

Experiment- 4

Problem Statement : Setting up and understanding of Apache Tomcat server.

Procedure :

Step 1

Download and Install Tomcat

1. Go to <http://tomcat.apache.org/download-70.cgi> then go to the Binary

Distribution/Core/

and download the "zip" package (for example "apache-tomcat-7.0.40.zip")

2. Now unzip the downloaded file into a directory of our choice.

Step 2

Check the installed directory to ensure it contains the following sub-directories:

a.bin folder

- b. logs folder
- c. webapps folder
- d. work folder
- e. temp folder
- f. conf folder
- g. lib folder

Step 3

Create Environment variable JAVA_HOME.

Configure Tomcat Server

The configuration files of the Apache Tomcat Server are located in the "conf" sub-directory

of our

Tomcat installed directory, for example "E:\myserver\tomcat7.0.40\conf". There are 4 configuration

XML files:

1. context.xml file

2. tomcat-users.xml file

3. server.xml file

4. web.xml file

Before proceeding, make a BACKUP of the configuration files.

Step 4(a) "conf\web.xml"; Enabling a Directory Listing

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:

Step 4(b) "conf\server.xml file"; set the TCP Port Number

Open the file "server.xml" in a text editor.

The default port number of Tomcat is 8080. We can change it according to our need.

Step 4(c) "conf\context.xml"; Enabling Automatic Reload

In that we set reloadable="true" to the <Context> element to enable automatic reload after code

Step 4(d) (Optional) "conf\tomcat-users.xml"

It is used to manage Tomcat by adding the highlighted lines, inside the <tomcat-users> elements.

In that we can add a password and username as an optional step.

Step 5

Now, start the tomcat server

Executable programs and scripts are kept in the "bin" sub-directory of the Tomcat installed directory

Step 5(a) Start Server

Step 5(b) Access the Server

Open a browser then enter the URL "http://localhost:8080" to access the Tomcat

server's welcome
page.

Code :-

```
<html>
<head>
<style>
.id{
}
.main{
float: left;
width: 33%;
background-color: rgb(38, 228, 38);
}
.main:hover{
position: relative;
background-color: rgb(238, 176, 118);
width: 300px;
```

```
height: 700px;  
border: 2px solid red;  
}  
  
span {  
font-weight: bold;  
color: rgb(27, 27, 90);  
font-size: 36px;  
}  
  
h1 {  
background-color: rgb(238, 71, 5);  
font-weight: 100;  
color: rgb(245, 237, 237);  
font-size: 60px;  
text-align: center;  
}  
  
body{  
background-color:rgb(152, 164, 175);
```

```
bottom: 0px;  
}  
  
img{  
position: absolute;  
top:430px;  
right:50px;  
}  
  
</style>  
  
<title>Web page</title>  
  
</head>  
  
<body>  
  
  
  
<h1>Electronic Computer</h1>  
  
<div class="id">  
  
<div class="main">  
  
<span>Smart Phone</span><br/>
```

Smartphones are a class of mobile phones and of multi-purpose mobile computing devices. They are distinguished from feature phones by their stronger hardware capabilities and extensive mobile operating systems, which facilitate wider software, internet (including web browsing[1] over mobile broadband), and multimedia functionality (including music, video, cameras, and gaming), alongside core phone functions such as voice calls and text messaging

</div>

<div class="main">

Tablets

A tablet computer, commonly shortened to tablet, is a mobile device, typically with a mobile operating system and touchscreen display processing circuitry, and a rechargeable battery in a single, thin and flat package. Tablets, being computers, do what other personal computers do, but lack some input/output (I/O) abilities that others have. Modern tablets largely resemble modern smartphones, the only differences being that

tablets are relatively larger than smartphones, with screens 7 inches (18 cm) or larger, measured diagonally,[1][2][3][4] and may not support access to a cellular network.

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Laptop

A laptop (also laptop computer), often called a notebook, is a small, portable personal computer (PC) with a "clamshell" form factor, typically having a thin LCD or LED computer screen mounted on the inside of the upper lid of the clamshell and an alphanumeric keyboard on the inside of the lower lid. The clamshell is opened up to use the computer. Laptops are folded shut for transportation, and thus are suitable for mobile use.[1] Its name comes from lap, as it was deemed to be placed on a person's lap when being used. Although originally there was a distinction between laptops and notebooks (the former being bigger and heavier than the latter), as of 2014, there is often no longer any difference. Today, laptops are commonly used in a variety of settings, such

as at work, in education, for playing games, web browsing, for personal multimedia, and general home computer use.

</div>

</div>

</body>

</html>

Result :

