

Build tool assignment

Write a shell script to automate install git, install maven, install java, install tomcat, pull repository which contains source code, build java application using maven steps and set tomcat server user configuration setting?

Update package list

```
sudo yum update -y
```

Install git

```
sudo yum install -y git
```

Install java

```
sudo yum install -y java
```

Install maven

```
sudo yum install -y maven
```

Tomcat installation

Download tomcat application using wget

```
wget https://dlcdn.apache.org/tomcat/tomcat-10/v10.1.28/bin/apache-tomcat-10.1.28.tar.gz
```

unzip the downloaded file

```
tar -xvzf apache-tomcat-10.1.28.tar.gz
```

remove compressed (tar.gz) file

```
rm -rf apache-tomcat-10.1.28.tar.gz
```

rename the file

```
mv apache-tomcat-10.1.28 tomcat
```

start the tomcat

```
sh/home/ec2-user/tomcat/bin/startup.sh
```

clone source code to local repo

```
git clone https://github.com/sunilb66/java-hello-world-with-maven
```

```
cd java-hello-world-with-maven
```


```
mvn clean install
```

```
cd target
```

```
cp/home/ec2-user/java-hello-world-with-maven/target/jb-hello-world-maven-0.2.0.jar/home/ec2-user/tomcat/webapps/
```

steps to configure tomcat server user configuration settings(server status/manager/host manager)

1. Add port number 8080 in inbound rules of ec2 instance
2. Navigate to path /home/ec2-user/tomcat/webapps/manager/META-INF
3. vi context.xml
4. comment out the value
`<!--<valve className="org.apache.catalina.valves.RemoteAddrValve"
Allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:1"/>-->`
5. navigate to path /home/ec2-user/tomcat/webapps/host-manager/META-INF
6. vi context.xml
7. comment out the value
`<!--<valve className="org.apache.catalina.valves.RemoteAddrValve"
Allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:1"/>-->`
8. navigate the path cd tomcat/conf
9. vi tomcat-users.xml
10. add roles and set username, passwords (admin, admin-gui, manager, manager-gui)
11. restart the tomcat sh tomcat/bin/startup.sh



```
<!--<valve className="org.apache.catalina.valves.RemoteAddrValve"  
Allow="127\.\d+\.\d+\.\d+|::1|0:0:0:0:0:0:1"/>-->  
</tomcat-users>  
<role rolename="admin"/>  
<user username="tomcat" password="1234" roles="admin"/>  
<role rolename="admin-gui"/>  
<user username="tomcat" password="1234" roles="admin-gui"/>  
<role rolename="manager"/>  
<user username="tomcat" password="1234" roles="manager"/>  
<role rolename="manager-gui"/>  
<user username="tomcat" password="1234" roles="manager-gui"/>  
  
-- INSERT --
```



Message:	OK
----------	----

List Applications

HTML Manager Help

Manager Help

Server Status

Path	Version	Display Name	Running	Session	Commands
/	None specified	Welcome to Torvald	true	0	<div>Start Stop Reload Uninstall</div> <div>Expire sessions with idle 30 minutes</div>
/docs	None specified	Torvald Documentation	true	0	<div>Start Stop Reload Uninstall</div> <div>Expire sessions with idle 30 minutes</div>
/examples	None specified	Servlet and JSP Examples	true	0	<div>Start Stop Reload Uninstall</div> <div>Expire sessions with idle 30 minutes</div>
/old-versions	None specified		false	0	Start Stop Reload Uninstall
/manager	None specified	Torvald Manager Application	true	2	<div>Start Stop Reload Uninstall</div> <div>Expire sessions with idle 30 minutes</div>

Warning: File located on server

Manager

ListApplications

HTML Manager Help:

Manuscript to be reviewed

Complete Secret Status

Tomcat Version	JVM Version	JVM Vendor	OS Name	OS Version	OS Architecture	Hostname	IP Address
Apache Tomcat/9.0.91	21.0.4-T-Obuntu-Hubuntu20.04	Ubuntu	Linux	6.8.0-100-aws	amd64	ip-172-31-25-183	172.31.25.183

Free Memory: 1.21 MB Total Memory: 25.61 MB Max Memory: 232.00 MB

Memory Pool	Type	Initial	Total	Maximum	Used
Eden Space	Heap memory	4.31 MB	7.12 MB	64.00 MB	7.12 MB (11%)
Survivor Space	Heap memory	0.50 MB	0.87 MB	8.00 MB	0.72 MB (9%)
Tenured Gen	Heap memory	10.68 MB	17.61 MB	160.00 MB	16.54 MB (10%)
CodeHeap 'non-nmethods'	Non-heap memory	2.43 MB	2.43 MB	5.56 MB	5.24 MB (22%)
CodeHeap 'non-profiled methods'	Non-heap memory	2.43 MB	2.43 MB	117.22 MB	1.92 MB (1%)
CodeHeap 'profiled methods'	Non-heap memory	2.43 MB	10.12 MB	117.21 MB	10.11 MB (8%)
Compressed Class Space	Non-heap memory	0.00 MB	2.56 MB	1024.00 MB	2.38 MB (0%)
Metaspace	Non-heap memory	0.00 MB	26.56 MB	-0.00 MB	26.18 MB

```

lib threads: 200 Current thread count: 10 Current threads busy: 1 Keep alive sockets count: 1
lib processing time: 2607 ms Processing time: 3.161 s Request count: 10 Error count: 7 Bytes received: 0.00 MB Bytes sent: 0.00 MB

```

Stage	Time	Bytes Sent	Bytes Rcvd	Client (Forwarded)	Client (Actual)	VHost	Request
S	40 ms	0 KIB	0 KIB	49.204.229.216	49.204.229.216	34.204.44.33	GET /manager/status HTTP/1.1

Tomcat Virtual Host Manager

Message: OK

Host Manager

[Add Virtual Hosts](#) [HTML Host Manager Help](#) [Host Manager Help](#) [Server Status](#)

Host name

Host name	Host alias	Comments
localhost		Host Manager installed - commands disabled

Add Virtual Host

Host

Name:

Alias:

App base:

AutoDeploy ☒

DeployOnStartup ☒

DeployXML ☒

UnpackWARs ☒

Manager App ☒

CopyXML ☐

Persist configuration

NOTE: When creating configurations, the default value for the name and alias are not used, so that the configuration is not lost.