

Happy Being Us

Team – 11

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USER INSTALLATION GUIDE

This is a 3 steps process mainly:

1. Install Tomcat on system (**On Windows and Ubuntu**)
2. Generate war file
3. Deploy project war file on Tomcat

1. DOWNLOAD AND INSTALL TOMCAT:

1. On Windows- Follow the step to install Tomcat on Windows machine.

1.1.1 STEP 1: Downloading Apache Tomcat

- a. Goto <http://tomcat.apache.org> ⇒ Downloads ⇒ Tomcat 8.0 ⇒ "8.0.33" (where .33 is the latest upgrade number) ⇒ Binary Distributions ⇒ Core ⇒ "ZIP" package (e.g., "apache-tomcat-8.0.33.zip", about 9 MB).
- b. UNZIP into a directory of your choice. DO NOT unzip onto the Desktop (because its path is hard to locate). I suggest using "c:\myProject". Tomcat will be unzipped into directory "c:\myProject\apache-tomcat-8.0.29". For ease of use, rename this directory to "c:\myProject\tomcat".

1.1.2 STEP 2: Creating Environment Variable (JAVA_HOME)

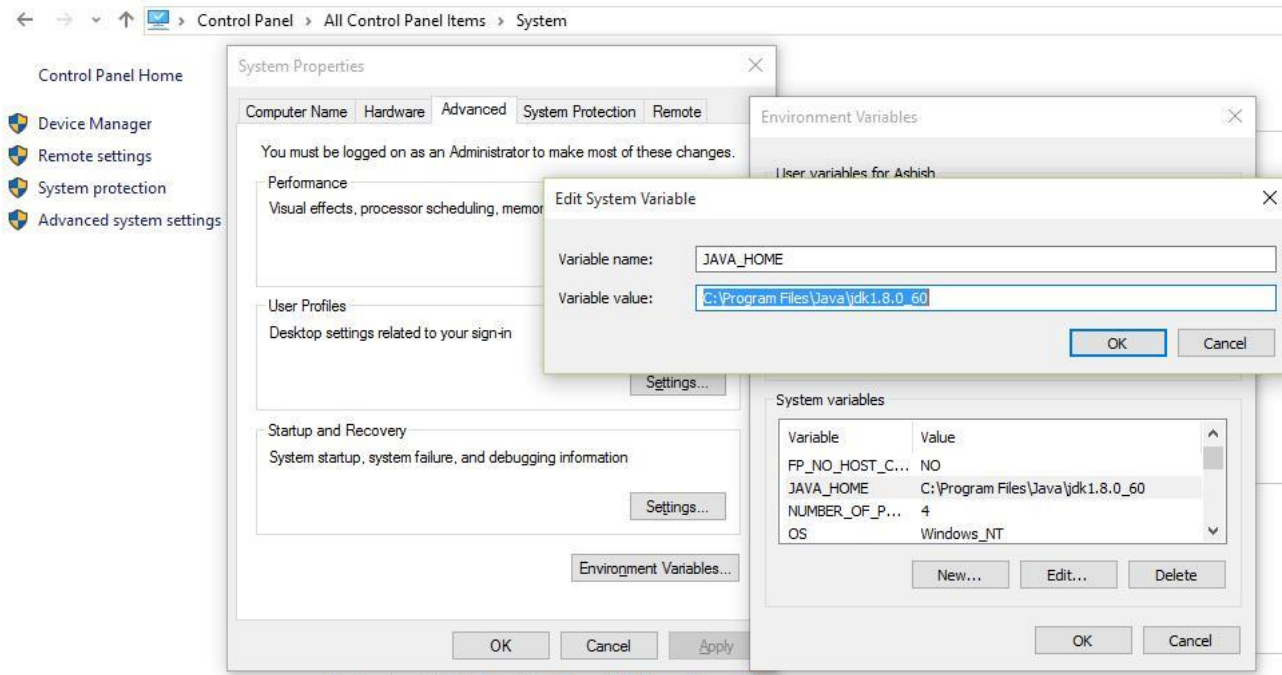
- a. Verify Environment Variable – JAVA_HOME by running below command on cmd, if the path exists you are set (as shown in screenshot) else follow [step b](#) to set up JAVA_HOME



```
C:\Users\Ashish>set JAVA_HOME
JAVA_HOME=C:\Program Files\Java\jdk1.8.0_60
```

- b. Download JDK and install
- c. Start ⇒ Control Panel ⇒ System ⇒ Advanced system settings ⇒ Environment Variables

- d. Click **New** and add Variable name as “JAVA_HOME” and Variable value as “*Path of JDK in your machine*” then repeat [step a](#) to verify the JAVA_HOME



1.1.3 STEP 3: Change Tomcat config file

- b. Add rolesname and username in config file as shown below -

```
<tomcat-users xmlns="http://tomcat.apache.org/xml"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://tomcat.apache.org/xml tomcat-users.xsd"
  version="1.0">

  <role rolename="admin-gui"/>
  <role rolename="manager-gui"/>
  <role rolename="manager"/>
  <role rolename="admin"/>
  <user username="admin" password="admin" roles="manager, manager-gui, admin, admin-gui"/>
</tomcat-users>
```

1.1.4 STEP 4: Start the server

- a. Change the directory to the location of Tomcat bin and start server using below command -
`c:\myProject\tomcat\bin> startup`
- b. Start a browser (as HTTP client). Issue URL "`http://localhost:8080`" to access the Tomcat server's welcome page.

2. On Ubuntu- Follow the step to install Tomcat on Windows machine. 1.2.1 STEP 1: Update your apt-get package lists

```
$ sudo apt-get update
```

1.2.2 STEP 2: Install Tomcat

```
$ sudo apt-get install tomcat7
```

Answer 'YES' at the prompt to install tomcat. This will install Tomcat and its dependencies, such as Java, and it will also create the tomcat7 user. It also starts Tomcat with its default settings.

1.2.3 STEP 3: SET JAVA_OPTS

Change to the Java options that Tomcat uses when it starts. Open the Tomcat7 parameters file:

```
$ sudo nano /etc/default/tomcat7
```

Find the JAVA_OPTS line and replace it with the following. Feel free to change the Xmx and MaxPermSize values—these settings affect how much memory Tomcat will use:
`/etc/default/tomcat7 — JAVA_OPTS`

```
JAVA_OPTS="-Djava.security.egd=file:/dev/./urandom -Djava.awt.headless=true -  
Xmx512m -XX:MaxPermSize=256m -XX:+UseConcMarkSweepGC"
```

SAVE AND EXIT.

1.2.4 STEP 4: Restart Tomcat

```
$ sudo service tomcat7 restart
```

1.2.5 STEP 5: Installing Additional Packages

```
$ sudo apt-get install tomcat7-docs tomcat7-admin tomcat7-examples
```

Answer 'YES' at the prompt to install these packages. We will get into the usage and configuration of these tools in a later section.

1.2.6 STEP 6: Install Java Development Kit and Apache Ant

```
$ sudo apt-get install default-jdk
```

```
$ sudo apt-get install ant git
```

1.2.7 STEP 7: Configure Tomcat Web Management Interface

```
$ sudo nano /etc/tomcat7/tomcat-users.xml
```

Add a user who can access the manager-gui and admin-gui. You can do so by defining a user similar to the example below. Be sure to change the username and password to something secure:

`tomcat-users.xml — Admin User`

```
<tomcat-users>
```

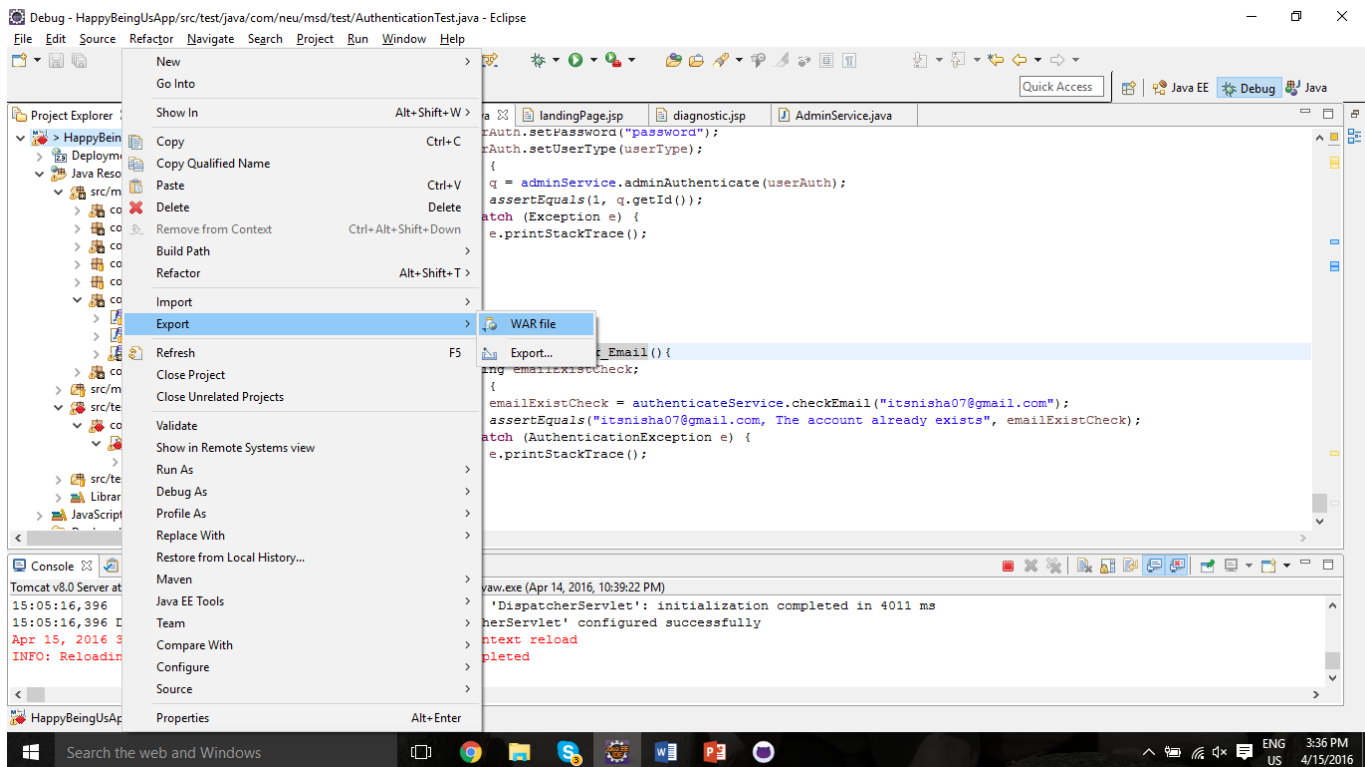
```
  <user username="admin" password="password" roles="manager-gui,admin-gui"/>
```

```
</tomcat-users>
```

Save and quit the tomcat-users.xml file. To put our changes into effect, restart the Tomcat service:

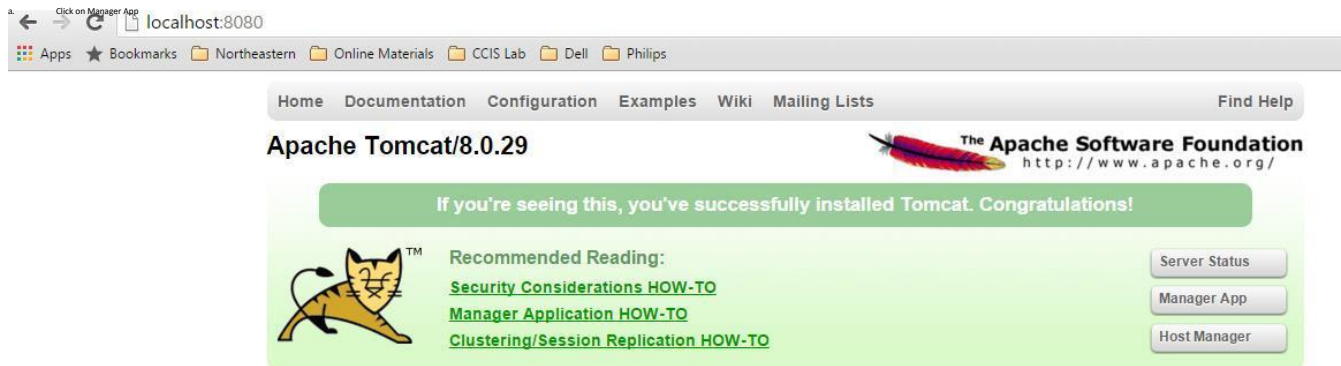
2 GENERATE WAR OF JAVA PROJECT:

2.2 STEP 1: Right click on solution file and export the solution as war file.



3 DEPLOY PROJECT WAR FILE ON TOMCAT:

3.2 STEP 1: Access Localhost:8080



Link to GitHub Repository of our project <https://github.com/happybeingus/happybeingus>



Database script files database_2016_04_01.sql

Reference: WHAM project installation guide from
<https://github.ccs.neu.edu/Solver/CS5500> WHAM

- By Ashish