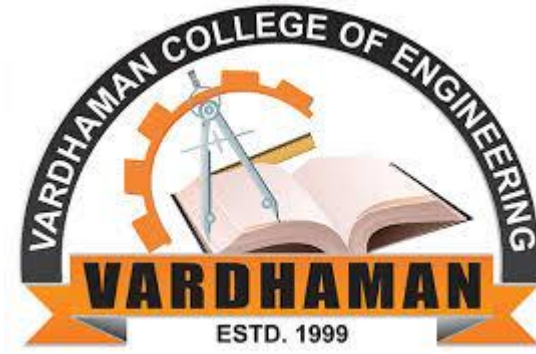


VARDHAMAN COLLEGE OF ENGINEERING HYDERABAD

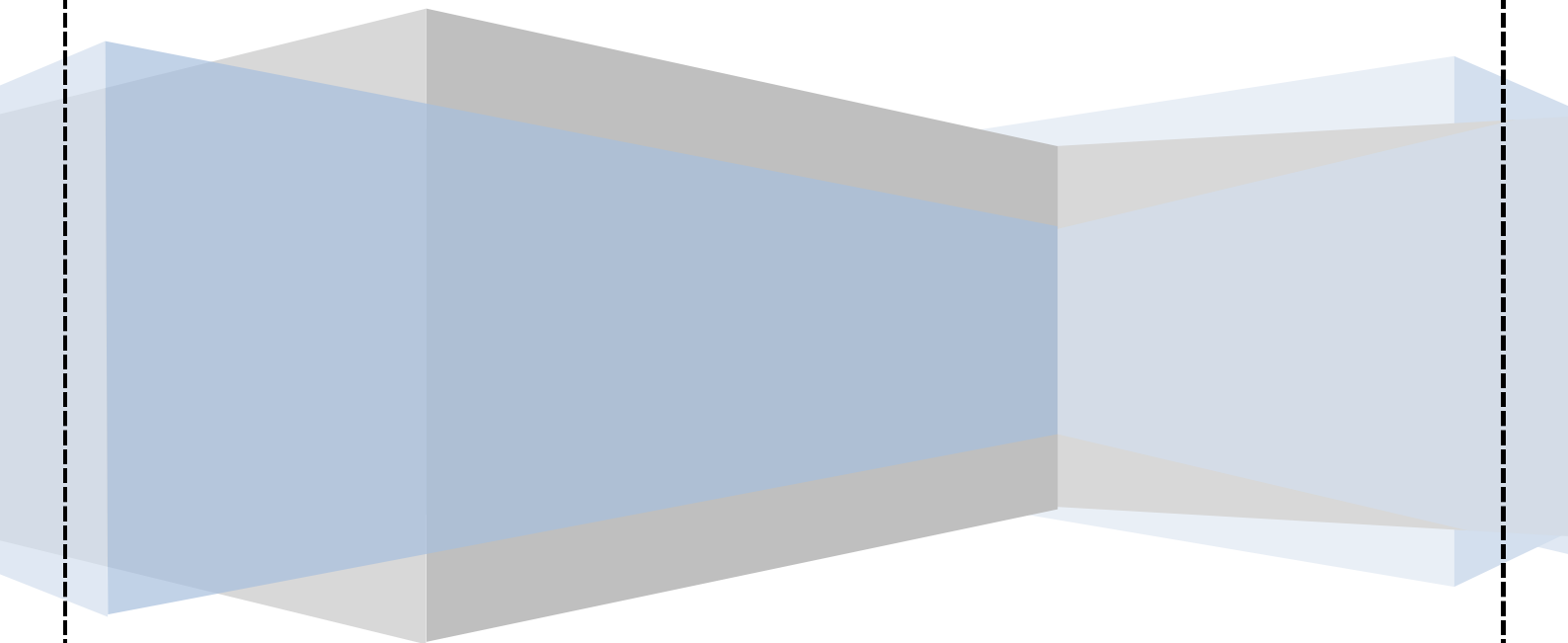
Autonomous institute affiliated to JNTUH



Web Technologies

Lab Manual AY:2020-21

Department Of Computer Science & Engineering



Index

S. No	Title of the Experiment
1.	<ul style="list-style-type: none"> a. HTML Program to work with Lists. b. HTML Program to work with tables.
2.	<ul style="list-style-type: none"> a. HTML Program to design login page, registration page. b. HTML program to design feedback form.
3.	<ul style="list-style-type: none"> a. CSS Program to work with background and border properties. b. Java script program to print multiplication table of the given integer. c. Java script program to validate the registration form contents with the following rules(Use RegExp Object) <ul style="list-style-type: none"> i. Username Must starts with Uppercase followed by set of lowercase letters or digits. ii. Password must contain only uppercase letters and length must be in between 8 to 12. iii. Phone number contains 10 digits. iv. E-mail must follow some predefined format(example@domain.com)
4	<ul style="list-style-type: none"> a. Create a DTD document to validate the XML document. b. Create a XML Schema document to validate the XML document.
5	<ul style="list-style-type: none"> a. JDBC Program to create a student table in the database. b. JDBC Program to perform various DML Operations on the database using Statement.
6	<ul style="list-style-type: none"> a. JDBC Program to perform various DML operations using Prepared Statement. b. JDBC Program to execute stored procedure using Callable Statement. c. JDBC Program to execute stored function using Callable Statement.
7	<ul style="list-style-type: none"> a. Servlet program to read the parameters from user interface and display welcome message. b. Servlet program to read initialization parameters using ServletConfig and ServletContext object.
8	<ul style="list-style-type: none"> a. Servlet program to work with HttpSession Object. b. Servlet program to work with Cookie. c. Servlet program to insert the form contents into the database using JDBC.
9	<ul style="list-style-type: none"> a. JSP Program to print multiplication table. b. JSP Program to handle the exceptions. c. JSP Program to retrieve the student data from database based on his roll number.
10	<ul style="list-style-type: none"> a. JSP Program to access bean information using useBean tag. b. JSP Program to authenticate the login details. If user is valid forward the control to success.html otherwise forward to fail.html.
11	<ul style="list-style-type: none"> a. PHP program to work with associative arrays. b. PHP program to find factorial using Recursion. c. PHP Program to display the following. <ul style="list-style-type: none"> i. Sum of array elements. ii. Product of array elements iii. Display array elements in sorted order iv. Display array elements in reverse sorted order.
12	<ul style="list-style-type: none"> a. PHP Program to perform various DDL operations on MySQL database. b. PHP Program to perform various DML operations on MySQL database.

WEEK-1

a. <! - -HTML program to work with Lists- - >

```
<html>
<body>
<br><br><br>
<ul type="disk">
<li>VEGETARIAN</li>
<ul>
<li>STARTERS</li>
<ol>
<li>Manchooria</li>
<li>Noodles</li>
<li>French Fries</li>
</ol>
<li>MAINS</li>
<ol>
<li>Veg Biryani</li>
<li>Plain Rice</li>
<li>Dal Tadka</li>
</ol>
</ul>
</ul>
<ul type="disk">
<li>NON-VEGETARIAN</li>
<ul>
<li>STARTERS</li>
<ol>
<li>Chilli Chicken</li>
<li>Grilled Prawns</li>
<li>Chicken Noodles</li>
</ol>
<li>MAINS</li>
<ol>
<li>Chicken Dum Biryani</li>
<li>Egg Fried Rice</li>
<li>Mutton Curry</li>
</ol>
</ul>
</ul>
</body>
</html>
```

Output:

- **VEGETARIAN**
 - **STARTERS**
 1. Manchooria
 2. Noodles
 3. French Fries
 - **MAINS**
 1. Veg Biryani
 2. Plain Rice
 3. Dal Tadka
- **NON-VEGETARIAN**
 - **STARTERS**
 1. Chilli Chicken
 2. Grilled Prawns
 3. Chicken Noodles
 - **MAINS**
 1. Chicken Dum Biryani
 2. Egg Fried Rice
 3. Mutton Curry

b. <!-- HTML program to work with tables-->

```
<html>
<body>
<br><br><br><br><br>
<table border="5" align="center" height="400" width="500" cellpadding="9"
bordercolor="purple" bgcolor="#b08490">
<tr>
<th rowspan="2">BROWSER</th>
<th colspan="2">VISITORS</th>
<th rowspan="2">RATING</th>
</tr>
<tr>
<td>NUMBER</td>
<td>PERCENTAGE</td>
</tr>
<tr>
<td align="center">MOZILLA FIREFOX</td>
<td>163</td>
<td>59%</td>
<td align="center" bgcolor="#7dbd42">4.5</td>
</tr>
<tr>
<td align="center">GOOGLE CHROME</td>
<td>78</td>
<td>28%</td>
<td>4</td>
</tr>
<tr>
<td align="center">SAFARI</td>
<td>35</td>
<td>13%</td>
<td>3</td>
</tr>
</table>
</body>
</html>
```

Output:

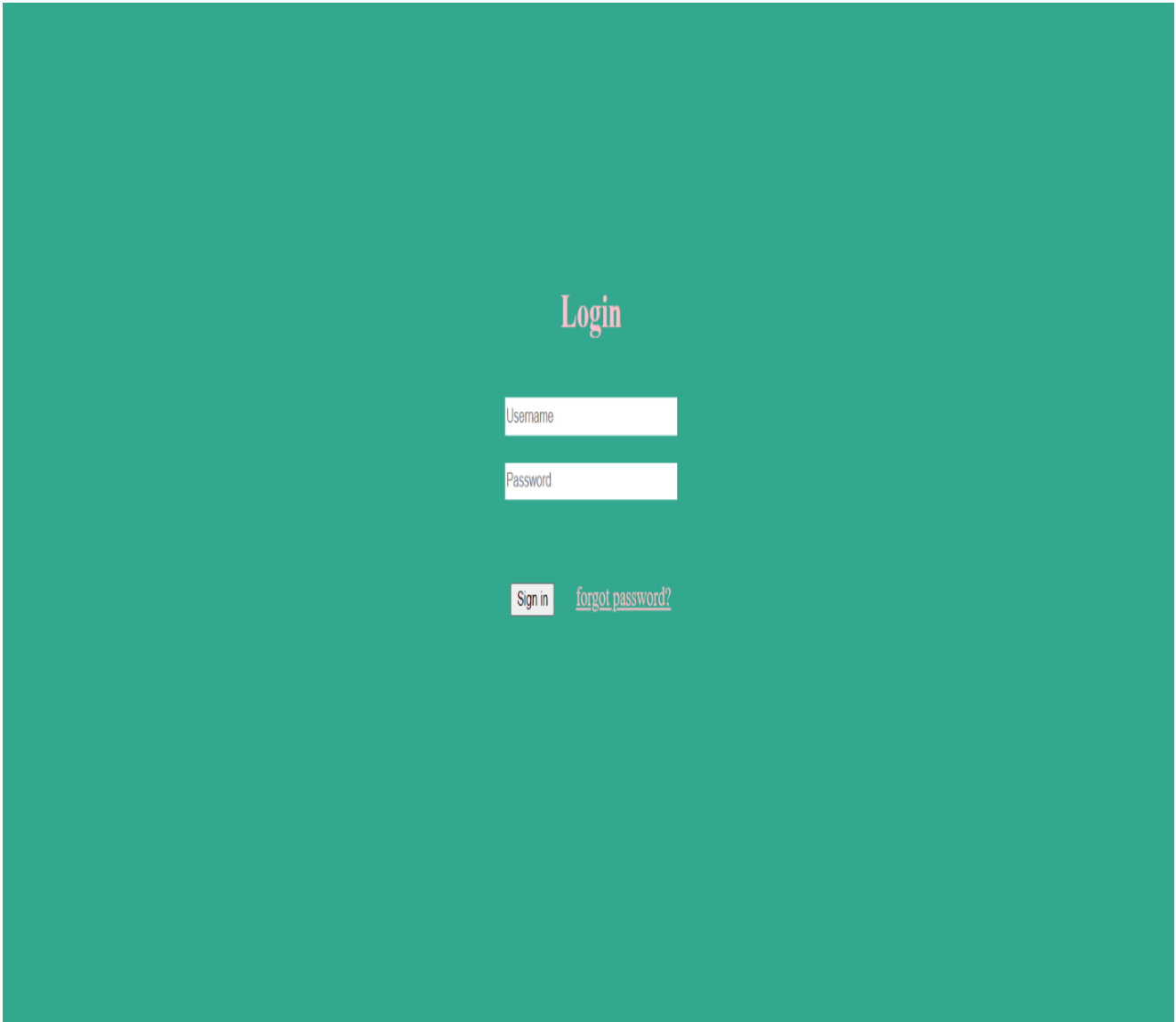
BROWSER	VISITORS		RATING
	NUMBER	PERCENTAGE	
MOZILLA FIREFOX	163	59%	4.5
GOOGLE CHROME	78	28%	4
SAFARI	35	13%	3

WEEK-2

a. <! - - HTML Program to design login page- ->

[illegible]

Output:



b. <!-- HTML Program to design registration page -->

```
<html>
<body align="center">
<h1> <b>Registration Form</b></h1><br>
<form name="regform" method="post">
FIRST NAME:<input type="text" name="un" size="20" maxlength="30"> <br><br>
MIDDLE NAME:<input type="text" name="un" size="20" maxlength="30"> <br><br>
LAST NAME: <input type="text" name="un" size="20" maxlength="30"> <br><br>
COURSE : <select>
<option selected disabled>Select one</option>
<option value="bt">BTECH</option>
<option value="mt">MTECH</option>
</select><BR><BR> Gender<BR>
<input type="radio"> Male <br>
<input type="radio"> Female <br>
<input type="radio"> Other <br><br><br>
E-Mail: <input type="text" name="mail" placeholder="Email" size="20" maxlength="30">
<br><br>
ADDRESS: <input type="text" name="loc" placeholder="Address" size="20"
maxlength="30"> <br><br>
MOBILE NO: <input type="text" name="phno" placeholder="Contact Number" size="20"
maxlength="30"> <br><br>
PASSWORD: <input type="password" name="pwd" placeholder="password" size="20"
maxlength="30"> <br><br>
RE-TYPE PASSWORD:<input type="password" name="cpwd" placeholder="Confirm
password" size="20" maxlength="30"> <br><br>
<input type="submit" value="SUBMIT"><br>
</form>
</body>
</html>
```


Output:

Registration Form

FIRST NAME:

MIDDLE NAME:

LAST NAME:

COURSE :

Gender

☐ Male

☐ Female

☐ Other

E-Mail:

ADDRESS:

MOBILE NO:

PASSWORD:

RE-TYPE PASSWORD:

c. <! -- HTML Program to design feedback form -->

```
<html>
<head>
</head>
<body>
<CENTER>
<br><br>
<h3>FEEDBACK FORM</H3>
<form method="post">
<TABLE height="400"width="400">
<tr>
<th>First Name</th>
<td align="center"><input type="text" placeholder="fname"></td>
</tr>
<tr>
<th>Last Name</th>
<td align="center"><input type="text" placeholder="lname"></td>
</tr>
<tr>
<th>E-Mail</th>
<td align="center"><input type="email" name="mail" placeholder="E-Mail"></td>
</tr>
<tr>
<th>Country</th>
<td align="center">
<select>
<option selected disabled>Select one</option>
<option value="in ">India</option>
<option value="USA">USA</option>
</select>
</td> </tr>
<tr>
<th>Feedback:</th>
<td align="center">
<textarea rows="10" cols="30" placeholder="Give your feedback here "></textarea>
</td> </tr>
<tr>
<TD ALIGN="CENTER">
<input type="submit" value="SUBMIT"></td>
</tr>
</TABLE>
</form>
</CENTER>
</body>
</html>
```

Output:

FEEDBACK FORM

First Name

Last Name

E-Mail

Country

Select one ▼

Select one

India

USA

Give your

re

Feedback:

SUBMIT

WEEK-3

a. `<! - -CSS Program to work with background properties- ->`

```
<html>
<head>
<style>
h1{
  background-image:url("https://cdn.pixabay.com/photo/2015/04/23/22/00/tree-736885_340.jpg");
  background-size:100%;
  background-repeat: no-repeat;
  background-color: red;  }
</style>

</head>
<body style="background- image:url('https://cdn.pixabay.com/photo/2015/04/23/22/00/tree-736885_340.jpg'); background-repeat:no-repeat; background-position:bottom center;">
<br><br>

<h1 align="center"><font color="pink">Welcome To CSS Background Styles</font></h1>

</body>
</html>
```

Output:

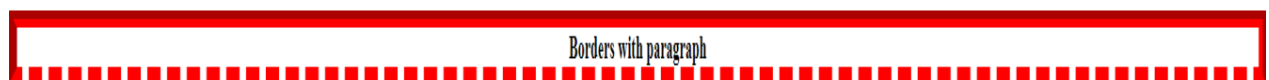
Welcome To CSS Background Styles



<! - -CSS Program to work with border properties- ->

```
<html>
<head>
<style> h1{
border-style:dotted; border-color:red; border-width:10; border-radius:5;
}
p{border-style:groove ridge dashed inset; border-color:red;
border-width:8 10;
}
</style>
</head>
<body>
<br><br>
<h1 align="center">CSS Borders</h1><br><br><br>
<p align="center"><b>Borders with paragraph</b></p>
</body>
</html>
```

Output:



b. <! - - Java script program to print multiplication table of the given integer - ->

```
<html>

<head>

<title>JavaScript - Function to Display Table of an entered Number.</title>

<script type="text/javascript">

function printTable(){

    var num;

    num=Number(document.getElementById('txtNumber').value);

    for(var i=1; i<=10; i++){

        var pTag= document.getElementById('pPrint');

        pTag.innerHTML += (num)+"*"+(i)+"="+ (num*i) + "<br/>"

    }

}

</script>

</head>

<body style="text-align: center;">

    <h1>JavaScript - Function to Display Table of an entered Number.</h1>

    <p><input type="text" id="txtNumber" placeholder="Enter number"/></p>

    <p><input type="button" value="Print Table." onclick='printTable()'/>

    <!--print numbers-->

    <p id="pPrint"></p>

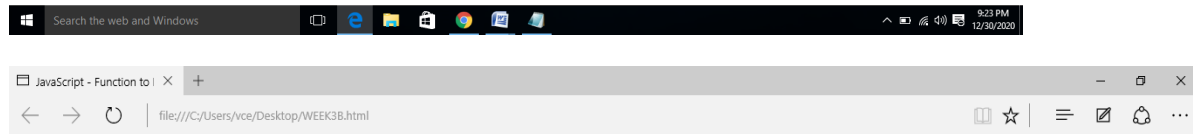
</body>

</html>
```

Output:



JavaScript - Function to Display Table of an entered Number.



JavaScript - Function to Display Table of an entered Number.

5*1=5
5*2=10
5*3=15
5*4=20
5*5=25
5*6=30
5*7=35
5*8=40
5*9=45
5*10=50

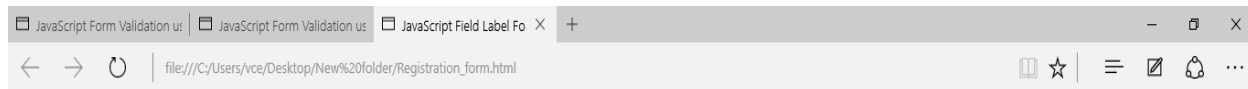


c. <!--Java script program to validate the registration form contents - - >

Program: Registration-form.html

```
<!DOCTYPE html><html lang="en"><head>
<meta charset="utf-8">
<title>JavaScript Field Label Form Validation using a registration form</title>
<meta name="keywords" content="example, JavaScript Form Validation, Sample registration form" />
<meta name="description" content="This document is an example of JavaScript Field label form
validation using a sample registration form. " />
<link rel='stylesheet' href='js-field-level-form-validation.css' type='text/css' />
<script src="field-level-sample-registration-form-validation.js"></script>
</head>
<body onload="firstfocus();">
<h1>JavaScript Field Label Form Validation using a registration form</h1>
<h2>Use tab key or mouse to go next field</h2><form name='registration'">
<ul>
<li><label for="userid">User id [5 to 12 characters] :</label></li>
<li><input type="text" name="userid" size="12" onblur="userid_validation(5,12)"/></li>
<li><label for="passid">Password [7 to 12 characters] :</label></li>
<li><input type="password" name="passid" size="12" onblur="passid_validation(7,12)"/></li>
<li><label for="username">Name [Alphabates characters] :</label></li>
<li><input type="text" name="username" size="50" onblur="allLetter()"/></li>
<li><label for="address">Address [alphanumeric characters] :</label></li>
<li><input type="text" name="address" size="50" onblur="alphanumeric()"/></li>
<li><label for="country">Country [Must select a country] :</label></li>
<li><select name="country" onblur="countryselect()">
<option selected="" value="Default">(Please select a country)</option>
<option value="AF">Australia</option>
<option value="AL">Canada</option>
<option value="DZ">India</option>
<option value="AS">Russia</option>
<option value="AD">USA</option>
</select></li>
<li><label for="zip">ZIP Code [numeric characters] :</label></li>
<li><input type="text" name="zip" onblur="allnumeric()"/></li>
<li><label for="email">Email [Valid email] :</label></li>
<li><input type="text" name="email" size="50" onblur="ValidateEmail()"/></li>
<li><label id="gender">Sex [Select Male or Female] :</label></li>
<li><input type="radio" name="sex" value="Male" checked /><span>Male</span></li>
<li><input type="radio" name="sex" value="Female" /><span>Female</span></li>
<li><label>Language [Optional] :</label></li>
<li><input type="checkbox" name="en" value="en" checked /><span>English</span></li>
<li><input type="checkbox" name="nonen" value="noen" /><span>Non English</span></li>
<li><label for="desc">About [Optional] :</label></li>
<li><textarea name="desc" id="desc"></textarea></li>
<li><input type="submit" name="submit" value="Submit" onclick="alert('Form submitted
successfully')"/></li>
</ul>
</form>
</body>
</html>
```


Output:



JavaScript Field Label Form Validation using a registration form

Use tab key or mouse to go next field

User id [5 to 12 characters] :

Password [7 to 12 characters] :

Name [Alphabates characters] :

Address [alphanumeric characters] :

Country [Must select a country] :

ZIP Code [numeric characters] :

Email [Valid email] :

Sex [Select Male or Female] : ☒ Male ☐ Female

Language [Optional] : ☒ English ☐ Non English

About [Optional] :



Program: js-field-level-form-validation.css

```
h1{
  margin-left: 50px;
  color: navy;
}
h2{
  margin-left: 50px;
  color: navy;
  margin-top: -20px;
}
form li{
  list-style: none;
  margin-bottom: 5px;
}
form ul li label
{
  float: left;
  clear: left;
  width: 265px;
  text-align: right;
  margin-right: 10px;
  font-family: Verdana, Arial, Helvetica, sans-serif;
  font-size: 14px;
}
form ul li input, select, span
{
  float: left;
  margin-bottom: 10px;
  border: 1px solid maroon;
}
form textarea
{
  float: left;
  width: 350px;
  height: 150px;
}
[type="submit"]
{
  clear: left;
  margin: 20px 0 0 300px;
  font-size: 18px;
}
```

Program: field-level-sample-registration-form-validation.js

```
// After form loads focus will go to User id field.
function firstfocus()
{
var uid = document.registration.userid.focus();
return true;
}
// This function will validate User id.
function userid_validation(mx,my)
{
var uid = document.registration.userid;
var uid_len = uid.value.length;
if (uid_len == 0 || uid_len >= my || uid_len < mx)
{
alert("User Id should not be empty / length be between "+mx+" to "+my);
uid.focus();
return false;
}
// Focus goes to next field i.e. Password.
document.registration.passid.focus();
return true;
}
// This function will validate Password.
function passid_validation(mx,my)
{
var passid = document.registration.passid;
var passid_len = passid.value.length;
if (passid_len == 0 || passid_len >= my || passid_len < mx)
{
alert("Password should not be empty / length be between "+mx+" to "+my);
passid.focus();
return false;
}
// Focus goes to next field i.e. Name.
document.registration.username.focus();
return true;
}
// This function will validate Name.
function allLetter()
{
var uname = document.registration.username;
var letters = /^[A-Za-z]+$/;
if(uname.value.match(letters))
{
// Focus goes to next field i.e. Address.
document.registration.address.focus();
return true;
}
else {
alert('Username must have alphabet characters only');
uname.focus();
}
```

```

return false;
}
}
// This function will validate Address.
function alphanumeric()
{
var uadd = document.registration.address;
var letters = /^[0-9a-zA-Z]+$/;
if(uadd.value.match(letters))
{
// Focus goes to next field i.e. Country.
document.registration.country.focus();
return true;
}
else
{
alert('User address must have alphanumeric characters only');
uadd.focus();
return false;
}
}
// This function will select country name.
function countryselect()
{
var ucountry = document.registration.country;
if(ucountry.value == "Default")
{
alert('Select your country from the list');
ucountry.focus();
return false;
}
else
{
// Focus goes to next field i.e. ZIP Code.
document.registration.zip.focus();
return true;
}
}
// This function will validate ZIP Code.
function allnumeric()
{
var uzip = document.registration.zip;
var numbers = /^[0-9]+$/;
if(uzip.value.match(numbers))
{
// Focus goes to next field i.e. email.
document.registration.email.focus();
return true;
}
else{
alert('ZIP code must have numeric characters only');

```

```
uzip.focus();
return false;
}
}
// This function will validate Email.
function ValidateEmail()
{
var uemail = document.registration.email;
var mailformat = /^^\w+([\.-]?\w+)*@\w+([\.-]?\w+)*(\.\w{2,3})+$/;
if(uemail.value.match(mailformat))
{
document.registration.desc.focus();
return true;
}
else
{
alert("You have entered an invalid email address!");
uemail.focus();
return false;
}
}
```

WEEK-4

a.<! -- Create a DTD document to validate the XML document. - - >

emp.dtd

```
<!ELEMENT emps (emp+) >
<!ELEMENT emp (id,name,sal,dept,company)>
<!ELEMENT id (#PCDATA)>
<!ELEMENT name (#PCDATA)>
<!ELEMENT sal (#PCDATA)>
<!ELEMENT dept (#PCDATA)>
<!ELEMENT company (#PCDATA)>
<!ATTLIST dept grade CDATA #REQUIRED
block CDATA "A">
<!ATTLIST id prefix CDATA #IMPLIED>
<!ENTITY addr "Infosys Technoligies,Gachibowli,Hyderabad">
```

Empvalidate.xml

```
<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<!DOCTYPE emps SYSTEM "emp.dtd">
<emps>
<emp>
<id prefix="INF">101</id>
<name>Ramesh</name>
<sal>85900</sal>
<dept grade="B"> Developer</dept>
<company>&addr;</company>
</emp>
<emp>
<id>121</id>
<name>Suresh</name>
<sal>65900</sal>
<dept grade="C"> Tester</dept>
<company>&addr;</company>
</emp>
<emp>
<id>131</id>
<name>Ganesh</name>
<sal>185900</sal>
<dept grade="A">Designer</dept>
<company>&addr;</company>
</emp>
</emps>
```

Output:



```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE emps SYSTEM "emp.dtd">
- <emps>
  - <emp>
    <id prefix="INF">101</id>
    <name>Ramesh</name>
    <sal>85900</sal>
    <dept grade="B">Developer</dept>
    <company/>
  </emp>
  - <emp>
    <id>121</id>
    <name>Suresh</name>
    <sal>65900</sal>
    <dept grade="C">Tester</dept>
    <company/>
  </emp>
  - <emp>
    <id>131</id>
    <name>Ganesh</name>
    <sal>185900</sal>
    <dept grade="A">Designer</dept>
    <company/>
  </emp>
</emps>
```



b. <! - - Create a XML Schema document to validate the XML document. - ->

books.xsd

```
<?xml version="1.0"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:element name="catalog">
<xs:complexType>
<xs:sequence>
<xs:element ref="book" minOccurs="1" maxOccurs="unbounded" />
</xs:sequence>
</xs:complexType>
</xs:element>
<xs:element name="book">
<xs:complexType>
<xs:sequence>
<xs:element name="title" type="xs:string" minOccurs="1" maxOccurs="1"/>
<xs:element name="author" type="xs:string" minOccurs="1" maxOccurs="1"/>
<xs:element name="publisher" type="xs:string" minOccurs="1" maxOccurs="1"/>
<xs:element name="pages" type="xs:integer" minOccurs="1" maxOccurs="1"/>
<xs:element name="price" type="xs:decimal" minOccurs="1" maxOccurs="1"/>
</xs:sequence>
<xs:attribute name="course" type="xs:string" use="required"/>
</xs:complexType>
</xs:element>
</xs:schema>
```

booksdemo.xml

```
<?xml version="1.0" ?>
<?xml-stylesheet type="text/css" href="books.css" ?>
<catalog xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="books.xsd">
<book course="cse" >
<title> Web Technologies </title>
<author>A.Ramesh</author>
<publisher>DreamTech</publisher>
<pages>1200</pages>
<price>2552.75</price>
</book>
<book course="cse">
<title> Operating Systems </title>
<author>Galvin</author>
<publisher>TMcH</publisher>
<pages>900</pages>
<price>850.50</price>
</book>
<book course="ece">
<title> Control Systems </title>
<author>Davind Herny</author>
<publisher>BPB</publisher>
<pages>600</pages>
<price>1250.70</price>
</book>
```


</catalog>
books.css

```
title {font-family:serif;color:green;font-size:18pt}  
author{font-family:arial;color:red;font-size:12pt}  
publisher{font-family:arial;color:green;font-size:12pt}  
pages{font-family:arial;color:#AABB12;font-size:12pt}  
price{font-family:arial;color:blue;font-size:12pt}
```

Output:



Activate Windows
Go to Settings to activate Windows.

WEEK-5

//Program to Create Table in Mysql

```
import java.sql.*;
public class CreateTable
{
    public static void main(String args[])
    {
        try
        {
            //com.mysql.cj.jdbc.Driver
            Class.forName("com.mysql.jdbc.Driver");
            Connection con=DriverManager.getConnection("jdbc:mysql://localhost:3306/student","root","");
            Statement st=con.createStatement();
            st.executeUpdate("create table csed ( rollno varchar(10), name varchar(20))");
            System.out.println("Table Created");
            con.close();
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
    }
}

//download mysql-connector-java-5.1.48 zip file - extract
//mysql-connector-java-5.0.8-bin.jar and copy in
//C:\Program Files (x86)\Java\jre7\lib\ext folder of java
//set classpath for the jar file as
// classpath => C:\Program Files (x86)\Java\jre7\lib\ext\mysql-connector-java-5.1.48-bin.jar,;
```

Output: Table Created

//Program to Insert Student Data

```
import java.sql.*;
import java.util.*;
public class InsertTable
{
    public static void main(String args[]) {
        try {
            Class.forName("com.mysql.jdbc.Driver");
            Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/studentinfo","root","");
            Statement st=con.createStatement();
            // String qry = "INSERT INTO student(id,name,contact,address,avg) VALUES
            //(101,'Ramesh','123456789','Hyderabad',80)";
            //st.executeUpdate(qry);
            Scanner sc = new Scanner(System.in);
            System.out.println("Eneter the student details");
            int sid = sc.nextInt();
            String sname= sc.next();
            String scontact= sc.next();
            String saddr = sc.next();
            int savg=sc.nextInt();
            String qry = "INSERT INTO student(id,name,contact,address,avg) VALUES
            (" +sid+"','"+sname+"','"+scontact+"','"+saddr+"','"+savg+"")";
            st.executeUpdate(qry);
            con.close();
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
        System.out.println("Row Inserted");
    }
}
```

Output: Row Inserted

//Program to Retrieve Data From Database

```
import java.sql.*;
public class GetTable
{
    public static void main(String args[])
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/studentinfo","root","");
            Statement st=con.createStatement();
            ResultSet rs = st.executeQuery("select * from student");
            System.out.println("The Employee Details are \n");
            while(rs.next())
            {
                System.out.println(rs.getInt(1)+":"+rs.getString(2)+":"+ rs.getString(3)+":"+rs.getString(4) +":"+ rs.getInt(5));
            }
            con.close();
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
    }
}
```

//Program to Update a field in Database

```
import java.sql.*;
import java.util.*;
public class UpdateTable
{
    public static void main(String args[])
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/studentinfo","root","");
            Statement st=con.createStatement();
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter the Studen Id to Update contact info");
            int sid = sc.nextInt();
            System.out.println("Enter the Phone no to update");
            String scontact = sc.next();
            String qry = "UPDATE student SET contact='"+scontact+"' WHERE id="+sid+"";
            //String qry = "UPDATE student SET contact='123456' WHERE id=1234;
            st.executeUpdate(qry);
            con.close();
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
        System.out.println("Row Updated");
    }
}
```

//Program to delete a Record in Table

```
import java.sql.*;
import java.util.*;
public class DeleteTable
{
    public static void main(String args[])
    {
        try
        {
            Class.forName("com.mysql.jdbc.Driver");
            Connection con=DriverManager.getConnection("jdbc:mysql://localhost:3306/studentinfo","root","");
            Statement st=con.createStatement();
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter the record to be deleted");
            int sid = sc.nextInt();
            String qry = "DELETE FROM student WHERE id="+sid+"";
            st.executeUpdate(qry);
            con.close();
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
        System.out.println("Row Effected / Deleted");
    }
}
```

WEEK-6

<!-- Program to Create Table in Mysql - using Prepared Statement -->

```
import java.sql.*;

public class CreateTable
{
    public static void main(String args[])
    {
        try {
            Class.forName("com.mysql.jdbc.Driver");

            Connection
            con=DriverManager.getConnection("jdbc:mysql://localhost:3306/studentinfo","root","");

            Statement st=con.createStatement();

            String qry="create table student1 ( id int(5), name varchar(20), contact    varchar(10), address
            varchar(20), avg int(10) )";

            PreparedStatement ps = con.prepareStatement(qry);

            ps.executeUpdate();

            System.out.println("Table Created");

            con.close();
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
    }
}
```

<! - -Program to insert Student Data - using Prepared Statement - - >

```
import java.sql.*;

import java.util.*;

public class InsertTable{

public static void main(String args[ ])

{   try {

Class.forName("com.mysql.jdbc.Driver");

Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/studentinfo","root","");

Statement st=con.createStatement();

Scanner sc = new Scanner(System.in);

System.out.println("Eneter the student details");

int sid = sc.nextInt();

String sname= sc.next();

String scontact=sc.next();

String saddr = sc.next();

int savg=sc.nextInt();

String qry = "INSERT INTO student(id,name,contact,address,avg) VALUES (?,?,,?,?)";

PreparedStatement ps = con.prepareStatement(qry);

ps.setInt(1,sid);

ps.setString(2,sname);

ps.setString(3,scontact);

ps.setString(4,saddr);

ps.setInt(5,savg);

ps.executeUpdate();

con.close();

}

catch(Exception e){ System.out.println(e); }

System.out.println("Row Inserted"); } }
```


< ! - Program to retrieve Data from Database-using prepared statement - ->

```
import java.sql.*;
import java.util.*; public class GetTable{
public static void main(String args[ ])
{
try {
Class.forName("com.mysql.jdbc.Driver");
Connection con=DriverManager.getConnection("jdbc:mysql://localhost:3306/studentinfo","root","");
Scanner sc = new Scanner(System.in);
System.out.println("Enter the average");
int savg = sc.nextInt();
String qry = "select * from student where avg <= ?";
PreparedStatement ps = con.prepareStatement(qry); ps.setInt(1,savg);
ResultSet rs = ps.executeQuery();
System.out.println("The Student Details are \n");
while(rs.next()) {
System.out.println(rs.getInt(1)+":"+rs.getString(2)+":"+rs.getString(3)+":"+rs.getString(4) +":"+rs.getInt(5));
}
con.close();
}
catch(Exception e){
System.out.println(e);
}
}
```

//Program to update a field in Database-using Prepared Statement

```
import java.sql.*;
import java.util.*;
public class UpdateTable{
    public static void main(String args[])
    {
        try{
            Class.forName("com.mysql.jdbc.Driver");
            Connection con=DriverManager.getConnection ("jdbc:mysql://localhost:3306/studentinfo","root","");
            Statement st=con.createStatement();
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter the Studen Id to Update contact info");
            int sid = sc.nextInt();
            System.out.println("Enter the Phone no to update");
            String scontact = sc.next();
            String qry = "UPDATE student SET contact=? WHERE id=?";
            PreparedStatement ps = con.prepareStatement(qry);
            ps.setString(1,scontact);
            ps.setInt(2,sid);
            ps.executeUpdate();
            con.close();
        }
        catch(Exception e){
            System.out.println(e);
        }
        System.out.println("Row Updated");
    }
}
```

//Program to Delete a Record in Table-using PreparedStatement

```
import java.sql.*;
import java.util.*;

public class DeleteTable{

    public static void main(String args[])
    {
        try{
            Class.forName("com.mysql.jdbc.Driver");
            Connection con=DriverManager.getConnection("jdbc:mysql://localhost:3306/studentinfo","root","");
            Statement st=con.createStatement();
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter the record to be deleted");
            int sid = sc.nextInt();
            String qry = "DELETE FROM student WHERE id=?";
            PreparedStatement ps = con.prepareStatement(qry);
            ps.setInt(1,sid);
            ps.executeUpdate();
            con.close();
        }
        catch(Exception e)
        {
            System.out.println(e);
        }
        System.out.println("Row Effected / Deleted");
    }
}
```

//Callable Statement Demo - insertion - with Procedure Call

```
import java.sql.*;

import java.util.*;

public class CallableInsert

{

public static void main(String args[])

{

try{

Class.forName("com.mysql.jdbc.Driver");

Connection con=DriverManager.getConnection("jdbc:mysql://localhost:3306/studentinfo","root","");

CallableStatement st=con.prepareCall("{call INSERTDATA(?,?,?,?)}");

Scanner sc = new Scanner(System.in);

System.out.println("Enter Student ID");

int id= sc.nextInt();

System.out.println("Enter Student Name");

String name = sc.next();

System.out.println("Enter Student Contact");

String contact= sc.next();

System.out.println("Enter Student Address");

String addr = sc.next(); System.out.println("Enter Student Average");

int avg = sc.nextInt();

st.setInt(1,id);

st.setString(2,name);

st.setString(3,contact);

st.setString(4,addr);

st.setInt(5,avg);
```

```
st.executeUpdate();

con.close();

}

catch(Exception e){

System.out.println(e);

}

System.out.println("Row Inserted");

}

}
```

The Stored procedure INSERTDATA on GUI

1. goto database – studentinfo
2. select routines - add routine - insert arguments
3. write query –
4. submit.

The Stored procedure INSERTDATA on Console

```
CREATE procedure INSERTDATA
(INT IN id, varchar(20) IN name , varchar(10) IN contact, varchar(20) IN addr, INT IN avg )
BEGIN
INSERT INTO student(id,name,contact,address,avg) VALUES (no,name,contact,addr,avg)
END
```

WEEK-7

<! - Servlet program to read the parameters from user interface and display welcome message. - ->

Index.html

```
<form action="details" method="get">  
  User Name: <input type="text" name="uname"><br>  
  User Age: <input type="text" name="uage"><br>  
  <input type="submit" value="submit">  
</form>
```

ServletRequest.java

```
import javax.servlet.http.*;  
import javax.servlet.*;  
import java.io.*;  
  
public class ServletRequest extends HttpServlet{  
    public void doGet(HttpServletRequest req,HttpServletResponse res) throws  
ServletException,IOException  
    {  
        res.setContentType("text/html");  
        PrintWriter pwriter=res.getWriter();  
        String name = req.getParameter("uname");  
        String age = req.getParameter("uage");  
        pwriter.println("!Welcome: "+name);  
        pwriter.println("Your Age: "+age);  
        pwriter.close();  
    }  
}
```

web.xml(Deployment Descriptor)

```
<web-app>

<servlet>

<servlet-name> ServletRequest</servlet-name>

<servlet-class> ServletRequest </servlet-class>

</servlet>

<servlet-mapping>

<servlet-name> ServletRequest</servlet-name>

<url-pattern> /details</ url-pattern >

</servlet-mapping>

</web-app>
```

Follow the below steps to deploy your application in tomcat server:

Step1: Create an application folder named ServletRequest

Step2: ServletRequest folder should contains index.html program, WEB-INF folder and src folder optional to store Servlet code

Step3: WEB-INF folder should contain classes folder and web.xml file

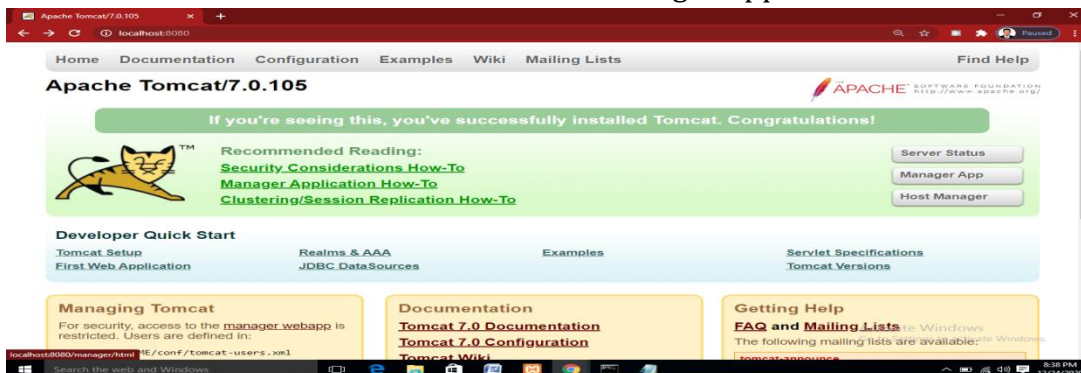
Step4: Compile your Servlet code and place the compiled .class file in classes folder under WEB-INF folder

Step5: Place the total application folder into the C:\xampp\tomcat\webapps folder



Step6: On Xampp control panel and start tomcat service , open the browser and type localhost:8080 in url bar

Step7: Under tomcat server click on manager apps where you can view your application

Screens: 1. On Tomcat web server and click Manager App



localhost:8080/manager/html



Tomcat Web Application Manager

Message: OK

Manager

[List Applications](#) [HTML Manager Help](#) [Manager Help](#) [Server Status](#)

Applications

Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/Demo	None specified		true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/ServletRequest	None specified		true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

Search the web and Windows 8:39 PM 12/24/2020

localhost:8080/ServletRequest/

User Name: Ganesh

User Age: 35

submit

Activate Windows
Go to Settings to activate Windows.

Search the web and Windows 8:39 PM 12/24/2020

localhost:8080/ServletRequest/details?uname=Ganesh&uage=35

!Welcome: Ganesh Your Age: 35

Activate Windows
Go to Settings to activate Windows.

Search the web and Windows 8:41 PM 12/24/2020

<!--Servlet program to read initialization parameters using ServletConfig and ServletContext object.-->

ServletContext (DemoConfig.java)

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.util.Enumeration;

public class DemoConfig extends HttpServlet {
    protected void doGet(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException
    {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter pwriter = response.getWriter();
        ServletConfig sc=getServletConfig();
        Enumeration<String> e=sc.getInitParameterNames();
        String str;
        while(e.hasMoreElements()) {
            str=e.nextElement();
            pwriter.println("<br>Param Name: "+str);
            pwriter.println(" value: "+sc.getInitParameter(str));
        }
    }
}
```

web.xml(Deployment Descriptor)

```
<web-app>
<servlet>
<servlet-name>DemoConfig</servlet-name>
<servlet-class>DemoConfig</servlet-class>
<init-param>
<param-name>MyName</param-name>
<param-value>D Ganesh</param-value>
</init-param>
```

```
<init-param>
<param-name>MyWebsite</param-name>
<param-value>vardhaman.org</param-value>
</init-param>
</servlet>
<servlet-mapping>
<servlet-name>DemoConfig</servlet-name>
<url-pattern>/DemoConfig</url-pattern >
</servlet-mapping>
</web-app>
```

index.html

```
<p>Click the below link to execute Servlet Configure
<a href="DemoConfig"> Click Here </a>
</p>
```