EXPERIMENT-1

AIM: Design static web sites with html tags by taking different examples.

DESCRIPTION: Here,we are using different html tags to build a static web page.There are some tags which must be there to run a html program.They are : head
body
html

The tags in **HTML** contains opening and closing tags.like <head></head>,< body></body>, <html></html>.Closing tag contains a special character '/' before the tagname.

<!DOCTYPE html> is the first line in an html program, It is an information to the browser about what document type to expect.

Tags used in this program are h1-h6 tags for headings,<u></u> for underlines, <img> for inserting images, <table></table> for creating table, and <th>,<tr> and <td> for table contents.

PROGRAM:

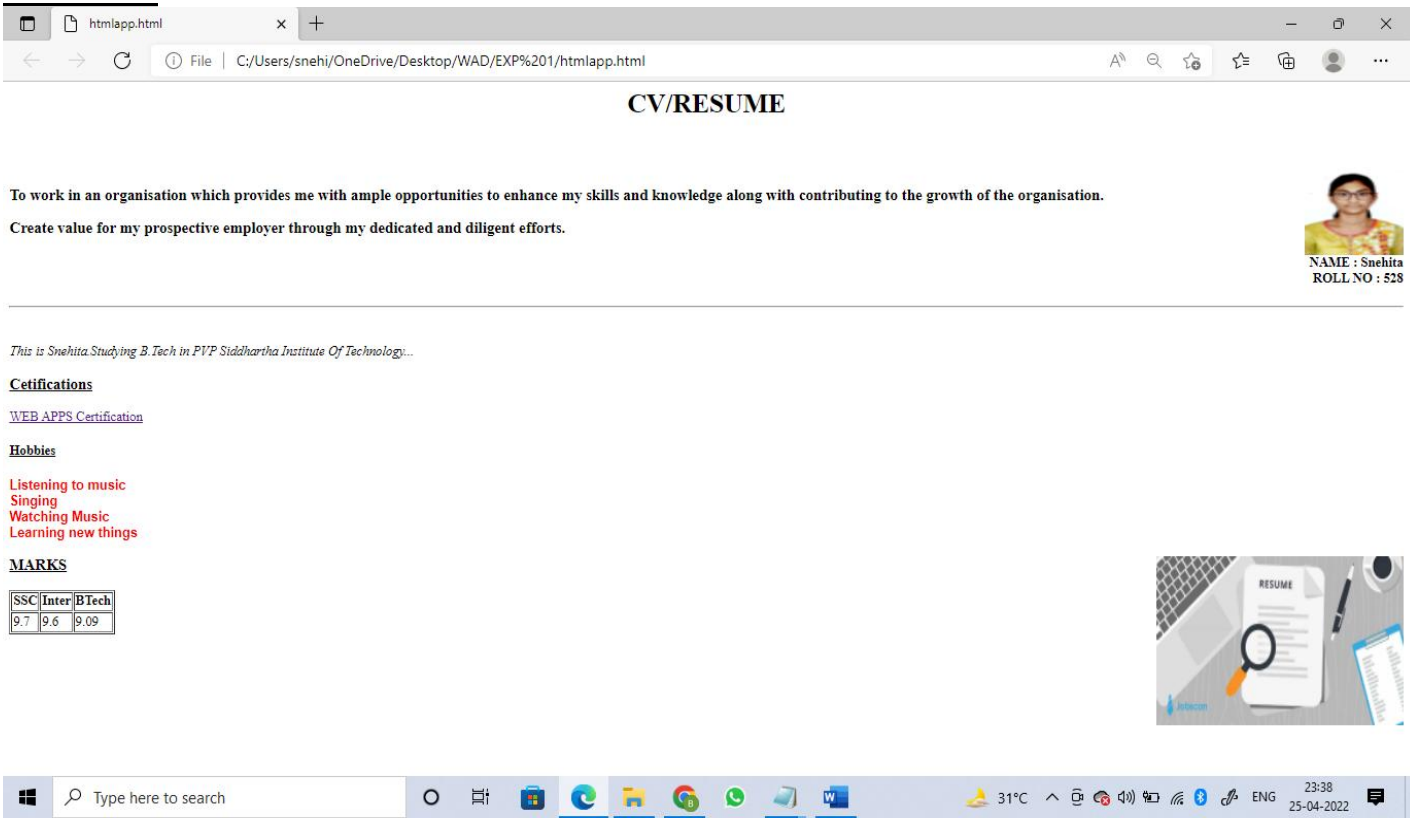
```
  <html>
  <head>
  </head>
  <body>
    <center>
    <h1>CV/RESUME</h1>
    </center>
     <br><br>
    <img src="C:\Users\snehi\OneDrive\Desktop\WAD\EXP 1\images folder\image.jpeg"
width="120" height="100"  align="right"/>
    <h3>To work in an organisation which provides me with ample opportunities to enhance
my skills and knowledge along with contributing to the growth of the organisation.</h3>
    <h3>Create value for my prospective employer through my dedicated and diligent
efforts.</h3>
    <h4 align="right">NAME : Snehita<br>ROLL NO : 528 </h4>
    <hr>
    <br>
     <p><i>This is Snehita.Studying B.Tech in PVP Siddhartha Institute Of
Technology...</i></p>
     <h3><u>Cetifications</u></h3>
     <p><a href=" C:\Users\snehi\OneDrive\Desktop\WAD\EXP 1\images
folder\certificate_img.jpeg ">WEB APPS Certification</a></p>
     <h4><u>Hobbies</u></h4>
     <h3><font face="arial" color="red" size="3">Listening to
music<br>Singing<br>Watching Music<br>Learning new things</font></h3>
     <div id="myDIV"><img src="C:\Users\snehi\OneDrive\Desktop\WAD\EXP
2\image.jpg" width="300" align="right" height="200px"></div>
     <h3><u>MARKS</u></h3>
     <table width="80" border="1">
```

```
        <tr>
          <th>SSC</th>
          <th>Inter</th>
          <th>BTech</th>
        </tr>
        <tr>
          <td>9.7</td>
          <td>9.6</td>
          <td>9.09</td>
        </tr>
      </table>
   </body>
</html>
```

WEB APPS Certification file:

```
    <html>
      <body>
        <h1>WEB APPS Certification</h1>
        <h2>Certificate Of Completion</h2>
        <img src="C:\Users\snehi\OneDrive\Desktop\WAD\EXP 1\images
folder\web-development-Certificate.jpg" width=1325" height="500" />
      </body>
    </html>
```

<u>OUTPUT</u>:



CV/RESUME

To work in an organisation which provides me with ample opportunities to enhance my skills and knowledge along with contributing to the growth of the organisation.

Create value for my prospective employer through my dedicated and diligent efforts.

NAME : Snehita
ROLL NO : 528

This is Snehita.Studying B.Tech in PVP Siddhartha Institute Of Technology...

<u>Cetifications</u>

WEB APPS Certification

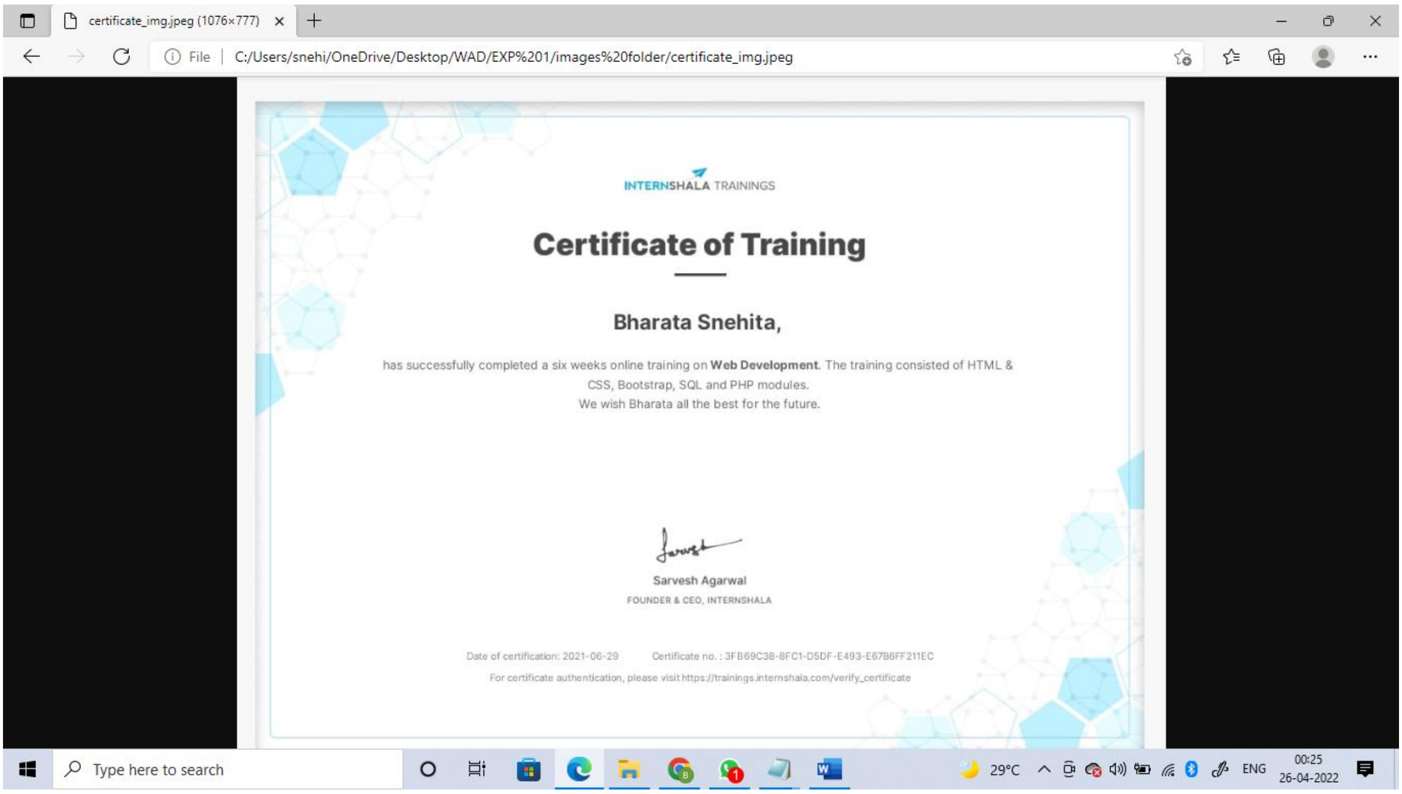
<u>Hobbies</u>

Listening to music
Singing
Watching Music
Learning new things

<u>MARKS</u>

SSC	Inter	BTech
9.7	9.6	9.09

- When the WEB APPS Certification is clicked,the certificate page will be displayed.



certificate_img.jpeg (1076×777)
File
C:/Users/snehi/OneDrive/Desktop/WAD/EXP%201/images%20folder/certificate_img.jpeg
Type here to search
29°C
ENG
00:25
26-04-2022

INTERNSHALA TRAININGS

Certificate of Training

Bharata Snehita,

has successfully completed a six weeks online training on **Web Development**. The training consisted of HTML & CSS, Bootstrap, SQL and PHP modules.
We wish Bharata all the best for the future.

Sarvesh Agarwal
FOUNDER & CEO, INTERNSHALA

Date of certification: 2021-06-29 Certificate no. : 3FB69C38-8FC1-D5DF-E493-E67B6FF211EC

For certificate authentication, please visit https://trainings.internshala.com/verify_certificate

EXPERIMENT-2

AIM: Design web pages using different types of CSS.
DESCRIPTION: Applying different CSS for a Static web page.There are 3 types of CSS. They are : Inline CSS, Internal CSS, External CSS.

Inline CSS - Which is written inside the elements opening tags of body section.
Internal CSS - Which is written inside the head section.
External CSS – Which is written in a separate file and combine with a link called link tag in head section.

PROGRAM:

1)

```
<html>
<head>
     <link rel="stylesheet" href="externalcssapp.css">
   <style>
       body{
         background-image:url("bgimage.jpg");
         background-size:cover;
       }
      .container{
         text-align: right;
      }
      .grid-container {
         display: grid;
         grid-template-columns: 80px 80px 80px;
         padding: 10px;
      }
      .grid-item {
         background-color: rgba(255, 255, 255, 0.8);
         border: 1px solid rgba(0, 0, 0,0.8);
         padding: 20px;
         font-size:20px;
         text-align: center;
      }
      #myDIV {
          width: 300px;
          height: 200px;
          border: 1px solid black;
          animation: mymove 5s infinite;
           transform: scale();
      }
```

```
        @keyframes mymove {
           50% {border-radius: 50px;}
        }
     </style>
  </head>

  <body>
    <div class="container">
       <h1 style="text-align:center; color:green;">CV/RESUME</h1>
       <br><br>
      <img src="C:\Users\snehi\OneDrive\Desktop\WAD\EXP 1\images folder\image.jpeg"
width="120" height="100"  align="right"/>
       <h3 style="text-align:left; font-family:cursive;">To work in an organisation which
provides me with ample opportunities to enhance my skills and knowledge along with
contributing to the growth of the organisation.</h3>
       <h3 style="text-align:left; font-family:cursive;">Create value for my prospective
employer through my dedicated and diligent efforts.</h3>
       <h4 >NAME : Snehita<br>ROLL NO : 528 </h4>
    <hr>
    </div>
    <p style="font-size:20px"><i>This is Snehita.Studying B.Tech in PVP Siddhartha
Institute Of Technology...</i></p>
    <div>
        <h3><u>Cetifications</u></h3>
        <p><a href=" C:\Users\snehi\OneDrive\Desktop\WAD\EXP 1\images
folder\certificate_img.jpeg ">WEB APPS Certification</a></p>
         <h4 style="font-size:20px;"><u>Hobbies</u></h4>
         <h3 style="font-weight: normal; font-family:arial;">Listening to
music<br>Singing<br>Watching Music<br>Learning new things</h3>
     </div>

    <div id="myDIV"><img src="C:\Users\snehi\OneDrive\Desktop\WAD\EXP
2\image.jpg" width="300" align="right" height="200px"></div>

     <h3><u>MARKS</u></h3>
    <div class="grid-container">
      <div class="grid-item">SSC</div>
      <div class="grid-item">Inter</div>
      <div class="grid-item">B.Tech</div>
      <div class="grid-item">9.7</div>
      <div class="grid-item">9.6</div>
      <div class="grid-item">9.09</div>
    </div>
   <h5>HEY!This is External CSS</h5>
   <h2>External CSS is applied</h2>
  </body>
```

```
</html>
```

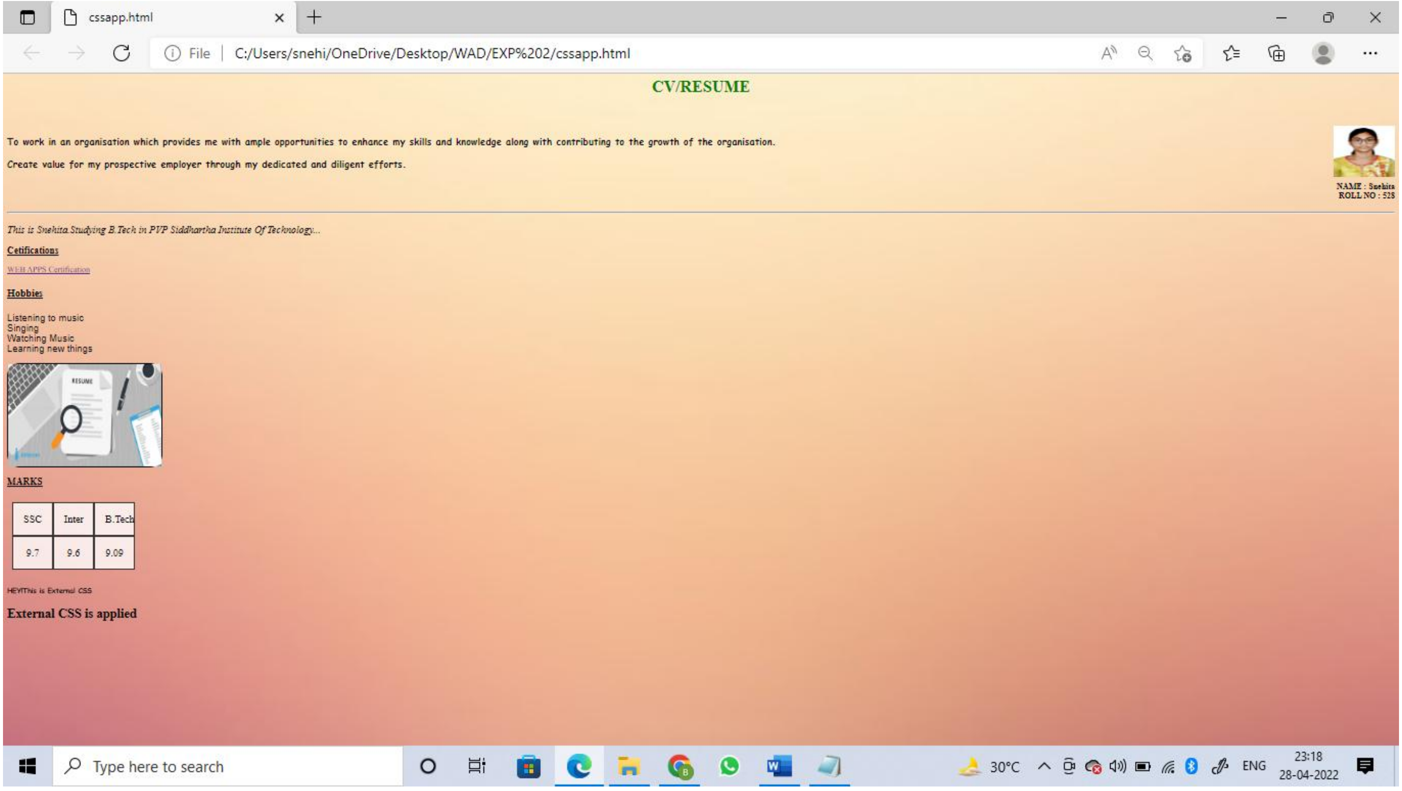
EXTERNAL FILE(externalcssapp.css) :

```
       h5{
          font-family:cursive;
          font-color:red;
       }
      h2{
         font-family:italic;
         font-color:blue;
        font-size:25px;
      }
```

WEB APPS Certification file:

```
    <html>
      <body>
         <h1>WEB APPS Certification</h1>
         <h2>Certificate Of Completion</h2>
         <img src="C:\Users\snehi\OneDrive\Desktop\WAD\EXP 1\images
folder\web-development-Certificate.jpg" width=1325" height="500" />
      </body>
</html>
```

<u>OUTPUT</u>:



CV/RESUME

To work in an organisation which provides me with ample opportunities to enhance my skills and knowledge along with contributing to the growth of the organisation.

Create value for my prospective employer through my dedicated and diligent efforts.

NAME : Snehita
ROLL NO : 528

This is Snehita Studying B.Tech in PVP Siddhartha Institute Of Technology...

<u>Cetifications</u>

<u>WEB APPS Certification</u>

<u>Hobbies</u>

Listening to music
Singing
Watching Music
Learning new things

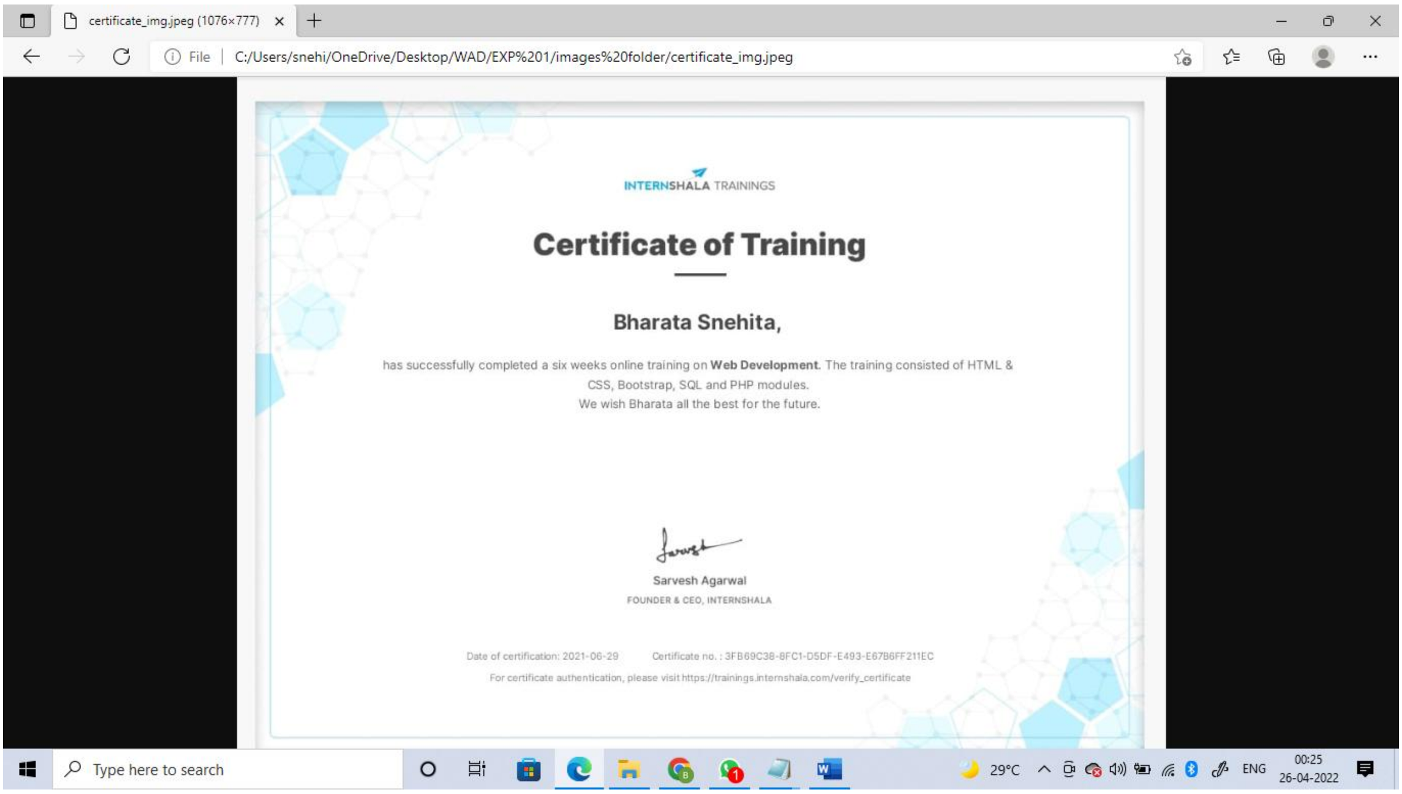
<u>MARKS</u>

SSC	Inter	B.Tech
9.7	9.6	9.09

HEY!This is External CSS

External CSS is applied

- When the WEB APPS Certification is clicked,the certificate page will be displayed.


certificate_img.jpeg (1076×777)
File
C:/Users/snehi/OneDrive/Desktop/WAD/EXP%201/images%20folder/certificate_img.jpeg
Type here to search
29°C
ENG
00:25
26-04-2022

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For certificate authentication, please visit https://trainings.internshala.com/verify_certificate

EXPERIMENT-3

AIM: Apply Client side validations using JavaScript.

DESCRIPTION:

Tags used are:

- div
- label
- input
- form
- script

This Java Script is written inside the html program and that can be written within script tags of html program.

PROGRAM:

JS Validation file:

```
    <!DOCTYPE html>
<html>
  <head>
      <style>
         html{
            height:100%;
         }
         body{
            text-align:center;
         }
         .Login-box{

            padding:200px 200px 200px 200px;
            border-sizing:border-box;
            border:2px solid red;
            border-radius:20px;
            text-align:center;
         }
         .login-box img{
            width:100px;
            height:100px;
         }
         .login-box h3{
            margin:0px 0px 30px;
            padding :0px;
         }
         .login-box username-box input{
           width:100px;
           padding:10px 0;
           font-size:18px;
           margin-buttom:30px;
```

```
          }
          .login-box username-box label{
             text-align:left;
             padding:0 0 10px 0;
             font-size:16px;
             transition: .5s;
          }

       </style>
   </head>

    <script type="text/javascript">
             function validate() {
                 let username=usr_form.f_u_name.value;
                 let re_enter=usr_form.p_name.value;
                 //let result = username.localeCompare(re_enter);
                 if(username=="usqt94" && re_enter=="usqt94")
                 {
                    return true
                 }
                 else{
                    console.log(re_enter);
                    alert("Doesnt match")
                    return false
                 }
             }
     </script>
     <body>
      <div class="Login-box">
         <div class="row">
             <img src="C:\Users\snehi\OneDrive\Desktop\WAD\Exam1\images folder
exam\login page  boy image.jpg" width="100px" height="100px"/>
         </div>
         <h3>Login Account</h3>
         <form action="successpage.html" name="usr_form"  onsubmit="return validate()">
             <div class="username-box">
                 <label>Username</label><br>
                 <input type="text" name="f_u_name"></input>
                 <br>
                  <label>Re-enter Username</label><br>
                 <input type="text" name="p_name"></input>
             <br>
                  <input type="submit" value="Submit">
             </div>
         </form>
      </div>
   </body>
```

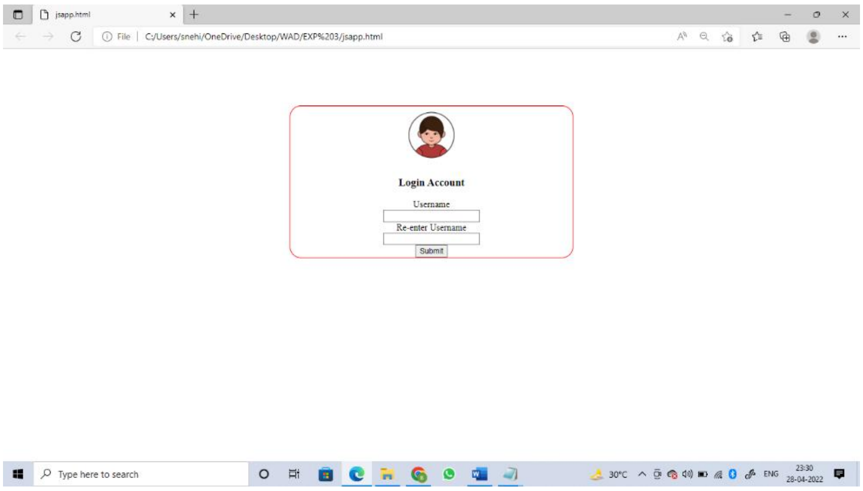
</html>

Successpage file:

```
<!DOCTYPE html>
<html>
  <head>
     <title></title>
  </head>
  <body>
    <h1>Success</h1>
  </body>
</html>
```

<u>OUTPUT</u>:

1)



jsapp.html

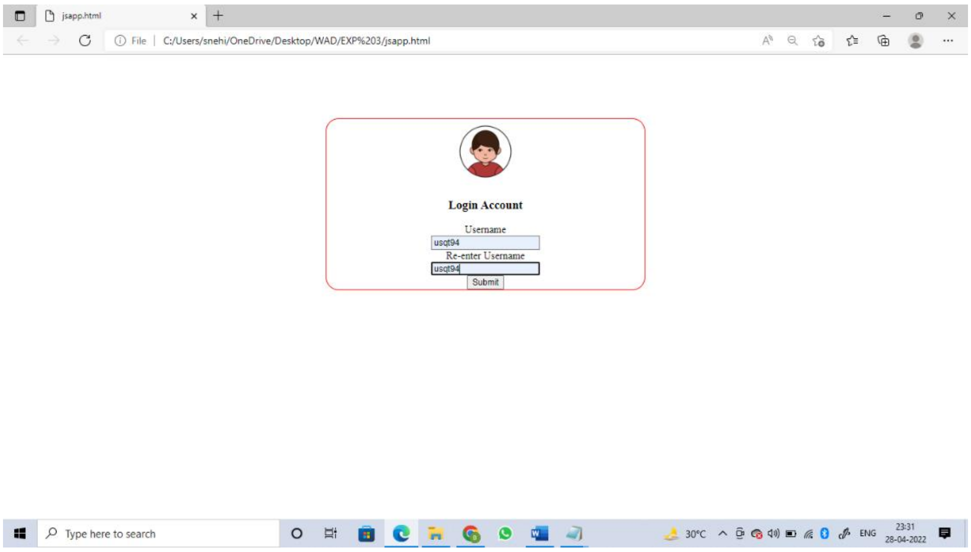
C:/Users/snehi/OneDrive/Desktop/WAD/EXP%203/jsapp.html

Login Account

Username

Re-enter Username

2)



jsapp.html

C:/Users/snehi/OneDrive/Desktop/WAD/EXP%203/jsapp.html

Login Account

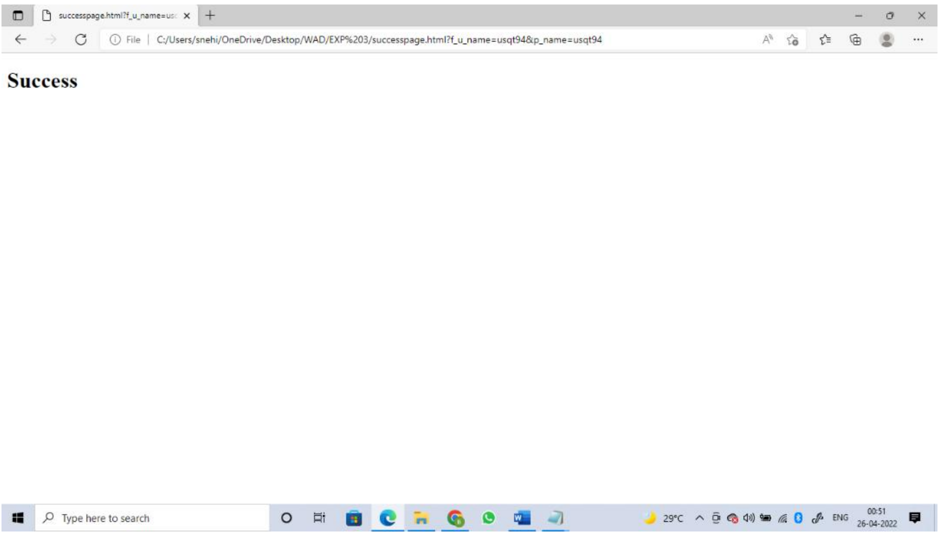
Username

usqt94

Re-enter Username

usqt94

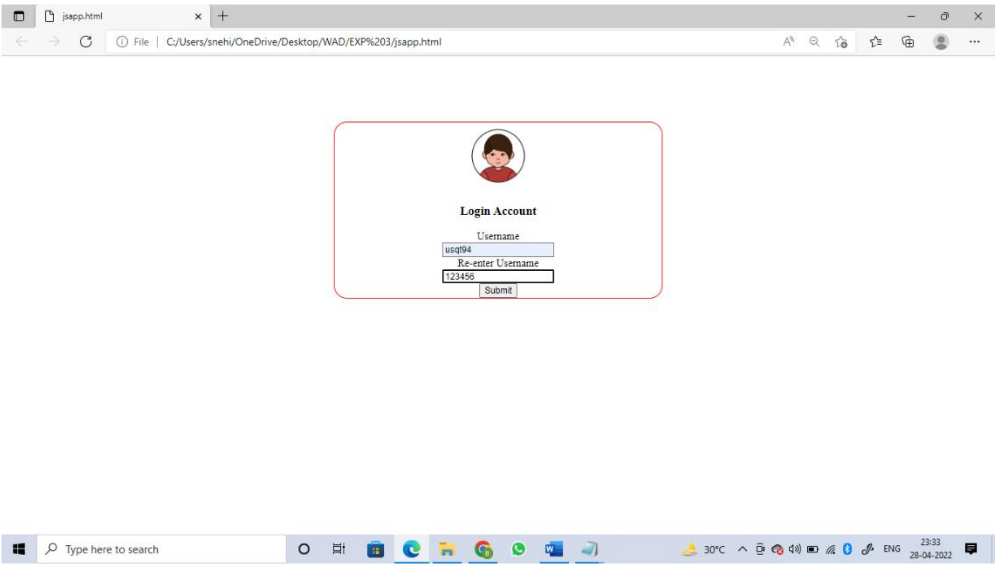
3)



C:/Users/snehi/OneDrive/Desktop/WAD/EXP%203/successpage.html?f_u_name=usqt94&p_name=usqt94

Success

4)



C:/Users/snehi/OneDrive/Desktop/WAD/EXP%203/jsapp.html

Login Account

Username

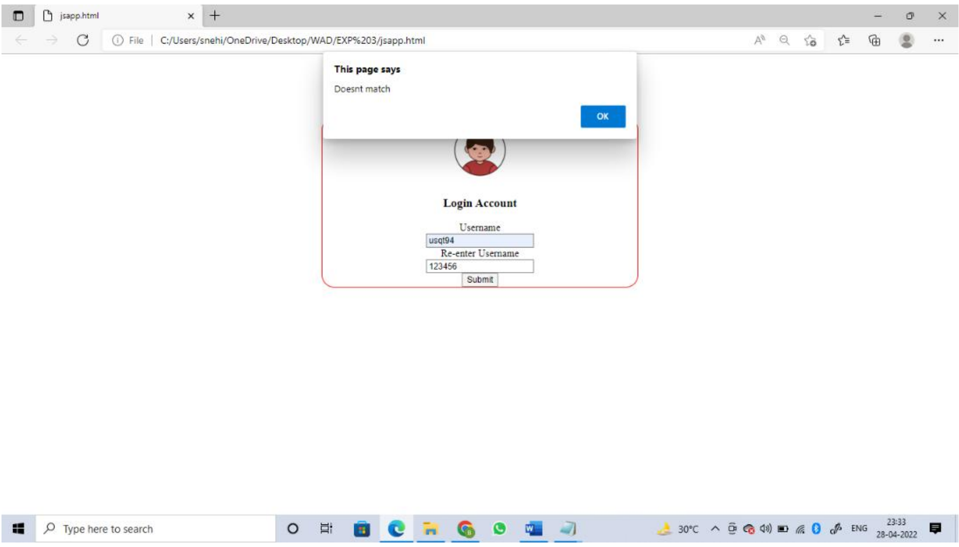
usqt94

Re-enter Username

123456

Submit

5)



C:/Users/snehi/OneDrive/Desktop/WAD/EXP%203/jsapp.html

This page says

Doesnt match

OK

Login Account

Username

usqt94

Re-enter Username

123456

Submit

EXPERIMENT-4

AIM: Create an XML file for student/employee/book data and validate against DTD.

DESCRIPTION: XML is an Extensible Mark up language, similar to HTML.

- ✓ In XML, there will be using User-defined tags.

Validating an XML document: Process of checking a document written in XML to confirm that it is both well formed and also 'valid' in that follows a defined structure.

- ✓ It displays on the web page, what is written in XML document.

DTD:

- ✓ DTD stands for Document type Definition.
- ✓ It is a way to describe XML Language precisely.
- ✓ It checks validity & vocabulary of the XML document structure against grammatical rules of appropriate XML language.
- ✓ **Syntax:** <!DOCTYPE element DTP identifier[declarations….]>
- ✓ There are **2** types of DTD. They are Internal DTD and External DTD.

Internal DTD: It means,if elements are declared within the XML files.

- ✓ To specify it as internal DTD, standalone attribute in XML declaration must be set to **"yes".**

Syntax: <!DOCTYPE root-element [element-declaration]>

External DTD: It means, if DTD elements are declared outside the XML file.

- ✓ To specify it as external DTD, standalone must be set to **"no".**

Syntax: <!DOCTYPE root-element SYSTEM "file-name.dtd">

- ✓ Where file name is the file with **.dtd** extension.

PROGRAM:

WITHOUT USING DTD:

```
<?xml version = "1.0" encoding="UTF-8" standalone="yes"?>
<Student_info>
        <pvp>
          <Name>
           <FirstName>Snehita</FirstName>
           <MiddleName> </MiddleName>
           <LastName>Bharata</LastName>
          </Name>
          &#xA;
          <Study>
               <year>III</year>
               <section>S1</section>
               <department>CSE</department>
          </Study>
          &#xA;
          <Contact_details>
               <mob_no>9876543210</mob_no>
               <email>snehita@gmail.com</email>
               <address>Kanuru,Vijayawada</address>
          </Contact_details>
```

```
      </pvp>
</Student_info>
```

USING INTERNAL DTD:

```
<?xml version = "1.0" encoding = "UTF-8" standalone = "yes" ?>
<!DOCTYPE Student_info [
  <!ELEMENT pvp (Name,Study,Contact_info)>
  <!ELEMENT Name (FirstName,MiddleName,LastName)>
  <!ELEMENT Study (year,section,department)>
  <!ELEMENT Contact_details (mob_no,email,address)>
  <!ELEMENT FirstName (#PCDATA)>
  <!ELEMENT MiddleName (#PCDATA)>
  <!ELEMENT LastName (#PCDATA)>
  <!ELEMENT year ( #PCDATA)>
  <!ELEMENT section (#PCDATA)>
  <!ELEMENT department (#PCDATA)>
  <!ELEMENT mob_no (#PCDATA)>
  <!ELEMENT email (#PCDATA)>
  <!ELEMENT address (#PCDATA)>
]>

<Student_info>
        <Name>
         <FirstName>Snehita</FirstName>
         <MiddleName> </MiddleName>
         <LastName>Bharata</LastName>
        </Name>
        &#xA;
        <Study>
            <year>III</year>
            <section>S1</section>
            <department>CSE</department>
        </Study>
        &#xA;
        <Contact_details>
            <mob_no>9876543210</mob_no>
            <email>snehita@gmail.com</email>
            <address>Kanuru,Vijayawada</address>
        </Contact_details>
</Student_info>
```

EXTERNAL DTD:

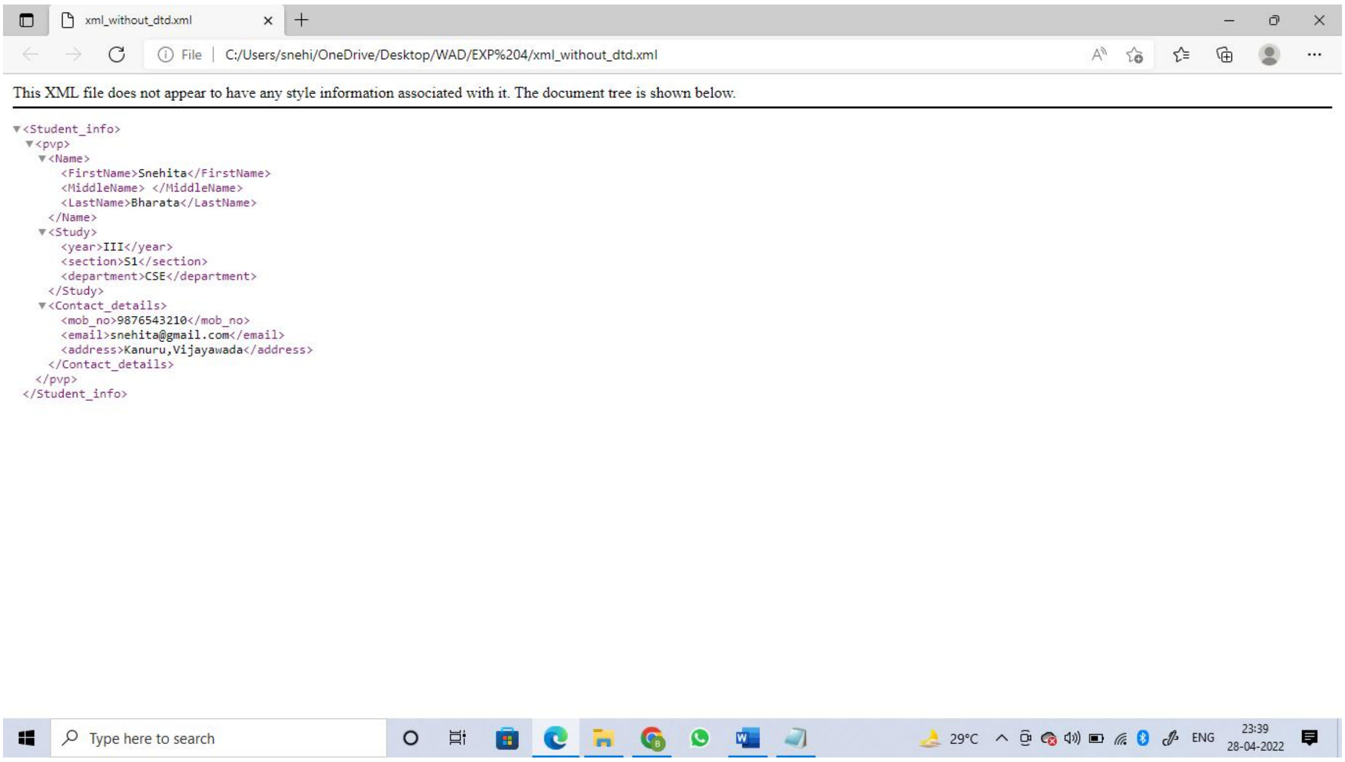
```
<?xml version = "1.0" encoding = "UTF-8" standalone = "no" ?>
<!DOCTYPE Student_info SYSTEM "Student_info.dtd">
<Student_info>
```

```
        <Name>
         <FirstName>Snehita</FirstName>
         <MiddleName> </MiddleName>
         <LastName>Bharata</LastName>
        </Name>
        &#xA;
        <Study>
            <year>III</year>
            <section>S1</section>
            <department>CSE</department>
        </Study>
        &#xA;
        <Contact_details>
            <mob_no>9876543210</mob_no>
            <email>snehita@gmail.com</email>
            <address>Kanuru,Vijayawada</address>
        </Contact_details>
</Student_info>
```

Student_info.dtd file:

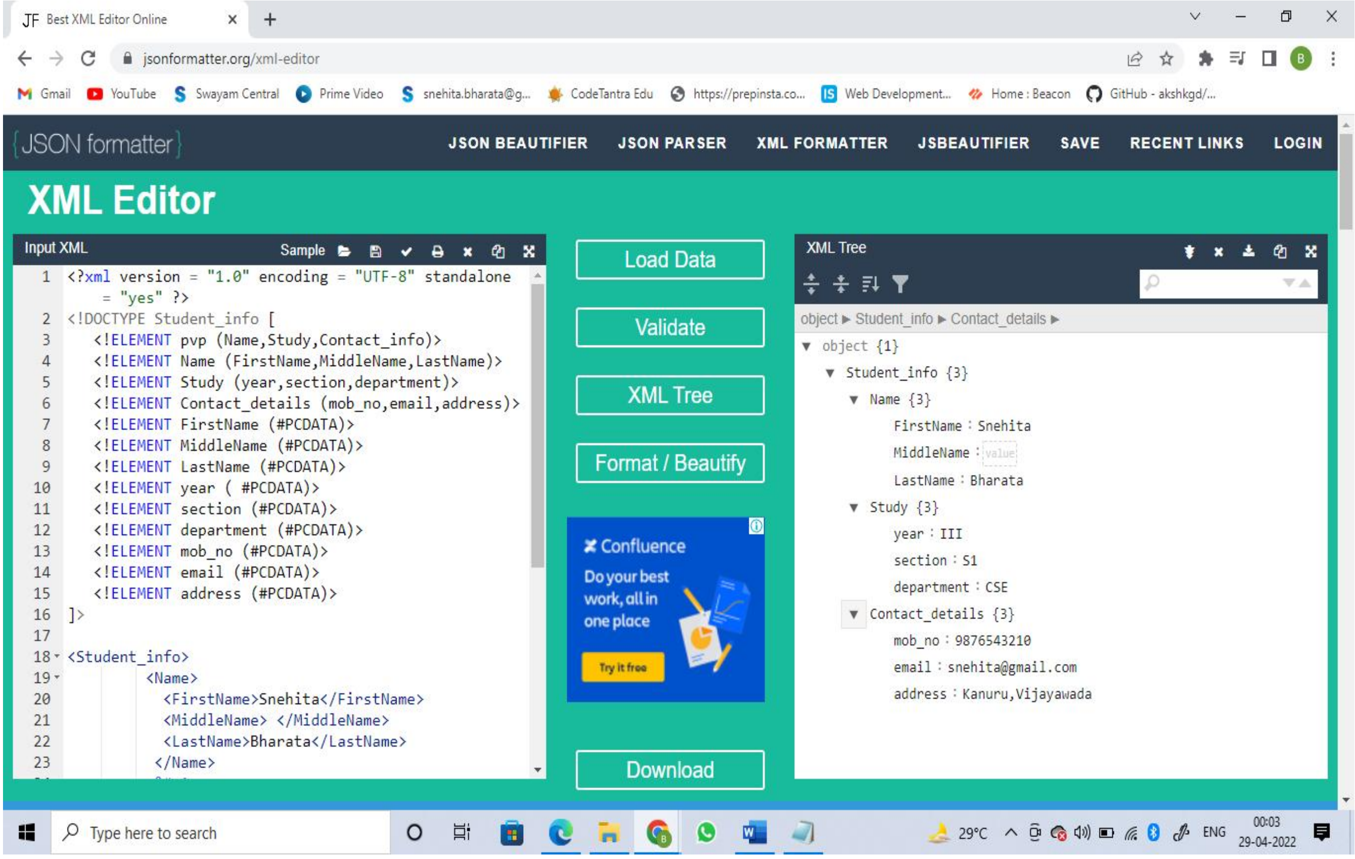
```
<!ELEMENT pvp (Name,Study,Contact_info)>
  <!ELEMENT Name (FirstName,MiddleName,LastName)>
  <!ELEMENT Study (year,section,department)>
  <!ELEMENT Contact_details (mob_no,email,address)>
  <!ELEMENT FirstName (#PCDATA)>
  <!ELEMENT MiddleName (#PCDATA)>
  <!ELEMENT LastName (#PCDATA)>
  <!ELEMENT year ( #PCDATA)>
  <!ELEMENT section (#PCDATA)>
  <!ELEMENT department (#PCDATA)>
  <!ELEMENT mob_no (#PCDATA)>
  <!ELEMENT email (#PCDATA)>
  <!ELEMENT address (#PCDATA)>
```

OUTPUT:



This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
▼<Student_info>
  ▼<pvp>
    ▼<Name>
       <FirstName>Snehita</FirstName>
       <MiddleName> </MiddleName>
       <LastName>Bharata</LastName>
     </Name>
    ▼<Study>
       <year>III</year>
       <section>S1</section>
       <department>CSE</department>
     </Study>
    ▼<Contact_details>
       <mob_no>9876543210</mob_no>
       <email>snehita@gmail.com</email>
       <address>Kanuru,Vijayawada</address>
     </Contact_details>
   </pvp>
 </Student_info>
```



```
<?xml version = "1.0" encoding = "UTF-8" standalone
    = "yes" ?>
<!DOCTYPE Student_info [
   <!ELEMENT pvp (Name,Study,Contact_info)>
   <!ELEMENT Name (FirstName,MiddleName,LastName)>
   <!ELEMENT Study (year,section,department)>
   <!ELEMENT Contact_details (mob_no,email,address)>
   <!ELEMENT FirstName (#PCDATA)>
   <!ELEMENT MiddleName (#PCDATA)>
   <!ELEMENT LastName (#PCDATA)>
   <!ELEMENT year ( #PCDATA)>
   <!ELEMENT section (#PCDATA)>
   <!ELEMENT department (#PCDATA)>
   <!ELEMENT mob_no (#PCDATA)>
   <!ELEMENT email (#PCDATA)>
   <!ELEMENT address (#PCDATA)>
]>

<Student_info>
         <Name>
           <FirstName>Snehita</FirstName>
           <MiddleName> </MiddleName>
           <LastName>Bharata</LastName>
         </Name>
```

```
object ▸ Student_info ▸ Contact_details ▸
▼ object {1}
  ▼ Student_info {3}
    ▼ Name {3}
        FirstName : Snehita
        MiddleName : value
        LastName : Bharata
    ▼ Study {3}
        year : III
        section : S1
        department : CSE
    ▼ Contact_details {3}
        mob_no : 9876543210
        email : snehita@gmail.com
        address : Kanuru,Vijayawada
```

EXPERIMENT-5

A)

AIM: Develop different JDBC applications to interact with database.

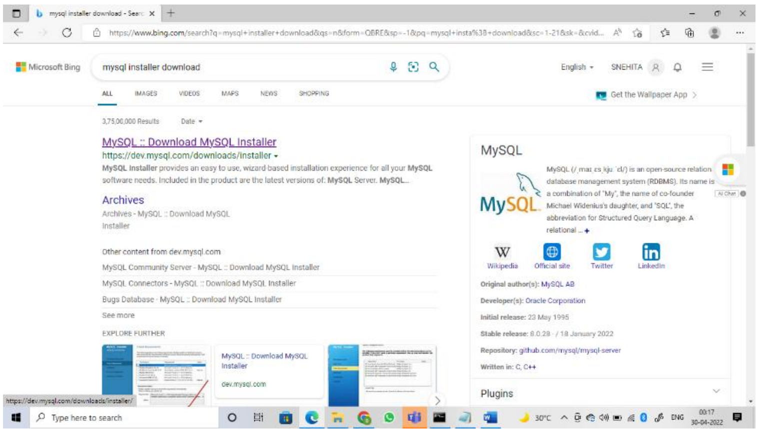
DESCRIPTION: JDBC stands for Java Database Connectivity. JDBC is a Java API to connect and execute the query with the database. It is a part of JavaSE(Java Standard Edition).

Using JDBC to connect to a database:

- ✓ Install or locate the database you want to access.
- ✓ Include the JDBC library.
- ✓ Ensure the JDBC driver you need is on your classpath.
- ✓ Use the JDBC library to obtain a connection to the database.
- ✓ Use the connection to issue SQL commands.
- ✓ Close the connection when you're finished.

Steps to connect data base with driver:

1)Install mysql installer.



https://www.bing.com/search?q=mysql+installer+download&qs=n&form=QBRE&sp=-1&pq=mysql+insta%38+download&sc=1-21&sk=&cvid...

Microsoft Bing — mysql installer download

3,75,00,000 Results

MySQL :: Download MySQL Installer
https://dev.mysql.com/downloads/installer
MySQL Installer provides an easy to use, wizard based installation experience for all your MySQL software needs. Included in the product are the latest versions of: MySQL Server. MySQL...

Archives
Archives - MySQL :: Download MySQL Installer

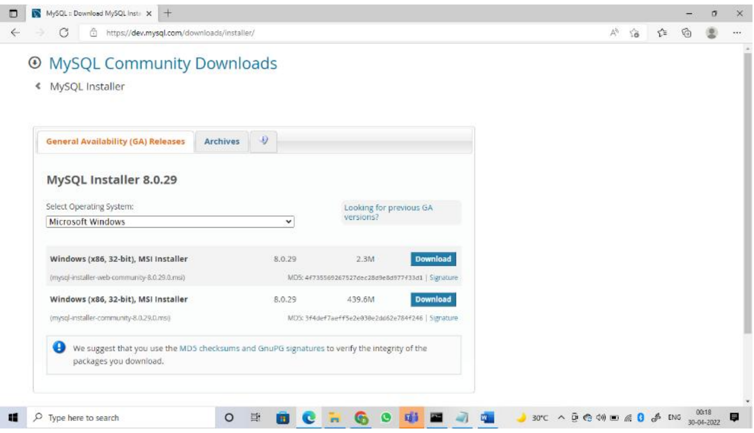
Other content from dev.mysql.com
MySQL Community Server - MySQL :: Download MySQL Installer
MySQL Connectors - MySQL :: Download MySQL Installer
Bugs Database · MySQL :: Download MySQL Installer
See more

EXPLORE FURTHER
MySQL :: Download MySQL Installer
dev.mysql.com

MySQL
MySQL (/ˌmaɪ ɛsˌkjuː ˈɛl/) is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language. A relational ... +

Original author(s): MySQL AB
Developer(s): Oracle Corporation
Initial release: 23 May 1995
Stable release: 8.0.28 / 18 January 2022
Repository: github.com/mysql/mysql-server
Written in: C, C++

2)Select Platform Independent for selecting OS.



https://dev.mysql.com/downloads/installer/

MySQL Community Downloads

MySQL Installer

MySQL Installer 8.0.29

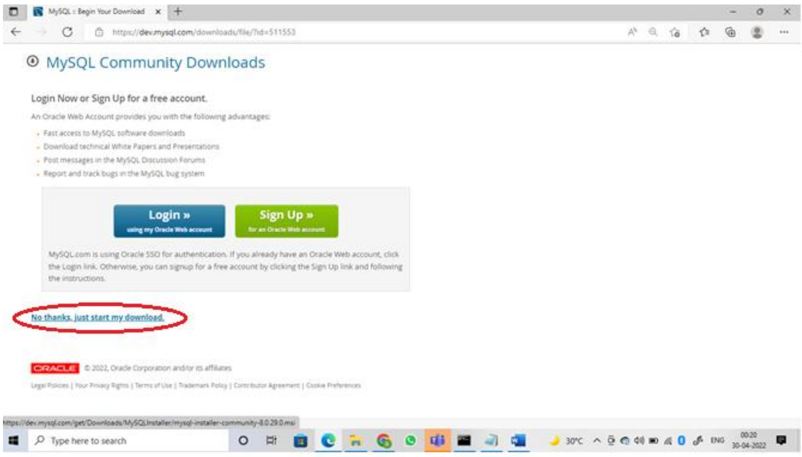
Select Operating System: Microsoft Windows

Windows (x86, 32-bit), MSI Installer (mysql-installer-web-community-8.0.29.0.msi)	8.0.29	2.3M	Download MD5: 4f735569267527dec28d9e8d977f33d1 | Signature
Windows (x86, 32-bit), MSI Installer (mysql-installer-community-8.0.29.0.msi)	8.0.29	439.6M	Download MD5: 3f4def7aeff5e2e030e2dd62e784f246 | Signature

We suggest that you use the MD5 checksums and GnuPG signatures to verify the integrity of the packages you download.

MySQL :: Download MySQL Install
General Availability (GA) Releases
Archives
Looking for previous GA versions?
Type here to search
30°C
ENG
00:18
30-04-2022

3)Download 32-bit installer for windows, and start downloading.



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https://dev.mysql.com/get/Downloads/MySQLInstaller/mysql-installer-community-8.0.29.0.msi

MySQL :: Begin Your Download
https://dev.mysql.com/downloads/file/?id=511553
Login » using my Oracle Web account
Sign Up » for an Oracle Web account
ORACLE
Legal Policies | Your Privacy Rights | Terms of Use | Trademark Policy | Contributor Agreement | Cookie Preferences
Type here to search
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ENG
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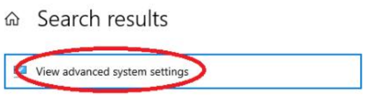
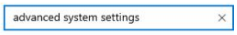
30-04-2022

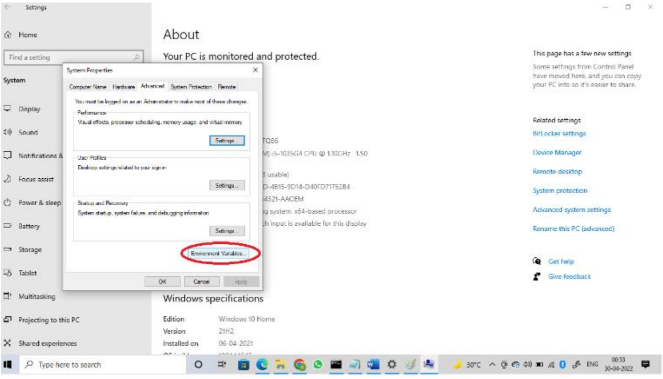
4)Extract/Unzip the downloaded jar Zip file.

5) Add the jar file in program files->java->jdk->lib

6)Go to Properties of the jar file, go to advanced settings and set environment variables by adding or editing the new class_path variable referencing the location of the jar file.







About

Your PC is monitored and protected.

You must be logged on as an Administrator to make most of these changes.

Performance: Visual effects, processor scheduling, memory usage, and virtual memory

User Profiles: Desktop settings related to your sign-in

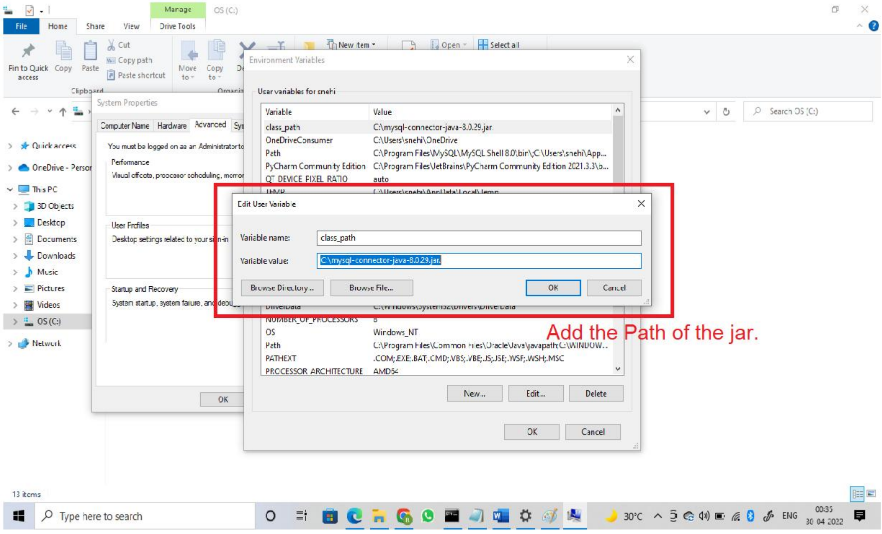
Startup and Recovery: System startup, system failure, and debugging information

This page has a few new settings

Some settings from Control Panel have moved here, and you can copy your PC info so it's easier to share.

Windows specifications

Edition	Windows 10 Home
Version	21H2
Installed on	06-04-2021



Environment Variables

User variables for snehi

Variable	Value
class_path	C:\mysql-connector-java-8.0.29.jar
OneDriveConsumer	C:\Users\snehi\OneDrive
Path	C:\Program Files\MySQL\MySQL Shell 8.0\bin\;C:\Users\snehi\App...
PyCharm Community Edition	C:\Program Files\JetBrains\PyCharm Community Edition 2021.3.3\b...
QT_DEVICE_PIXEL_RATIO	auto
NUMBER_OF_PROCESSORS	8
OS	Windows_NT
Path	C:\Program Files\Common Files\Oracle\Java\javapath;C:\WINDOW...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC
PROCESSOR_ARCHITECTURE	AMD64

Edit User Variable

Variable name: class_path

Variable value: C:\mysql-connector-java-8.0.29.jar

Add the Path of the jar.

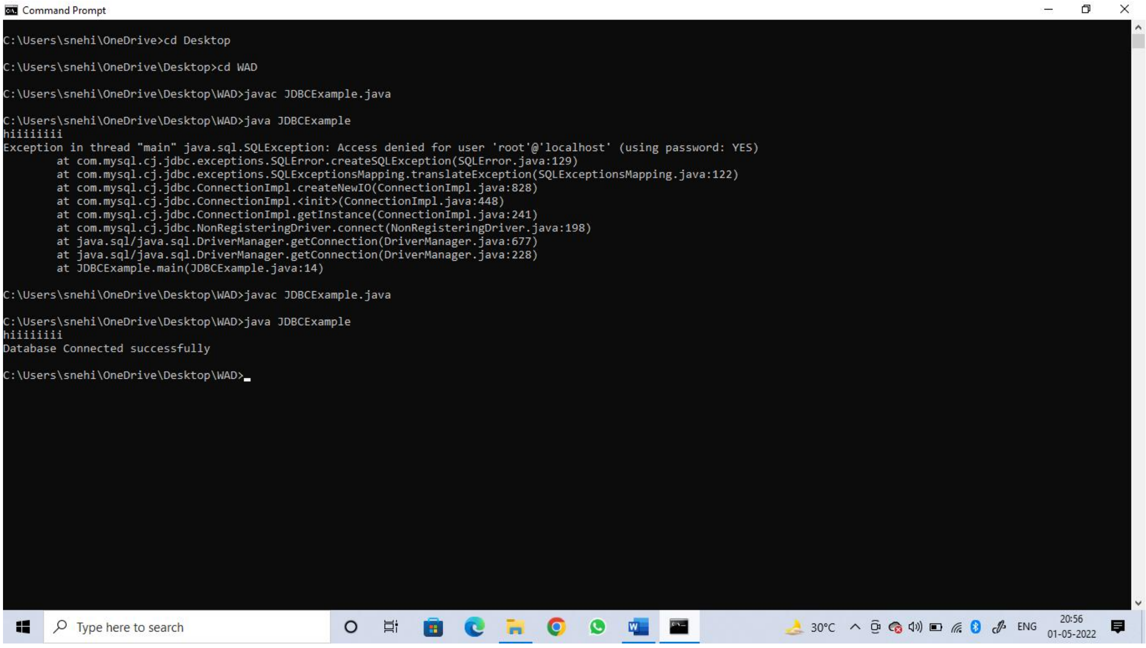
7)Write java Program in Editor(Notepad/Notepad++,etc..) and in the program we should give the root name and password of our database.

PROGRAM:

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

public class JDBCExample {
        public static void main(String[] args) throws Exception {
                System.out.println("hiiiiiiii");
                Class.forName("com.mysql.cj.jdbc.Driver");
                String url = "jdbc:mysql://localhost:3306";
                String username = "root";
                String password ="snehita2002";

                Connection con = DriverManager.getConnection(url, username, password);
                if (con != null) {
                        System.out.println("Database Connected successfully");
                } else {
                        System.out.println("Database Connection failed");
                }

        }
}
```

8)Save the class name and file name as same.
9)Execute java Program using Java Commands in Command Prompt.
10)Finally, it shows whether Database is Connected or not.

OUTPUT:



```
C:\Users\snehi\OneDrive>cd Desktop

C:\Users\snehi\OneDrive\Desktop>cd WAD

C:\Users\snehi\OneDrive\Desktop\WAD>javac JDBCExample.java

C:\Users\snehi\OneDrive\Desktop\WAD>java JDBCExample
hiiiiiiii
Exception in thread "main" java.sql.SQLException: Access denied for user 'root'@'localhost' (using password: YES)
        at com.mysql.cj.jdbc.exceptions.SQLError.createSQLException(SQLError.java:129)
        at com.mysql.cj.jdbc.exceptions.SQLExceptionsMapping.translateException(SQLExceptionsMapping.java:122)
        at com.mysql.cj.jdbc.ConnectionImpl.createNewIO(ConnectionImpl.java:828)
        at com.mysql.cj.jdbc.ConnectionImpl.<init>(ConnectionImpl.java:448)
        at com.mysql.cj.jdbc.ConnectionImpl.getInstance(ConnectionImpl.java:241)
        at com.mysql.cj.jdbc.NonRegisteringDriver.connect(NonRegisteringDriver.java:198)
        at java.sql/java.sql.DriverManager.getConnection(DriverManager.java:677)
        at java.sql/java.sql.DriverManager.getConnection(DriverManager.java:228)
        at JDBCExample.main(JDBCExample.java:14)

C:\Users\snehi\OneDrive\Desktop\WAD>javac JDBCExample.java

C:\Users\snehi\OneDrive\Desktop\WAD>java JDBCExample
hiiiiiiii
Database Connected successfully

C:\Users\snehi\OneDrive\Desktop\WAD>
```

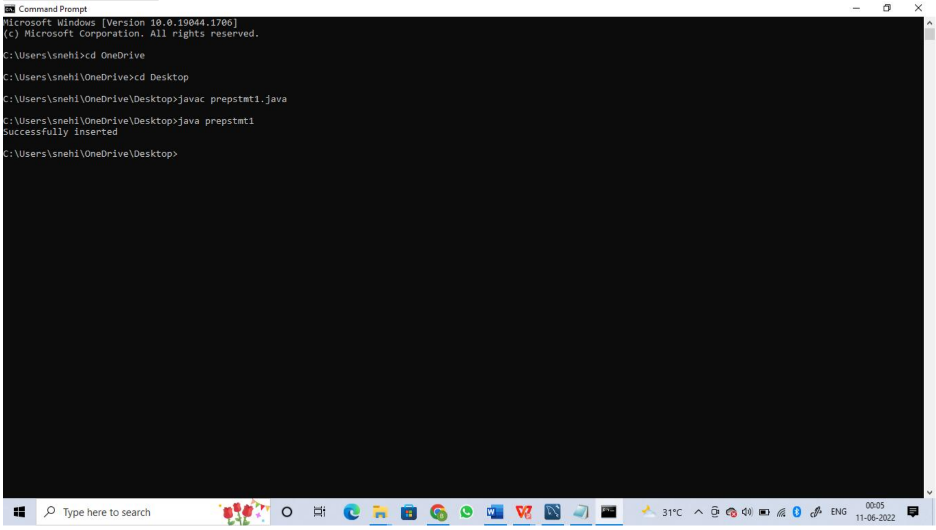
B)

AIM: Write a Java Program which retrieves data from the database.

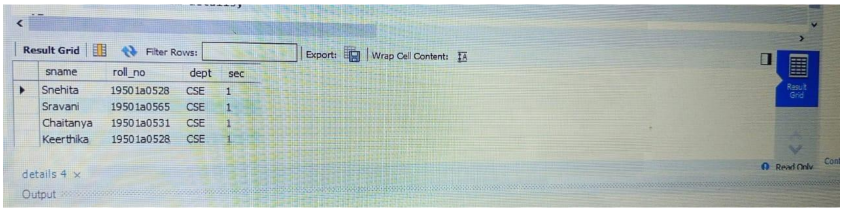
PROGRAM:

```
import java.util.*;
import java.sql.*;
class prepstmt1{
    public static void main(String args[]) {
        try {
            int rows=0;
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection                    c                    =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student","root","snehita2002");
            String sql = "insert into details values(?,?,?,?)";
            PreparedStatement ps = c.prepareStatement(sql);
            ps.setString(1,"Keerthika");
            ps.setString(2,"19501a0535");
            ps.setString(3,"CSE");
            ps.setString(4,"1");
            rows = ps.executeUpdate();
            if(rows>0) {
                System.out.println("Successfully inserted");
                c.close();
            }
        }
        catch (Exception e) {
          System.out.println(e);
        }
    }
}
```

OUTPUT:



```
Microsoft Windows [Version 10.0.19044.1706]
(c) Microsoft Corporation. All rights reserved.

C:\Users\snehi>cd OneDrive

C:\Users\snehi\OneDrive>cd Desktop

C:\Users\snehi\OneDrive\Desktop>javac prepstmt1.java

C:\Users\snehi\OneDrive\Desktop>java prepstmt1
Successfully inserted

C:\Users\snehi\OneDrive\Desktop>
```



sname	roll_no	dept	sec
Snehita	19501a0528	CSE	1
Sravani	19501a0565	CSE	1
Chaitanya	19501a0531	CSE	1
Keerthika	19501a0528	CSE	1

EXPERIMENT-6

A)

AIM: Create different web applications using servlets.

DESCRIPTION:

Servlet - Servlet is a technology which is used to create a web application. Servlet is an API that provides many interfaces and classes including documentation. Servlet is an interface that must be implemented for creating any Servlet. Servlet is a class that extends thecapabilities of the servers and responds to the incoming requests. It can respond to any requests. Servlet is a web component that is deployed on the server to create a dynamic web page.

Classes in javax.servlet.http package

There are many classes in javax.servlet.http package. They are as follows:

1. HttpServlet
2. Cookie
3. HttpServletRequestWrapper
4. HttpServletResponseWrapper
5. HttpSessionEvent

Interfaces in javax.servlet.http package

There are many interfaces in javax.servlet.http package. They are as follows:

1. HttpServletRequest
2. HttpServletResponse
3. HttpSession

Methods of HttpServlet class

There are many methods in HttpServlet class. They are as follows:

1. **public void service(ServletRequest req,ServletResponse res)** dispatches the request to the protected service method by converting the request and response object into http type.
2. **protected void service(HttpServletRequest req,HttpServletResponse res)** receives the request from the service method, and dispatches the request to the doXXX() method depending on the incoming http request type.
3. **protected void doGet(HttpServletRequest req, HttpServletResponse res)** handles the GET request. It is invoked by the web container.
4. **protected void doPost(HttpServletRequest req, HttpServletResponse res)** handles the POST request. It is invoked by the web container.
5. **protected void doDelete(HttpServletRequest req, HttpServletResponse res)** handles the DELETE request. It is invoked by the web container.

PROGRAM:

```
<!DOCTYPE html>
<html>
<body>
<form action="Multiple.java" method="post">
Enter number1:<input type="text" name="num1"><br><br>
Enter number2:<input type="text" name="num2"><br><br>
<input type="submit">
<input type="reset">
</form>
```

```
</body>
</html>
```

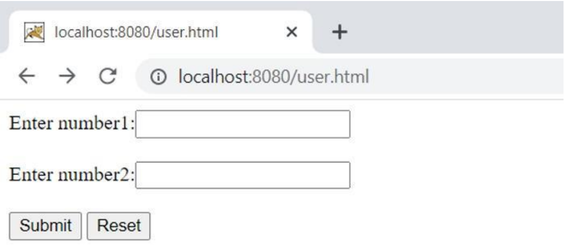
Multiple.java

```
import javax.servlet.http.*;
import java.io.*;
public class Multiple extends HttpServlet {
public void service(HttpServletRequest req,HttpServletResponse res) throws
IOException {
int a = Integer.parseInt(req.getParameter("num1"));
int b = Integer.parseInt(req.getParameter("num2"));int c = a*b;
res.setContentType("text/html");
PrintWriter out = res.getWriter();
out.println("Mulitplication of two numbers "+a+","+b+" = "+c);
}
}
```

web.xml

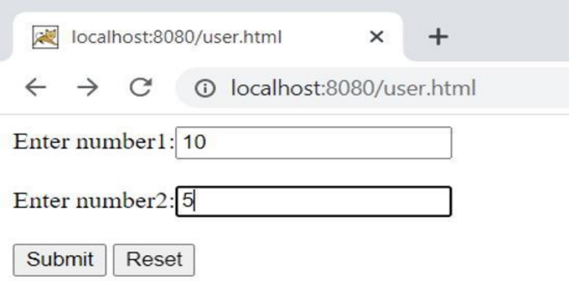
```
<servlet>
<servlet-name>first</servlet-name>
<servlet-class>Multiple</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>first</servlet-name>
<url-pattern>/Multiple.java</url-pattern>
</servlet-mapping>
```

<u>OUTPUT</u>:



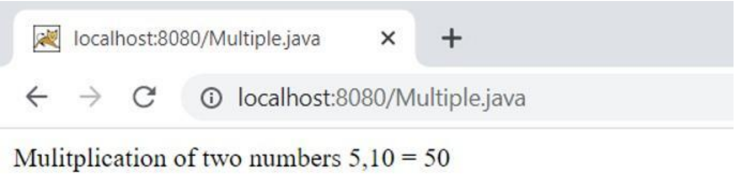
Enter number1:

Enter number2:



Enter number1: 10

Enter number2: 5



```
Mulitplication of two numbers 5,10 = 50
```

B)

AIM: Create different web applications using servlets along with the database.

PROGRAM:

```
<html>
  <body bgcolor="#FFFACD">
    <h1 align="center">Registration Form</h1>
    <form align="center" action="Resp.java" method="post">
       Enter Name:<input type="text" name="uname"><br><br>
       Enter Password:<input type="password" name="upass"><br><br>
       <input type="submit">
       <input type="reset">
    </form>
  </body>
</html>
```

Resp.java

```
 import javax.servlet.*;
 import javax.servlet.http.*;
 import java.io.*;
 import java.sql.*;
 public class Resp extends HttpServlet {
  public void service (HttpServletRequest req,HttpServletResponse res) throws IOException
  {
    String param1 = req.getParameter("uname");
    String param2 = req.getParameter("upass");
    try{
        PrintWriter pw = res.getWriter();
       Class.forName("com.mysql.cj.jdbc.Driver");
       Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student","root","root");
       String sql = "insert into form_details values(?,?)";
       PreparedStatement ps = con.prepareStatement(sql);
       ps.setString(1,param1);
       ps.setString(2,param2);
       int rows = ps.executeUpdate();
       if(rows>0) {
           pw.println("Data Inserted Successfully");
       }
       con.close();
   }
   catch(Exception e) {
        System.out.println(e);
   }
 }
}
```

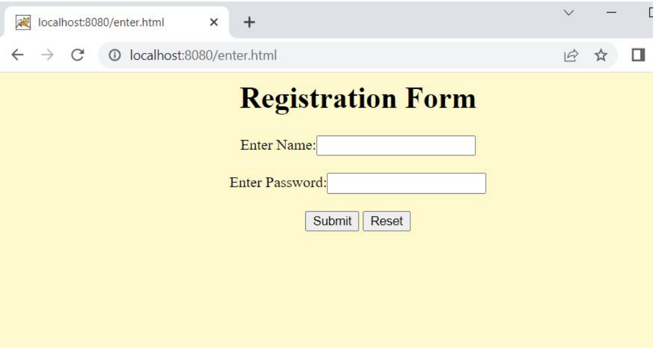
mysql

```
create database student;
use student;
create table form_details(name varchar(20),password varchar(30));
```

web.xml

```
<servlet>
    <servlet-name>second</servlet-name>
    <servlet-class>Resp</servlet-class>
</servlet>

<servlet-mapping>
    <servlet-name>second</servlet-name>
    <url-pattern>/Resp.java</url-pattern>
</servlet-mapping>
```

OUTPUT:

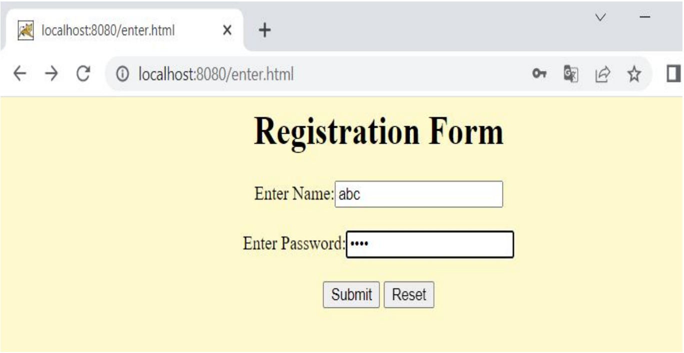


Registration Form

Enter Name:

Enter Password:

Submit Reset

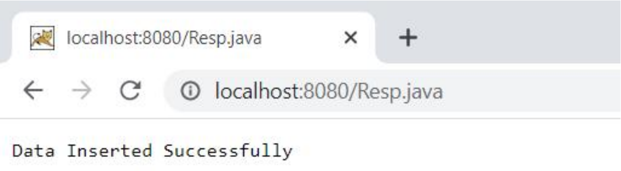


Registration Form

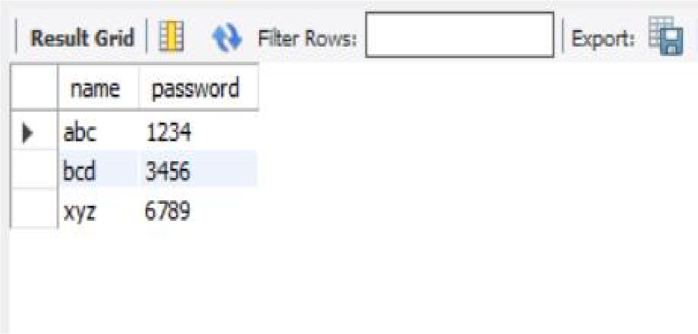
Enter Name: abc

Enter Password: ••••

Submit Reset



```
Data Inserted Successfully
```



name	password
abc	1234
bcd	3456
xyz	6789

EXPERIMENT-7

AIM: Develop different web applications using JSP.

DESCRIPTION:

JSP technology is used to create web application just like Servlet technology. It can be thought of as an extension to Servlet because it provides more functionality than servlet such as expression language, JSTL, etc.

JSP Scripting elements:

The scripting elements provides the ability to insert java code inside the jsp. There are three types of scripting elements:

- ✓ scriptlet tag
- ✓ expression tag
- ✓ declaration tag

JSP scriptlet tag

A scriptlet tag is used to execute java source code in JSP. Syntax is as follows:

<% java source code %>

JSP expression tag :

The code placed within **JSP expression tag** is written to the output stream of response.So you need not write out.print() to write data. It is mainly used to print the values of variable or method.

Syntax of JSP expression tag

<%= statement %>

JSP Declaration Tag:

The **JSP declaration tag** is used to declare fields and methods.

The code written inside the jsp declaration tag is placed outside the service() method of auto generated servlet.So it doesn't get memory at each request.

Syntax of JSP declaration tag

The syntax of the declaration tag is as follows:

<%! field or method declaration %>

JSP request implicit object:

The **JSP request** is an implicit object of type HttpServletRequest i.e. created for each jsp request by the web container. It can be used to get request information such as parameter, header information, remote address, server name, server port, content type, character encoding etc.

String name=request.getParameter("uname");

JSP response implicit object :

In JSP, response is an implicit object of type HttpServletResponse. The instance of HttpServletResponse is created by the web container for each jsp request.

response.sendRedirect("url");

PROGRAM:

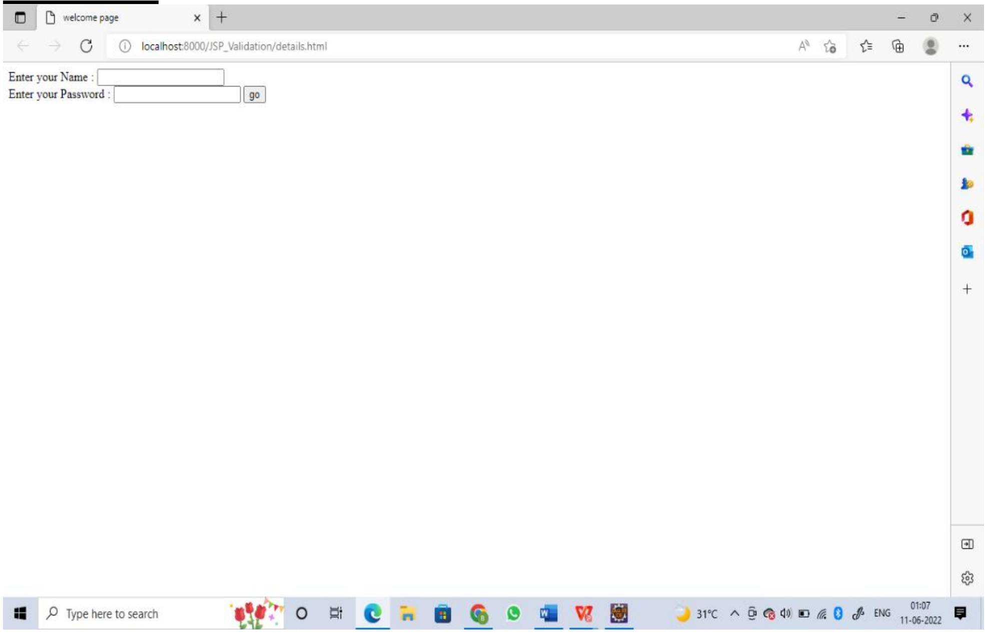
welcome.jsp

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"
pageEncoding="ISO-8859-1"%>
 <!DOCTYPE html>
  <html>
  <head>
     <meta charset="ISO-8859-1">
      <title>welcome page</title>
  </head>
   <body>
      <%
        String name=request.getParameter("uname");
        String n_ame=request.getParameter("u_name");
        if((name.equals("Snehita"))&&(n_ame.equals("Snehita"))){
           out.print("Welcome "+name);
        }
        else{
           out.print("Enter a valid password");
         }
      %>
  </body>
</html>
```

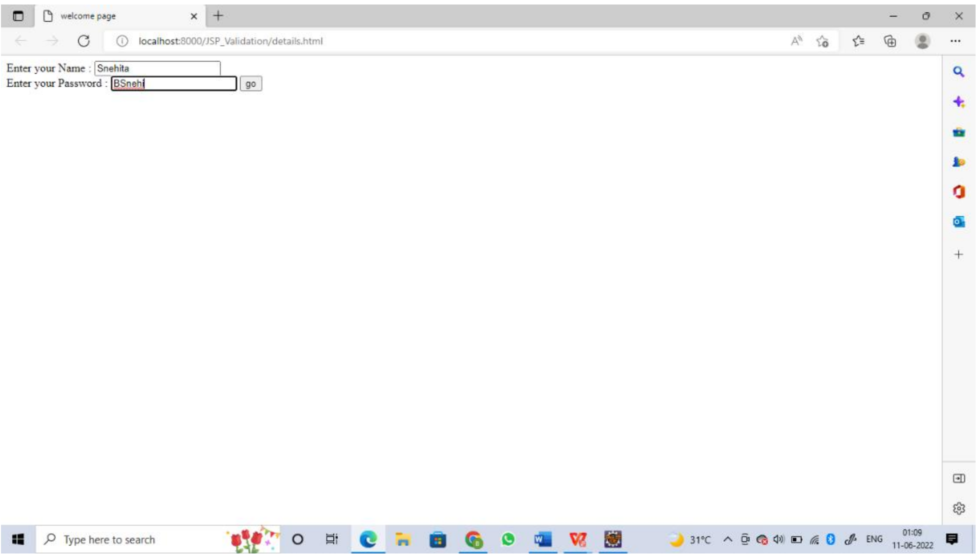
details.html

```
<!DOCTYPE html>
<html>
 <head>
    <meta charset="ISO-8859-1">
    <title>welcome page</title>
 </head>
 <body>
    <form action="abc.jsp">
         Enter your Name : <input type="text" name="uname"> </br>
         Enter your Password : <input type="text" name="u_name">
         <input type="submit" value="go"><br/>
    </form>
  </body>
</html>
```

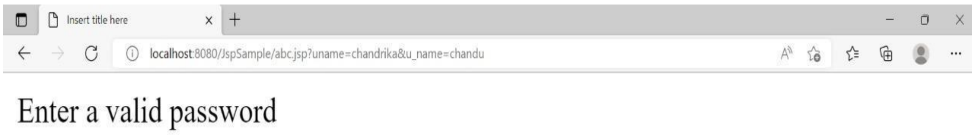
OUTPUT:



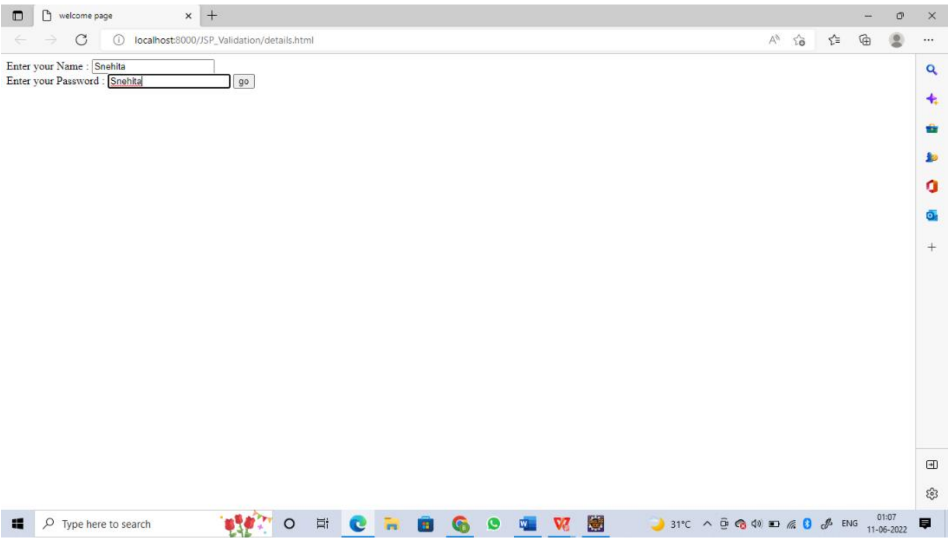
Enter your Name :
Enter your Password : go



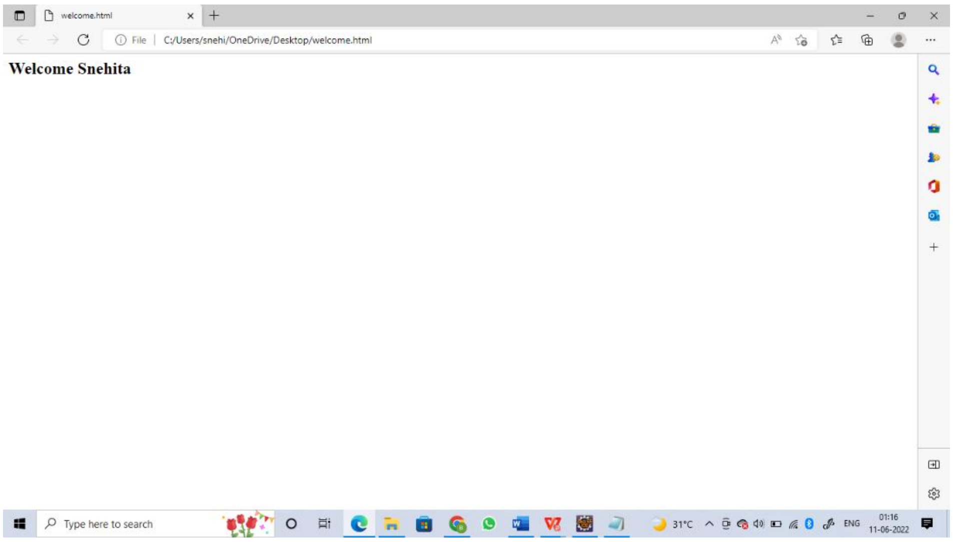
Enter your Name : Snehita
Enter your Password : BSnehi go


Insert title here
localhost:8080/JspSample/abc.jsp?uname=chandrika&u_name=chandu

Enter a valid password



Enter your Name : Snehita
Enter your Password : Snehita go



Welcome Snehita