7);
 }
 li:hover
 {
 border:2px solid black;
 display:inline-block;
 padding:8px;
 color:tomato;
 background-color:rgb(37, 38, 43);
 }
 h1
 {
 display: inline-block;
 padding:5px;
 color:darkslateblue;
 }
 </style>
</head><body> <h1 >Admissions Open </h1>
<ul>
 <a href="https://presidencyuniversity.in/school/school-of-engineering/">
```

School of Engineering School of Law
School of Management </body></html>

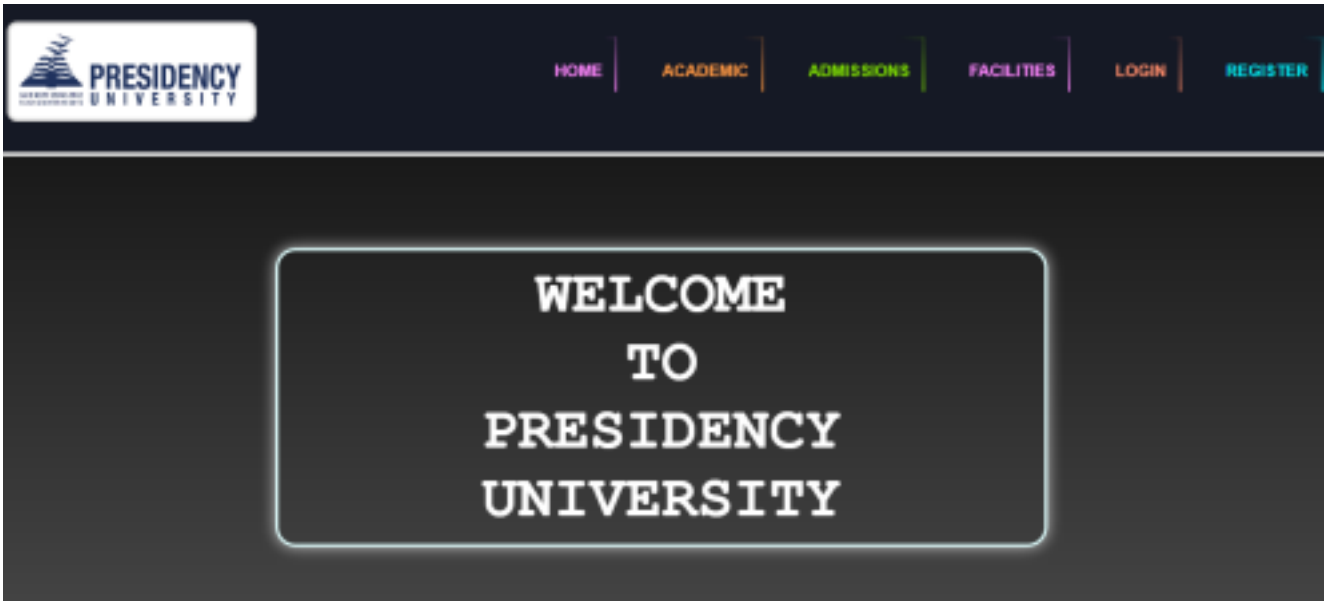
Facilities.html

```
<html>
  <head>
    <title>Facilities</title>
    <style>
    body
     {
      background-color: rgb(211, 215, 211);
     }
    img
     {
      float:right;
      height:200px;
      width:350px;
      border-radius: 20px;
      margin:110px 19px;
     }
    p
     {

      margin:29px 23px;
      font-size: 24px;
      width:750px;
      text-align: justify;
     }
    h1
     {
      font-family:'Courier New', Courier, monospace;
      font-size:30px;
      margin:25px 203px;
      border:2px solid black;
      display: inline-block;
      padding:5px;
      border-radius: 15px;
      background-color: lightgray;
     }
    #a2
     {
      float: left;
      margin:160px 10px;
     }
    #P2
     {
      /* border:2px solid black; */
      margin:10px 370px;
      width:650px;
     }
    #h2
     {
      margin:10px 10px;
     }
```

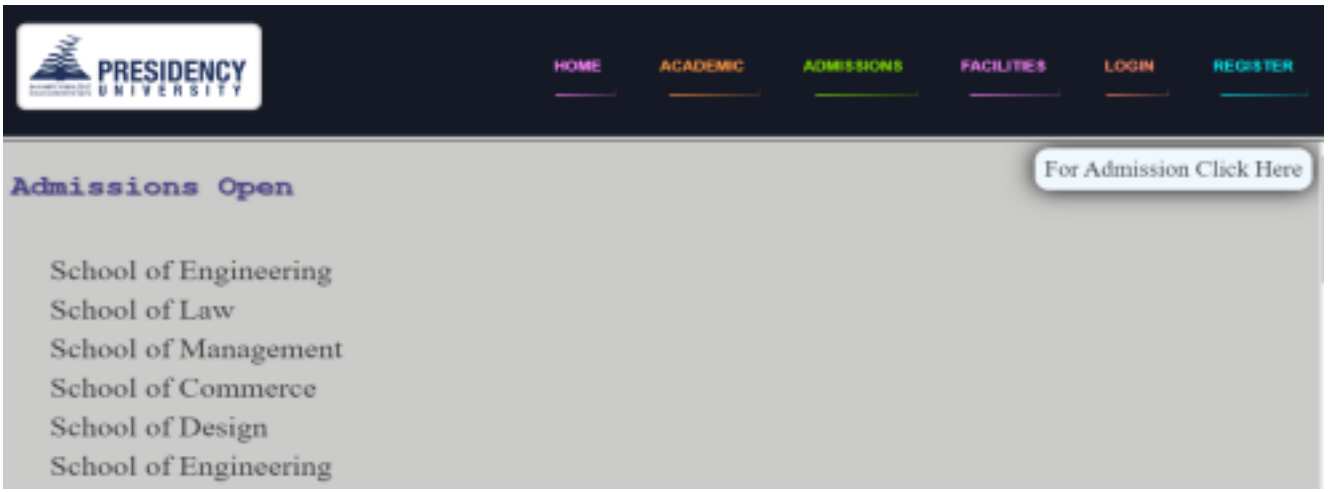
```
  </style>
 </head>
 <body>

  <imgsrc="Library.jpg" alt="Library" class="image" id="a1">
  <h1>Library</h1>
 <p>
  The Presidency University reference and lending library is well-stocked with a vast collection of books, reports, journals and periodicals. The library also provides access to the best of business and management-related digital resources through its subscription to various databases consisting of scholarly and industry-relevant content. Students utilize these services for their classroom-related work and for further research into their areas of interest.
 </p>

 <imgsrc="classroom.jpg" alt="Library" class="image" id="a2">
 <h1 #id="H2">Classrooms</h1>
 <p id="P2">
  The Presidency University reference and lending library is well-stocked with a vast collection of books, reports, journals and periodicals. The library also provides access to the best of business and management-related digital resources through its subscription to various databases consisting of scholarly and industry-relevant content. Students utilize these services for their classroom-related work and for further research into their areas of interest.
  </p>

</body>
</html>
```

Output:

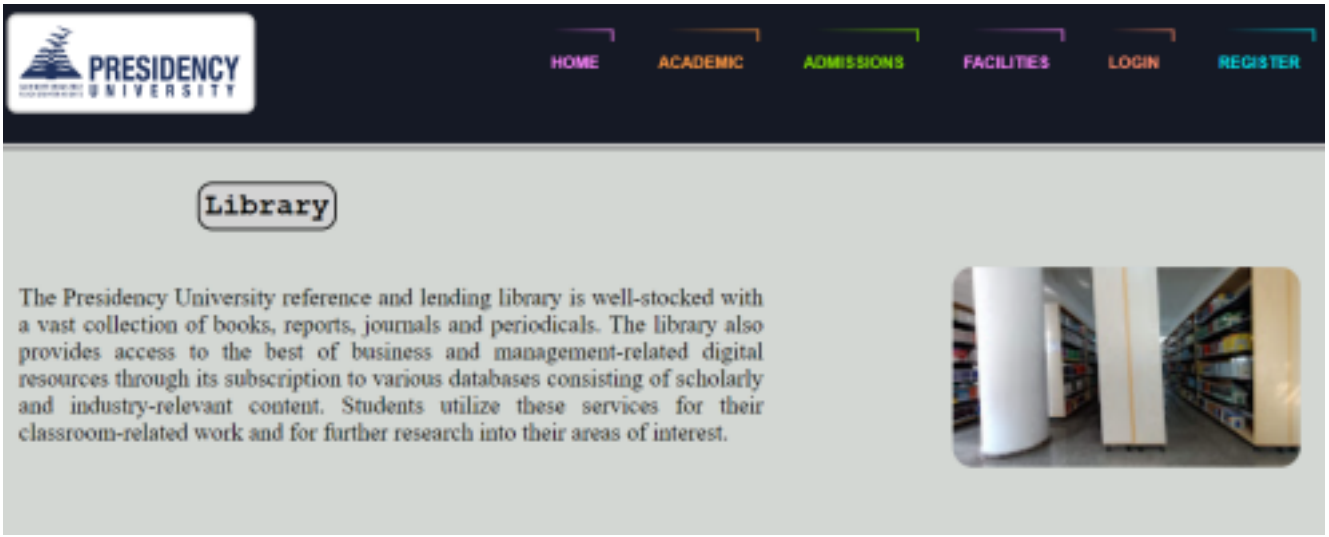
Home page:



Admission page



Facilities Page



Course Code: CSE3150

Course Title: Front End Full Stack Development

Lab sheet 2 - Module 1

Problem Statement:

The problem statement: To create a canvas drawing application that allows users to draw on the canvas by clicking and dragging the mouse. To achieve this, use HTML5 code that includes a canvas element with an event attribute that listens for mousedown, mousemove, and mouseup events. These events shoud trigger JavaScript functions that draw lines on the canvas based on the user's mouse movements. The canvas element can be styled using CSS to have a black border. Use article, section, attributes to enhance the web page.

Solution

```
<!DOCTYPE html>
<html>
```

```
<head>
	<title>Canvas Example</title>
	<style>
		canvas {
			border: 1px solid black;
		}
	</style>
</head>
<body>
	<header>
		<h1>Canvas Example</h1>
		<p>Draw on the canvas by clicking and dragging the mouse</p>
	</header>
	<article>
		<h2>Canvas</h2>
		<canvas id="myCanvas" width="400" height="400"
onmousedown="startDrawing(event)" onmousemove="drawLine(event)"
onmouseup="stopDrawing(event)"></canvas>
	</article>
	<script>
		var canvas = document.getElementById("myCanvas");
		var ctx = canvas.getContext("2d");
		var isDrawing = false;
		function startDrawing(event) {
			isDrawing = true;
			var x = event.clientX - canvas.offsetLeft;
			var y = event.clientY - canvas.offsetTop;
			ctx.beginPath();
			ctx.moveTo(x, y);
		}

		function drawLine(event) {
```

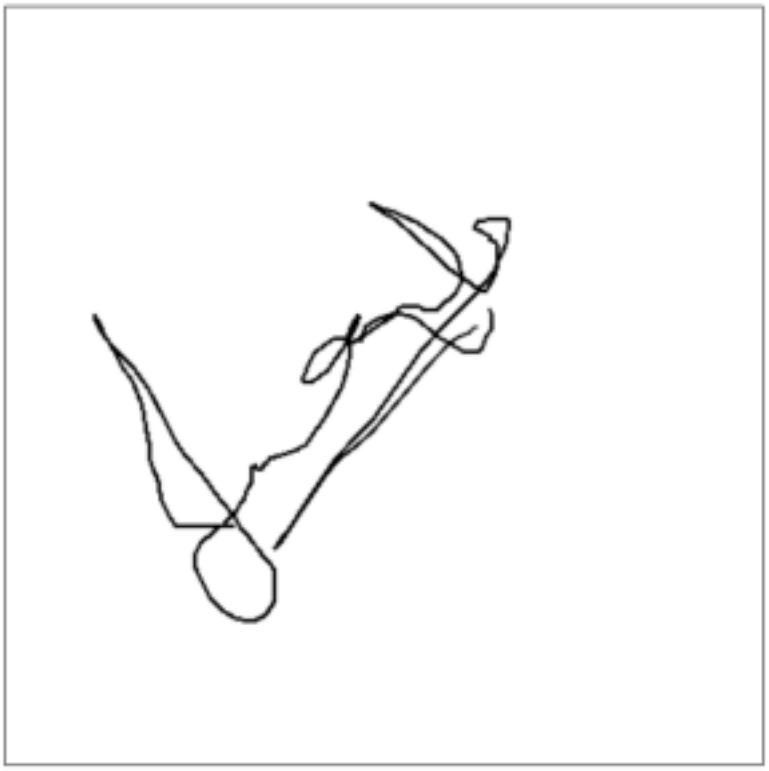
```
                if (isDrawing) {
                        var x = event.clientX - canvas.offsetLeft;
                        var y = event.clientY - canvas.offsetTop;
                        ctx.lineTo(x, y);
                        ctx.stroke();
                }
        }

        function stopDrawing(event) {
                isDrawing = false;
        }
    </script>
</body>
</html>
```

Output:

Canvas Example

Draw on the canvas by clicking and dragging the mouse

Canvas



Course Code: CSE3150

Course Title: Front End Full Stack Development

Lab sheet 3 - Module 1

Problem Statement:

Design a web form for signing up with the following fields:

• Name: a required text input field for the user's name

• Date of Birth: a required date input field for the user's date of birth

• Age: a range input field for the user's age, with a minimum value of 18 and a maximum value of 100

• Email: a required email input field for the user's email address

• Website: an optional URL input field for the user's website

• Sign Up button: a submit button for submitting the form

The form also can include some JavaScript code that adds some functionality to the form: Conditional logic to show or hide fields based on the user's age. If the user is under 18, the age range input field, email input field, and website input field will be hidden. If the user is between 18 and 25, the age range input field and email input field will be shown, but the website input field will be hidden. If the user is over 25, all fields will be shown.

Inline validation for required fields. If a required field is left blank, a message will be displayed asking the user to fill out the field. A helper function to calculate the user's age based on their date of birth.

Code:

```
<form>
 <label for="name">Name:</label>
 <input type="text" id="name" name="name" required>
Date of Birth:<input type="date" id="dob" required>
 <div id="age-range">
Age: <input type="range" id="age" min="18" max="100">
</div> <div id="email-group">
 Email:<input type="email" id="email" required>
 </div> <div id="website-group">
Website: <input type="url" id="website" ></div>
 <button type="submit">Sign Up</button></form>
<script>
 // conditional logic to show or hide fields based on user input
const ageRange = document.getElementById("age-range");
const emailGroup = document.getElementById("email-group");
const websiteGroup = document.getElementById("website-group");
ageRange.style.display = "none";
emailGroup.style.display = "none";
websiteGroup.style.display = "none";
document.getElementById("dob").
 addEventListener("change", function() {
 const age = calculateAge(this.value);
 if (age < 18) {
 ageRange.style.display = "none";
 emailGroup.style.display = "none";
 websiteGroup.style.display = "none";
 } else if (age >= 18 && age <= 25) {
 ageRange.style.display = "block";
 emailGroup.style.display = "block";
 websiteGroup.style.display = "none";
 } else {
 ageRange.style.display = "block";
 emailGroup.style.display = "block";
 websiteGroup.style.display = "block";
 }
 });
function calculateAge(birthday) {
 const today = new Date();
 const birthDate = new Date(birthday);
let age = today.getFullYear() - birthDate.getFullYear();
 return age; }
</script>
```

Output:

Course Code: CSE3150

Course Title: Front End Full Stack Development

Lab sheet 4 - Module 1

Problem Statement: You have been tasked with designing a webpage for a new restaurant that will be opening soon. The webpage should showcase the restaurant's ambiance and cuisine using attractive visual elements.

Note: To create an appealing webpage for the restaurant, you can use various CSS3 features such as colors, text styles, transforms, and gradients. Here's a sample webpage design using these features:

Solution:

Code:index.htm

```
<!DOCTYPE html>
<html>
<head>
 <link rel="stylesheet" href="style.css">
        <title>My Restaurant</title>
</head>
<body>
        <header>
                <h1>Welcome to My Restaurant</h1>
                <nav>
                        <a href="#h1">Home</a>
```

```
                <a href="#m1">Menu</a>
                <a href="#c1">Contact Us</a>
            </nav>
        </header>
        <main>
<div id="grad2">

            <h2>About Us</h2></div>
            <p>My Restaurant is a new restaurant opening soon in your city. Our mission is to provide our customers with delicious food and excellent service in a comfortable and friendly environment.</p>
            <img src="restaurant-image.jpeg" alt="Restaurant Image">
</div>
        </main>

        <h2 id="m1">MENU</h2
        <section>
            <div class="menu-item">
                <img src="menu-item1.jpeg" alt="Menu Item 1">
                <h3>pizza</h3>
                <p>If you’re a vegetarian, you’ll love Domino’s Veg Extravaganza, Indi Tandoori Paneer, and Mexican Green Wave. For non-vegetarians, Non-Veg Supreme, Chicken Fiesta, and Indi Chicken Tikka top the list. Though these are the most loved Domino’s pizzas along with the cheesy Margherita pizza, you should check out the  Domino’s menu to see what you like the most.</p>
            </div>
            <div class="menu-item">
                <img src="menu-item1.jpeg" alt="Menu Item 2">
                <h3>Burger</h3>
```

Nine Different Types of Burgers to Make
Turkey burger. ...

Portobello mushroom burger. ...

Veggie burger. ...

Wild salmon burger. ...

Bean burger. ...

Cheeseburger

<img src="menu-item1.jpeg" alt="Menu Item 3">

<h3>pasta</h3>

 here are some popular pasta dishes you might consider:

Spaghetti carbonara

Linguine with clam sauce

Fettuccine Alfredo

Penne alla vodka

Lasagna

Bucatini all'Amatriciana

Pappardelle with mushroom ragù

Rigatoni alla Norma

Spaghetti aglio e olio (garlic and oil)

</section>
<section>

<h1 id="c1"> contact us</h1>

```
</div>
<div id="rot">
<h1> feedback</h1></div>
</section>

<footer>
                <p>&copy; 2023 My Restaurant</p>
        </footer>

</body>
</html>
```

Output : style.css

```
/* General styles */
body {
        font-family: Arial, sans-serif;
        margin: 0;
        padding: 0;
}
#rot{
 transform: rotate(20deg);
}
#grad1 {
 height: 200px;
 background-color: red; /* For browsers that do not support gradients */
background-image: linear-gradient(blue, yellow);
background-image: conic-gradient(red, yellow, orange);
```

```
}
#grad2 {
 height: 200px;
 background-color: red; /* For browsers that do not support gradients */
background-image: linear-gradient(black, red);
}

/* Header styles */
header {
        background-color: #333;
        color: white;
        padding: 20px;
}
nav a {
        color: white;
        text-decoration: none;
        margin-right: 20px;
}
nav a:hover {
        color: #ffcc00;
}
/* Main section styles */
main {
        background-color: #eee;
        padding: 50px;
        text-align: center;
}
main h2 {
        color: #333;
        font-size: 36px;
```

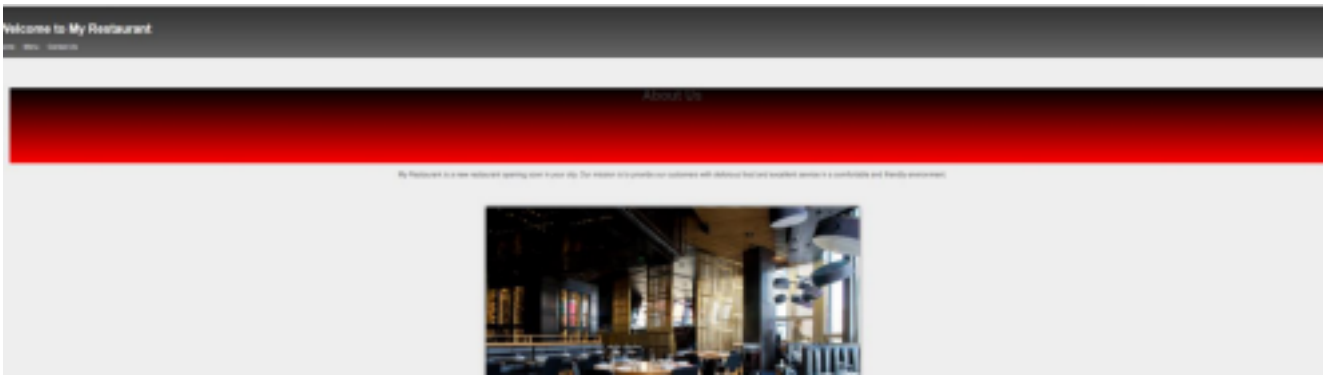
```
        margin-bottom: 20px;
}
main p {
        color: #666;
        font-size: 18px;
        line-height: 1.5;
        margin-bottom: 50px;
}
main img {
        max-width: 100%;
        height: auto;
        margin-top: 20px;
        box-shadow: 0px 0px 10px #333;
}

/* Menu section styles */
section {
        display: flex;
        flex-wrap: wrap;
        justify-content: space-around;
        background-color: #fff;
        padding: 50px;
}
.menu-item {
        flex-basis: 30%;
        margin-bottom: 50px;
        box-shadow: 0px 0px 10px #999;
        padding: 20px;
        text-align: center;
```

```
}
.menu-item img {
        max-width: 100%;
        height: auto;
        margin-bottom: 20px;
}
.menu-item h3 {
        color: #333;
        font-size: 24px;
        margin-bottom: 10px;
}
.menu-item p {
        color: #666;
        font-size: 16px;
        line-height: 1.5;
}

/* Footer styles */
footer {
        background-color: #333;
        color: white;
        padding: 20px;
        text-align: center;
}
footer p {
        font-size: 14px;
        margin: 0;
}
```

```
/* Gradient styles */
header {
        background: linear-gradient(to bottom, #333 0%, #666 100%);
}
nav a:hover {
        background: linear-gradient(to bottom, #ffcc00 0%, #ff9900 100%);
}
section {
        background: radial-gradient(circle, #fff 0%, #eee
100%); }
.menu-item:hover {
        background: linear-gradient(to bottom, #eee 0%, #fff 100%);
        transform: translateY(-5px);
}
footer {
        background: linear-gradient(to bottom, #666 0%, #333 100%);
}
```

Download :Restaurant image

Output:



4Course Code: CSE3150

Course Title: Front End Full Stack Development

Lab sheet 1 Javascript - Module 2

Problem Statement:

Ravi is trying to write a program in JavaScript to calculate the Fibonacci series of a given number and the square of a given number series as the assignment is given by class teacher, help Ravi to develop and demonstrate a HTML file that includes JavaScript script for the following problems:

a) Input: A number n obtained using prompt
Output: The first n Fibonacci numbers

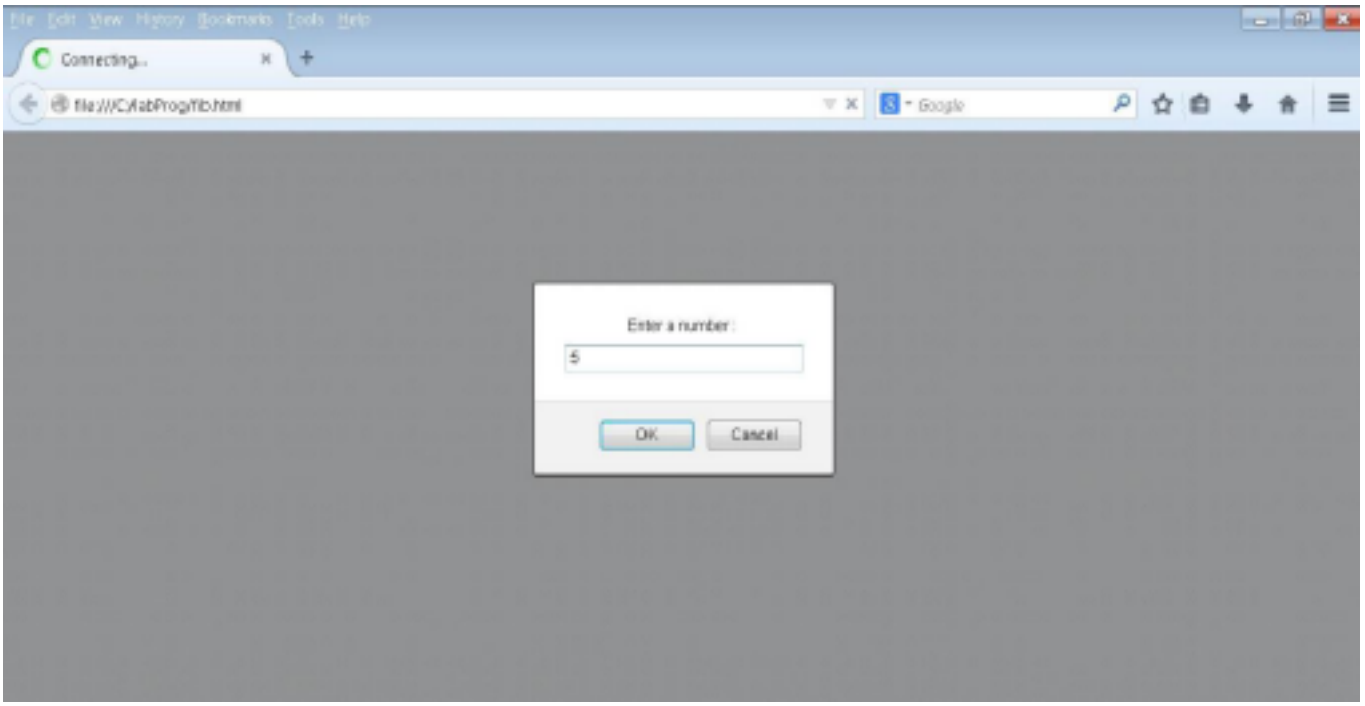
b) Input: A number n obtained using prompt
Output: A table of numbers from 1 to n and their squares using **alert**

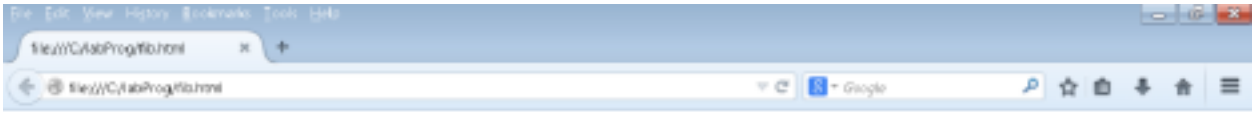
a)

```
<html>
<head>
<title>Fibonacci Series</title>
</head>
<body>
<script type="text/javascript">
var fib1=0,fib2=1,fib=0;
var num=prompt("Enter a number : \n", "");
if(num != null && num > 0 )
{
document.write("<h1>The first "+num+" numbers in the fibonacci series
</h1>"); if(num==1)
document.write("<h2> "+ fib1 + "</h2>");
else
{
document.write("<h2>" + fib1 + "</h2>");
document.write("<h2>" + fib2 + "</h2>");
}
for(i=3;i<=num; i++)
{
fib= fib1 + fib2;
document.write("<h2> " + fib + "</h2>");
fib1=fib2;
fib2=fib;
}
}
else
alert("Invalid Input");
</script>
```

</body>

</html>





The first 5 numbers in the fibonacci series

0

1

1

2

3

b) <!DOCTYPE html>

<html>

<head>

<title>Number and its squares</title>

</head>

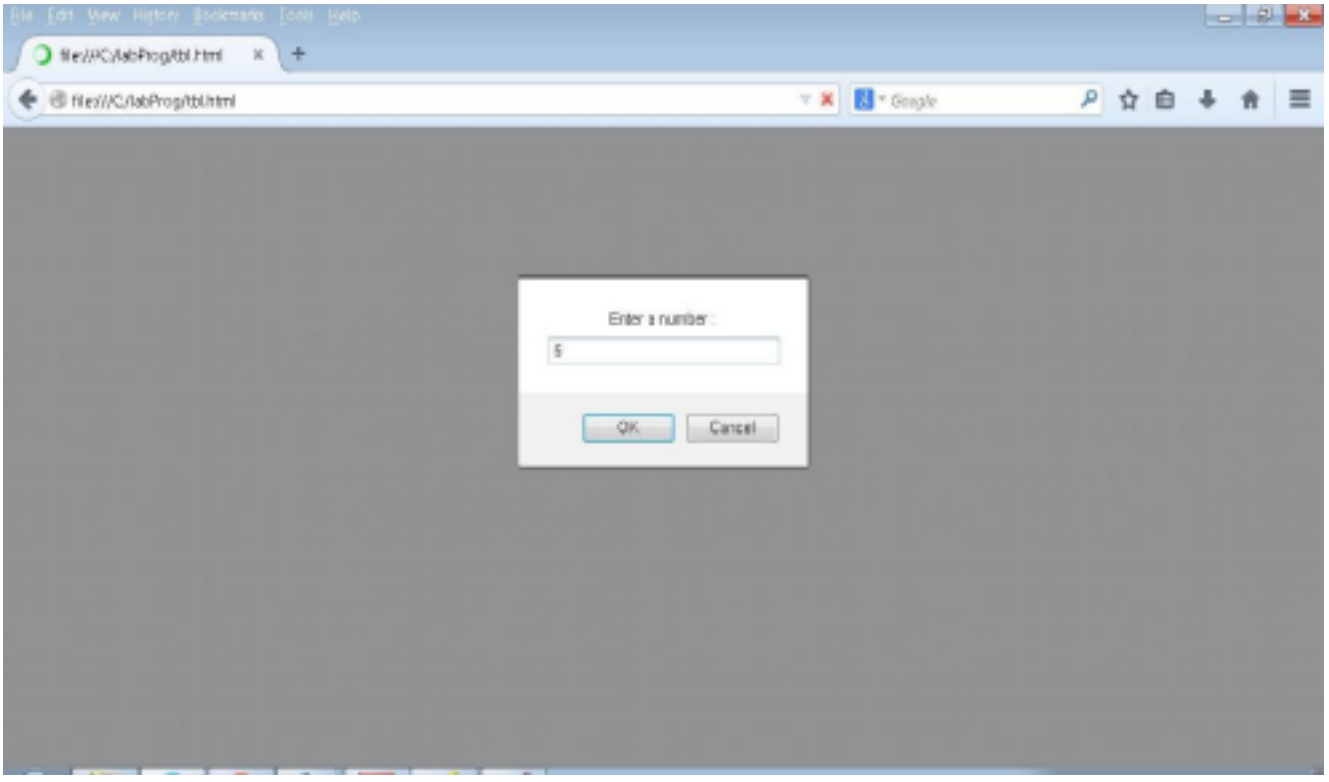
<body>

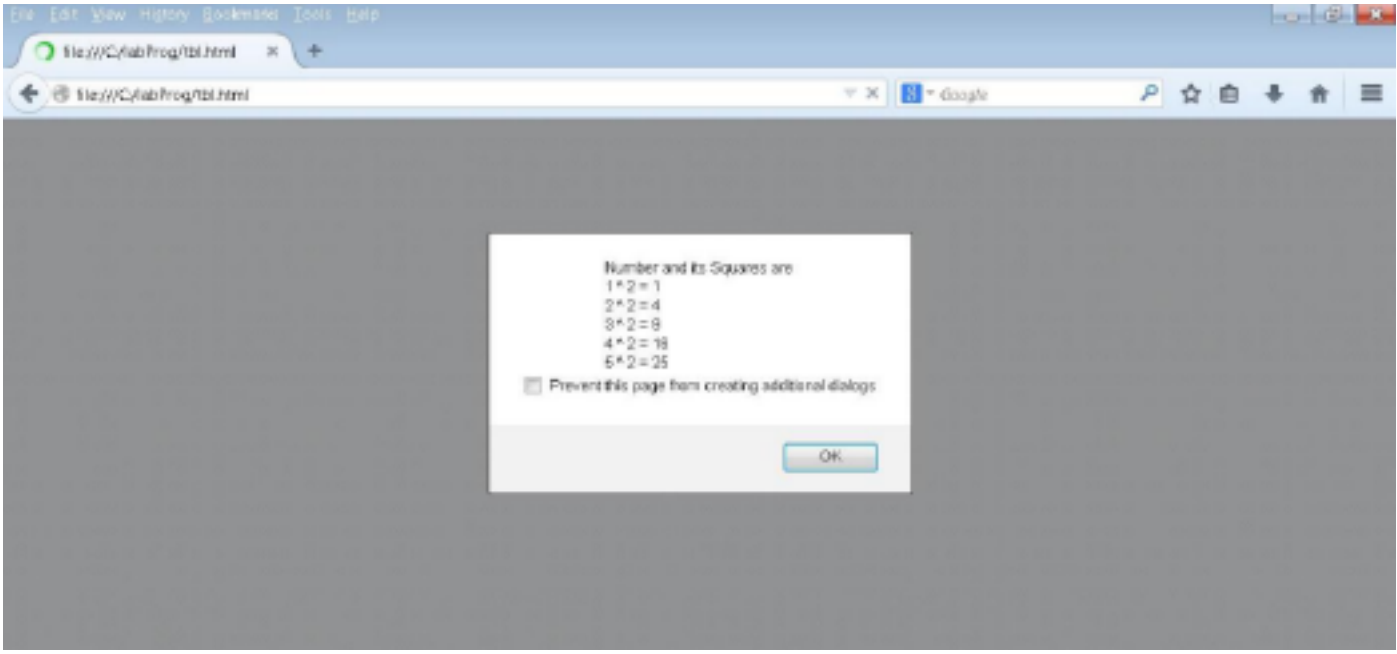
<script type="text/javascript">

var num = prompt("Enter a number : \n", "");

var msgstr;

```
if(num > 0 && num !=null){
msgstr="Number and its Squares are \n";
for(i=1;i <= num; i++)
{
msgstr = msgstr + i + " ^ 2 = " + i*i + "\n";
}
alert(msgstr);
}
else
alert("Invalid Input");
</script>
</body>
</html>
```





Course Code: CSE3150

Course Title: Front End Full Stack Development

Lab sheet 2 Javascript - Module 2

Create an online student registration page for Presidency University. Registration page should contain following fields in the specified format and develop the JavaScript validation Code as per the conditions specified for each field.

a) First name (should not be empty, Name should contain only alphabets and the length should not be less than 6 characters)

b) Lastname (only alphabets should be entered)

c) Email id (should not contain any invalid and must follow the standard pattern name@domain.com) d)Password ((Password should not be less than 6 characters length and enter only numbers, letters) e) Address (should not be empty)

f) Mobile number (Phone number should contain 10 digits only and it should accept only numbers)

g) gender

h) Submit and Cancel button

Data entry for all fields are mandatory as per validation conditions and if any of the condition is not specified appropriate alert Message should be displayed or on successful entry of all the fields the student should get the alert message “Registration done successfully”.

Main.html

```
<html>
<head><title>Registration Form Validation</title></head>
<body bgcolor="#E4F0F8">
<script type='text/javascript'>
function formValidator()
{
// Make quick references to our fields
var firstname = document.getElementById('firstname');
var lastname = document.getElementById('lastname');
var email = document.getElementById('email');
var pass = document.getElementById('pass');
var addr = document.getElementById('addr');
var mobileno = document.getElementById('mobileno');
// Check each input in the order that it appears in the form!
if(notEmpty(firstname, "first name can not be empty")){
if(isAlphabet(firstname, "Please enter only letters for your Firstname")){
if(lengthRestriction(firstname, 6)){
if(isAlphabet(lastname, "Please enter only letters for your Lastname")){
if(emailValidator(email, "Please enter a valid email address")){ if(lengthRestriction(pass, 6)){
if(isAlphanumeric(pass, "please enter Numbers and Letters Only for password")){
if(notEmpty(addr, "please enter the address")){
if(isNumeric(mobileno, "Please enter a valid mobileno")){
if(lengthRestriction1(mobileno, 10 , 10)){
return true;
} } } }
}
}
}
} } }
return false;
}
```

```
function notEmpty(elem, helperMsg){
if(elem.value.length == 0){
alert(helperMsg);
elem.focus(); // set the focus to this input
return false;
}
return true;
}
function isNumeric(elem, helperMsg){ var numericExpression = /^[0-9]+$/;
if(elem.value.match(numericExpression)){ return true;
}else{
alert(helperMsg);
elem.focus();
return false;
}
}
function isAlphabet(elem, helperMsg){ var alphaExp = /^[a-zA-Z]+$/;
if(elem.value.match(alphaExp)){
return true;
}else{
alert(helperMsg);
elem.focus();
return false;
}
}
function isAlphanumeric(elem, helperMsg){ var alphaExp = /^[0-9a-zA-Z]+$/;
if(elem.value.match(alphaExp)){
return true;
}else{
alert(helperMsg);
elem.focus();
return false;
}
}
function lengthRestriction(elem, min){
var uInput = elem.value;
if(uInput.length >= min){
```

```
return true;
}else{
alert("Please enter minimum " +min+ " characters"); elem.focus();
return false;
}
}
function emailValidator(elem, helperMsg)
{
var emailExp = /^[\w\-\.\+]+\@[a-zA-Z0-9\.\-]+\.[a-zA-z0-9]{2,4}$/;
if(elem.value.match(emailExp))
{
return true;
}
else{
alert(helperMsg);
elem.focus();
return false;
}
}
function lengthRestriction1(elem, min, max)
{
var uInput = elem.value;
if(uInput.length >= min && uInput.length <= max)
{
return true;
}
else {
alert("Please enter 10 numbers only");
elem.focus();
return false;
}
}
</script>
<center ><font color="blue" size="6" face="arial">Student Registration Form REVA
UNIVERSITY</font><br /><br /><br />
```

```
<form onsubmit='return formValidator()' action="right.html">
<fieldset>
First Name(Minimum 6 characters)<font color="red">* </font>
<input type='text' id='firstname' /><br /><br />
Last Name<font color="red"><font color="red">* </font> </font>    
<input type='text' id='lastname' /><br /><br />
Email Address<font color="red">* </font>    
<input type='text' id='email' /><br />
<font color="red">(one e-mail id only):</font>     <font
color="redblue">e.g. smith@gmail.com</font><br /><br/>
Password(minimum 6 characters)<font color="red">* </font>     <input
type='password' id='pass'><br /><br/>
Address<font color="red">* </font>    
<textarea rows="2" cols="20" id='addr' /></textarea> <br /> <br/>
Mobile No<font color="red">* </font>    
<input type='text' id='mobileno' /><br /><br /><br />
Gender: <input type='radio' name="gender">male
<input type='radio' name="gender">female<br/><br />
<input type='Submit' value='submit' />
<input type='Reset' value='reset' />
<fielset>
</center>

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

Right.html

```
<html>
<body style="background-color:green;"> <h1> Registration done successfully </h1>
</body>
</html>
```