**APACHE TOMACT SERVER**

* Apache Tomcat is a web server
* Apache Tomcat is used to run Java Web Applications
* Apache Tomcat is free & open source
* Apache Tomcat runs on 8080 port by default (we can change that port)

**Apache Tomcat Folder Structure**

**bin:** It contains commands to start and stop tomcat server

**conf:** It contains configuration files

**lib:** It contains libraries (jar files)

**logs:** It contains server log files

**temp:** Temp files will be created here (we can delete them)

**webapps: This is called as deployment folder**

**Note: We will keep war file in webapps folder for deployment**

**Working with Apache Tomact in Linux**

* Login into AWS Management Console
* Create EC2 Instance (Amazon Linux AMI)
* Connect to EC2 instance using MobaXterm / Putty
* install java software using below command

**$ sudo yum install java-1.8.0-openjdk**

* Verify the version of java installed in our machine

**$ java -version**

**Note: If we have multiple java versions installed then we can switch to particular version using below command**

**$ alternatives --config java**

* We can download apache tomcat from official website

**URL: https://tomcat.apache.org/download-90.cgi**

* We can find apache tomcat urls to download in official website downloads page
* Copy the URL of tar file and execute below command in linux machine

**$ wget <tomact-tar-file-url>**

**Note: I am using**

**"https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.63/bin/apache-tomcat-9.0.63.tar.gz"**

* After tomact tar file got downloaded then extract Tomcat Tar file using below command

**$ tar -xvf <tomact-tar-file-name>**

* Go inside tomcat folder and see folder structure

**$ cd tomact-folder**

**$ ls -ltr**

* Go to tomact bin directory and run tomact server

**$ cd bin**

**$ ./startup.sh**

**Note: Tomcat Server runs on 8080 port by default. Enable this port in security group as custom tcp**

**Type: Custom TCP**

**Protoal : TCP**

**Port Range: 8080**

**Source : Custom (0.0.0.0/0)**

* Access Tomact server from your browser

**URL : http://EC2-VM-Public-IP:8080/**

**Note: It should open tomact server home page.**

* By default the Host Manager is only accessible from a browser running on the same machine as Tomcat. If you wish to modify this restriction, you'll need to edit the Host Manager's **context.xml file.**

**File Location : <tomcat>/webapps/manager/META-INF/context.xml**

* In Manager context.xml file, change <Valve> section like below (allow attribute value changed)

**<Context antiResourceLocking="false" privileged="true" >**

**<Valve className="org.apache.catalina.valves.RemoteAddrValve" allow=".\*" />**

**</Context>**

**Add tomact users in "tomact-folder/conf/tomact-users.xml" file like below**

<role rolename="manager-gui" />

<user username="tomcat" password="tomcat" roles="manager-gui" />

<role rolename="admin-gui" />

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

**Stop the tomact server and start it**

* **We can change tomcat server default port in tomact/conf/server.xml file**

**Note: When we change tomact port number in server.xml file then we have to enable that port in Security Group which is associated with our EC2 instance.**

**Steps to display Maven Web Application in Tomcat Server**

**1)** Create Maven Web application

**2)** Edit "index.jsp" file like below (File Location : project-folder\src\main\webapp)

**<html>**

**<body>**

**<h1><font color='red'>Welcome to Ashok IT..!!<font></h1>**

**<h2>Learn Here.. Lead Anywhere..!! </h2>**

**<a href="https://ashokitech.com/online-training-schedules">Click Here To See Training Schedules</a>**

**</body>**

**</html>**

**3)** Package maven web application as war file using maven goals

**$ mvn clean package**

**4)** Go to Tomcat Server Admin Dashboard and click on "Manager App"

**5)** Select War file to upload and click on 'deploy' button

**6)** War file will be deployed and it will display in applications

**7)** Click on Application Path (It will open the application in browser)

**Conclusion**

Stop Apache Tomact Server

Stop Ec2 instance

**--------------------------------------------------------------------------------------------------**

**sudo amazon-linux-extras install java-openjdk11**

**sudo yum install java-11-openjdk**

**sudo alternatives --config java**

**\*1 java-1.8.0-openjdk.x86\_64 (/usr/lib/jvm/java-1.8.0-openjdk-1.8.0.332.b09-1.amzn2.0.2.x86\_64/jre/bin/java)**

**+2 java-11-openjdk.x86\_64(/usr/lib/jvm/java-11-openjdk-11.0.13.0.8 1.amzn2.0.3.x86\_64/bin/java)**

**In this location we will get which java version is installed for jenkins.**

**/usr/lib/systemd/system/jenkins.service**

**ghp\_tADOr580QVYbvSEDcYmUJpHTFcNuYr0FqD4r**