

Ex No:4

INSTALLING APACHE TOMCAT ON WINDOWS

Date:

AIM:

To develop a program for validating web form control using DHTML.

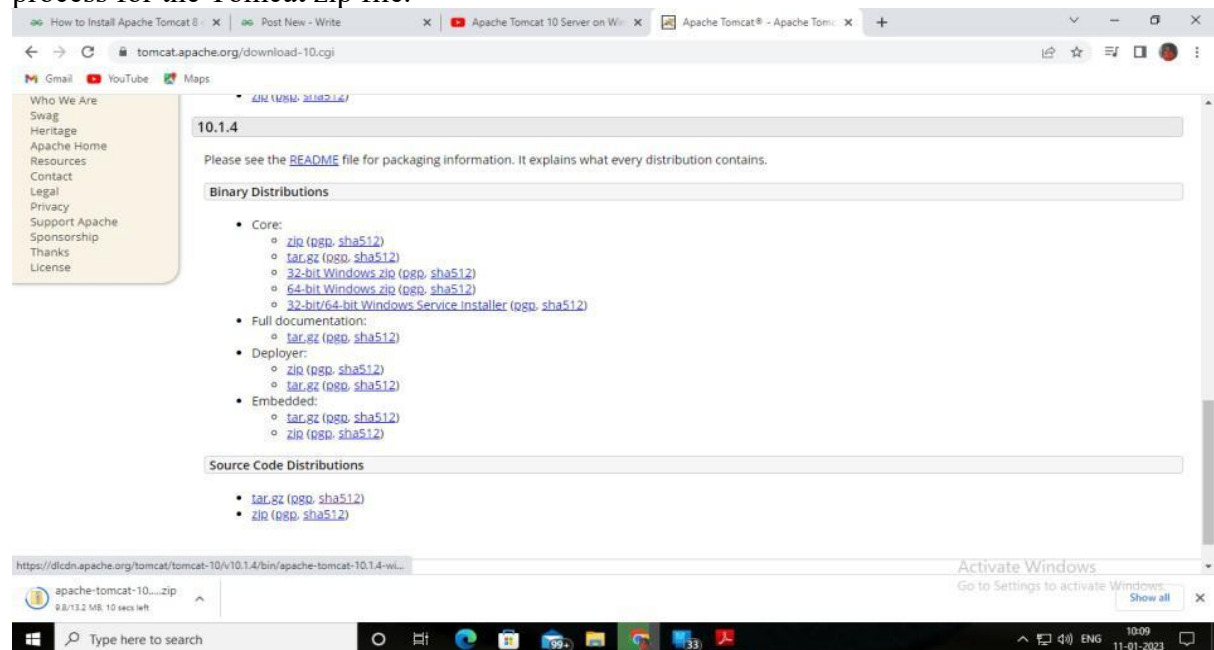
How to Install Apache Tomcat on Windows?

Last Updated : 19 Jan, 2023

Apache Tomcat which is short for “Tomcat” is a free, open-source Java Servlet, Java Expression Language, JavaServer Pages, and WebSocket implementation. Tomcat is an HTTP web server that basically runs Java code in a “pure Java” environment. Here, we will see how to install Tomcat 10 on Windows 10 from Zip Archive. Requirements are Java 8 or above must be already installed. Make sure Windows Firewall allows Tomcat application.

Installing Apache Tomcat on Windows

Step 1: We need to first install the Tomcat 10 zip file from [this](#) website. On the website, select the 64-bit Windows zip (PGP, sha512) in the Core section to start the download process for the Tomcat zip file.



Step 2: Check If JDK Is Installed. Open Command Prompt and enter the following commands

```
java -version
```

```
javac -version
```

```
Command Prompt
Microsoft Windows [Version 10.0.22000.675]
(c) Microsoft Corporation. All rights reserved.

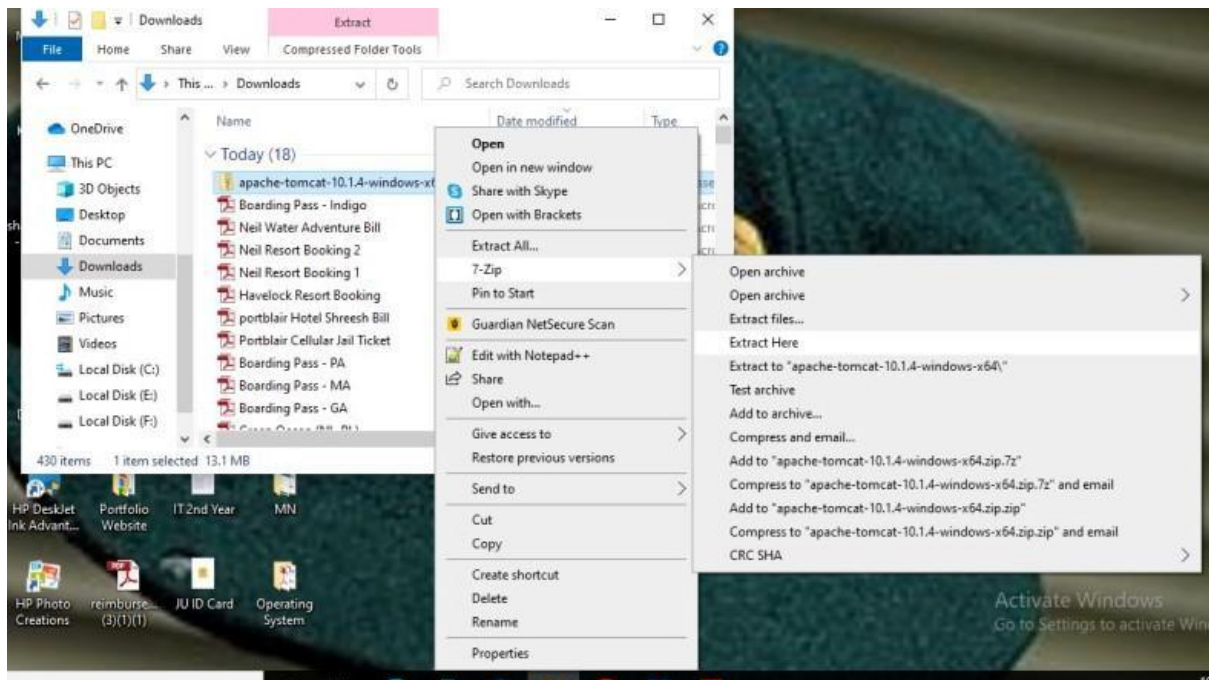
C:\Users\sarth>java -version
java version "18.0.1.1" 2022-04-22
Java(TM) SE Runtime Environment (build 18.0.1.1+2-6)
Java HotSpot(TM) 64-Bit Server VM (build 18.0.1.1+2-6, mixed mode, sharing)

C:\Users\sarth>javac -version
javac 18.0.1.1

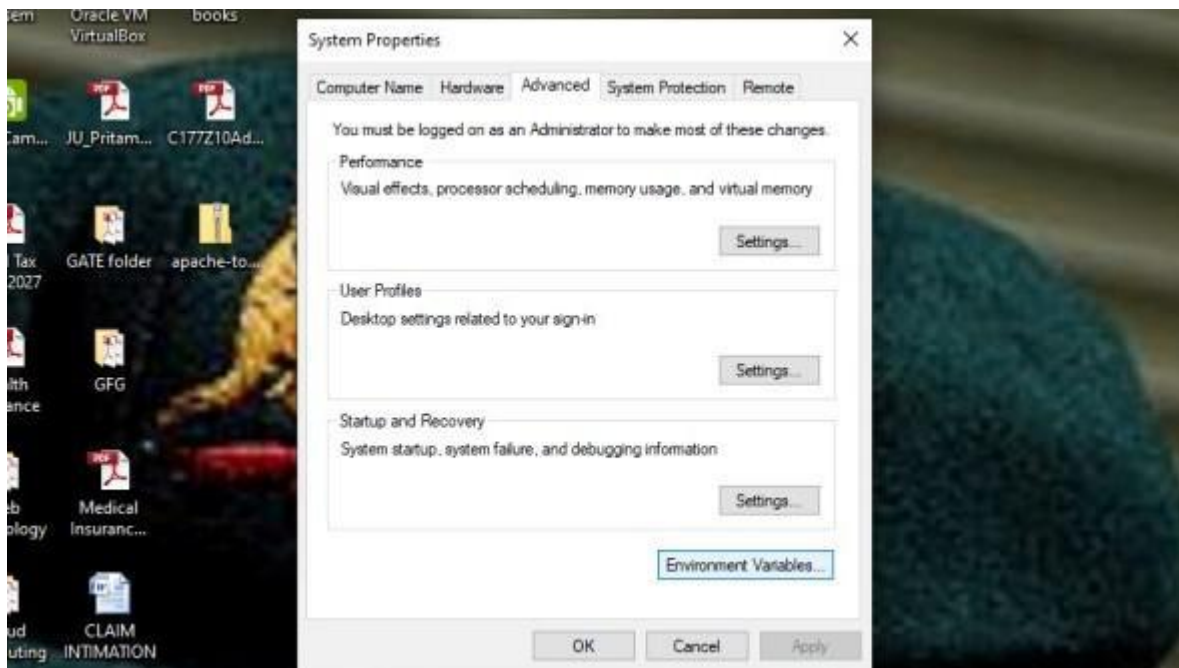
C:\Users\sarth>
```

If JDK is not installed on your computer, [install JDK](#). In the above picture, we can see JDK is already installed on our computer.

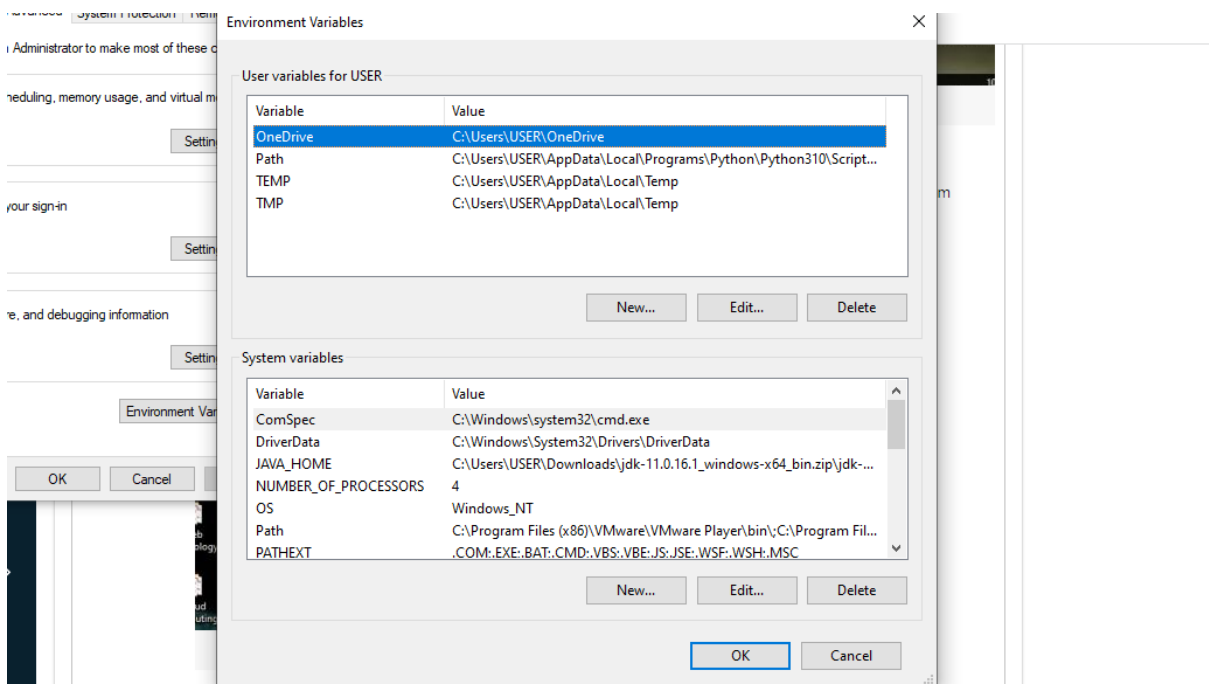
Step 3: Unzip Tomcat 10 Zip File. Go to the location where you have downloaded the Tomcat 10 zip file. Right-click on the apache tomcat file place the cursor on 7-Zip and click on Extract Here to extract the folder.



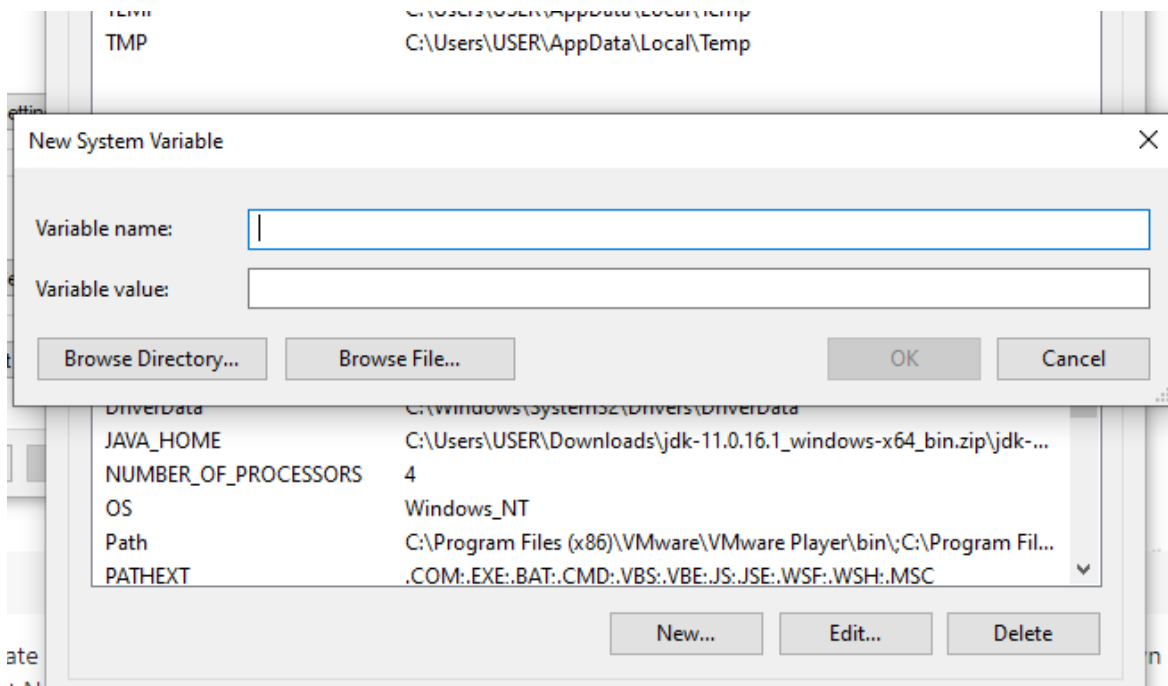
Step 4: Creating JAVA_HOME Variable. Click Start then in the search bar, search for "Edit the system environment variables" and click on it. The following System Properties box will open. Select Environment Variables in the box.



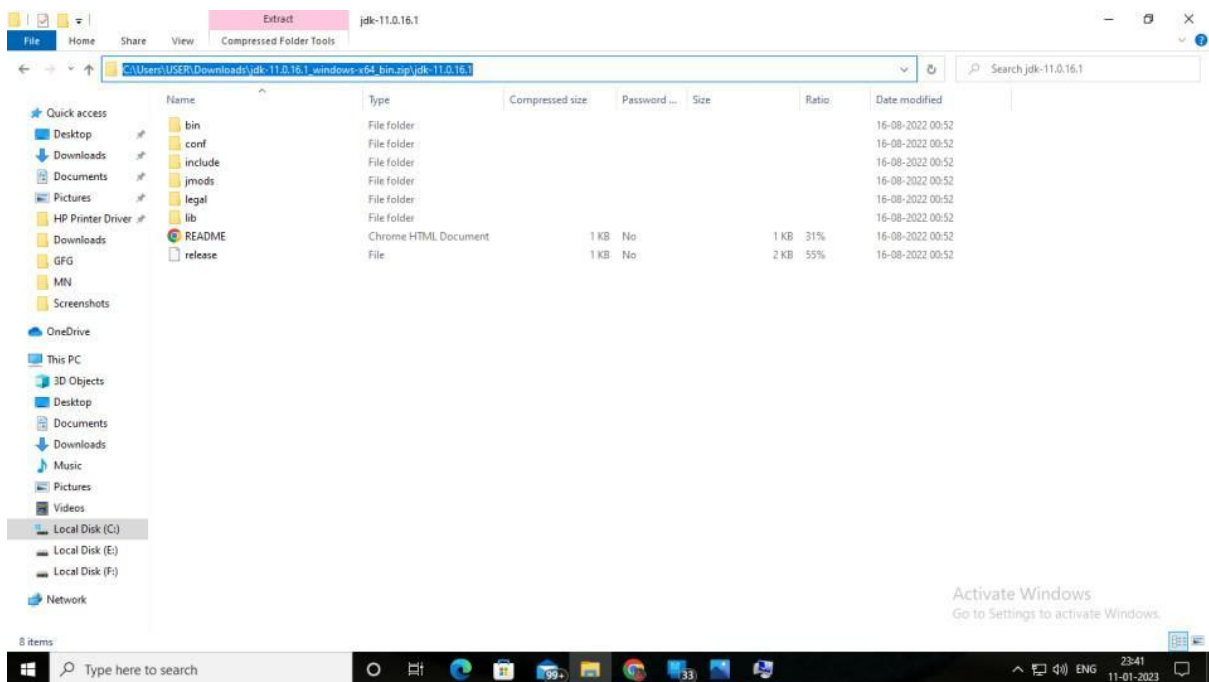
On clicking Environment Variables the following box will open.



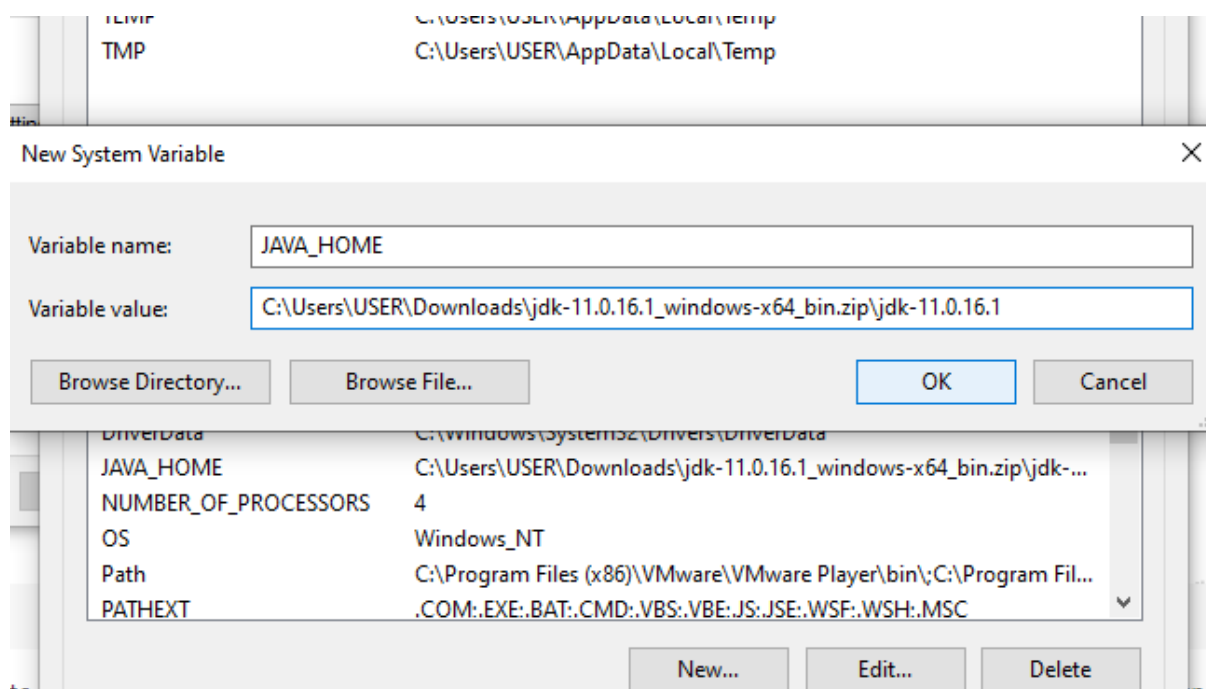
Step 5: We have to create a JAVA_HOME variable and insert the path of the JDK file stored in our computer, which will be shown below. So select New from the System variables in the above picture. A New System Variable box will be opened where we will have to fill in the Variable name and Variable value.



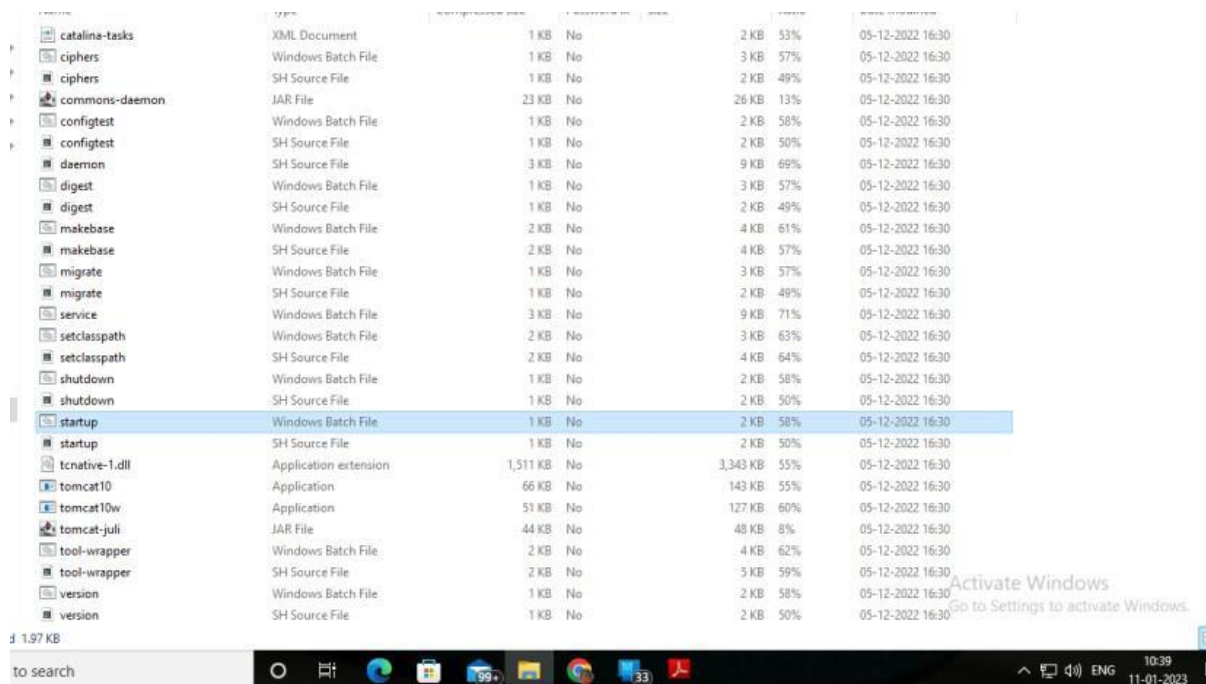
Step 6: Go to the location where you have stored the contents of the JDK file in My Computer or PC. Copy the root path of the location of the JDK file as shown below.



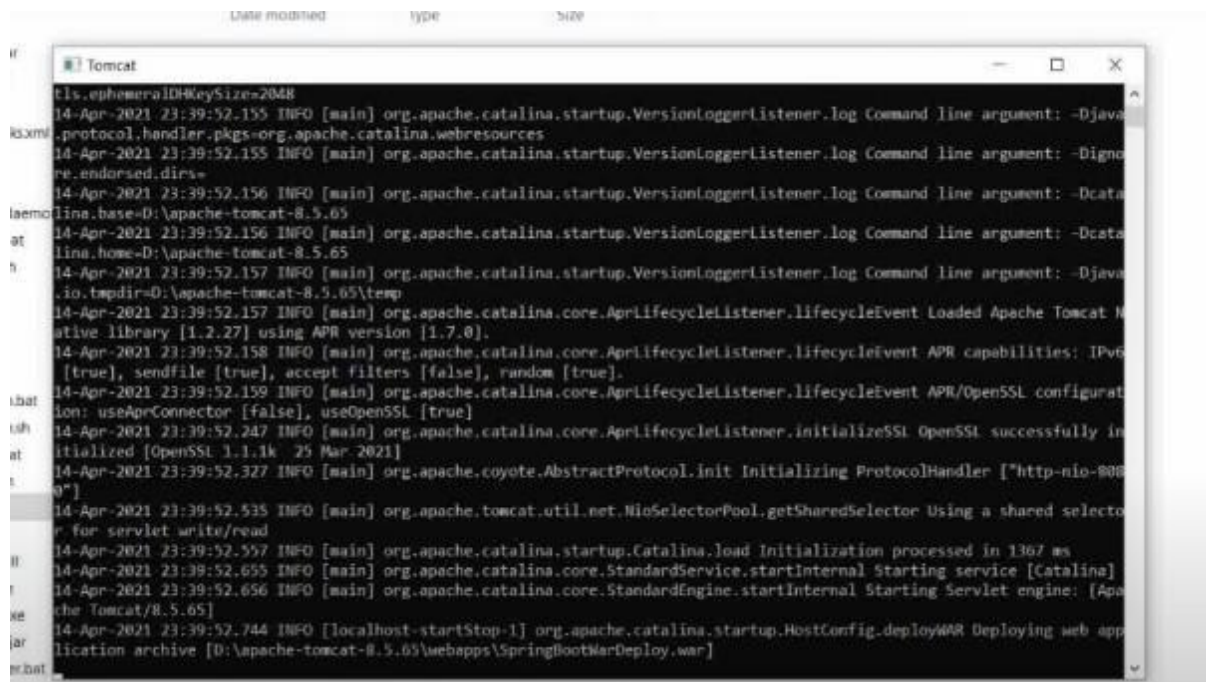
Step 7: Paste the JDK path from the above picture into the Variable value field and in the Variable name field, give the name `JAVA_HOME` as shown below.



Step 8: Check the Working of Tomcat. Open the extracted apache tomcat file. We will see all the following files in them. Among them open the batch file named "startup".



Step 9: Check if the Startup Windows Batch File is running properly.



```

Date modified      type      size
-----
Tomcat
14-Apr-2021 23:39:52.155 INFO [main] org.apache.catalina.startup.VersionLoggerListener.log Command line argument: -Djava.protocol.handler.pkgs=org.apache.catalina.webresources
14-Apr-2021 23:39:52.155 INFO [main] org.apache.catalina.startup.VersionLoggerListener.log Command line argument: -Dignore.endorsed.dirs=
14-Apr-2021 23:39:52.156 INFO [main] org.apache.catalina.startup.VersionLoggerListener.log Command line argument: -Dcatalina.base=D:\apache-tomcat-8.5.65
14-Apr-2021 23:39:52.156 INFO [main] org.apache.catalina.startup.VersionLoggerListener.log Command line argument: -Dcatalina.home=D:\apache-tomcat-8.5.65
14-Apr-2021 23:39:52.157 INFO [main] org.apache.catalina.startup.VersionLoggerListener.log Command line argument: -Djava.io.tmpdir=D:\apache-tomcat-8.5.65\temp
14-Apr-2021 23:39:52.157 INFO [main] org.apache.catalina.core.AprLifecycleListener.lifecycleEvent Loaded Apache Tomcat Native library [1.2.27] using APR version [1.7.0].
14-Apr-2021 23:39:52.158 INFO [main] org.apache.catalina.core.AprLifecycleListener.lifecycleEvent APR capabilities: IPv6 [true], sendfile [true], accept filters [false], random [true].
14-Apr-2021 23:39:52.159 INFO [main] org.apache.catalina.core.AprLifecycleListener.lifecycleEvent APR/OpenSSL configuration: useAprConnector [false], useOpenSSL [true]
14-Apr-2021 23:39:52.247 INFO [main] org.apache.catalina.core.AprLifecycleListener.initializeSSL OpenSSL successfully initialized [OpenSSL 1.1.1k 25 Mar 2021]
14-Apr-2021 23:39:52.327 INFO [main] org.apache.coyote.AbstractProtocol.init Initializing ProtocolHandler ["http-nio-8080"]
14-Apr-2021 23:39:52.535 INFO [main] org.apache.tomcat.util.net.NioSelectorPool.getSharedSelector Using a shared selector for servlet write/read
14-Apr-2021 23:39:52.557 INFO [main] org.apache.catalina.startup.Catalina.load Initialization processed in 1367 ms
14-Apr-2021 23:39:52.655 INFO [main] org.apache.catalina.core.StandardService.startInternal Starting service [Catalina]
14-Apr-2021 23:39:52.656 INFO [main] org.apache.catalina.core.StandardEngine.startInternal Starting Servlet engine: [Apache Tomcat/8.5.65]
14-Apr-2021 23:39:52.744 INFO [localhost-startStop-1] org.apache.catalina.startup.HostConfig.deployWAR Deploying web application archive [D:\apache-tomcat-8.5.65\webapps\SpringBootWarDeploy.war]

```

By default, the server port number is 8080.

Step 10: Successful Installation of Tomcat. Our next step is to open an internet browser like Google and type in the address

http://localhost:8080

Then click enter and the following browser will appear suggesting the successful installation of Apache Tomcat.

RESULT:

Thus a program for validating web form control using DHTML has been completed and their outputs are verified successfully.

