

Web Technology

Assignment - 1

Problem Statement - Installation of TOMCAT Server and Configuration of it.

Theory - Concept -

Web application - It runs over the internet

Webapp contains five components -

① HTTP Server - e.g. Google web server, Apache Tomcat
Apache HTTP Server, etc.

② HTTP client (web browser) - Firefox, google chrome etc.

③ Database - MySQL, SQLite, Oracle etc.

④ Client side programs - It can be written in HTML FORM
Javascript etc.

⑤ Server side programs - Could be written in Java servlet
JSP, PHP, Python etc.

Apache Tomcat - It is an open source project, under the
'Apache software foundation'

Execution steps -

① Go to <http://tomcat.apache.org>

② Select tomcat version.

③ Download & run.exe file

④ ~~password~~ we default setting provide a password
u will remember.

How to run tomcat -

① Find the start program in programs menu

Look under Apache tomcat & select 'start Tomcat'

② Open any web browser and type given 'URL'

<http://localhost:8080/>

Now, u will see TOMCAT HOMEPAGE.

Q. what is servlet container life cycle?

→ A servlet lifecycle consist of series of events which defines how the servlet is loaded & instantiated, initialized, how it handles request from client & how is taken out of service.

Q. what services are provided by TOMCAT?

→ ① Servlet life cycle.

② Handle web Requests

③ Database connection pooling

④ clustering

⑤ High availability.

Q. Explain the directory structure of TOMCAT

→ ① bin directory - contains the binaries and scripts

② conf : It contains the systemwide configuration files, such as server.xml, web.xml

③ webapps - contains the webapps to be deployed

④ lib - contains the TOMCAT's system wide library JAR files accessible by all webapps.

⑤ logs - contains TOMCAT's log files.

⑥ work - TOMCAT's working directory used by JSP for JSP to servlet conversion.

Conclusion-

Hence we have learned how to install & Configure TOMCAT's Server.

```
c:\xampp\catalina_start.bat
INFO: Starting service [Catalina]
Jun 17, 2021 7:13:21 PM org.apache.catalina.core.StandardEngine startInternal
INFO: Starting Servlet Engine: Apache Tomcat/7.0.108
Jun 17, 2021 7:13:21 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deploying web application directory [C:\xampp\tomcat\webapps\docs]
Jun 17, 2021 7:13:22 PM org.apache.catalina.util.SessionIdGeneratorBase createSecureRandom
WARNING: Creation of SecureRandom instance for session ID generation using [SHA1PRNG] took [246] milliseconds.
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deployment of web application directory [C:\xampp\tomcat\webapps\docs] has finished in [540] ms
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deploying web application directory [C:\xampp\tomcat\webapps\examples]
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deployment of web application directory [C:\xampp\tomcat\webapps\examples] has finished in [333] ms
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deploying web application directory [C:\xampp\tomcat\webapps\host-manager]
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deployment of web application directory [C:\xampp\tomcat\webapps\host-manager] has finished in [91] ms
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deploying web application directory [C:\xampp\tomcat\webapps\manager]
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deployment of web application directory [C:\xampp\tomcat\webapps\manager] has finished in [79] ms
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deploying web application directory [C:\xampp\tomcat\webapps\ROOT]
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.HostConfig deployDirectory
INFO: Deployment of web application directory [C:\xampp\tomcat\webapps\ROOT] has finished in [54] ms
Jun 17, 2021 7:13:22 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-8080"]
Jun 17, 2021 7:13:22 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in 1148 ms
```

localhost:8080

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Apache Tomcat/7.0.108

If you're seeing this, you've successfully installed Tomcat. Congratulations!

 Recommended Reading:
[Security Considerations How-To](#)
[Manager Application How-To](#)
[Clustering/Session Replication How-To](#)

Server Status
Manager App
Host Manager

Developer Quick Start
[Tomcat Setup](#)
[First Web Application](#)

Realms & AAA
[JDBC DataSources](#)

Examples
[Servlet Specifications](#)
[Tomcat Versions](#)

Managing Tomcat
For security, access to the manager webapp is restricted. Users are defined in:
`$CATALINA_HOME/conf/tomcat-users.xml`
In Tomcat 7.0 access to the manager application is split between different users.
[Read more...](#)

Release Notes
[Changelog](#)
[Migration Guide](#)
[Security Notices](#)

Documentation
[Tomcat 7.0 Documentation](#)
[Tomcat 7.0 Configuration](#)
[Tomcat Wiki](#)
Find additional important configuration information in:
`$CATALINA_HOME/RUNNING.txt`
Developers may be interested in:
[Tomcat 7.0 Bug Database](#)
[Tomcat 7.0 JavaDocs](#)
[Tomcat 7.0 Git Repository at GitHub](#)

Getting Help
FAQ and Mailing Lists
The following mailing lists are available:
tomcat-announce
Important announcements, releases, security vulnerability notifications. (Low volume).
tomcat-users
User support and discussion.
taglibs-user
User support and discussion for Apache Taglibs.
tomcat-dev
Development mailing list, including commit messages.

Assignment No: 2

Title - HTML, CSS, XML

Problem statement - write a program to design registration form for students by using HTML & CSS.

Theory -

HTML - It is markup language for creating webpages.

- HTML - Hypertext markup language
- HTML elements are building blocks of HTML pages.
- HTML elements represented by a tag.
- Browsers do not display the HTML tags, but use them to render the content of page

CSS - Cascading style sheets.

It handles the feel and look part of a web page.
By CSS, one can control the color of text, styles of fonts, spacing between paragraphs, layout designs.

CSS modules -

- ① Box model
- ② Selectors
- ③ Background
- ④ Border
- ⑤ Image values and Replaced Content
- ⑥ Text Effects
- ⑦ Animations
- ⑧ 2D/3D Transformations
- ⑨ user Interface.

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Technology / tool -

- ① The `<!DOCTYPE html>` declaration defines this document to be HTML 5.
 - ② The `<HTML>` element is root element of HTML page
 - ③ The `<Head>` element contains meta information about document.
 - ④ `<title>` specifies the title
 - ⑤ `<body>` element contains the visible page content.
- 10 CSS can be added in three ways to HTML pages.

- ① Inline - By using `style` attribute in HTML elements
- ② Internal - By using `<style>` element in header section.
- ③ External - By using separate.css file and link to HTML file in head.

Conclusion -

Hence we have designed static web pages using HTML & CSS.

Assignment No. 02

Problem Statement: write a program to design registration form for students
By using HTML , CSS.

Program:

```
<!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>FORM</title>
    <style>
      *{
        margin: 0;
        padding: 0;
      }

      .container{
        border: 2px solid red;
        display: flex;
        justify-content: center;
        align-content: center;
        /* width: 50%; */
        height: 50vh;
        height: 50vh;
        align-items: center;
      }

      #sub{
        display: flex;
        justify-content: center;
      }

      .btn{
        border: 2px solid navajowhite;
        text-decoration: none;
        background-color: black;
        color:white;
        margin: 2px 3px;
        padding: 2px 13px;
      }
    </style>
  </head>
  <body>
    <div class="container">
      <div id="sub">
        <button class="btn">SUBMIT</button>
      </div>
    </div>
  </body>
</html>
```

```
        }
    .heading{
        border: 2px solid blue;
        display: flex;
        justify-content: center;
    }

```

```
</style>
</head>
<body>
    <div class="container">
        <form action="html.php">
            <table class="heading">
                <tr>
                    <td><h1>LOGIN FORM</h1></td>
                </tr>
            </table>

            <table>
                <tr>
                    <td>Name:</td>
                    <td>
                        <input type="text" placeholder="Enter your name" required />
                    </td>
                </tr>
                <tr>
                    <td>Class:</td>
                    <td>
                        <select>
                            <option value=" ">---</option>
                            <option value="FE">FE</option>
                            <option value="SE">SE</option>
                            <option value="TE">TE</option>
                            <option value="BE">BE</option>
                        </select>
                    </td>
                </tr>
                <tr>
                    <td>Department:</td>
                    <td>
                        <input type="text" placeholder="Enter your department" required
/>
                    </td>
                </tr>
                <tr>
                    <td>Address:</td>
                    <td>
                        <textarea
                            name="Adress"

```

```
        id="address"
        cols="20"
        rows="3"
    ></textarea>
</td>
</tr>
<tr>
    <td>Email:</td>
    <td><input type="email" placeholder="Enter your Email" /></td>
</tr>
<tr>
    <td>Phone:</td>
    <td><input type="number" placeholder="Enter your number" /></td>
</tr>
</table>
<table id="sub">
    <tr>
        <td><input type="submit" value="Submit" class="btn" /></td>
        <td><input type="reset" value="Reset" class="btn" /></td>
    </tr>
</table>
</form>
</div>
</body>
</html>
```

LOGIN FORM

Name:	<input type="text" value="Enter your name"/>
Class:	<input type="text" value="--- ▾"/>
Department:	<input type="text" value="Enter your department"/>
Address:	<input type="text"/>
Email:	<input type="text" value="Enter your Email"/>
Phone:	<input type="text" value="Enter your number"/>

Submit

Reset

The screenshot shows a web browser window with multiple tabs open at the top. The active tab displays a "LOGIN FORM" page with the following fields:

- Name: Jayesh Devre
- Class: TE ▾
- Department: Computer
- Address:
a 108 aryan one
badlapur
- Email: jayesh@gmail.com
- Phone: 8622245962 ▾

At the bottom of the form are two buttons: "Submit" and "Reset". A cursor arrow is positioned over the "Submit" button.

Assignment-3

Title - XML and CSS.

Problem Statement - write a program to design a book catalog by using XML & CSS to display title, author, price and year of the book.

Theory -

XML stands for Extensible Markup Language. It is nothing but text-based markup language which is derived from SGML.

There are 3 important characteristics of XML that make it useful in variety of systems and solutions.

① XML extensible - XML allows you to use your own self descriptive tags or language that suits your application.

② XML carries the data, does not present it - XML allows you to store the data irrespective of how it will be presented.

Design / execution steps -

Following steps are used to create & execute web applications -

- ① Write the XML code and save with .xml extension
- ② Write CSS code
- ③ Import CSS file in XML page
- ④ Open XML page in browser.

Conclusion -

Hence we have designed static web pages using XML & CSS.

Assignment No. 03

Problem Statement: write a program to design a book catalog by using XML And CSS to display title , author ,price, and year of the book.

Program:

1.XML code

```
<?xml-stylesheet type="text/css" href="book_catalog.css"?>
<CATALOG>
<BOOK>
<TITLE>Database Management System</TITLE>
<AUTHOR>Korth</AUTHOR>
<PRICE>500</PRICE>
<YEAR>1985</YEAR>
</BOOK>
<BOOK>
<TITLE>Computer Network</TITLE>
<AUTHOR>Tenenbaum</AUTHOR>
<PRICE>600</PRICE>
<YEAR>1985</YEAR>
</BOOK>
<BOOK>
<TITLE>Software Engineering and project Management</TITLE>
<AUTHOR>Roger Pressman</AUTHOR>
<PRICE>600</PRICE>
<YEAR>1985</YEAR>
</BOOK>
</CATALOG>
```

2.CSS

```
*{
    margin: 0;
    padding: 0;
}
BOOK {
    display: block;
    margin-left: 10pt;
    margin-bottom: 30pt;
}
CATALOG {
    width: 100%;
    background-color: #f0e68c;
}
TITLE {
    color: #273327;
}
```

```
display: block;
font-size: 20pt;
}
AUTHOR {
Display: block;
color: #0000ff;
font-size: 20pt;
}
YEAR, PRICE {
color: rgb(65, 79, 92);
margin-left:20pt ;
}
```

Web Tech X | Javascript X | web tech X | localhost X | 404 Not X | 127.0.0.1 X | FORM X

← → C ① 127.0.0.1:5500/Bookcatalog.xml

I

Database Management System

Korth

500 1985

Computer Network

Tenenbaum

600 1985

Software Engineering and project Management

Roger Pressman

600 1985

Assignment-4

Title -

HTML and Javascript

Problem statement -

Write a program to design registration form for students by using HTML, CSS & Javascript & perform following validations all fields mandatory phone number and email address validation.

Theory - Javascript is a programming language of HTML as well as web. It is preferred for creating Network centric applications. It integrated and complimentary with Java.

Advantage of using Javascript are -

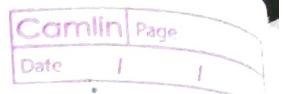
- ① It requires less server interaction.
- ② Immediate feedback to the visitors.
- ③ Increased interactivity
- ④ Richer Interfaces.

Validation - When client enters all necessary data and submit button form validation is done at Server side if data entered by a client is incorrect or missing the server needs to send all data back to client and request for resubmission of form with correct information.

Design and execution steps -

- ① Write an HTML code in notepad with HTML extension
- ② Write the function for validation of email id and phone no. & enclosed this function in script.
- ③ call this function on 'onclick' event of submit button

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4. open html page in browser

Conclusion - Hence, we applied validate the data using Javascript.

Assignment No. 04

Problem Statement: Write a program to design registration form using HTML ,CSS ,JavaScript program and perform following validation

Program:

1.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>Javascript Validation</title>
    <link rel="stylesheet" href="index.css">
</head>
<body>
    <div class="container">
        <form class="form" name="frmStudent">
            <tr><th colspan=2>Student Registration Form</th></tr>
            <br>
            <tr><td><input type=text name=txtSname id=nm size=30 placeholder="Name of Student"></td>
            <tr><td><input type=text name=txtSmobile id=mb size=30 placeholder="Mobile No"></td>
            <tr><td><input type=text name=txtSaddress id=add size=30 placeholder="Address Line"></td>
            <tr><td><input type=text name=txtScity id=ct size=30 placeholder="City"></td>
            <tr><td><input type=text name=txtSstate id=st size=30 placeholder="State"></td>
            <tr><td><input type=text name=txtSpin id=pin size=30 placeholder="Pincode"></td>
            <tr><td><input type=submit value="Submit" onClick="return validate()"></td>
            <td> <input type=reset value="Reset"></td></tr>
        </table>
    </form>
    </div>
    <script src="index.js"></script>
</body>
</html>
```

```
//2.JAVASCRIPT
Function validate()
{
    sname=document.getElementById("nm").value;
    smobile=document.getElementById("mb").value;
    saddress=document.getElementById("add").value;
    scity=document.getElementById("ct").value;
    sstate=document.getElementById("st").value;
    spin=document.getElementById("pin").value;
    if(sname==""||smobile==""||saddress==""||scity==""||sstate==""||spin=="")
    {
        alert("Fields should not be empty");
        return false;
    }
    else if(!sname.match(/^[A-Za-z]+$/))
    {
        alert("Name should contain only characters")
        return false;
    }
    else if(!smobile.match(/^\\d{10}$/))
    {
        alert("Mobile number Not valid")
        return false;
    }
    else if(!spin.match(/^\\d{6}$/))
    {
        alert("Pin number Not valid")
        return false;
    }
    alert("Valid");
    return true;
}
```

```
//3.CSS
*{
    margin: 0;
    padding: 0;
}
body{
    background-color: rgb(248, 223, 223);
}
.container{
    margin-top: 140px;
}

.form{
    display: flex;
    flex-direction: column;
    text-align: center;
    margin: 30px auto;
    align-items: center;
    padding: 2px;
}

}
.form ,input{
    text-align: center;
    margin: 3px auto;
    padding: 3px;
}
```

127.0.0.1:5500 says

Name should contain only characters

OK

Student Registration Form

Jayesh devre

45866

a 108 badlapur east

badlapur

maharashtra

421503

Submit

Reset

127.0.0.1:5500 says

Mobile number Not valid

OK

Student Registration Form

Jayesh

9223

a 108 badlapur east

badlapur

maharashtra

421503

Submit

Reset

CSS Margin

x | +

127.0.0.1:5500 says

Valid

OK

Student Registration Form

Jayesh

9223699685

a 108 badlapur east

badlapur

maharashtra

421503

Submit

Reset

Assignment - 5

Title - JSP, Servlet & MySQL (Backend)

Problem statement -

- ① Design and Build login page using JSP, Servlet & MySQL.
- ② Design and Build employee login page using JSP, Servlet & MySQL.

Theory - Java server Pages - It is a server side programming technology that is used to create dynamic web based applications. JSP have right to use complete Java APIs, including the JDBC API to access database.

Why we need JSP :-

JSP is used for design dynamic webpage & servlet is used to code the logic that is present

Architecture of JSP -

① The request/response part of a JSP is defined in below architecture.

② The Client initiate the request using for JSP file using browser.

③ Webserver invokes the jsp file & interpret the JSP file produce a java code.

④ Once servlet is created, JSP engine compiles the servlet.

⑤ Now servlet class is loaded by container & executes it.

⑥ Engine send response back to client.

Syntax of JSP -

<% text %>

Design and Execution steps-

- ① Design HTML and JSP files with an extension on HTML and JSP.
- ② write database connection page using Servlet.
- ③ set MySQL, username, password and database name in database connection page.
- ④ start the TOMCAT server with port number.
- ⑤ open browser and type localhost 8084.

Conclusion-

Hence, we have performed the dynamic web application using JSP, servlet & MySQL.

Assignment No. 05

Problem Statement: Design and Build login page using JSP,SERVLET and MYSQL.

Program:

Login page (login.jsp):

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1" pageEncoding="ISO-8859-1" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html>
<head>
    <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
    <title>Insert title here</title>
</head>
<body>
Simple login Example using servlet jsp and mysql(mariadb) database connectivit  

y
<br> Create a test database, student table and insert some user
information in it.
<br>
<br>

<form action="LoginController" method="post">
    Enter username :<input type="text" name="username"> <br>
    Enter password :<input type="password" name="password"><br>
    <input type="submit" value="Login">
</form>

</body>
</html>
```

Login controller (LoginController.java)

```
package com.candid;

import java.io.IOException;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;

import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

@WebServlet("/LoginController")
public class LoginController extends HttpServlet {

    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
        String un = request.getParameter("username");
        String pw = request.getParameter("password");

        // Connect to mysql(mariadb) and verify username password

        try {
            Class.forName("org.mariadb.jdbc.Driver");
        // loads driver
            Connection c = DriverManager.getConnection("jdbc:mariadb://localhost:3306/test", "root", "root"); // gets a new connection

            PreparedStatement ps = c.prepareStatement("select user_name,pass from student where user_name=? and pass=?");
            ps.setString(1, un);
            ps.setString(2, pw);

            ResultSet rs = ps.executeQuery();

            while (rs.next()) {
                response.sendRedirect("success.html");
                return;
            }
            response.sendRedirect("error.html");
            return;
        } catch (ClassNotFoundException | SQLException e) {
```

```
        e.printStackTrace();
    }
}
}
```

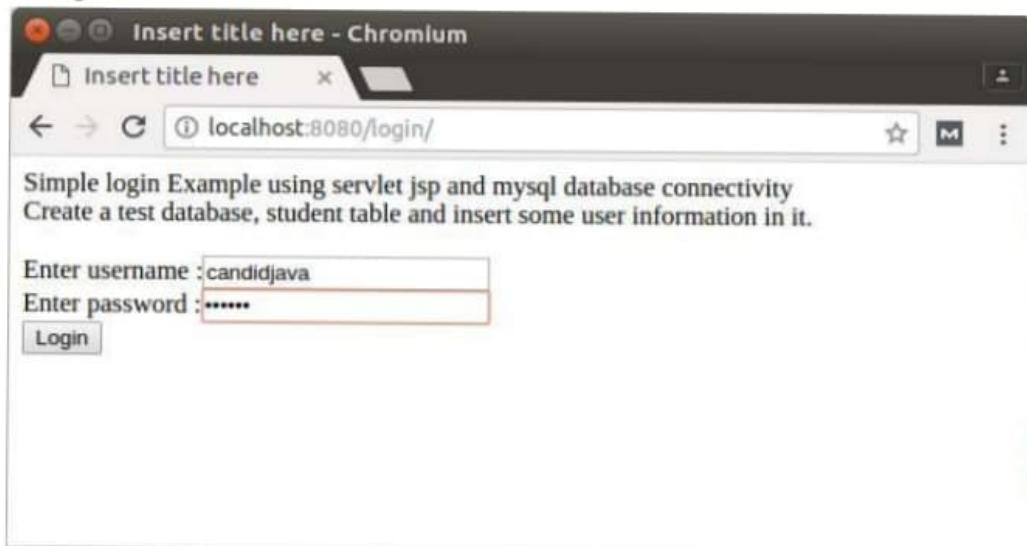
success page (success.html):

```
<!DOCTYPE html>
<html>
<head>
    <meta charset="ISO-8859-1">
    <title>Insert title here</title>
</head>
<body>
Login success
</body>
</html>
```

error page (error.html):

```
<!DOCTYPE html>
<html>
<head>
    <meta charset="ISO-8859-1">
    <title>Insert title here</title>
</head>
<body>
Invalid username or password, Please try again with valid
</body>
</html>
```

Output:



Assignment No: 6

Title - Add dynamic web application essence using PHP, HTML & MySQL.

Problem statement -

Design and develop dynamic web application using PHP and MySQL as a backend for employee data with insert, delete, view and update operations.

Theory -

① PHP → PHP is a hypertext preprocessor began as little open source venture that advanced as an ever increasing number of individuals discovered how valuable it was. PHP is a server side scripting dialect that is installed in HTML. It is utilize to oversee dynamic substance databases. It is incorporated with various prevalent databases including MySQL, PostgreSQL, oracle, sybase server.

② MySQL - It is most famous open source Relational database management system.

What is database?

→ A database is different application that stores a gathering of information. Every database has atleast one unmistakable API's for making, getting to overseeing & reacting the information it holds.

Conclusion -

In this assignment we have studied how to design and develop small web application using PHP Script xAMPP Server with apache server and MySQL as backend.

Assignment No. 06

Problem Statement: Design and develop web application using PHP and Mysql as a backend for employee data with insert ,delete ,view, and update operations.

Program:

Index.php:

```
<?php include('server.php'); ?>
<?php
    if (isset($_GET['edit'])) {
        $id = $_GET['edit'];
        $update = true;
        $record = mysqli_query($db, "SELECT * FROM info WHERE id=$id");

        if (count($record) ==1 ) {
            $n = mysqli_fetch_array($record);
            $name = $n['name'];
            $address = $n['address'];
        }
    }
?>
<!DOCTYPE html>
<html>
<head>
    <title>web technology Practical-6</title>
    <link rel="stylesheet" type="text/css" href="style.css">
</head>
<body>
<?php if (isset($_SESSION['message'])): ?>
    <div class="msg">
        <?php
            echo $_SESSION['message'];
            unset($_SESSION['message']);
        ?>
    </div>
<?php endif ?>
<?php $results = mysqli_query($db, "SELECT * FROM info"); ?>

<table>
    <thead>
        <tr>
            <th>Name</th>
```

```
<th>Address</th>
<th colspan="2">Action</th>
</tr>
</thead>

<?php while ($row = mysqli_fetch_array($results)) { ?>
<tr>
    <td><?php echo $row['name']; ?></td>
    <td><?php echo $row['address']; ?></td>

    <td>
        <a href="index.php?edit=<?php echo $row['id']; ?>" class="edit_btn">Edit</a>
        </td>
    <td>
        <a href="server.php?del=<?php echo $row['id']; ?>" class="del_btn">Delete</a>
        </td>
    </tr>
<?php } ?>
</table>

<form method="post" action="server.php" >
    <div class="input-group">
        <input type="hidden" name="id" value="<?php echo $id; ?>">
    </div>
    <div class="input-group">
        <label>Name</label>
        <input type="text" name="name" value="<?php echo $name; ?>">
    </div>
    <div class="input-group">
        <label>Address</label>
        <input type="text" name="address" value="<?php echo $address; ?>">
    </div>
    <div class="input-group">
        <?php if ($update == true): ?>
            <button class="btn" type="submit" name="update" style="background: #556B2F;">update</button>
        <?php else: ?>
            <button class="btn" type="submit" name="save" >Save</button>
        <?php endif ?>
    </div>
</form>
</body>
</html>
```

```

//2.SERVER.PHP
<?php
    session_start();
    $db = mysqli_connect('localhost', 'root', '', 'crud');

    // initialize variables
    $name = "";
    $address = "";
    $id = 0;
    $update = false;

    if (isset($_POST['save'])) {
        $name = $_POST['name'];
        $address = $_POST['address'];

        mysqli_query($db, "INSERT INTO info (name, address) VALUES ('$name', '$address')");
        $_SESSION['message'] = "Address saved";
        header('location: index.php');
    }

    if (isset($_POST['update'])) {
        $id = $_POST['id'];
        $name = $_POST['name'];
        $address = $_POST['address'];

        mysqli_query($db, "UPDATE info SET name='$name', address='$address' WHERE id=$id");
        $_SESSION['message'] = "Address updated!";
        header('location: index.php');
    }

    if (isset($_GET['del'])) {
        $id = $_GET['del'];
        mysqli_query($db, "DELETE FROM info WHERE id=$id");
        $_SESSION['message'] = "Address deleted!";
        header('location: index.php');
    }
?>

```

3.CSS:

```

body {
    font-size: 19px;
    background-color: #dff0d8;
}

table{
    width: 50%;
    margin: 30px auto;
    border-collapse: collapse;
    text-align: left;
}

```

```
padding: 2px 5px;
background: #2E8B57;
color: white;
border-radius: 3px;
}

.del_btn {
    text-decoration: none;
    padding: 2px 5px;
    color: white;
    border-radius: 3px;
    background: #800000;
}
.msg {
    margin: 30px auto;
    padding: 10px;
    border-radius: 5px;
    color: #3c763d;
    background: #dff0d8;
    border: 1px solid #3c763d;
    width: 50%;
    text-align: center;
}
```

```
}

tr {
    border-bottom: 1px solid #cbcfcf;
}

th, td{
    border: none;
    height: 30px;
    padding: 2px;
}

tr:hover {
    background: #F5F5F5;
}

form {
    width: 45%;
    margin: 50px auto;
    text-align: left;
    padding: 20px;
    border: 1px solid #bbbbbb;
    border-radius: 5px;
}

.input-group {
    margin: 10px 0px 10px 0px;
}

.input-group label {
    display: block;
    text-align: left;
    margin: 3px;
}

.input-group input {
    height: 30px;
    width: 93%;
    padding: 5px 10px;
    font-size: 16px;
    border-radius: 5px;
    border: 1px solid gray;
}

.btn {
    padding: 10px;
    font-size: 15px;
    color: white;
    background: #5F9EA0;
    border: none;
    border-radius: 5px;
}

.edit_btn {
    text-decoration: none;
```

Address deleted!

Name	Address	Action
Jayesh Devre	Badlapur	Edit

Name
Jayesh Devre

Address
Badlapur

Save

Address deleted!

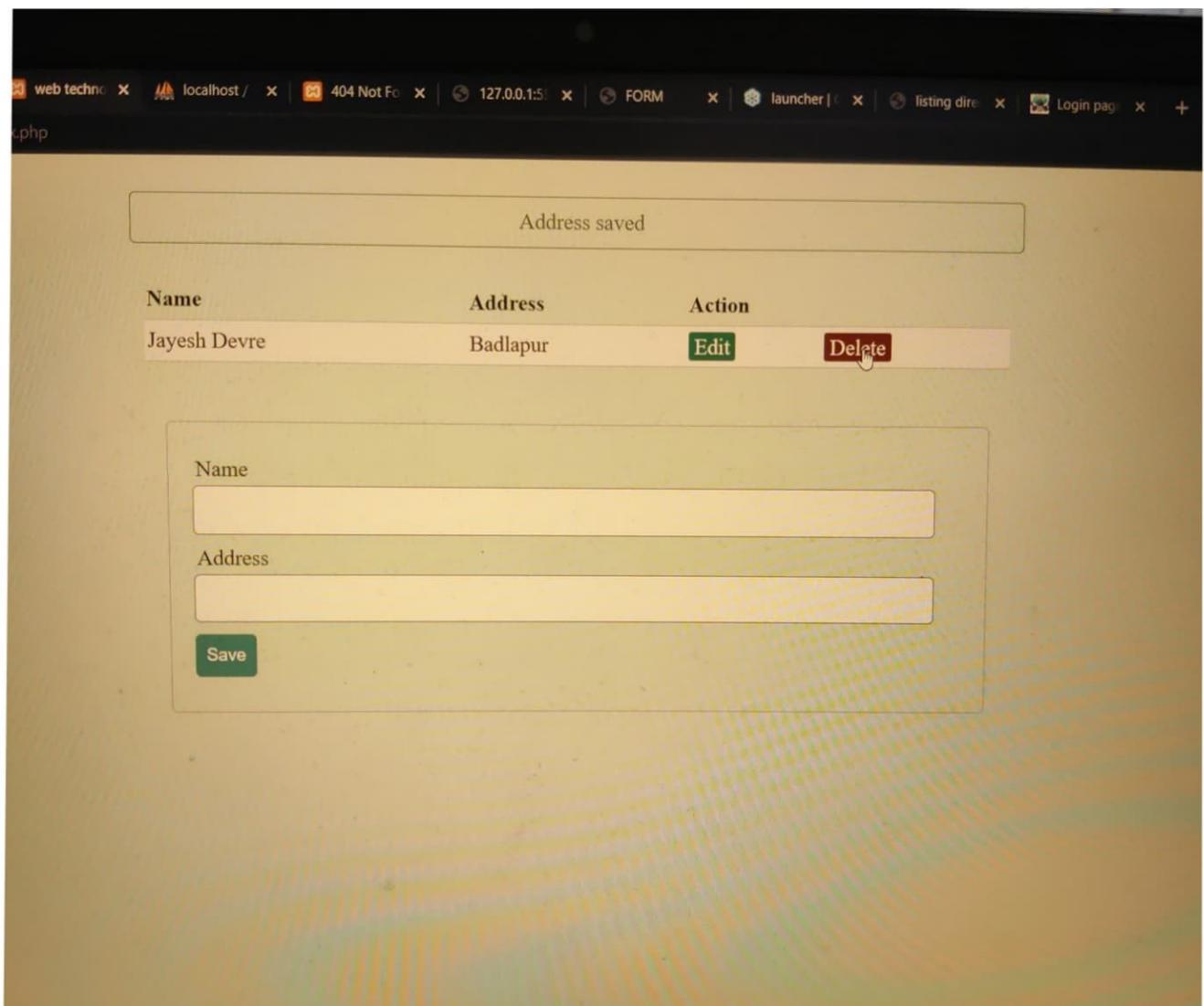
Name	Address	Action
<input type="text"/>	<input type="text"/>	

Name

Address

Save





Assignment NO.7

Title- Add dynamic web application using PHP, AJAX and MySQL.

Problem statement- Design and develop web application using PHP, AJAX and MySQL as a backend for employee data with insert and view operations.

Theory-concept- Ajax remains Asynchronous Javascript and XML. Ajax is another procedure for making better, speedier and more intelligent dynamic web applications with the assistance of XML, HTML, CSS & Javascript. Ajax utilizes XHTML for content, CSS for presentation, alongside Document Object Model and Javascript for dynamic substance show.

Ajax instructional exercise covers ideas and cases of Ajax innovation for apprentices and experts.

20) AJAX is an acronym for Asynchronous Javascript and XML. It is gathering of between related innovations like Javascript, DOM, XML, HTML, CSS and so forth.

21)  Technology / Tool- AJAX, PHP and MySQL.

Design and execution steps- For the design purpose HTML and CSS is to be used. For this design part Contains the GUI of web applications. How it's looks like?

22) Conclusion- In this assignment, we have studied how to design and develop small web application using PHP, Javascript, Ajax, XAMPP server with Apache server.

Assignment No. 8

Title- Design and develop any web application using Struts framework.

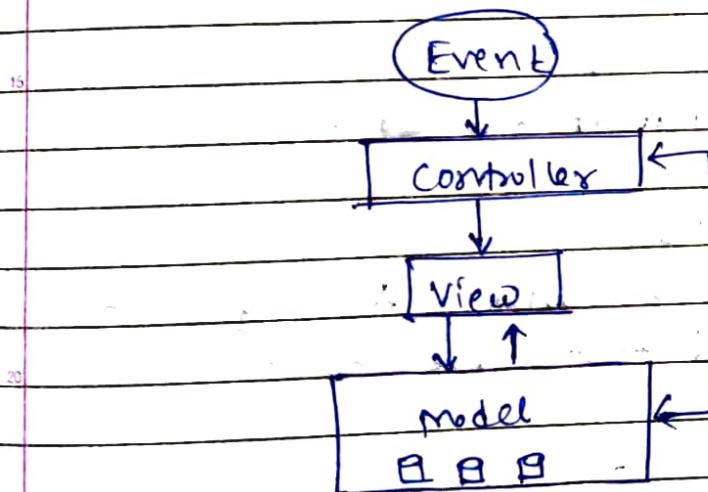
Problem statement-

Create a login module for web application using Struts framework.

Theory-

10) Model View Controller Architecture -

model view controller is a way to build applications that promotes complete separation between business logic and presentation.



What is struts?

25) Struts is a framework that advances the utilization of model view controller engineering for planning substantial scale applications. The structure incorporates an arrangement of custom. The structure incorporates an arrangement of custom label libraries and their related Java classes, alongside different utility classes.

Struts tags -Common attributes

Attribute	Used for
Id	the name of a bean for temporary use by tag
name	the name of a pre-existing bean for use with the tag
Property	the property of bean named in name attribute.
Scope	the scope to search for bean named in the name attribute

Technology / Tool -

- ① Eclipse IDE
- ② Apache Tomcat 7.0 or higher.

Conclusion / Analysis -

Hence we have successfully tested the Struts framework and tested the results.

Assignment No. 9

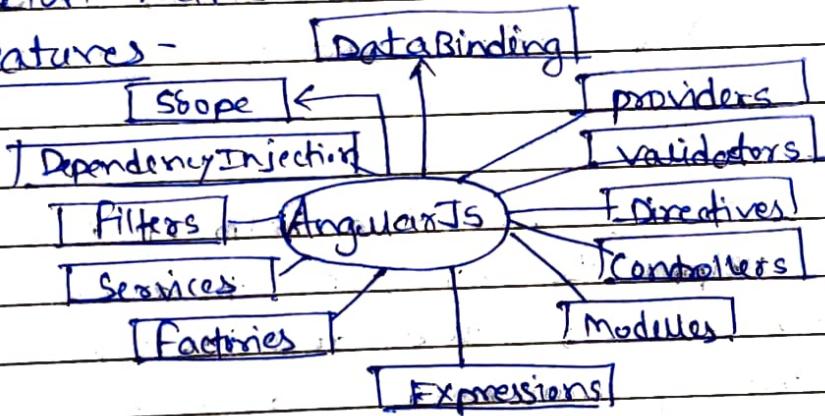
Title - Design and develop any web applications using AngularJS.

Problem Statement-

Create an application for Bill payment Record using AngularJS.

Theory/ concept - AngularJS is an open source web application framework.

Core features -



Advantages of AngularJS-

- ① It gives the ability to make single page Application in a spotless and viable way.
- ② AngularJS code is unit testable.
- ③ AngularJS gives reusable segments.
- ④ With AngularJS, the engineers can accomplish greater usefulness with short code.

Model view controller-

- ① Model - It is the most minimal level of example in charge of looking after information.
- ② View - It is in charge of showing all or a part of the information to client.
- ③ Controller - It is product code that controls the connections between the Model & View.

AngularJS is a MVC based structure-

- ① An AngularJS application comprises of following three essential parts ng-app. This directive defines and links an AngularJS application to HTML.
- ② ng-model - This directive binds the values of Angular JS application data to HTML input controls.
- ③ ng-bind - This directive binds the ~~data~~ AngularJS Application data to HTML tags.

Conclusion - with the help of Assignment it is helpful to understand features of AngularJS MVC model structure and its use in advanced web programming is studied.

Assignment No. 10.Title- web application using EJBProblem Statement- Design, develop & deploy web application using EJB.Theory

JavaBeans - J2EE application ~~contains~~ container contains the components that can be used by clients for executing the business logic. These components are known as Enterprise Java beans (EJB).

Features of EJB's-

Some of features of an application server include following-

- ① Client communication
- ② Task management
- ③ Transaction management
- ④ Database connection management
- ⑤ Asynchronous messaging
- ⑥ Application server Administration

Types of Enterprise Java Beans-

- ① Session Beans
- ② Entity Beans
- ③ message driven Beans.

Design / Execution Steps-

- ① Design EJB project
- ② Start JBOSS & Deploy it on JBOSS Server.

③ Design HTML & JSP files with an extension of HTML and JSP

④ Run the application in browser and get result

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Conclusion - Hence we have created a simple EJB 3 stateless session bean & a local Java application client which will call/invoke the bean to develop for performing addition of 2 numbers.

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