

Task: Deploy Java Website on Tomcat Server and Data Entered By User On Website should be saved in Database.

- For this task we need to install java, mysql on our machine also we need tomcat for hosting websites.

1) Installing Java , MySQL

```
sudo apt install default-jdk  
sudo apt install mysql-server
```

2) Create two jsp files

- i) index.jsp and write the code in html
- ii) saveData.jsp and write logic for saving user entered data into table

For index.jsp write following code:

```
sudo vi index.jsp
```

```

<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
    <meta charset="UTF-8">
    <title>Welcome to My-World</title>

<script>

function clearFields() {
    document.getElementById("name").value = ""; // Clear the Name input field
    document.getElementById("email").value = ""; // Clear the Email input field
    document.getElementById("mobile").value = ""; // Clear the mobile input field
}

</script>
</head>

<body>
    <h1>Registration Form</h1>
    <table>
    <form method="post" action="saveData.jsp">
        <tr>
            <td>
                <label for="name">Name:</label>
            </td>
            <td>
                <input type="text" id="name" name="name" placeholder="Sumit B. Matte" required>
            </td>
        </tr>
        <tr>
            <td>
                <label for="email">Email:</label>
            </td>
            <td>
                <input type="email" id="email" name="email" placeholder="Email@" required><br>
            </td>
        </tr>
    </table>
    </form>
    </body>

```

```

        <td>
            <label for="mobile">Mobile Number:</label>
        </td>
        <td>
            <input type="tel" id="mobile" name="mobile" pattern="[0-9]{10}"
            placeholder="mobile number" required><br>
        </td>
    </tr>
    <tr>
        <td>
            <input type="submit" value="Save">
        </td>
        <td>
            <button type="button" onclick="clearFields()">Clear</button>
        </td>
    </tr>
</table>
</form>
</body>

```

For saveData.jsp Write following code

```
<%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
<%@ page import="java.sql.*" %>
<%
String name = request.getParameter("name");
String email = request.getParameter("email");
String mobilenno = request.getParameter("mobile");
Connection conn = null;
PreparedStatement stmt = null;
try {
    // Update the below credentials with your MySQL server information
    String dbURL = "jdbc:mysql://localhost:3306/sample_db";
    String dbUser = "sumit";
    String dbPassword = "sumit123";

    Class.forName("com.mysql.cj.jdbc.Driver");
    conn = DriverManager.getConnection(dbURL, dbUser, dbPassword);

    String insertQuery = "INSERT INTO users (name, email, mobilenno) VALUES (?, ?, ?)";
    stmt = conn.prepareStatement(insertQuery);
    stmt.setString(1, name);
    stmt.setString(2, email);
    stmt.setString(3, mobilenno);
    stmt.executeUpdate();
    out.println("<h2>Data saved successfully!</h2>");
} catch (Exception e) {
    out.println("<h2>Error saving data: " + e.getMessage() + "</h2>");
    e.printStackTrace();
} finally {
    if (stmt != null) {
        stmt.close();
    }
    if (conn != null) {
        conn.close();
    }
}
%>
```

3) Now we need to create one directory for our website

```
sudo mkdir -p /mnt/java-project/WEB-INF/lib
```

Move index.jsp and saveData.jsp into /mnt/java-project

Also we need to download [mysql-connector-j-8.0.33-javadoc.jar](#) file to establish Connection between our application and MySQL database.

It is a Java Database Connectivity (JDBC) and it allows Java application to interact with relational databases.

Move [mysql-connector-j-8.0.33-javadoc.jar](#) into WEB-INF/lib directory.

4) Now make war file

```
sudo jar -cvf java-project.war java-project
```

```
sumit@sumit-ubuntu:/opt$ sudo jar -cvf java-project.war java-project
added manifest
adding: java-project/(in = 0) (out= 0)(stored 0%)
adding: java-project/saveData.jsp(in = 1299) (out= 612)(deflated 52%)
adding: java-project/index.jsp(in = 1405) (out= 549)(deflated 60%)
sumit@sumit-ubuntu:/opt$ ls
```

5) Create my sql database and login it into after create one database “sample_db” and also create table “users”.

```
mysql> CREATE DATABASE sample_db;
Query OK, 1 row affected (0.09 sec)

mysql> USE sample_db;
Database changed
mysql> CREATE TABLE users(Id INT, Name VARCHAR(50), Email VARCHAR(50), MOBILENo INT);
Query OK, 0 rows affected (0.09 sec)

mysql> 
```

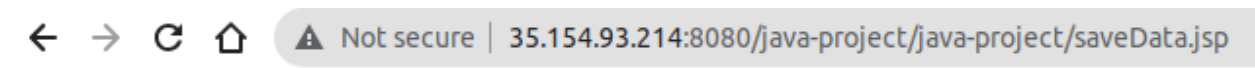
- 6) Now move/copy java-project.war file into /opt/tomcat/webapps directory and restart the tomcat.

We will get following output :



Registration Form

Name:	<input type="text" value="Sumit Matte"/>
Email:	<input type="text" value="sumitmatte29@gmail.com"/>
Mobile Number:	<input type="text" value="8830534704"/>
<input type="button" value="Save"/>	<input type="button" value="Clear"/>



Data saved successfully!

```
mysql> SELECT * FROM users;
```

id	name	email	mobilen
1	Sumit Matte	sumitmatte29@gmail.com	8830534722
2	Biswojit	biswo@gmail.com	8458099800
3	ShriRam	ram@gmail.com	1234567890

