

LAB FILE

APPLICATION PROGRAMMING



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CSE

1). Creating an HTML web page form

Source Code:

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
<meta charset="utf-8">
<title>HTML Forms</title>
<style >
body{ background-color : #6a5acd; }
.abc{ margin :0px 300px 200px 300px ;
}
.ab{ margin : auto;
background-color: mediumseagreen;}
input[type=text],input[type=email]{ width : 90%;
}
.bc{ padding : 20px;
text-align :center;

}
</style>
</head>
<body>
<div class="bc">
<h1>Student Form</h1>

</div>
<div class="abc">
<form class="" action="Success.html" method="post">
<div class="ab">
<table width="100%" ">
<tr>
<td>Name:</td>
<td><input type="text" placeholder="Enter Your Name Here" required></td>
</tr>
<tr>
<td>Roll No:</td>
<td><input type="text" placeholder="Enter Your Roll No here" required></td>
```

```
</tr>
<tr>
<td>Mobile No:</td>
<td><input type="text" placeholder="Enter Your Number Here" required></td>
</tr>
<tr>
<td>E-mail:</td>
<td><input type="email" placeholder="Enter Your E-mail Here" required></td>
</tr>
<td>College:</td>
<td><input type="text" placeholder="Enter Your College Name"></td>
</table>
<br><br><br>
<table width="100% ">
<tr>
<td><input type="submit" value="Submit"></td>
<td><input type="reset" value="Clear"></td>
</tr>
</table>
</div>
</form>
</div>

</body>
</html>
```

Output:

Student Form



Name:	<input type="text" value="Enter Your Name Here"/>
Roll No:	<input type="text" value="Enter Your Roll No here"/>
Mobile No:	<input type="text" value="Enter Your Number Here"/>
E-mail:	<input type="text" value="Enter Your E-mail Here"/>
College:	<input type="text" value="Enter Your College Name"/>

Submit

Clear

2). Creating Home Page using HTML.

Source Code:

1.html

```
<html>
<head>
</head>
<body>
<center></center>
</body>
</html>
```

2.html

```
<html>
<head>
</head>
</head>
<frameset cols="15%,70%,15%">
<frame src="4.html">
<frame src="5.html">
<frame src="6.html">
</html>
```

3.html

```
<html>
<head>
</head>
<body>
<marquee><h1>Address- IIT DELHI TECHNO PARK,SONEPAT Contact No.
123456789</h1></marquee>
</body>
```

```
</html>
```

4.html

```
<html>
<head>
<style>
h1 {
text-shadow: 2px 2px 5px purple;
}
h3
{
text-shadow: 2px 2px 5px pink;
}
</style>
</head>
<body>
<h3>Latest News</h3>
<p><pre>
>Notice for the Extension
for Suspension of classes
>Notice for the Extension
for Suspension of classes
>Re-scheduling of Summer
Vacation.
>Notice for the Extension
for Suspension of classes
>Hostel Fees Notice for Academic year 2019-2020</pre></p>
</body>
</html>
```

5.html

```
<html>
<head>
<style>
button
{
font-size:20px;
}
```

```

body {
background-image: url("img.jpg");
background-color: #cccccc;
background-size: cover;
}
</style>
</head>
<body>
<center><div>
<p><button type="Home">Home</button>
<button type="About">About</button>
<button type="Admission">Admission</button>
<button type="Acadmics">Acadmics</button>
<button type="Acadmics">Examination</button>
<button type="Acadmics">Placements</button>
<button type="Acadmics">Students</button>
<button type="Acadmics">Activities</button></p>
</div></center>
</body>
</html>

```

6.html

```

<html>
<head>
<style>
h1 {
text-shadow: 2px 2px 5px purple;
}
</style>
</head>
<body>
<h3>about us</h3>
<p>Indian Institute of Information Technology, Sonapat (IIIT, Sonapat) is one of the
Indian Institutes of Information Technology located at Sonapat, Haryana. The academic
session of IIIT Sonapat started from its mentor Institute National Institute of Technology,
Kurukshetra from year 2014. IIIT Sonapat is a joint venture of the Ministry of Human
Resource Development, Government of India, the Govt. of Haryana, with Industries in
Public-Private Partnership model and has been declared as the Institute of national
importance.</p>

```

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

Homepage.html

```
<html>  
<head>  
</head>  
<frameset rows = "22%,70%">  
<frame src = "1.html">  
<frame src = "2.html">  
  
</frameset>  
</html>
```


Output:



3). Creating XHTML and CSS and understanding its use in creating web pages.

Source Code:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html lang="en" dir="ltr">
<head>
<title>Registration Form</title>
<link rel="stylesheet" href="AP.css">
</head>
<body>
<div class="ab">
<h1>Create Your Account</h1></div>

<div>
<div class="dv">
<form method="post">
<table width="100%">
<th><label>First Name</label>
<input type="text" placeholder="Enter your Firstname here"></th>
<th><label for="">Last Name</label>
<input type="text" placeholder="Enter your Lastname here"></th>
</table>
<br>
<br>
<div>
<label class="abc"><b>E-mail:</b></label>
<br>
<input type="email" placeholder="Enter your email here">
<br>
<br>
<br>
<br>
<label class="abc">Gender:</label>
```

```

<input type="radio" name="ab" value="male">Male
<input type="radio" name="ab" value="female">Female
<input type="radio" name="ab" value="others">Others
<br>
<br>
<br>
<br>
<label class="abc">Mobile No:</label><br>
<table width="100% ">
<th>
<select >
<option>Select</option>
<option>+91</option>
<option>+310</option>
<option>+55</option>
<option>+1</option>
<option>+355</option>
</select></th>
<th>
<input type="text" placeholder="Enter your Mobile number "></th>
</table>
</div>
<hr>
<table width="100% ">
<th><input type="submit" value="Register"></th>
<th><input type="reset" value="Clear"></th>
</table>
</form>
</div>
</div>
</body>
</html>

```

AP.css

```

.dv{ background-color:Lightgrey;
margin: 0px 300px 300px 300px;}
.abc{margin-left: 60px;}

```

```
input[type=email]{width:50%;  
    margin-left: 60px;  
    }  
body{background-color:#fccfcc}  
.ab{text-align: center;  
    text-shadow: 5px;  
    padding: 2px;  
margin: auto;}
```

Output:

Create Your Account

PROGRAMMING



First Name

Enter your Firstname here

Last Name

Enter your Lastname here

E-mail:

Enter your email here

Gender:

☐ Male

☐ Female

☐ Others

Mobile No:

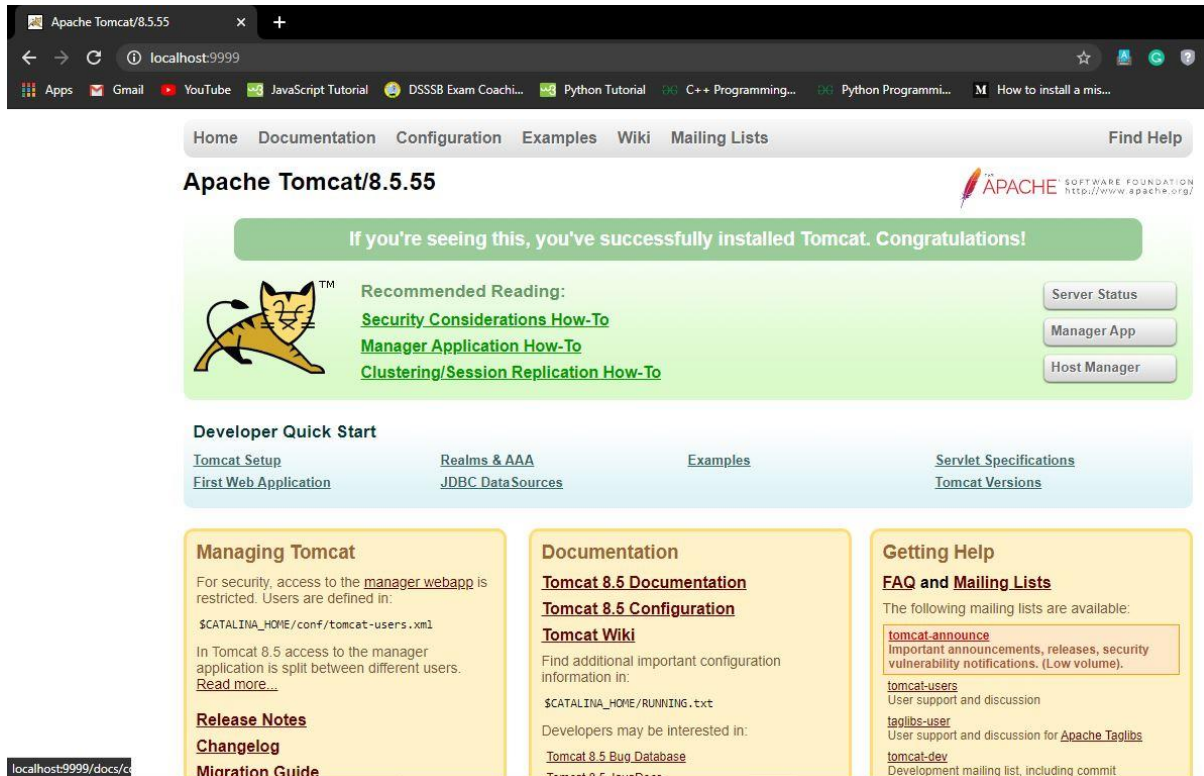
Select ▼

Enter your Mobile number

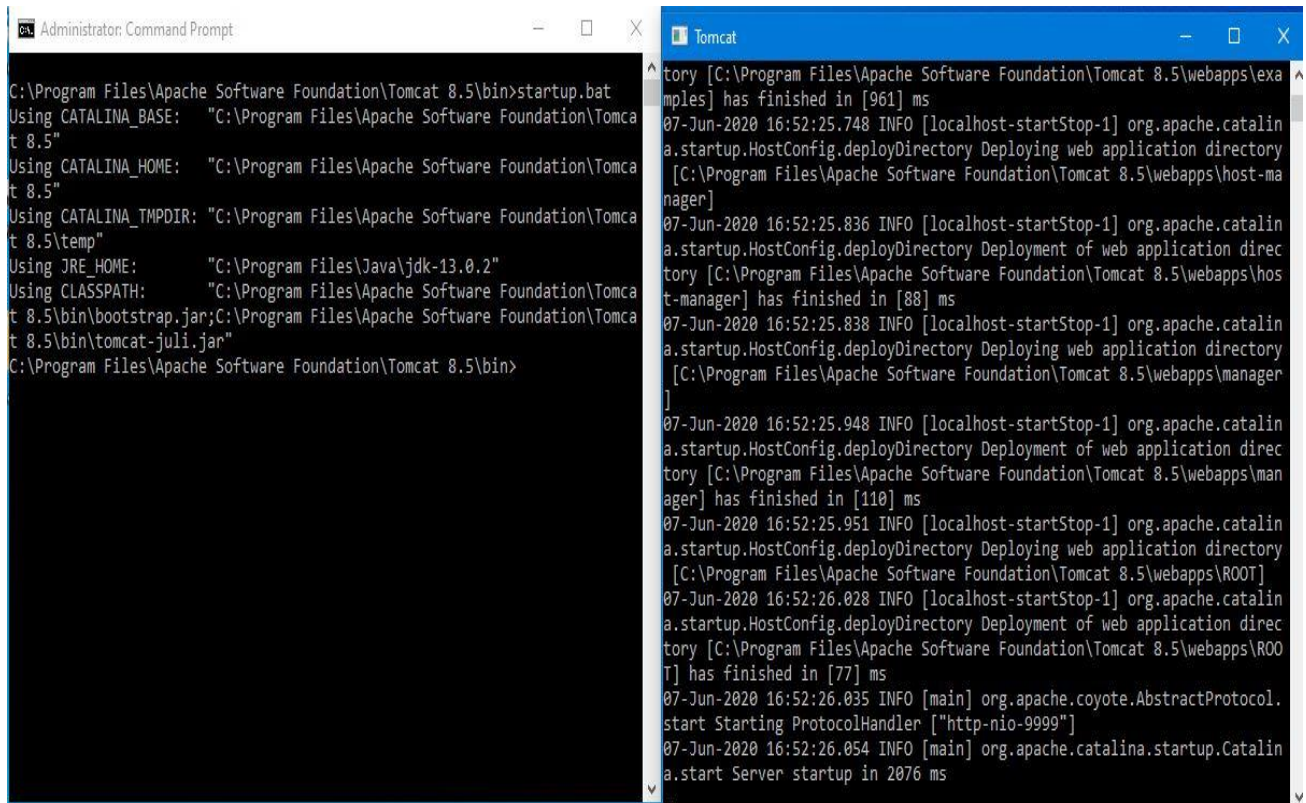
Register

Clear

4). Setting up and configuration of Apache Tomcat server.



The screenshot shows the Apache Tomcat/8.5.55 web interface in a browser. The browser's address bar shows 'localhost:9999'. The page has a navigation bar with links: Home, Documentation, Configuration, Examples, Wiki, Mailing Lists, and Find Help. The main heading is 'Apache Tomcat/8.5.55'. Below it, a green banner says 'If you're seeing this, you've successfully installed Tomcat. Congratulations!'. To the left of this banner is the Tomcat logo. To the right, there are three buttons: 'Server Status', 'Manager App', and 'Host Manager'. Below the banner, there are links for 'Recommended Reading': 'Security Considerations How-To', 'Manager Application How-To', and 'Clustering/Session Replication How-To'. Further down, there's a 'Developer Quick Start' section with links: 'Tomcat Setup', 'First Web Application', 'Realms & AAA', 'JDBC DataSources', 'Examples', 'Servlet Specifications', and 'Tomcat Versions'. At the bottom, there are three yellow boxes: 'Managing Tomcat' (with links for Release Notes, Changelog, Migration Guide), 'Documentation' (with links for Tomcat 8.5 Documentation, Tomcat 8.5 Configuration, Tomcat Wiki), and 'Getting Help' (with links for FAQ and Mailing Lists).



The screenshot shows two command prompt windows. The left window is titled 'Administrator: Command Prompt' and shows the execution of 'startup.bat' for Apache Tomcat 8.5. The right window is titled 'Tomcat' and shows the output of the startup process, including log messages from the Catalina and Coyote components.

```
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>
```

```
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] has finished in [961] ms
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] 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] 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
```

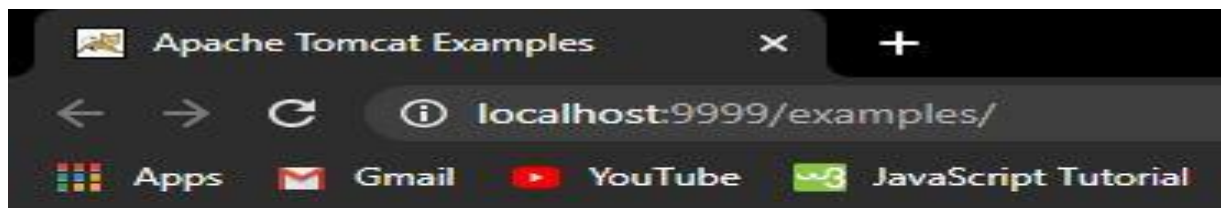


```

<!-- 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>

```



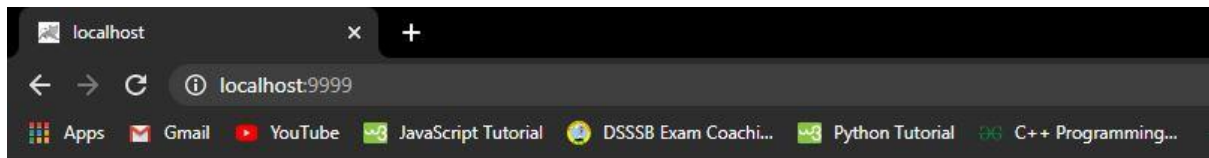
Apache Tomcat Examples

- [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

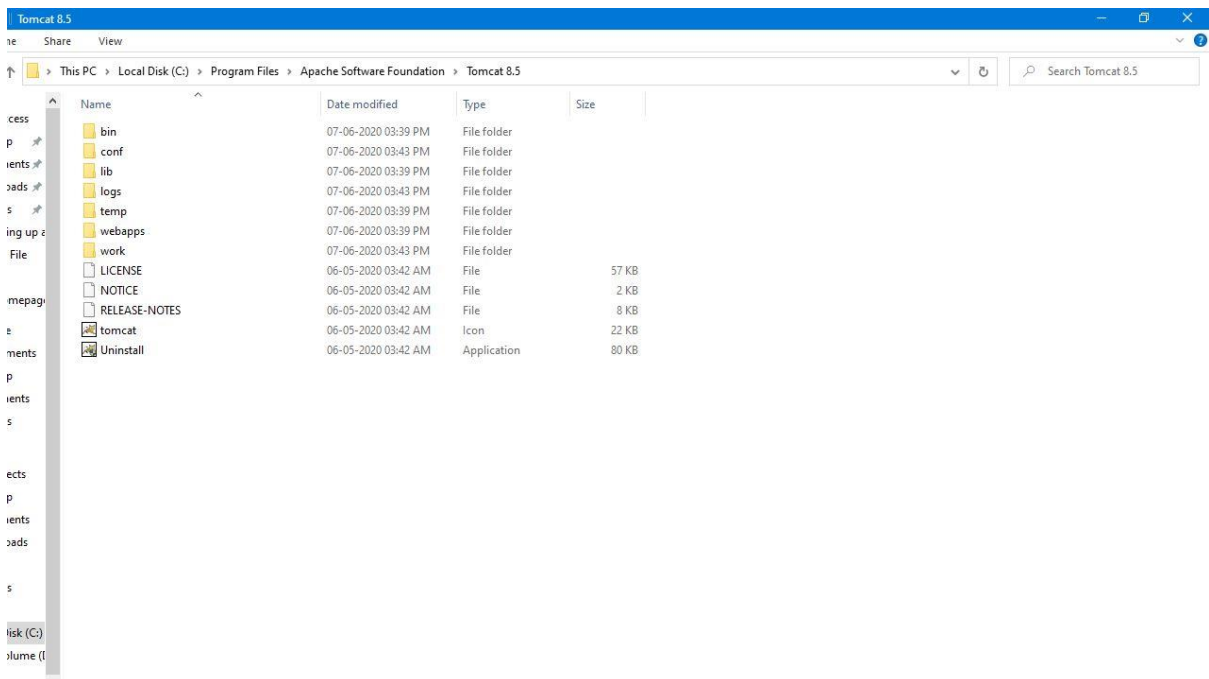
localhost refused to connect.


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>
```

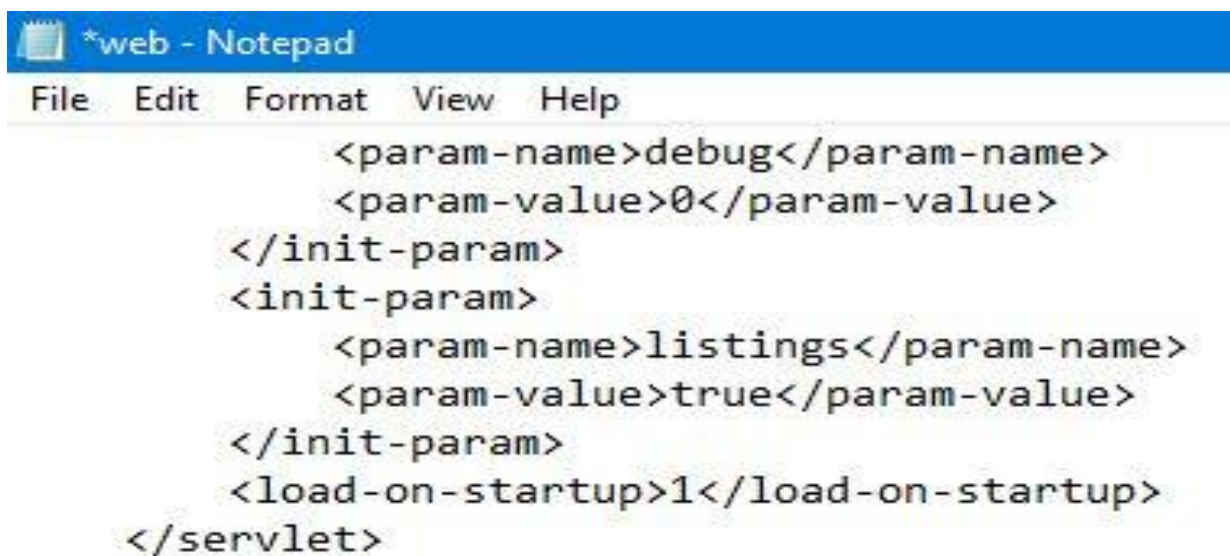
5). Understanding modification of Web.XML

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 :



```
*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>
```

6). Creating Websites using PHP.

Source Codes:

index.php

```
<?php echo file_get_contents("header.html");?>
<?php echo file_get_contents("navigation.html");?>
<?php echo file_get_contents("body.html");?>
<?php echo file_get_contents("footer.html");?>
```

about.php

```
<?php echo file_get_contents("header.html");?>
<?php echo file_get_contents("navigation.html");?>
<?php echo file_get_contents("ft.html");?>
```

contact.php

```
<?php echo file_get_contents("header.html");?>
<?php echo file_get_contents("navigation.html");?>
<?php echo file_get_contents("abt.html");?>
```

navigation.html

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
<style>
.topnav {
overflow: hidden;
background-color: #333;
width : 100%;
}
.topnav a {
float: left;
```

```
display: block;
color: #f2f2f2;
text-align: center;
padding: 14px 16px;
text-decoration: none;
}
.topnav a:hover {
background-color: #ddd;
color: black;
}
</style>
</head>
<body>

<div class="topnav">
<a href="index.php">Home</a>
<a href="about.php">About Us</a>
<a href="contact.php">Contact Us</a>
</div>
</body>
</html>
```

header.html

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
  <head>
    <meta charset="utf-8">
    <title>Programeeez</title>
  </head>
  <body>
<div >

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

body.html

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
<style>
.mySlides {display:none;}
</style>
</head>
<body style="background-color:#DDDDDD;">
<div style="max-height:800px">
  
  
  
  
  
  
</div>

<script>
var myIndex = 0;
carousel();
function carousel() {
  var i;
  var x = document.getElementsByClassName("mySlides");
  for (i = 0; i < x.length; i++) {
    x[i].style.display = "none";
  }
  myIndex++;
  if (myIndex > x.length) {myIndex = 1}
  x[myIndex-1].style.display = "block";
  setTimeout(carousel, 2000); // Change image every 2 seconds
}
</script>
</body>
</html>
```

ft.html

```
<!DOCTYPE html>
<html lang="en" dir="ltr">
<head>
```

```

<style media="screen">
  body{
    background-image: url("8.jpg");
    background-repeat: no-repeat;
    background-size : cover;
    display: block;
    color: white;
    text-align: left;
    padding: 14px 16px;
    text-decoration: none;
  }
</style>

```

```

</head>

```

```

<body>

```

```

  <div >

```

```

    <p><pre><b>

```

Programeeez is optimized for learning, testing, and training.Examples might be simplified to improve reading and basic understanding.

Tutorials, references, and examples are constantly reviewed to avoid errors, but we cannot warrant full correctness of all content.

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```

    </b>

```

```

  </pre>

```

```

    </p>

```

```

  </div>

```

```

    <div >

```

```

      <footer>

```

```

      <address>

```

Rohtak, Haryana

124001

```

    </address>

```

```

      </footer>

```

```

    <p> Copyright © GT 2019</p>

```

```

  </div>

```

```

</body>

```

```

</html>

```

abt.html

```

<html>

```

```

<head>

```

```

  <style >

```

```

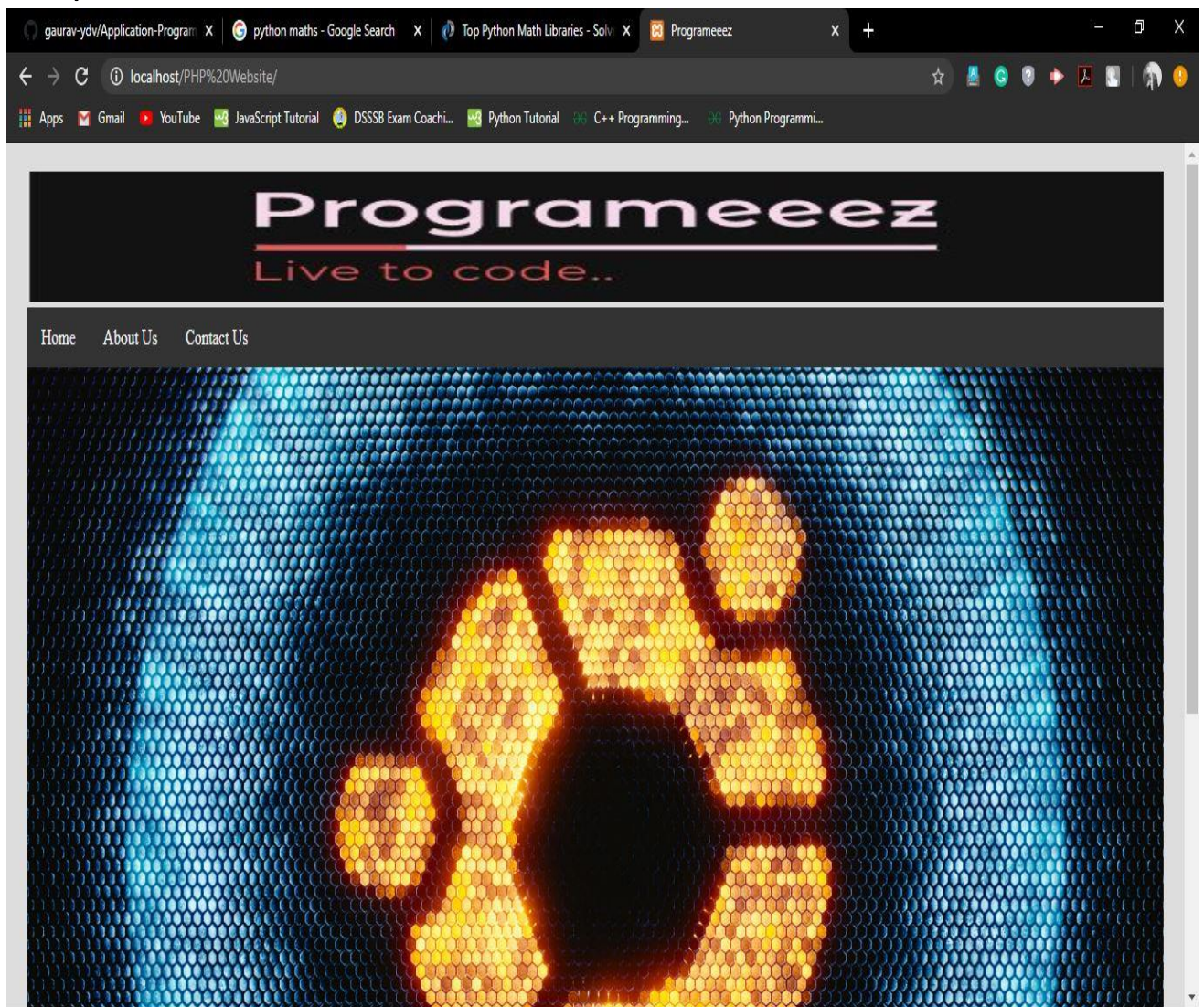
a{ text-decoration :none;}

```

```
body {
  background-image: url("7.jpg");
  background-repeat: no-repeat;
  background-color: #cccccc;
  background-size : cover;
}
div{ color: white;

}
</style>
</head>
<body>
  <a href="mailto:programeeez@abc.com?subject=feedback">Email Us</a>
  <br>
<br>
  <div >
    <footer>
      <address>
        Rohtak, Haryana
        124001
      </address>
    </footer>
    <p> Copyright © GT 2019</p>
  </div>
</body>
</html>
```

Output:



7). Understanding JavaScript.

Source Codes:

```
<!DOCTYPE html>
<html>
<head>
    <title>Regular Expression</title>
    <script type="text/javascript">
        function validate()
        {
            var username=document.getElementById("uname").value;
            var regx=/A00/;
            if(regx.test(username))
            {
                alert("valid username");
            }
            else
            {
                alert("Invalid username");
            }
        }
    </script>
</head>
<body>
<form action="message.html">
    <input type="text" id="uname" placeholder="username"/>
    <button onclick="validate()">Submit</button>
</form>
</body>
</html>
```

Output:



8). Creating a Web page with back end in PHP and front end in JavaScript and hosting it on Apache Tomcat Server.

Source Code:

Form validation.php

```
<?php

if(isset($_POST['submit']))
{ $usnm=$_POST['username'];
  $pss=$_POST['password'];
    if((strlen($usnm)<=5) or (strlen($pss)<=8) )
    {
      echo "Username must be 5 characters long and Password must be 8 characters long";
    }
  }
?>

<html>
<head>
<title>Registration Form</title>
<link rel="stylesheet" href="form.css">
<script type="text/javascript" src="form.js">
</script>
</head>
<body>
  <div class="bc">
    <table width="100%">
      <th class="bc"><h1>Registration Form</h1></th>
      <th></th>
    </table>
  </div>
  <form method="POST" action=" " name="regform" onsubmit="return validate()">
  <fieldset>
  <div class="abc">
    <table width="100%">
      <th><label width="50%">Username:</label>
      <input type="text" placeholder="Enter your username here" name="username" ></th>
      <th><label>Password:</label>
      <input type="password" placeholder="Enter your password here" name="password"
      id="a1"></th>
    </table>
    <br>
  </div>
  </div>
```

```

</fieldset>
<hr>
<fieldset>
  <legend><b>Personal details<b></legend>
  <table width="100%">
    <th><label>First Name:</label>
    <input type="text" placeholder="Type your first name here" id="a2"></th>
    <th><label>Last Name:</label>
    <input type="text" placeholder="Type your last name here" >
    </th>
  </table>
  <label class="abcd">Gender</label>
  <input type="radio" name="ab" value="male">Male
  <input type="radio" name="ab" value="female">Female
  <input type="radio" name="ab" value="others">Others
  <br>
</fieldset>
<hr>
<fieldset>
  <legend><b>Contact Info<b></legend>
  <table width="100%">
    <th><label>E-mail:</label>
    <input type="email" id="a3" placeholder="Enter your e-mail here"></th>
    <th><label>Mobile No:</label>
    <input type="text" id="a4" placeholder="Enter your mobile number"></th>
  </table>
  <br>
  <fieldset>
    <legend><b>Address<b></legend>
    <table width="100%">
      <th><label>Permanent Address:</label>
      <br>
      <textarea name="name" rows="5" cols="40" id="a5" placeholder="Type your permanent address here"></textarea></th>
      <th><label>Correspondence Address:</label>
      <br>
      <textarea name="name" rows="5" cols="40" placeholder="Type your correspondence address here"></textarea></th>
    </table>
  </fieldset>
</fieldset>
<table width="100%">
  <th><input type="submit" value="Submit" name="submit"></th>
  <th><input type="reset" value="Clear"></th>
</table>
</form>

```

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

form.js

```
function validate()
{ var b= document.getElementById('a2').value;
  var c= document.getElementsByName('ab').value;
  var d=document.getElementById('a3').value;
  var e= document.getElementById('a4').value;
  var f=document.getElementById('a5').value;
  if(b==" " || b==0)
  {
    alert("Please Enter First Name");
    return false;
  }
  if(c==" " || c==0)
  { alert("Please Select Gender");
    return false;}
  if(d==" " || d==0)
  { alert("Please Enter a Valid E-mail");
    return false;}
  if(d==" " || d==0 || d.length<10)
  { alert("Please Enter a Valid Number");
    return false;}
  if(c==" ")
  { alert("Please Enter a valid address");
    return false;}
}
```


form.css

```
body{box-sizing: border-box;
  border: 3px solid green;
  border-radius: 2px;
  background-color: aqua}
legend{color: Slateblue;}
.abc{text-align: center;
margin: auto;}
input[type=text],input[type=Password],input[type=email],textarea{background-color:
lightgrey;}
```

```
input[type=radio]{margin-left:70px; }  
.abcd{margin-left: 200px;}  
input[type=submit],input[type=reset]{background-color: mediumseagreen;;  
    width:40%;  
    height: 30px;}  
.bc{ text-align: center;  
background-color: tomato;}
```

Output:

Registration Form



Coderzz
Life with programming

Username:

Password:

Personal details

First Name:

Last Name:

Gender ☐ Male ☐ Female ☐ Others

Contact Info

E-mail:

Mobile No:

Address

Permanent Address:

Correspondence Address:

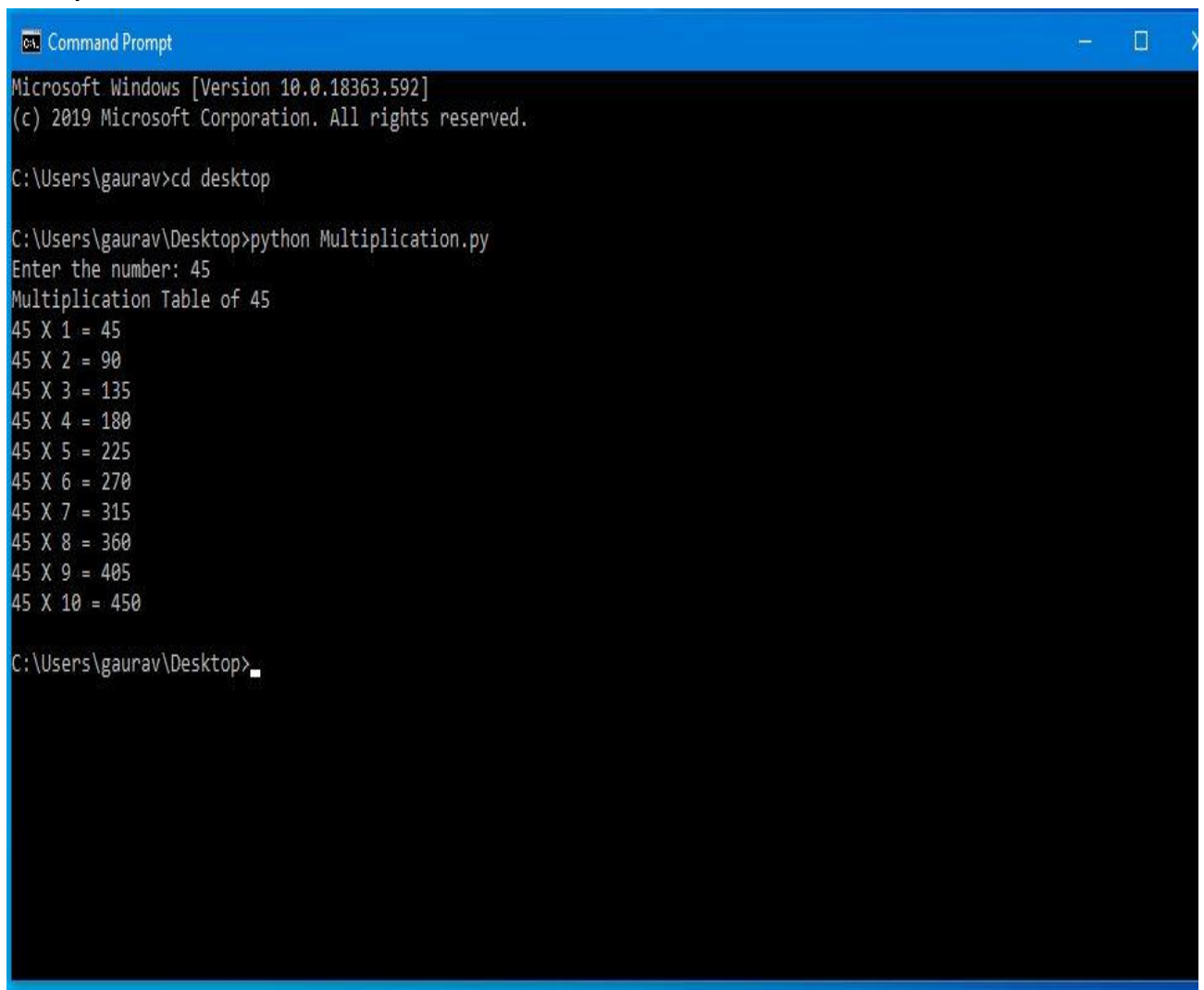
9). Writing and understanding program in Python.

Source Code:

```
#Multiplication Table
num = int(input("Enter the number: "))

print("Multiplication Table of", num)
for i in range(1, 11):
    print(num,"X",i,"=",num * i)
```

Output:



```
Command Prompt
Microsoft Windows [Version 10.0.18363.592]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\gaurav>cd desktop

C:\Users\gaurav\Desktop>python Multiplication.py
Enter the number: 45
Multiplication Table of 45
45 X 1 = 45
45 X 2 = 90
45 X 3 = 135
45 X 4 = 180
45 X 5 = 225
45 X 6 = 270
45 X 7 = 315
45 X 8 = 360
45 X 9 = 405
45 X 10 = 450

C:\Users\gaurav\Desktop>_
```


10). Use Python Libraries like Math statistics to create programs for Scientific Computations.

Source Code:

```
print("This is a program to plot a graph between axes:-")
import matplotlib.pyplot as plt
k = int(input("Enter the number of elements:"))
print("Enter the elements to be plotted on the x-axis:")
x=[]
print("Please select the type of input:")
print("0 for integer value")
print("1 for strings")
print("2 for float value")
choice1 = int(input())
if choice1==0:
    for i in range(0,k):
        element= int(input())
        x.append(element)
elif choice1==1:
    for i in range(0,k):
        element= input()
        x.append(element)
elif choice1==2:
    for i in range(0,k):
        element= float(input())
        x.append(element)
else :
    print("Invalid Choice")
print("Enter the elements to be plotted on the y-axis:")
y=[]
print("Please select the type of input:")
print("0 for integer value")
print("1 for strings")
print("2 for float value")
choice2 = int(input())
if choice2==0:
    for i in range(0,k):
        ele= int(input())
        y.append(ele)
elif choice2==1:
```

```
        for i in range(0,k):
            ele= input()
            y.append(ele)
elif choice2==2:
    for i in range(0,k):
        ele= float(input())
        y.append(ele)
else :
    print("Invalid Choice")
plt.plot(x,y)
n=input("X label:")
m=input("Y label:")
g=input("Graph Title:")
plt.xlabel(n)
plt.ylabel(m)
plt.title(g)
plt.show()
```

Output:

```
Command Prompt - python plot.py
C:\Users\gaurav\Desktop\Data\AP Lab File\10). Use Python Libraries like Math statistics to create programs for Scientific Computations>python plot.py
This is a program to plot a graph between axes:-
Enter the number of elements:3
Enter the elements to be plotted on the x-axis:
Please select the type of input:
0 for integer value
1 for strings
2 for float value
1
Gaurav
Deepak
Sombir
Enter the elements to be plotted on the y-axis:
Please select the type of input:
0 for integer value
1 for strings
2 for float value
0
90
78
100
X label:Students
Y label:Marks
Graph Title:Student Marks Graph
```

Student Marks Graph

