

# Ap Lab File

## Experiment-1: Creating an HTML webpage forms.

```
1 <!doctype html>
2 <html>
3 <head>
4 <meta charset="utf-8">
5 <title>Html Forms</title>
6 </head>
7
8 <body bgcolor="yellow">
9   <font align="center"><h1><ul>Job Registratiion
10
11   </ul></h1></font>
12 <form align="center">
13
14 <h3 style="color:#F00">Personal Details</h3>
15 Name:
16 <input type="text" id="name"><br><br>
17 Password:
18 <input type="password" id="password"><br><br>
19
20 E-mail id: <input type="text" id="name"><br><br>
21 Gender: <input type="radio" name="r1" value="radio" id="radiogroup1"> Male
22 <input type="radio" name="r1" value="radio" id="radiogroup2"> Female<br><br>
23 Contact: <input type="text" name="mobile" id="mobile">
24
25 <h3 style="color:#F00">Educational Qualification</h3>
26
27 Degree: <select id="degree">
28   <option selected>Select Degree </option>
29   <option>B.TECH</option>
30   <option>B.A</option>
31   <option>B.com Computers</option>
32   <option>B.sc</option>
33 </select><br>
34 <br>
35 Branch: <select id="eng">
36   <option selected>Select Branch</option>
37   <option>CSE</option>
--
```

```

38         <option>ECE</option>
39         <option>CHEMICAL</option>
40         <option>EEE</option>
41     </select><br><br>
42 Hobbies: <input type="checkbox" name="C1" value="checkbox" id="CheckboxGroup1">Playing chess
43 <input type="checkbox" name="C1" value="checkbox" id="CheckboxGroup2">Reading Books<br><br>
44 <h3 style="color:#F00">Address</h3>
45 <textarea name="textarea" cols="40" rows="2" placeholder="enter your address" id="textarea"></textarea><br>
46 <br>
47 Attach Resume: <input type="file" name="fileField" id="fileField"><br><br>
48
49 <b>SUBMIT:</b>&nbsp;&nbsp;&nbsp;&nbsp;<input type="submit" value="register">
50 &nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;<input type="reset" name="">
51 <br>
52
53 <marquee><b style="font-size:100px">&copy;Ayush Sahu cse</b></marquee>
54 </form>
55 </body>
56 </html>

```

## OUTPUT:

# Job Application

### Personal Details

Name:

Password:

E-mail id:

Gender: ☐ Male ☐ Female

Contact:

### Educational Qualification

Degree:

Branch:

Hobbies: ☐ Playing chess ☐ Reading Books

### Address

Attach Resume:  No file chosen

SUBMIT:  Clear:

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## Experiment-2: Creating Home Page using HTML.

### HTML Code:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <title>transparent navigation bar</title>
5 <link rel="stylesheet" type="text/css" href="style2.css">
6 </head>
7 <body>
8 <div id="main">
9 <div class="head">
10 
11 </div>
12 <nav>
13 
14 <ul>
15 <li><a href="#">Home</a></li>
16 <li><a href="#">Gallery</a></li>
17 <li><a href="#">Postfolio</a></li>
18 <li><a href="#">Academics</a></li>
19 <li><a href="#">Examinations</a></li>
20 <li><a href="#">Placements</a></li></ul>
21 </nav>
22 <table >
23 <tr>
24 <td><div class="inner1">
25 <br><br><br><br><br>
26 <center><h1 >Ayush Sahu</h1></center>
27 <center><h2>Cse</h2></center>
28 <center><h2>11911058</h2></center>
29 </div></td>
30 <td><div class="inner2">
31 </div></td>
32 <td><div class="inner3">
33 <br><br><br><br>
34 <h1 align="center">Assignment 1</h1>
35 <p align="center">Submitted TO:</p>
36 <h3 align="center">MR Md Arquam</h3>
37 </div></td>
38 </tr>
39 </table>
40 </div>
41 </body>
42 </html>
```

## CSS Code:

```
style2.css
1  *{
2      margin:0;
3      padding:0;
4      font-family:verdana;
5  }
6  #main{
7      width:100%;
8      height:100vh;
9      background-image:url("s1.jpg");
10     background-size:cover;
11 }
12 .head{
13     width:100%;
14     height:30%;
15 }
16 }
17 .iiit{
18     width:100%;
19     height:100%;
20 }
21
22 nav{
23     width:100%;
24     height:80px;
25     background-color:#0009;
26     line-height:80px;
27 }
28
29 nav ul{
30     float:right;
31     margin-right:100px;
32 }
33 nav ul li{
34     list-style-type:none;
35     display:inline-block;
36     transition:0.8s all;
37 }
38 nav ul li a{
39     text-decoration:none;
40     color:#fff;
41     padding:30px;
42 }
43
44 nav ul li:hover{
45     background-color:orange;
46 }
47
48 .inner1{
49     width:400px;
50     height:450px;
```



style2.css



```
49     width:400px;
50     height:450px;
51     background-color:#0009;
52
53 }
54 .inner2{
55     width:740px;
56     height:450px;
57     background-image:url("iiit2.jpg");
58     background-size:cover;
59 }
60 .inner3{
61     background-color:#0009;
62     width:400px;
63     height:450px;
64 }
65 h1{
66     color:red;
67     font-family:sans serif;
68     font-style:italic;
69     font-size:60px;
70     text-shadow:3px 3px 3px white;
71
72 }
73 h2{
74     color:black;
75     font-family:sans serif;
76     font-style:italic;
77     font-size:60px;
78     text-shadow:3px 3px 3px white;
79 }
80 P{
81     color:blue;
82     font-family:sans serif;
83     font-style:italic;
84     font-size:40px;
85     text-shadow:3px 3px 3px white;
86 }
87 h3{
88     color:yellow;
89     font-family:sans serif;
90     font-style:italic;
91     font-size:70px;
92     text-shadow:3px 3px 3px white;
93 }
94
```

## OUTPUT:



**Experiment-3: Creating XHTML and CSS and understanding its use in creating web pages.**

**XHTML Code:**

```

1  <!DOCTYPE html>
2  <head>
3      <title>Registration Form</title>
4      <link rel="stylesheet" href="AP.css">
5  </head>
6  <body>
7      <div class="ab">
8          <h1>Create Your Account</h1></div>
9
10         <div>
11             <div class="dv">
12                 <form method="post">
13                     <br>
14                     <br>
15                     <table align="center" width="50%">
16                         <tr><th><label>First Name</label>
17                             <input type="text" placeholder="Enter your Firstname here"></th>
18                             <th><label for="">Last Name</label>
19                             <input type="text" placeholder="Enter your Lastname here"></th>
20                     </table>
21                     <br>
22                     <br>
23                     <div>
24                         <label class="abc"><b>E-mail:</b></label>
25                     <br>
26                     <input type="email" placeholder="Enter your email here">
27                     <br>
28                     <br>
29                     <br>
30                     <br>
31                     <label class="abc"><b>Gender:</b></label>
32                     <input type="radio" name="ab" value="male">Male
33                     <input type="radio" name="ab" value="female">Female
34                     <input type="radio" name="ab" value="others">Others
35                     <br>
36                     <br>
37                     <br>
38                     <br>
39                     <label class="abc"><b>Mobile No:</b></label><br>
40                     <table width="50%">
41                         <tr>
42                             <th>
43                                 <select>
44                                     <option>Select</option>
45                                     <option>+91</option>
46                                     <option>+310</option>
47                                     <option>+55</option>
48                                     <option>+1</option>
49                                     <option>+355</option>
50                                     <option>+2</option>
51                                 </select></th>
52                                 <th>
53                                     <input type="text" placeholder="Enter your Mobile number "></th>
54                     </table>
55                     <br>
56                     <br>
57                     <table width="30%">
58                         <tr><th><input type="submit" value="Register"></th>
59                         <th><input type="reset" value="Clear"></th>
60                     </table>
61                 </form>
62                 <marquee><b style="font-size:100px">&copy;Ayush Sahu cse</b></marquee>
63             </div>
64         </div>
65     </div>
66
67 </body>
68 </html>
69

```

## CSS Code:

```
index.html x AP.css x
1 |.dv{height: 500px;
2   width: 1000px;
3   background-color:Lightgrey;
4   border-radius:10px;
5   box-shadow: 10px 10px 10px;
6     margin: 0px 300px 300px 300px;}
7   .abc{margin-left: 60px;}
8   input[type=email]{width:50%;
9     margin-left: 60px;
10  }
11  body{background-color:yellow;
12    overflow: hidden;
13  }
14  .ab{text-align: center;
15    font-size: 40px;
16    color: red;
17    text-shadow: 5px 5px 5px black;
18    padding: 2px;
19    margin: auto;}
20
```

### OUTPUT:

**Create Your Account**

First Name  Last Name

**E-mail:**

**Gender:** ☐ Male ☐ Female ☐ Others

**Mobile No:**

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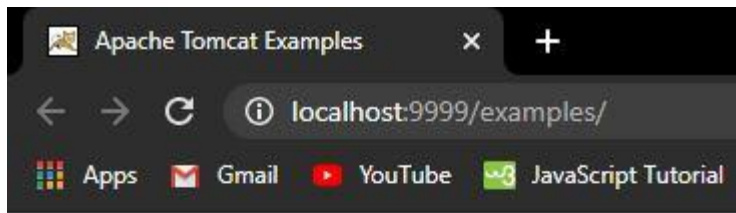
# Experiment-4: Setting up and configuration of apache Tomcat server.

```
Administrator: Command Prompt
C:\Program Files\Apache Software Foundation\Tomcat 8.5\bin>startup.bat
Using CATALINA_BASE: "C:\Program Files\Apache Software Foundation\Tomcat 8.5"
Using CATALINA_HOME: "C:\Program Files\Apache Software Foundation\Tomcat 8.5"
Using CATALINA_TMPDIR: "C:\Program Files\Apache Software Foundation\Tomcat 8.5\temp"
Using JRE_HOME: "C:\Program Files\Java\jdk-13.0.2"
Using CLASSPATH: "C:\Program Files\Apache Software Foundation\Tomcat 8.5\bin\bootstrap.jar;C:\Program Files\Apache Software Foundation\Tomcat 8.5\bin\tomcat-juli.jar"
C:\Program Files\Apache Software Foundation\Tomcat 8.5\bin>

Tomcat
07-Jun-2020 16:52:25.748 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\host-manager]
07-Jun-2020 16:52:25.836 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\host-manager] has finished in [88] ms
07-Jun-2020 16:52:25.838 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\manager]
07-Jun-2020 16:52:25.948 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\manager] has finished in [110] ms
07-Jun-2020 16:52:25.951 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\ROOT]
07-Jun-2020 16:52:26.028 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployDirectory Deploying web application directory [C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\ROOT] has finished in [77] ms
07-Jun-2020 16:52:26.035 INFO [main] org.apache.coyote.AbstractProtocol.start Starting ProtocolHandler ["http-nio-9999"]
07-Jun-2020 16:52:26.054 INFO [main] org.apache.catalina.startup.Catalina.start Server startup in 2076 ms
```

```
<!-- The contents of this file will be loaded for each web application -->
<Context reloadable="true">
```

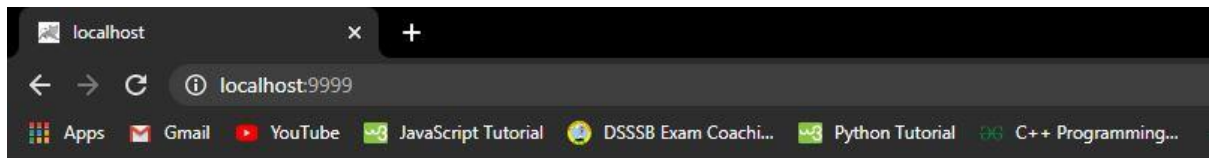
```
<!-- Default set of monitored resources. If one of these changes, the -->
<!-- web application will be reloaded. -->
<WatchedResource>WEB-INF/web.xml</WatchedResource>
```



## Apache Tomcat Examples

- [Servlets examples](#)
- [JSP Examples](#)
- [WebSocket Examples](#)

```
<!-- A "Connector" represents an endpoint by which requests are received
and responses are returned. Documentation at :
Java HTTP Connector: /docs/config/http.html
Java AJP  Connector: /docs/config/ajp.html
APR (HTTP/AJP) Connector: /docs/apr.html
Define a non-SSL/TLS HTTP/1.1 Connector on port 9999
-->
<Connector port="9999" protocol="HTTP/1.1"
           connectionTimeout="20000"
           redirectPort="8443" />
<!-- A "Connector" using the shared thread pool-->
<!--
<Connector executor="tomcatThreadPool"
           port="9999" protocol="HTTP/1.1"
           connectionTimeout="20000"
           redirectPort="8443" />
-->
```



## This site can't be reached

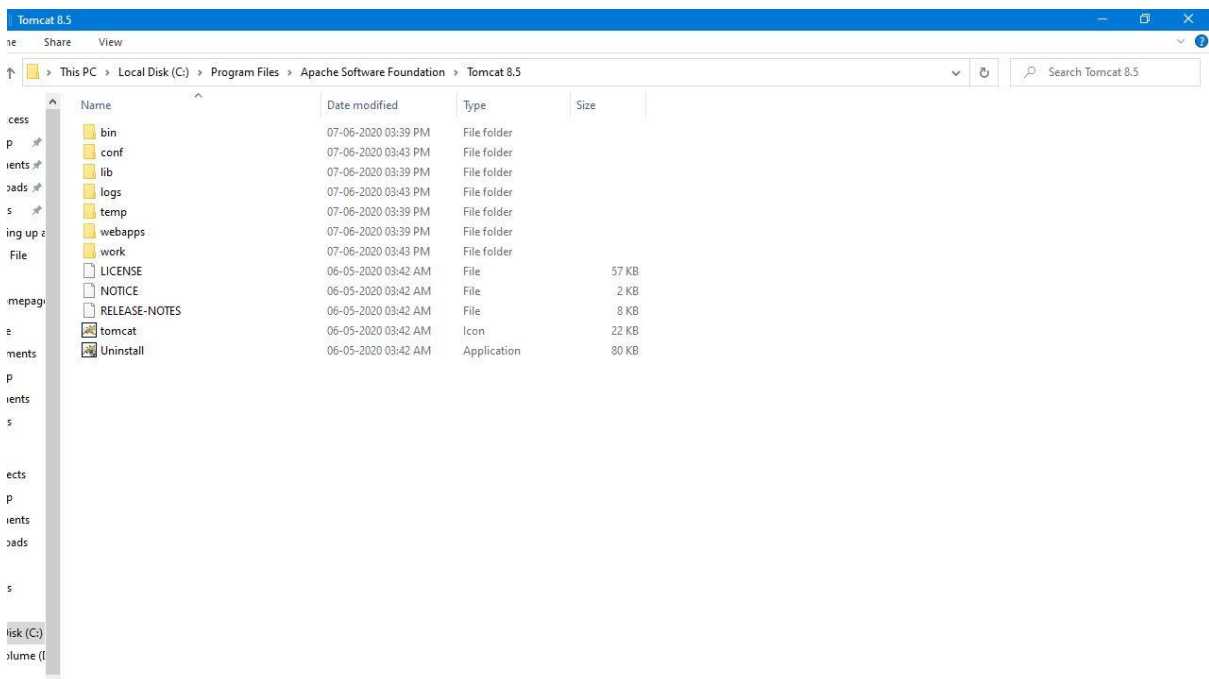
**localhost** refused to connect.

Try:

- Checking the connection
- [Checking the proxy and the firewall](#)

ERR\_CONNECTION\_REFUSED

Reload



```
*web - Notepad
File Edit Format View Help
    <param-name>debug</param-name>
    <param-value>0</param-value>
</init-param>
<init-param>
    <param-name>listings</param-name>
    <param-value>true</param-value>
</init-param>
<load-on-startup>1</load-on-startup>
</servlet>
```

## *Experiment-5: Understanding modification of Web XML.*

```
*web - Notepad
File Edit Format View Help
    <param-name>debug</param-name>
    <param-value>0</param-value>
</init-param>
<init-param>
    <param-name>listings</param-name>
    <param-value>true</param-value>
</init-param>
<load-on-startup>1</load-on-startup>
</servlet>
```

The web.xml Deployment Descriptor file describes how to deploy a web application in a servlet container such as Tomcat.

This file is required for every application you deploy on Tomcat. You will find one in the jsp-examples, servlet-examples and ROOT applications provided on a new Tomcat website, and every web application example you download, including inside WAR files.

The location of the file is always the same: application root/WEB-INF/web.xml

At minimum, the file needs to contain an XML descriptor and an opening and closing <web-app> tag.

Open the configuration file "web.xml". We shall enable the directory listing by changing "listings" from

"false" to "true" for the "default" servlet.

<param-value>**true**</param-value> like:

# Experiment-6: Creating Websites using PHP.

## Code:

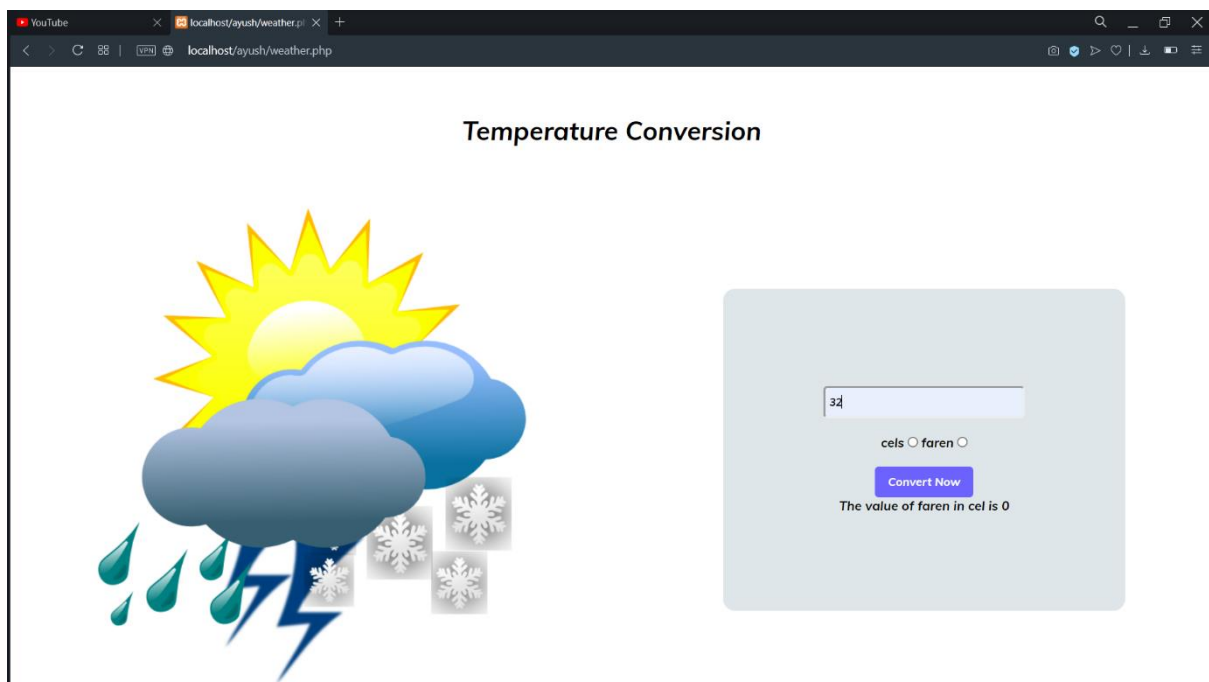
```
weather.php
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title></title>
5      <style>
6          *{
7              margin: 0; padding: 0; box-sizing: border-box;
8  font-family: 'Muli', sans-serif;
9          }
10         h1{text-align: center; line-height: 20vh;}
11         .main-div{
12             width: 100%;
13             height: 80vh;
14             display: flex;
15             justify-content: space-around;
16             align-items: center;
17         }
18         .left-side{
19         }
20         .left-side img{
21             max-width: 600px;
22             height: auto;
23         }
24         .right-side{
25             width: 500px;
26             height: 400px;
27             background-color: #dfe6e9;
28             border-radius: 15px;
29             display: flex;
30             flex-direction: column;
31             justify-content: center;
32             align-items: center;
33             text-align: center;
34         }
35     }
36     .input1{
37         width: 250px;
```



```
weather.php
37     width: 250px;
38     height: 40px;;
39     padding: 5px;
40     outline: none;
41     border-radius: 1px solid grey;
42     border-radius: 5px;
43 }
44 .selection{
45     width: 100%;
46     margin: 20px 0;
47 }
48 .btn{
49     padding: 10px 16px;
50     border-radius: 5px;
51     outline: none;
52     border:none;
53     background-color: #6c63ff;
54     color: white;
55     font-size: 0.9rem;
56 }
57 p{
58     margin-top: 20px 0 0 0;
59
60 }
61 </style>
62 <link href="https://fonts.googleapis.com/css2?family=
63 Anton&family=Muli:ital,wght@1,700&display=swap" rel="stylesheet">
64 </head>
65 <body>
66     <header>
67         <h1>Temperature Conversion</h1>
68         <div class="main-div">
69             <div class="left-side">
70                 
71             </div>
72             <div class="right-side">
73                 <form method="
```

```
weather.php
73      <form method="
74      GET">
75          <input type="text" name="num" placeholder="enter your number" class="input1">
76          <div class="selection">
77              <label>cels</label>
78              <input type="radio" name="units" value="cel">
79              <label>faren</label>
80              <input type="radio" name="units" value="feh">
81          </div>
82          <input type="submit" name="submit" value="Convert Now" class="btn">
83      </form>
84      <div>
85          <p>
86              <?php
87              if(isset($_GET['submit'])){
88                  $num=$_GET['num'];
89                  $temp=$_GET['units'];
90                  if($temp=="cel"){
91                      $result=$num*9/5 + 32;
92                      echo"The value of cel in faren is ".$result;
93                  }
94                  else{
95                      $result=($num-32)*5/9;
96                      echo "The value of faren in cel is ".$result;
97                  }
98              }
99              ?>
100          </p>
101      </div>
102  </div>
103  </div>
104  </div>
105  </div>
106  </div>
107  </div>
108  </div>
109  </div>
```

## OUTPUT:

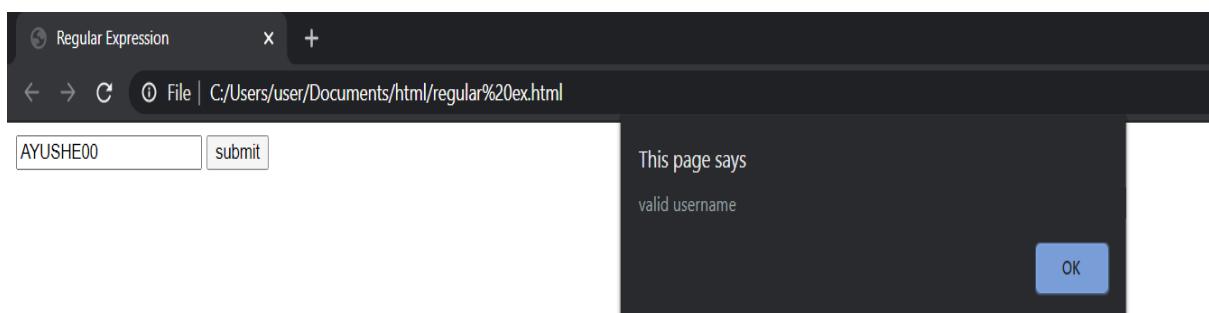


## Experiment-7: Understanding JavaScript.

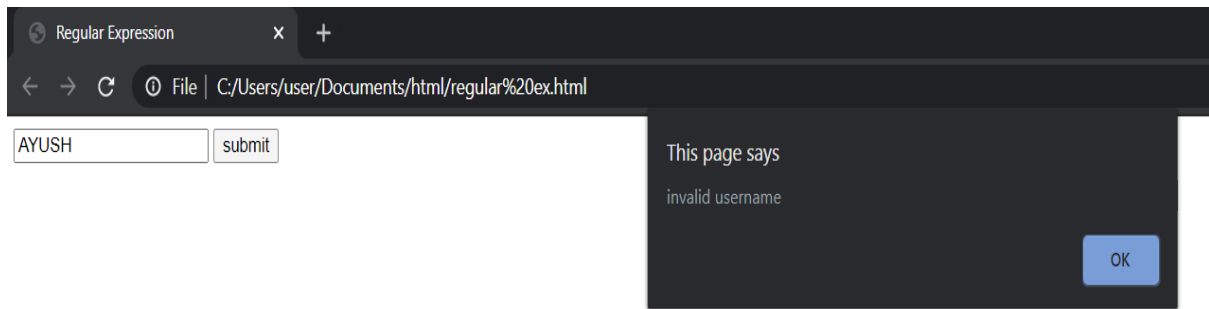
### Code:

```
1 <html>
2 <head>
3   <title>Regular Expression</title>
4   <script>
5     function valid()
6     {
7       var username=document.getElementById("uname").value;
8       var reg=/E00/;
9       if(reg.test(username))
10      {
11        alert("valid username");
12      }
13      else
14      {
15        alert("invalid username");
16      }
17    }
18  </script>
19 </head>
20 <body>
21 <form action="message.html">
22   <input type="text" id="uname" placeholder="username"/>
23   <button onclick="valid()" type="button">submit</button>
24 </form>
25 </body>
26 </html>
```

### OUTPUT:





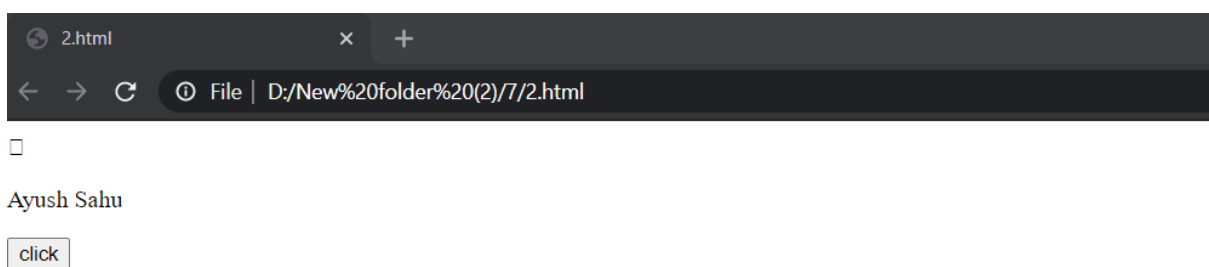


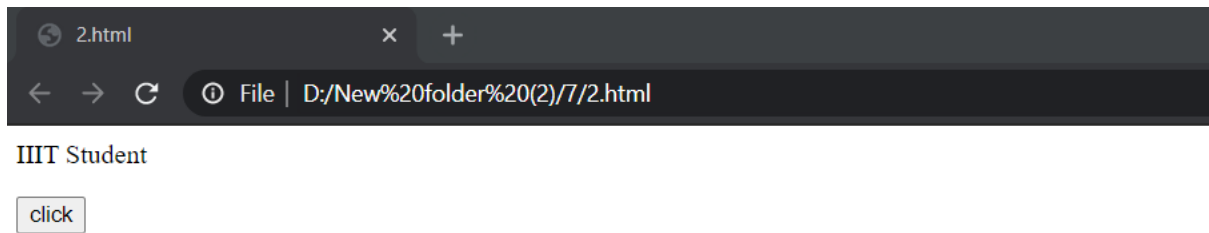
### Code:

```
1  
2 <html>  
3 <head>  
4 <script src="2.js">  
5  
6 </script>  
7 </head>  
8 <body>  
9  
10 <p id="demo">Ayush Sahu</p>  
11 <button onclick="display();">click</button>  
12  
13  
14 </body>  
15 </html>  
16
```

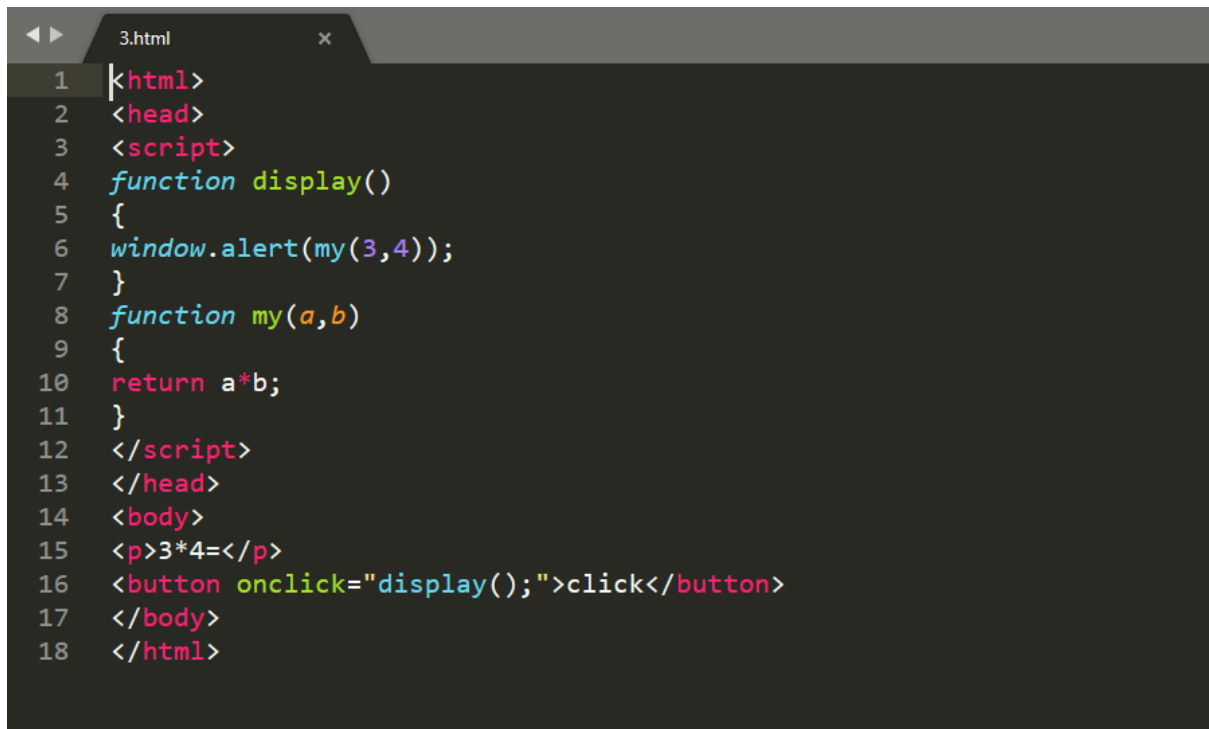
```
1 function display()  
2 {  
3     document.getElementById("demo").innerHTML = "IIIT Student";  
4  
5 }
```

### OUTPUT:

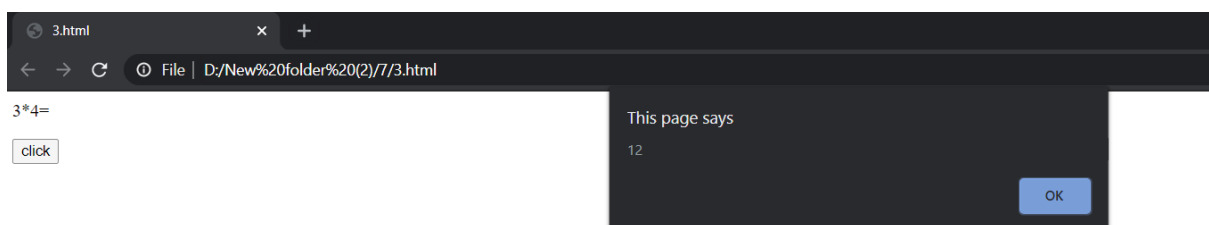




### Code:



### OUTPUT:



## *Experiment-8: Creating a Web page with back end in PHP and front end in*

# *JavaScript and hosting it on Apache Tomcat Server.*

## Code:

```
3.html x ap.php x
1 |!DOCTYPE html>
2 <html>
3 <head>
4 <style >
5 @import "https://maxcdn.bootstrapcdn.com/font-awesome/4.6.3/css/font-awesome.min.css";
6 *{
7     margin: 0; padding: 0; box-sizing: border-box;
8 font-family: 'Mulii', sans-serif;
9 }
10 .background{
11     background-image: url("s1.jpg");
12     background-size: cover;
13     border-left: 6px solid green;
14     border-right: 6px solid green;
15 }
16 .head{
17     padding-left: 300px;
18     height: 60px;
19     width: 850px;
20 }
21 h1{
22     text-shadow: 15px 15px 15px #0009;
23     display: flex;
24     justify-content: space-around;
25 width:840px;
26     color:white;
27     font-size: 80px;
28     border-bottom: 6px solid green;
29     border-bottom:6px solid green;
30 margin-bottom:50px;
31 padding:13px 0;
32 }
33 }
34 .main-div{
35     padding-top: 80px;
36     width: 100%;
37     height: 80vh;
38     display: flex;
39     justify-content: space-around;
40     align-items: center;
41 }
```

```
42 ▼ .leftside{
43     background-color: #dfe6c9;
44     border-radius: 54% 46% 75% 25% / 28% 32% 68% 72%;
45     box-shadow: 25px 25px 25px #0009;
46 }
47 ▼ .leftside img{
48     max-width: 1000px;
49     height: auto;
50 }
51 }
52 ▼ .rightside{
53     width: 500px;
54     height: 400px;
55     background-color: #0009;
56     border-radius: 15px;
57     border-bottom: 6px solid green;
58     border-right: 6px solid green;
59     box-shadow: 15px 15px 15px #0009;
60     display: flex;
61     flex-direction: column;
62     justify-content: center;
63     align-items: center;
64     text-align: center;
65 }
66 }
67 .reg{
68     margin-bottom: 50px;
69 }
70 }
71 ▼ .reg h2{
72     float: left;
73     color: white;
74     border-bottom: 4px solid green;
75     border-left: 4px solid green;
76 }
77 ▼ .textbox{
78     width: 300px;
79     overflow: hidden;
80     font-size: 20px;
```

```
80         font-size:20px;
81         padding:8px 0;
82         margin:8px 0;
83         border-bottom:1px solid green;
84     }
85 }
86 .textbox i{
87     color:green;
88     width:26px;
89     float:left;
90     text-align:center;
91 }
92 }
93 .textbox input{
94     border:none;
95     outline:none;
96     background:none;
97     color:white;
98     font-size:15px;
99     width:80px;
100    float:left;
101    margin: 0 10px;
102 }
103 .btn{
104     width:100%;
105     background:none;
106     border:2px solid green;
107     color:white;
108     padding:5px;
109     font-size:18px;
110     cursor:pointer;
111     margin:12px 0;
112 }
113 .message{
114     color:orange;
115 }
116 .colorchange{
117     animation:colorchangeayush 1s infinite;
118     font-size: 100%;
119 }
```

```

118     font-size: 100%;
119 }
120 @keyframes colorchangeayush{
121     0%{color:red;}
122     25%{color:#bf55ec;}
123     50%{color:yellow;}
124     75%{color:green;}
125     100%{color:#bf55ec;}
126 }
127 }
128 </style>
129 <title></title>
130
131 <meta name="viewport"
132     content="width=device-width, initial-scale=1.0">
133
134 <meta charset="utf-8">
135
136 <link href="https://fonts.googleapis.com/css2?family=Anton&family=Muli:ital,wght@1,700&display=swap" rel="stylesheet">
137 <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/animate.css/3.7.2/animate.min.css">
138 </head>
139 <body class="background">
140 <div class="head">
141 <h1 align="center"><span class="colorchange">REGISTRATION PAGE</span></h1>
142 </div>
143 <div class="main-div">
144 <div class="leftside logo animated flip">
145 
146 </div>
147 <div class="rightside animated bounceInLeft">
148 <form method="POST">
149 <div class="reg">
150 <h2>REGISTER</h2>
151 </div>
152 <div class="textbox">
153 <i class="fa fa-user" aria-hidden="true"></i>
154 <input type="text" id="t1" placeholder="Username" name="username" value="" required/>
155 </div>
156 <div class="textbox">
157 <i class="fa fa-lock" aria-hidden="true"></i>
158 <input type="password" placeholder="Password" id="t2" name="password" value="" required/>
159 </div>
160 <div class="textbox">
161 <i class="fa fa-phone" aria-hidden="true"></i>
162 <input type="text" placeholder="Mobile no" name="mobile" required/>
163 </div>
164 <div class="textbox">
165 <i class="fa fa-book" aria-hidden="true"></i>
166 <input type="text" placeholder="College" name="college" required/>
167 </div>
168 <div>
169 <input class="btn" type="submit" name="submit" required/>
170 </div>
171 </form>
172 </div>
173 </div>
174 </div>
175 </div>
176 </div>
177 </div>
178
179
180 </body>
181 </html>
182 <?php
183 include'connectionap.php';
184 if(isset($_POST['submit']))
185 {
186     $name=$_POST['username'];
187     $password=$_POST['password'];
188     $mobile=$_POST['mobile'];
189     $college=$_POST['college'];
190
191     $insertquery="insert into registration(Name,Password,Mobile,College)values('$name','$password','$mobile','$college')";
192     $res=mysqli_query($con,$insertquery);
193
194     if($res)
195     {
196     }
197 }>
198 <script >

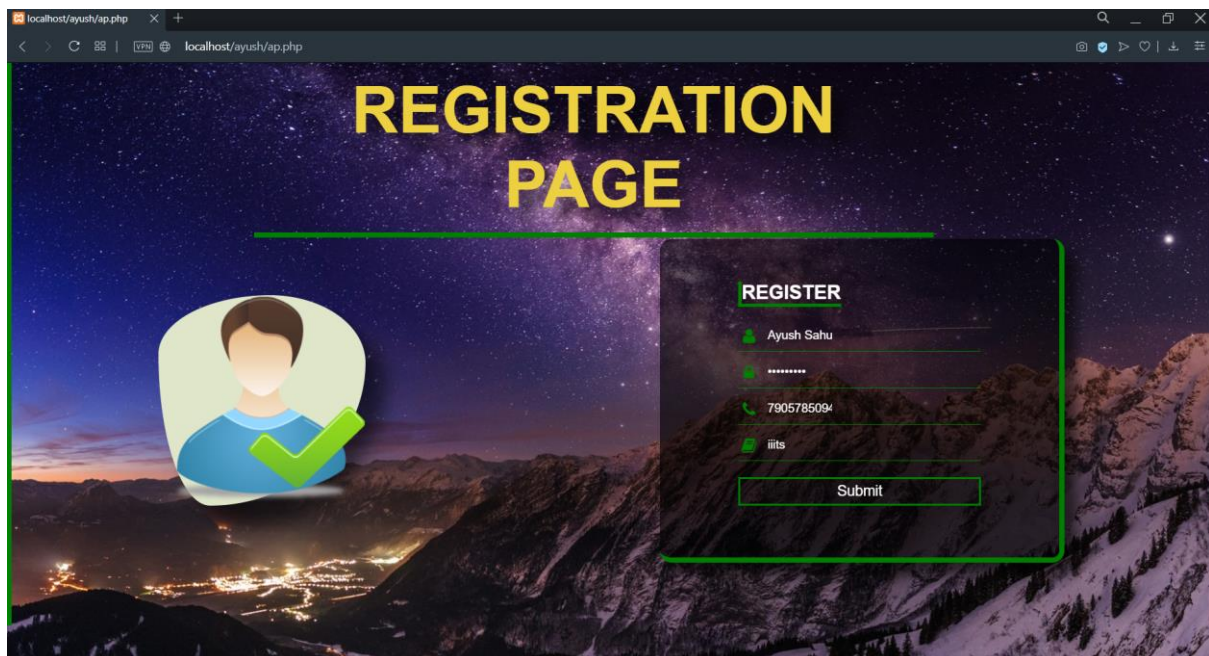
```

```

196     ?>
197         <script >
198             window.open("http://localhost/ayush/afterap.php");
199         </script>
200     <?php
201     }
202     else
203     {
204     ?>
205         <script >
206             alert('reg unsuccessful');
207         </script>
208     <?php
209
210     }
211 }
212 ?>
213

```

## OUTPUT:





## *Experiment-9: Writing and understanding program in python.*

### Code:

```
File Edit View Navigate Code Refactor Run Tools VCS Window Help fibonacci.py [C:\Users\user\AppData\Local\Temp\fibonacci.py] - D:\ap lab file\9\fibonacci.py - PyCharm
Add Configuration...

Project
  fibonacci.py C:\Users\user\AppData\Local\Temp\fibonacci.py
  External Libraries
  Scratches and Consoles

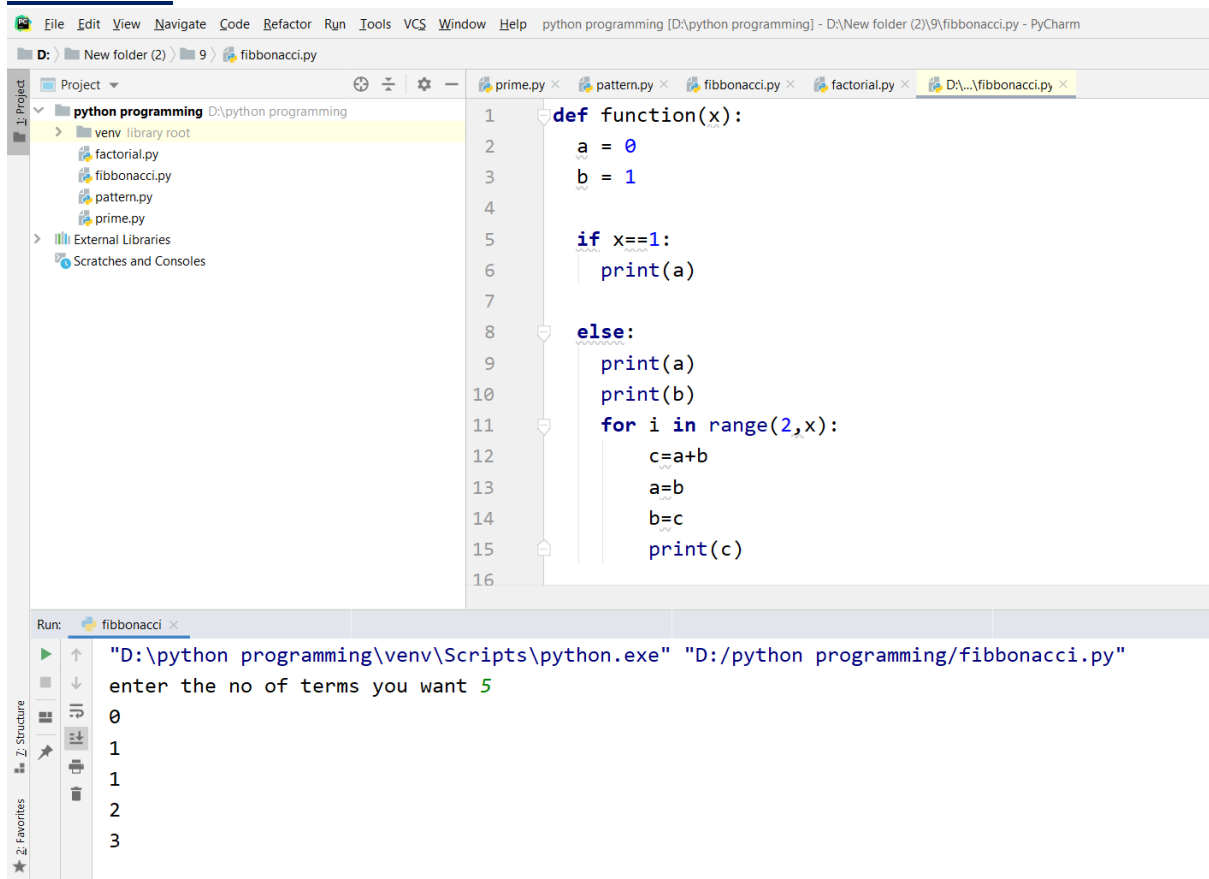
1 def function(x):
2     a = 0
3     b = 1
4
5     if x==1:
6         print(a)
7
8     else:
9         print(a)
10        print(b)
11        for i in range(2,x):
12            c=a+b
13            a=b
14            b=c
15            print(c)
16
17
18 x = int(input("enter the no of terms you want"))
19 function(x)
20

function()
```

PyCharm 2020.1.2 available  
Update...



## OUTPUT:



The screenshot shows the PyCharm IDE interface. The top menu bar includes File, Edit, View, Navigate, Code, Refactor, Run, Tools, VCS, Window, and Help. The title bar indicates the project is 'python programming' located at 'D:\python programming'. The main editor window displays a file named 'fibonacci.py' with the following code:

```
1 def function(x):
2     a = 0
3     b = 1
4
5     if x==1:
6         print(a)
7
8     else:
9         print(a)
10        print(b)
11        for i in range(2,x):
12            c=a+b
13            a=b
14            b=c
15            print(c)
16
```

The left sidebar shows the project structure with folders 'python programming' and 'venv', and files 'factorial.py', 'fibonacci.py', 'pattern.py', and 'prime.py'. The bottom panel shows the Run console output for 'fibonacci.py':

```
Run: fibonacci.py
"D:\python programming\venv\Scripts\python.exe" "D:/python programming/fibonacci.py"
enter the no of terms you want 5
0
1
1
2
3
```

**Experiment-10: Use python Libraries like Math's statistics to create programs for scientific calculations.**

## Code:

```

1  print("This is a program to plot a graph between axes:-")
2  import matplotlib.pyplot as plt
3  k = int(input("Enter the number of elements:"))
4  print("Enter the elements to be plotted on the x-axis:")
5  x=[]
6  print("Please select the type of input:")
7  print("0 for integer value")
8  print("1 for strings")
9  print("2 for float value")
10 choice1 = int(input())
11 if choice1==0:
12     for i in range(0,k):
13         element= int(input())
14         x.append(element)
15 elif choice1==1:
16     for i in range(0,k):
17         element= input()
18         x.append(element)
19 elif choice1==2:
20     for i in range(0,k):
21         element= float(input())
22         x.append(element)
23 else :
24     print("Invalid Choice")
25 print("Enter the elements to be plotted on the y-axis:")
26 y=[]
27 print("Please select the type of input:")
28 print("0 for integer value")
29 print("1 for strings")
30 print("2 for float value")
31 choice2 = int(input())
32 if choice2==0:
33     for i in range(0,k):
34         ele= int(input())
35         y.append(ele)
36 elif choice2==1:
37     for i in range(0,k):
38         ele= input()
39         y.append(ele)
40 elif choice2==2:
41     for i in range(0,k):
42         ele= float(input())
43         y.append(ele)
44 else :
45     print("Invalid Choice")
46 plt.plot(x,y)
47 n=input("X label:")
48 m=input("Y label:")
49 g=input("Graph Title:")
50 plt.xlabel(n)
51 plt.ylabel(m)
52 plt.title(g)
53 plt.show()

```

## OUTPUT:

