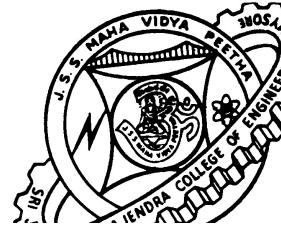


J S S Mahavidyapeetha  
**Sri Jayachamarajendra College of Engineering (SJCE), Mysuru – 570 006**  
An Autonomous Institute Affiliated to  
Visvesvaraya Technological University, Belagavi



## **Web Technologies Laboratory Record**

Laboratory record submitted in partial fulfillment of curriculum prescribed for  
the award of the degree of

### **BACHELOR OF ENGINEERING IN COMPUTER SCIENCE AND ENGINEERING**

*by*

**Saif Ali**  
(USN - 4JC14CS086)

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**October 2017**

JSS Mahavidyapeetha  
**Sri Jayachamarajendra College of Engineering (SJCE), Mysore – 570 006**  
An Autonomous Institute Affiliated to  
Visvesvaraya Technological University, Belgaum



## LABORATORY CERTIFICATE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Title of the lab : Web technologies Laboratory

Subject Code : CS76L

Semester : 7

Student Name : Saif Ali

SR Number : 144013

USN : 4JC14CS086

Batch and Group : Batch 2

Lab Timings : 7:30 – 10:30 A.M.

**INTERNAL ASSESSMENT MARKS AWARDED:**

**VALUED : 1.**

**2.**

**Head Of Department**

**Sign of Teacher in Charge**

**College Seal**

**Place: Mysore**

**Date :28-10-2017**

1. Design a web page using CSS with suitable design for the following:
  - a) Demonstrate different font styles
  - b) Control the repetition of image with background-repeat property
  - c) Define style for links as a:link, a:active, a:hover, a:visited
  - d) Demonstrate Element visibility property.

**Program:**

```
<html>
```

```
<head>
```

```
<title>Program 1</title>
```

```
<meta description="Author" content="Saif Ali" />
```

```
<style>
```

```
.container {
```

```
margin: 10 auto;
```

```
max-width: 1000px;
```

```
background: #d3d3d3;
```

```
display: block;
```

```
overflow: hidden;
```

```
padding: 20px;
```

```
}
```

```
.cont2 {
```

```
margin: 0px 10px 10px 10px;
```

```
padding: 5px;
```

```
display: block;
```

```
overflow: hidden;
```

```
}
```

```
.italic {
```

```
font-style: italic;
```

```
}
```

```
.oblique {
```

```
font-style: oblique;
```

```
}
```

```
.one-third {  
    width: calc(30% - 5px);  
    float: left;  
    padding: 5px;  
    min-height: 250px;  
    border: 1px solid black;  
    background-image: url("img.jpg");  
}
```

```
.mylink {  
    color: red;  
    text-decoration: none;  
}
```

```
.mylink:hover {  
    color: blue;  
    text-decoration: underline;  
    font-style: oblique;  
}
```

```
.mylink:visited {  
    color: purple;  
    text-decoration: none;  
    font-style: italic;  
}
```

```
.mylink:active {  
    color: green;  
}
```

```

</style>

<script type="text/javascript">
function hideIt(){
    var dom = document.getElementById("flo").style;

    if(dom.visibility=="hidden")
        dom.visibility="visible"

    else
        dom.visibility="hidden"
}

</script>

</head>
<body>
<div class="container">
    <h1>1. Different font styles </h1>
    <div class="cont2">
        <p>This is normal font</p>
        <p class="italic">This is italicized font</p>
        <p class="oblique">This is oblique font</p>
    </div>
    <hr>
    <h1>2. Repeated image </h1>
    <div class="cont2">
        <div class="one-third" style="background-repeat:repeat-y;"></div>
        <div class="one-third" style="background-repeat:repeat-x;"></div>
        <div class="one-third" style="background-repeat:repeat;"></div>
    </div>
    <hr>
    <h1>3. Link styles </h1>
    <div class="cont2">
        <a class="mylink" href="#">Click here for more fllowers</a>

```

```

</div>

<hr>

<h1>4. Element visibility </h1>

<div class="cont2">

    <div class="one-third" style="visibility:visible;">

        <button onclick="hidelt()">Click</button>

    </div>

    <div class="one-third" style="visibility:collapse">Visibility:collapsed</div>

</div>

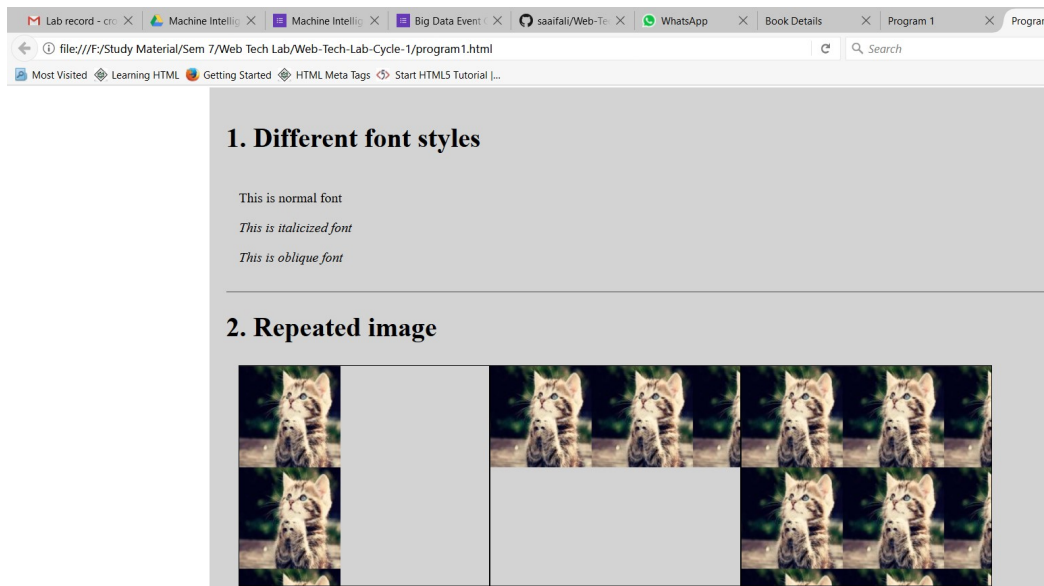
</div>

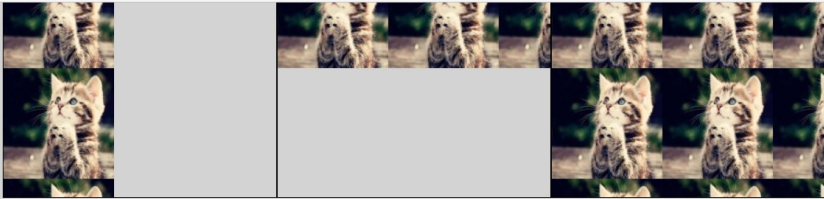
</body>

</html>

```

### Output:





### 3. Link styles

[This is a dummy link](#)

### 4. Element visibility



2. Write an XHTML and java script to validate the following fields in a registration page
- User ID (must be of length 5 to 12)
  - Name (only alphabets and the length should not be less than 15 characters)
  - Password (must be eight characters including one uppercase letter, one special character and alphanumeric characters)
  - E-mail(should not contain invalid addresses)

**Program:**

```
<html>
```

```
<head>
```

```
<h1 align=center>Welcome to Validation Checking</h1>
```

```
<hr width=50%>
```

```
<script language="javascript">
```

```
function validation() {
```

```
    var x = f.un.value;
```

```
    var len = x.length;
```

```
    var val = x.charCodeAt(0);
```

```
    var p = f.pw.value;
```

```
    var c = f.cpw.value;
```

```
    var a = f.email.value;
```

```
    var atpos = a.indexOf("@");
```

```
    var dotpos = a.lastIndexOf(".");
```

```
    if (len < 6 || x == " || x == null) {
```

```
        alert("check your username! must be minimum 6 characters");
```

```
        if (val < 65 || val > 90 && val < 97 || val > 122)
```

```
            alert("username must begin with an alphabet");
```

```
        return false;
```

```
    } else if (val < 65 || val > 90 && val < 97 || val > 122) {
```

```
        alert("username must begin with an alphabet");
```

```
        return false;
```

```
    } else if (p == " || c == " || p.length < 6 || c.length < 6 || p != c) {
```

```
        alert("Password and Confirm Password should be same and greater than 6 characters!");
```

```
        return false;
```

```
    } else if (atpos < 6 || dotpos < atpos + 6 || dotpos + 2 >= a.length) {
```



```
        alert("Not a valid email id");

        return false;

    } else

        alert("Congragulations! you have submited successfully");

    }

</script>

</head>

<title> Validation Check! </title>

<body>

    <table align=center border=1>

        <form name="f" action="success.html" onsubmit="return validation();" method="post">

            <tr>

                <td>User Name:</td>

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

            </tr>

            <tr>

                <td>Password:</td>

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

            </tr>

            <tr>

                <td>Confirm Password:</td>

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

            </tr>

            <tr>

                <td>E-mail ID:</td>

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

            </tr>

            <tr>

                <td></td>

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

            </tr>

        </form>

    </table>

</body>

</html>
```

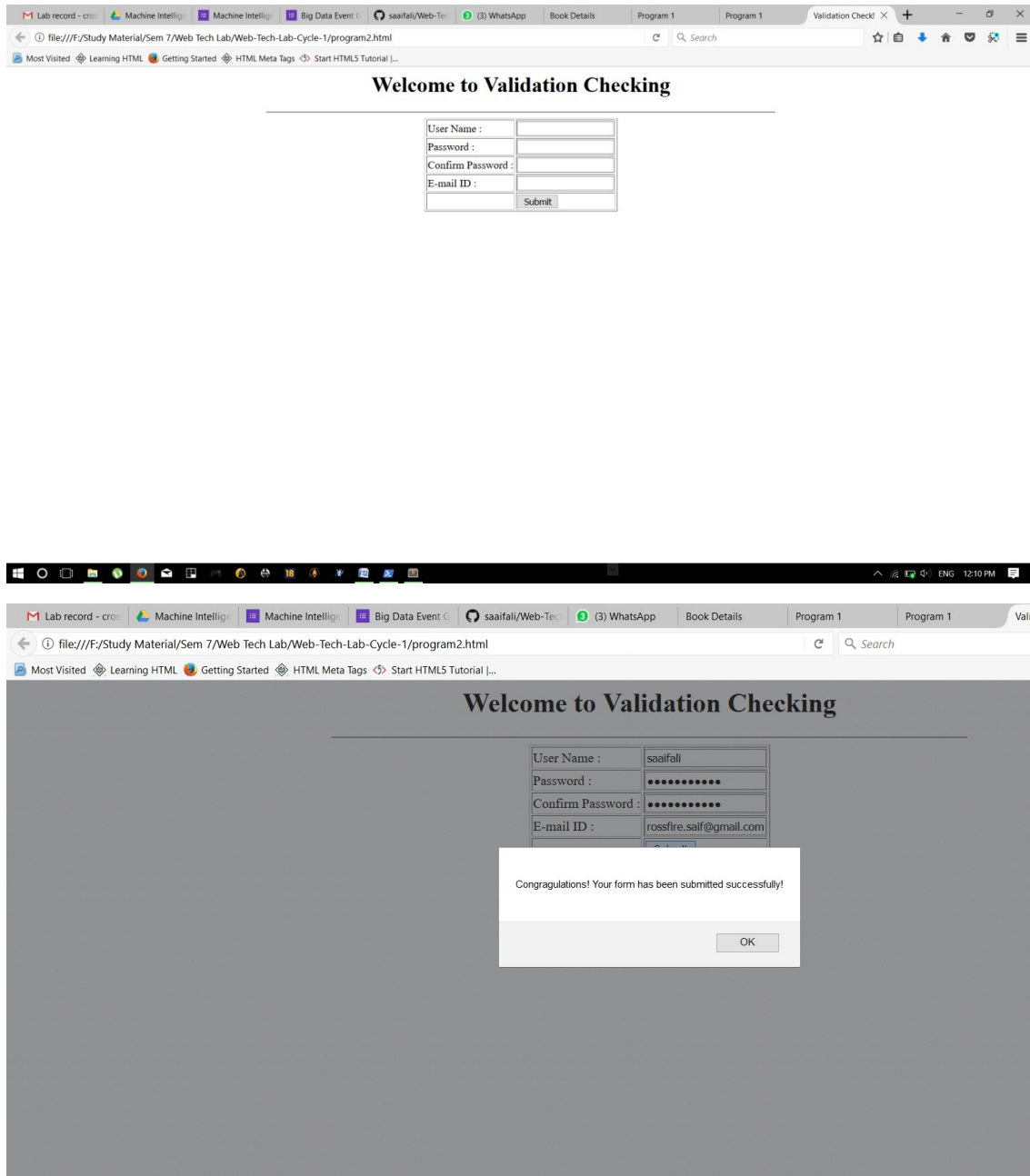
```
</tr>

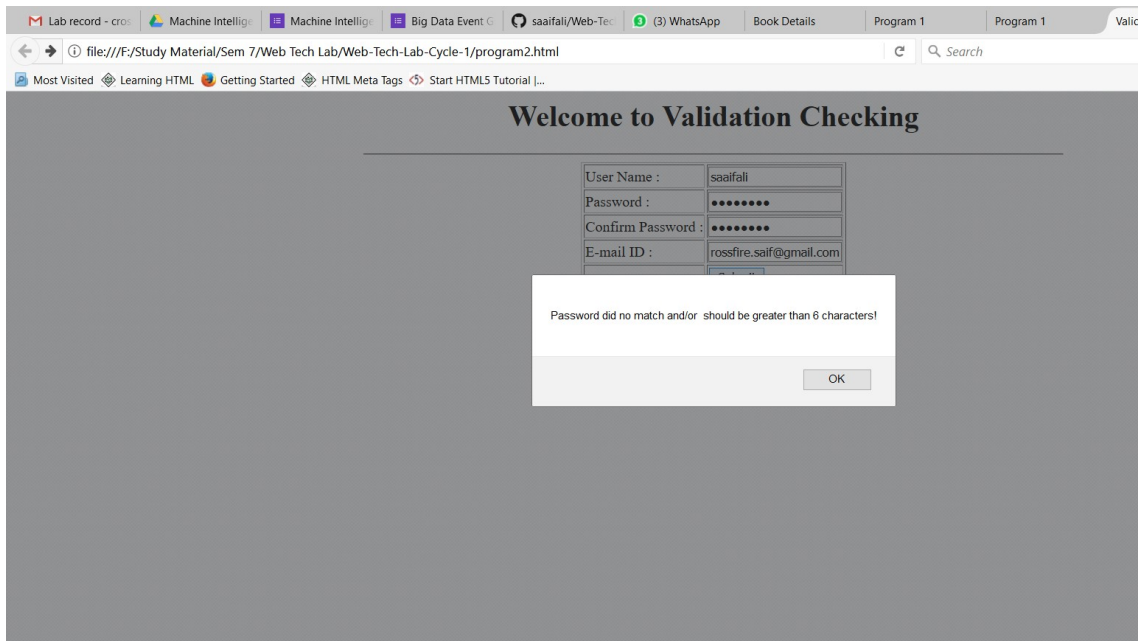
</form>

</table>

</body> </html>
```

### Output:





3. Write an XHTML document which displays a form containing text elements to input register number, sub-code, marks in three tests and a button element. Also write java script code to compute average of two better tests on click of button and print average marks using alert.

**Program:**

```
<html>

<head>

    <h1 align=center>Welcome to Validation Checking</h1>

    <hr width=50%>

</head>

<title> Validation Check! </title>

<body>

    <table align=center border=1>

        <tr>

            <td>Register No:</td>

            <td><input type="text" id="reg" /></td>

        </tr>

        <tr>

            <td>Subject:</td>

            <td><input type="text" id="subj" /></td>

        </tr>

        <tr>

            <td>Marks 1:</td>

            <td><input type="number" id="mrk1" /></td>

        </tr>

        <tr>

            <td>Marks 2:</td>

            <td><input type="number" id="mrk2" /></td>

        </tr>

        <tr>

            <td>Marks 3:</td>

            <td><input type="number" id="mrk3" /></td>
```

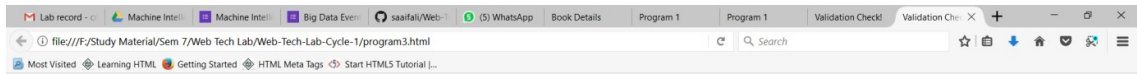
```

</tr>
<tr>
  <td>
    <input type="submit" onclick="validate();" />
  </td>
  <td>
    <input type="reset" onclick="reset();" />
  </td>
</tr>
</table>
<span id="Result"></span>
<script language="javascript">
  var rg = document.getElementById("reg");
  var sb = document.getElementById("subj");
  var m1 = document.getElementById("mrk1");
  var m2 = document.getElementById("mrk2");
  var m3 = document.getElementById("mrk3");
  function reset() {
    rg.value = "";
    sb.value = "";
    m1.value = m2.value = m3.value = "";
  }
  function validate() {
    var m1v = m1.value;
    var m2v = m2.value;
    var m3v = m3.value;
    if (m1v > 100 || m2v > 100 || m3v > 100 || m1v < 0 || m2v < 0 || m3v < 0) {
      alert("Wrong inputs");
      f.reset();
    }
    var arr = [parseInt(m1v), parseInt(m2v), parseInt(m3v)];

```

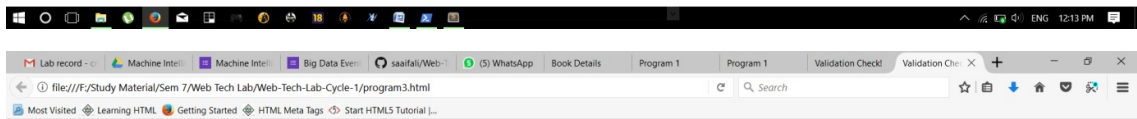
```
arr = arr.sort(function(a, b) {  
    return b - a  
});  
var avg = (arr[0] + arr[1]) / 2.00;  
document.getElementById("Result").innerHTML = ("Average of 2 max marks is " + avg);  
}  
</script>  
</body>  
</html>
```

**Output:**



## Welcome to Validation Checking

Register No:	144013
Subject:	Python 101
Marks 1:	90
Marks 2:	95
Marks 3:	100
Submit Query	Reset



## Welcome to Validation Checking

Register No:	144013
Subject:	Python 101
Marks 1:	90
Marks 2:	95
Marks 3:	100
Submit Query	Reset

Average of 2 max marks is 97.5



4. Write an XML file which will display the Book information which includes the following: Title of the book, Author Name, ISBN number, Publisher name, Edition and Price. Define the building blocks of XML document using XML Schema. Create an XSLT and CSS style sheet to display the document in browser.

**Program:**

**DTD file**

```
<!ELEMENT bookdetails (books+)>
```

```
<!ELEMENT books (title,author,edition,price)>
```

```
<!ELEMENT title (#PCDATA)>
```

```
<!ELEMENT author (#PCDATA)>
```

```
<!ELEMENT edition (#PCDATA)>
```

```
<!ELEMENT price (#PCDATA)>
```

**XML file**

```
<?xml version="1.0"?>
```

```
<!DOCTYPE bookdetails SYSTEM "program4_1.dtd">
```

```
<?xml-stylesheet type="text/xsl" href="program4_3.xsl"?>
```

```
<bookdetails>
```

```
  <books>
```

```
    <title> C </title>
```

```
    <author> Balaguruswamy </author>
```

```
    <edition> Edition-II </edition>
```

```
    <price>Rs. 300.00</price>
```

```
  </books>
```

```
  <books>
```

```
    <title> C++ </title>
```

```
    <author> Yaswanth Kanethkar </author>
```

```
    <edition> Edition-I </edition>
```

```
    <price>Rs. 350.00</price>
```



```

</books>

<books>

<title> JAVA </title>

<author> Herbert Schildt </author>

<edition> Edition-IV </edition>

<price>Rs. 500.00</price>

</books>

```

```

</bookdetails>

```

### **XSL file**

```

<?xml version="1.0"?>

<xsl:stylesheet version="2.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">

  <xsl:template match="/">

    <html>

      <head> <title>Book Details</title> </head>

      <body>

        <hr width="50%" />

        <table border="1" align="center">

          <tr>

            <th> TITLE </th>

            <th> AUTHOR </th>

            <th> EDITON </th>

            <th> PRICE </th>

          </tr>

          <xsl:for-each select="bookdetails/books">

            <tr>

              <td> <xsl:value-of select="title" /></td>

```

```

        <td> <xsl:value-of select="author"/></td>

        <td> <xsl:value-of select="edition"/></td>

        <td> <xsl:value-of select="price"/></td>

    </tr>

</xsl:for-each>

</table>

</body>

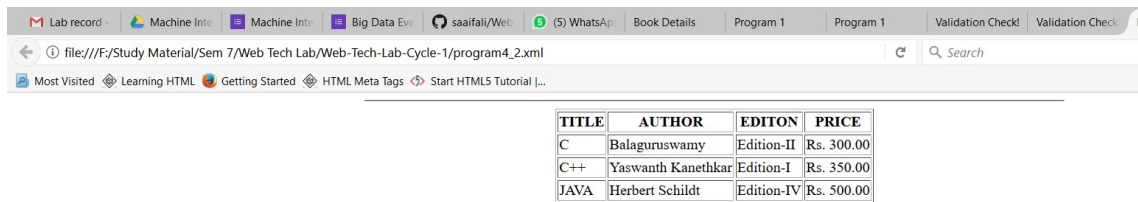
</html>

</xsl:template>

</xsl:stylesheet>

```

### **Output:**



TITLE	AUTHOR	EDITON	PRICE
C	Balaguruswamy	Edition-II	Rs. 300.00
C++	Yaswanth Kanethkar	Edition-I	Rs. 350.00
JAVA	Herbert Schildt	Edition-IV	Rs. 500.00

5. Design an XML page as per the following specification
- a) Create a DTD for describing student details of an engineering college affiliated to VTU, where each student has child elements, USN, Name, Name of the College, Branch, Year of Joining, and e-mail id.
  - b) Create XML document with at least three instances of students defined in the above DTD.
  - c) Create an XSLT and CSS style sheet to display the above XML document.

**Program:**

**DTD File**

```
<!ELEMENT studentdetails (students+)>

<!ELEMENT students (USN,Name,College,Branch,Joining,Email)>

<!ELEMENT USN (#PCDATA)>

<!ELEMENT Name (#PCDATA)>

<!ELEMENT College (#PCDATA)>

<!ELEMENT Branch (#PCDATA)>

<!ELEMENT Joining (#PCDATA)>

<!ELEMENT Email (#PCDATA)>
```

**XML File**

```
<?xml version="1.0"?>

<!DOCTYPE studentdetails SYSTEM "program5_1.dtd">

<?xml-stylesheet type="text/xsl" href="program5_3.xsl"?>

<studentdetails>

  <students>

    <USN>4JC14CS086</USN>

    <Name>Saif Ali</Name>

    <College>SJCE, Mysuru</College>

    <Branch>Computer Science</Branch>

    <Joining>2014</Joining>

    <Email>crossfire.saif@gmail.com</Email>
```

</students>

<students>

<USN>4JC14CS080</USN>

<Name>Sheetal Raina</Name>

<College>SJCE, Mysuru</College>

<Branch>Computer Science</Branch>

<Joining>2014</Joining>

<Email>sheetal.raina@gmail.com</Email>

</students>

<students>

<USN>4JC14IS102</USN>

<Name>Ankit Singh Bhamra</Name>

<College>SJCE, Mysuru</College>

<Branch>Information Science</Branch>

<Joining>2014</Joining>

<Email>ankitsbhamra@gmail.com</Email>

</students>

</studentdetails>

### **XSL File**

<?xml version="1.0"?>

<xsl:stylesheet version="2.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">

<xsl:template match="/">

<html>

<head> <title>Students Details</title> </head>

<body>

<hr width="50%"/>

```

<table border="1" align="center">

  <tr>

    <th> USN </th>

    <th> NAME </th>

    <th> COLLEGE </th>

    <th> BRANCH </th>

    <th> JOINED </th>

    <th> EMAIL </th>

  </tr>

  <xsl:for-each select="studentdetails/students">

    <tr>

      <td> <xsl:value-of select="USN"/></td>

      <td> <xsl:value-of select="Name"/></td>

      <td> <xsl:value-of select="College"/></td>

      <td> <xsl:value-of select="Branch"/></td>

      <td> <xsl:value-of select="Joining"/></td>

      <td> <xsl:value-of select="Email"/></td>

    </tr>

  </xsl:for-each>

</table>

</body>

</html>

</xsl:template>

</xsl:stylesheet>

```

Output:

Lab record

Machine In

Machine In

Big Data E

saairai/Wi

(5) WhatsA

Book Details

Program 1

Program 1

Validation Chec

Validation Chec

Book Details

file:///F:/Study Material/Sem 7/Web Tech Lab/Web-Tech-Lab-Cycle-1/program5\_2.xml

Search

Most Visited

Learning HTML

Getting Started

HTML Meta Tags

Start HTMLS Tutorial |...

USN	NAME	COLLEGE	BRANCH	JOINED	EMAIL
4JC14CS086	Saif Ali	SJCE, Mysuru	Computer Science	2014	crossfire.saif@gmail.com
4JC14CS080	Sheetal Raina	SJCE, Mysuru	Computer Science	2014	sheetal.raina@gmail.com
4JC14IS102	Ankit Singh Bhamra	SJCE, Mysuru	Information Science	2014	ankitsbhamra@gmail.com