Practical no: 1

Problem Statement: Installation of TOMCAT Server and Configuration of it.

Name: Aditi Dinesh Mulay

Class: T.E. Computer

Subject: Web Technology

Div: A

Roll no: 02

PRN No. 71918146B

Aditi Dinesh Mulay
T.E. Comp Div: A
Roll no: 02

WL

Practical 1

Title: TOMCAT SERVER installation.

Objective: Understand how to install tomcat server and set up environment variables.

Theory concept:

Web application:
   A web application runs over the Internet. Ex. eBay, Amazon, Google. A webapp contains 5 components.
1. HTTP Server: — Google Web Server, Apache HTTP server, Apache Tomcat server.
2. HTTP Client:— Internet Explorer, Firefox, Google Chrome, Safari etc.
3. Database: — MySQL, Apache Derby, Ms SQL, SQLite
4. Client-Side Programs: Could be written in Java/servlet, JSP, ASP, PHP, Perl, Python.

A webapp is a 3-tier client-server database appln. which run over the Internet.

1. To start the webapp, A user issues a URL request via a web browser to HTTP server.
2. The HTTP server returns an HTML form, which is loaded into clients browser.
3. The user fills up the query data inside the form & submits that form.
4. The client-side programs sends the query parameter to a server-side program.
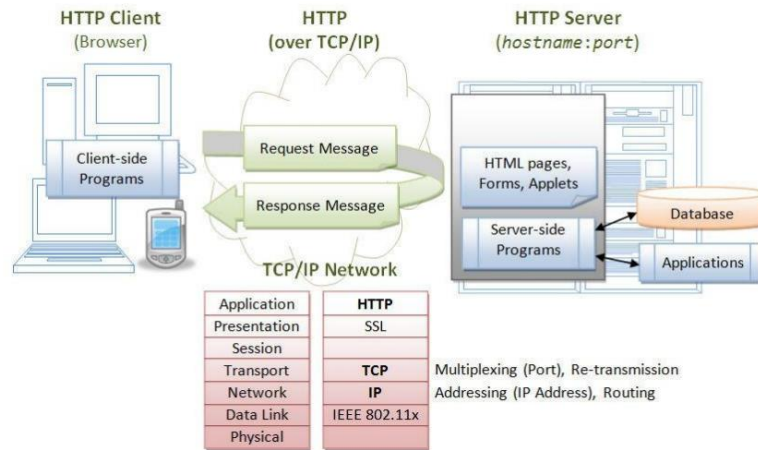5. The server-side program receives the query

Figure.1: Three-Tier Client-Server Architecture

parameters, query the db on these parameters, & returns the query result the query to client-side prg.

6. The client-side program displays the query result on the browser.

7. The process repeats for next request.

- Apache Tomat:
    It is an open source project under the "Apache Software Foundation". The mother site for Tomcat is http://tomat.apache.org.

* Execution steps.

1. Goto http://tomcat.apache.org

2. Select tomcat version 8 from left side list under Download option or select a link, 32-bit/64-bit Windows service Installer (pgp, md5, sha)

3. Download and run 'exe' file.

4. I preffered installation of Tomcat at c:\Program Files (x86)\Apache software Foundaton.

5. Use the default settings and provide a password that you will remeber.

6. Now you will find the Tomcat installed at c:\Program Files (x86)\Apache software Foundation\ Tomcat 8.0.

* How to run Tomcat:

1. Find start program in the Program's Menu. Look under Apache Tomcat and select "Start Tomcat" or "startup.bat".

2. Open any web browser & type in given URL:
   http://localhost:8080/

   Now you will see the Tomcat home page, which is provided by the Tomcat Web server running on your computer. To shut down your server and remove the Console Window, select "Stop Tomcat" in the same menu of where you selected "Stop Tomcat".

* Tomcat Directories:

It contains following sub-directories.

1. **bin:** It contains the binaries; startup script, shutdown script, as well as other binaries

2. **conf:** It contains the system-wide configuration files such as server.xml, context.xml, tomcat-users.xml

3. **lib:** It contains Tomcat's system-wide JAR files, which can be accessible by all webapps. We can also place external JAR file

4. **logs:** It contains log files of Tomcat. Also, check error msg.

5. **webapps:** It contains the webapps to be deployed. You can also place the WAR file for deployment

6. **work:** Tomcat's working directory used by JSP, for JSP-to-servlet conversion.

7. **temp:** Temporary files are stored in this directory.

* How to set path for Windows:

Assuming you have installed Java in, C:\Program Files (x86)\Java\jdk.17.0 directory-
1) Right-click on 'My Computer' & select 'Properties'.
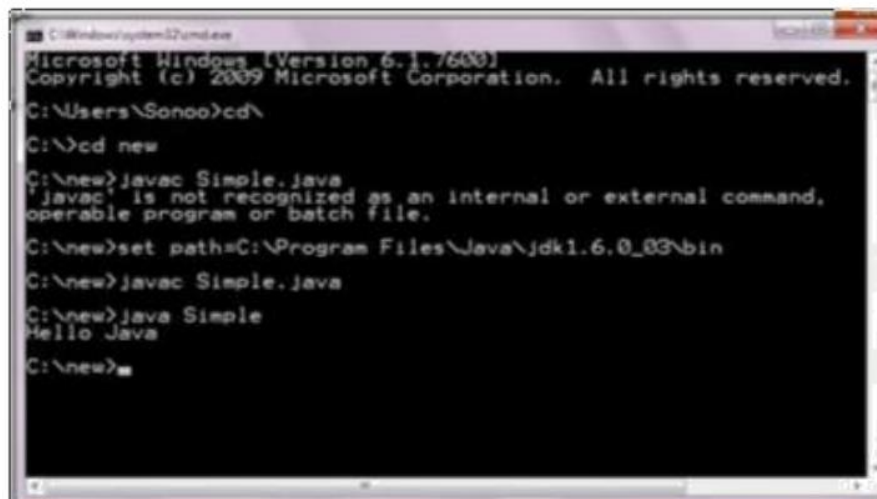2) Click the 'Environment variables' button under the 'Advanced Tab.

Now, alter the 'Path' variable so that it also contains the path to the Java executable ex: path set to C:\Programs Files (x86)\Java\jdk1.7.0\bin.

Through command prompt, set the path by command,
set path = C:\Program Files (x86)\Java\jdk1.7.0\bin.

Conclusion:
We have learned, how to install & configure tomcat server.

```
C:\Windows\system32\cmd.exe

Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation.   All rights reserved.

C:\Users\Sonoo>cd\

C:\>cd new

C:\new>javac Simple.java
'javac' is not recognized as an internal or external command,
operable program or batch file.

C:\new>set path=C:\Program Files\Java\jdk1.6.0_03\bin

C:\new>javac Simple.java

C:\new>java Simple
Hello Java

C:\new>
```