**7) Write a program to demonstrate CSS Selectors.**

**Index.html**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

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

    <style>

        p{

            font-family: Arial, Helvetica, sans-serif;

            font-size: medium;

            color: black;

        }

        body{

            background-color: rgb(223, 187, 218);

            margin: 0%;

            padding: 0%;

        }

        .heading{

            color: rebeccapurple;

        }

        #head{

            font-style: italic;

            font-weight: bold;

        }

        .container{

            text-align: center;

            background-color: cyan;

            height: 40px;

        }

    </style>

    <title>CSS</title>

</head>

<body>

    <div class="container">

        <h1 class="heading" id="head">This is internal CSS</h1>

        <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Numquam, consequuntur aliquid. ipsum dolor sit amet consectetur adipisicing elit. Dolor delectus dolore ratione quis praesentium amet perferendis sapiente eaque quia impedit deserunt asperiores modi quibusdam ad, beatae veniam culpa aliquam itaque?</p>

    </div>

    <hr>

    <br><br>

    <div class="externalcss">

        <h1 id="ext">This is external CSS</h1>

        <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Voluptatem dolorem accusamus temporibus nihil. Amet voluptate sequi maxime suscipit quibusdam! Ea maiores voluptas consectetur voluptate harum id, incidunt iure possimus nulla. ipsum dolor sit amet consectetur adipisicing elit. Unde, ipsam dolorem. Ab, distinctio. Illo veritatis omnis perferendis dicta ad delectus? Quo, dolores reprehenderit. Asperiores unde, rem totam non enim nemo.</p>

    </div>

    <hr>

    <br><br>

    <div style="background-color: greenyellow; text-align:center;height:40px">

        <h1 style="color:blueviolet ">This is embedded CSS</h1>

        <p>Lorem ipsum dolor sit amet consectetur adipisicing elit. Atque, reprehenderit accusantium. ipsum dolor, sit amet consectetur adipisicing elit. Consequatur cumque provident unde. Ut, quos exercitationem laborum velit dolore odio, nobis facilis neque ullam sapiente commodi, atque vitae temporibus cupiditate consectetur!</p>

    </div>

    <hr>

</body>

</html>

**STYLE.CSS**

.externalcss{

    text-align: center;

    background-color: blue;

    height:40px;

}

#ext{

    color: white;

}

body{

    padding:3%;

}

**8) Write a program in JavaScript to make a calculator.**

**index.html**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <meta http-equiv="X-UA-Compatible" content="ie=edge">

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

    <title>Calculator</title>

</head>

<body>

    <div class="container">

      <h1>Calculator</h1>

        <div class="calci">

            <input type="text" name="screen" id="dis">

            <table>

                <tr>

                    <td><button>9</button></td>

                    <td><button>8</button></td>

                    <td><button>7</button></td>

                    <td><button>+</button></td>

                </tr>

                <tr>

                    <td><button>6</button></td>

                    <td><button>5</button></td>

                    <td><button>4</button></td>

                    <td><button>-</button></td>

                </tr>

                <tr>

                    <td><button>3</button></td>

                    <td><button>2</button></td>

                    <td><button>1</button></td>

                    <td><button>X</button></td>

                </tr>

                <tr>

                    <td><button>0</button></td>

                    <td><button>.</button></td>

                    <td><button>%</button></td>

                    <td><button>/</button></td>

                </tr>

                <tr>

                    <td><button>(</button></td>

                    <td><button>)</button></td>

                    <td><button>C</button></td>

                    <td ><button>=</button></td>

                </tr>

            </table>

        </div>

    </div>

</body>

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

</html>

**style.css**

.container{

    text-align: center;

    margin-top:23px

}

table{

    margin: auto;

}

input{

    border-radius: 21px;

    font-size:34px;

    height: 65px;

    width: 260px;

    scroll-behavior: smooth;

}

button{

    font-size: 15px;

    background: #ffffff;

    width: 70px;

    height: 50px;

    margin: 4px;

}

.calci{

    background-color: coral;

    padding: 23px;

    display: inline-block;

}

**Index.js**

let screen = document.getElementById("dis");

buttons = document.querySelectorAll("button");

let screenValue = "";

for (item of buttons) {

  item.addEventListener("click", (e) => {

    buttonText = e.target.innerText;

    if (buttonText == "X") {

      buttonText = "\*";

      screenValue += buttonText;

      screen.value = screenValue;

    } else if (buttonText == "C") {

      screenValue = "";

      screen.value = screenValue;

    } else if (buttonText == "=") {

      var result;

      try {

        result = eval(screenValue);

      } catch (error) {

        result = "Expression error";

      }

      screen.value = result;

    } else {

      screenValue += buttonText;

      screen.value = screenValue;

    }

  });

}

**9) Write a program in JavaScript to validate a form.**

**index.html :**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Lab3</title>

</head>

<style>

   .box{

    background-color: bisque;

   }

</style>

<script>

    function validateform()

    {

    var name=document.myform.name.value;

    var password=document.myform.password.value;

    var email=document.myform.email.value;

    var contact=document.myform.contact.value;

    if (name==null || name=="")

    {

      alert("Name can't be blank");

      return false;

    }

    else if(password.length<6)

    {

      alert("Password must be at least 6 characters long.");

      return false;

      }

      else if(email==null)

      {

      alert("Email cant be blank");

      return false;

      }

      else if(contact.length>10)

      {

        alert("Contact Number must not exceed 10 digits");

        return false;

      }

    }

    </script>

<body>

    <div class="box">

        <center><h1>User Registration Form</h1></center>

    <form name="myform" action="Processing.html" method="GET" style="border:2px solid black; border-style: groove; text-align: center; background-color: chartreuse; margin-left: 35%; margin-right: 35%; " onsubmit="return validateform()">

        <h2 style="color:black"> Personal Details </h2>

        <label>Name:  </label><input type="text" placeholder="Full Name" name="name">

        <br><br>

        <label>Password:  </label> <input type="password" placeholder="password" name="password">

        <br><br>

        <label>E-Mail id.  </label><input type="emai" placeholder="email@gmail.com" name="email">

        <br><br>

        <label>Contact: </label><input type="number" placeholder="Contact Number" name="contact">

       <br><br>

        <label>Gender:  </label>

        <input type="radio" name="gender" required>

        <label>Male</label>

        <input type="radio" name="gender"><label>Female</label>

        <br><br>

        <label for="dob">DOB:</label>

       <input type="date" name="dob" id="dob" value="" />

        <br>

        <h2 style="color:black">Educational Qualifications</h2>

        <label>Degree :</label><select>

            <option>Diploma</option>

            <option>UG</option>

            <option>PG</option>

            <option>PHD</option>

        </select>

        <br><br>

        <label>Engineering: </label><select>

            <option>CIVIL</option>

            <option>MECHANICAL</option>

            <option>COMPUTER SCIENCE</option>

            <option>ELECTRONICS</option>

        </select>

        <br><br>

        <label>Hobbies: </label>

        <input type="checkbox"><label>Playing Chess</label>

        <input type="checkbox"><label>Reading Books</label>

        <h2 style="color:black">Address</h2>

        <textarea rows="4" cols="50 " placeholder="enter the address" required></textarea><br><br>

        <label>Attach Resume</label><input type="file">

        <br>

        <br>

        <button onclick="this.form.reset()">reset file</button> <br><br>

        <!-- <button>SUBMIT</button>  -->

       <input  type="submit" value="REGISTER">

        <br><br>

    </form>

    </div>

</body>

</html>

**10) Write a program to make an online Book Store.**

**Index.html**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>BOOK STORE</title>

</head>

  <frameset rows="40%,60%">

     <frame src="top.html" noresize scrolling="NO" name="topframe">

     <frameset cols="25%,\*">

        <frame src="left.html" noresize scrolling="NO" name="leftframe">

        <frame src="right.html"noresize name="rightframe" scrolling="auto">

        </frameset>

  </frameset>

</html>

**Home.html**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>BOOK STORE</title>

</head>

  <frameset rows="40%,60%">

     <frame src="top.html" noresize scrolling="NO" name="topframe">

     <frameset cols="25%,\*">

        <frame src="left.html" noresize scrolling="NO" name="leftframe">

        <frame src="right.html" noresize name="rightframe" scrolling="auto">

        </frameset>

  </frameset>

</html>

**Top.html**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>TOP PAGE</title>

</head>

<style>

    .box{

        border:2px solid black;

        background-color:darksalmon;

        height: 90px;

    width: 800px;

    text-align: center;

    }

</style>

<body bgcolor="bisque">

    <div class="header">

        <center>

        <div class="box">

            <font size="7">ONLINE  BOOK  STORE </font>

        </div>

      <FONT size="6"><b> <i>CREATED AND MAINTAINED BY RITIK TRIPATHI</i></b></FONT>

        </center>

   </div>

   <br>

   <br>

    <table width="100%" height="50%" cellspacing=10>

        <tr align="center">

         <td> <a href="Home.html" target="\_parent"><font face="Brush Script" size="5"

        color="black">HOME </a> </td>

         <td> <a href="login.html" target="rightframe"><font face="Brush Script" size="5"

        color="black">LOGIN</a> </td>

         <td> <a href="register.html" target="rightframe"> <font face="Brush Script"

        size="5" color="black">REGISTER </a> </td>

         <td> <a href="catalogue.html" target="rightframe"> <font face="Brush Script"

        size="5" color="black">CATALOGUE</a> </td>

         </tr>

         </table>

</body>

</html>

**Left.html**

<html>

 <body align="center" bgcolor="burlywood"> <br>

 <a href="cse.html" target="rightframe"><font size="6">CSE</font></a><br><br>

 <a href="ece.html" target="rightframe"><font size="6">ECE</font></a><br><br>

 <a href="eee.html" target="rightframe"><font size="6">EEE</font></a><br><br>

 <a href="mech.html" target="rightframe"><font size="6">MECH</font></a><br>

 </body>

</html>

**Right.html**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body bgcolor="darksalmon">

    <center>

        <img src="images/image1.jpeg">

    <font  size="5" color="black">

    <h1><b><i>Welcome to the Online Book Store!!! </i> </b></font><br />

    <font  size="5" color="black">

    <h2><b><i>"A Huge Collection Of Engineering E-Books" </i> </b></h2></font>

    </center>

    </body>

</html>

**Login.html**

<html>

    <head>

        <script src="j.js"></script>

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

        <title>login</title>

      </head>

 <body bgcolor="darksalmon">

 <basefont  size="4"> <br>

 <center>

 <font  size="7" color="brown">

 <b>Enter Login Details:</b>

 </font>

 </center>

 <form name="f1" method="post" action="right.html">

 <table align="center" width="100" height="150" cellspacing=”15”>

 <tr><td><b>Login ID:</b></td>

 <td><input type="text" name="t1"></td>

 </tr>

 <tr>

 <td><b>Password:</b></td>

 <td><input type="password" name="t2"></td>

 </tr>

 <tr align="center">

 <td><input type="submit" name="b1" value="Submit"></td>

 <td><input type="reset" name="b2" value="Reset"></td>

 </tr>

 </table> </form> </basefont> </body> </html>

**Register.html**

<html>

  <head>

    <script src="j.js"></script>

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

    <title>Registration Form</title>

  </head>

  <body bgcolor="#E4F0F8">

    <center>

      <font color="blue" size="6" face="arial">Registration Form</font>

    </center>

    <br />

    <form

      action="right.html"

      form

      name="myForm"

      onsubmit="return validateForm()"

    >

      <label for="name">Name:</label>

      <input type="text" id="name" name="name" required />

      <div class="error" id="name-error"></div>

      <label for="email">Email:</label>

      <input type="email" id="email" name="email" required />

      <div class="error" id="email-error"></div>

      <label for="age">Age:</label>

      <input type="text" id="age" name="age" required />

      <div class="error" id="age-error"></div>

      <label for="phone">Phone:</label>

      <input type="text" id="phone" name="phone" required />

      <div class="error" id="phone-error"></div>

      <label for="gender">Gender:</label>

      <select id="gender" name="gender" required>

        <option value="">Select Gender</option>

        <option value="male">Male</option>

        <option value="female">Female</option>

        <option value="other">Other</option>

      </select>

      <div class="error" id="gender-error"></div>

      <input type="checkbox" id="terms" name="terms" required />

      <label for="terms">I accept the terms and conditions</label>

      <div class="error" id="terms-error"></div>

      <input type="submit" value="Submit" />

      <input type="Reset" value="reset" />

    </form>

  </body>

</html>

**Catalogue.html**

<html>

 <head>

 <title> Catalogue </title>

 </head>

<body bgcolor="pink">

 <form action="order.html">

 <table border="1" width="100%">

 <tr>

 <td>

 <img src="images/web.jpeg" width=100 height=100/>

 </td>

 <td> Book: Web Technologies <br> Author: Uttam K. Roy <br> Publication:Oxford

 University Press</td> <td>531 &nbsp;&nbsp;&nbsp;</td>

 <td> <input type="submit" value="Add to cart"/></td> </tr>

 <tr>

 <td> <img src="images/mysql.jpg" width=100 height=100/></td>

 <td> Book: PHP & MySQL Web Development <br> Author:Luke Welling & Laura

 Thompson <br> Publication:PEARSON</td> <td> 898 &nbsp;&nbsp;&nbsp; </td>

 <td> <input type="submit" value="Add to cart"/></td> </tr>

</table> </form>

</body> </html>

**Cse.html**

<div class="rightcse">

    <div class="regheading">

        <h1 style="color:rgb(25, 44, 214); font-weight:700">Computer Science And engineering</h1>

    </div>

    <div class="cseform">

        <form class="bookform">

            <label for="textbook"> Text Books : </label>

            <select id="dropdown" >

                <option value="select the book" selected>Select the book</option>

                    <option value="C&Ds">C&Ds</option>

                    <option value="Ads">Ads</option>

                    <option value="Java">Java</option>

                    <option value="Oracle">Oracle</option>

                    <option value="Ms SQL Server">Ms SQL Server</option>

                    <option value="MySql">MySql</option>

            </select><br>

            <label for="quantity">Quantity : </label>

            <input type="text" name="quantity" >

            <button class="ok">ok</button><br>

            <p style="color:blue">Cost of one book is"500" + shipping "100" </p>

        </form>

    </div>

</div>

</div>

</body>

</html>

**Ece.html**

<html>

 <body bgcolor="darksalmon">

 <h1><font color="blue">Electronics and Communication Engineering</font></h1>

 <h2>

 <ul>

 <li>Digital Circuits</li> <li>Signals and Systems</li> <li>Digital Communication</li>

 </ul>

 </h2>

 </body>

</html>

**Eee.html**

<html>

 <body bgcolor="burlywood">

 <h1><font color="blue">Electrical and Electronics Engineering</font></h1>

 <h2>

 <ul type="square">

 <li>Concepts in Electric Circuits</li>

 <li>Introduction to Electronic Engineering</li>

 <li>Electrical Power</li>

 </ul>

 </h2>

 </body>

</html>

**Mceh.html**

<html>

 <body bgcolor="darksalmon">

 <h1><font color="blue">Electronics and Communication Engineering</font></h1>

 <h2>

 <ol type="I">

 <li>Theory of Machines</li>

 <li>Automation and Robotics</li>

 <li>Engineering Fluid Mechanics</li>

 </ol>

 </h2>

 </body>

</html>

**Style.css**

\* {

    font-size: 22px;

    font-weight: bolder;

}

form {

    width: 450px;

    margin: 0 auto;

    padding: 20px;

    border: 4px solid #ccc;

    border-radius: 5px;

}

label {

    display: block;

    font-size: 18px;

    margin-top: 10px;

}

input[type="text"],

input[type="email"],

select {

    width: 100%;

    padding: 10px;

    font-size: 16px;

    border: 1px solid #ccc;

    border-radius: 5px;

    margin-top: 5px;

    box-sizing: border-box;

}

input[type="submit"] {

    background-color: greenyellow;

    color: #fff;

    padding: 10px 20px;

    font-size: 18px;

    border: none;

    border-radius: 5px;

    margin-top: 10px;

    cursor: pointer;

}

input[type="submit"]:hover {

    background-color: #ffbb00;

}

.error {

    color: red;

    margin-top: 5px;

    font-size: 16px;

}

**Index.js**

function validateForm() {

    var name = document.forms["myForm"]["name"].value;

    var email = document.forms["myForm"]["email"].value;

    var age = document.forms["myForm"]["age"].value;

    var phone = document.forms["myForm"]["phone"].value;

    var gender = document.forms["myForm"]["gender"].value;

    var terms = document.forms["myForm"]["terms"].checked;

    var namePattern = /^[a-zA-Z ]{2,30}$/;

    var emailPattern = /^[^\s@]+@[^\s@]+\.[^\s@]+$/;

    var agePattern = /^\d{1,3}$/;

    var phonePattern = /^\d{10}$/;

    if (!namePattern.test(name)) {

      document.getElementById("name-error").innerHTML = "Please enter a valid name.";

      return false;

    }

    if (!emailPattern.test(email)) {

      document.getElementById("email-error").innerHTML = "Please enter a valid email.";

      return false;

    }

    if (!agePattern.test(age)) {

      document.getElementById("age-error").innerHTML = "Please enter a valid age.";

      return false;

    }

    if (!phonePattern.test(phone)) {

      document.getElementById("phone-error").innerHTML = "Please enter a valid phone number.";

      return false;

    }

    if (gender === "") {

      document.getElementById("gender-error").innerHTML = "Please select a gender.";

      return false;

    }

    if (!terms) {

      document.getElementById("terms-error").innerHTML = "You must accept the terms and conditions.";

      return false;

    }

    return true;

  }