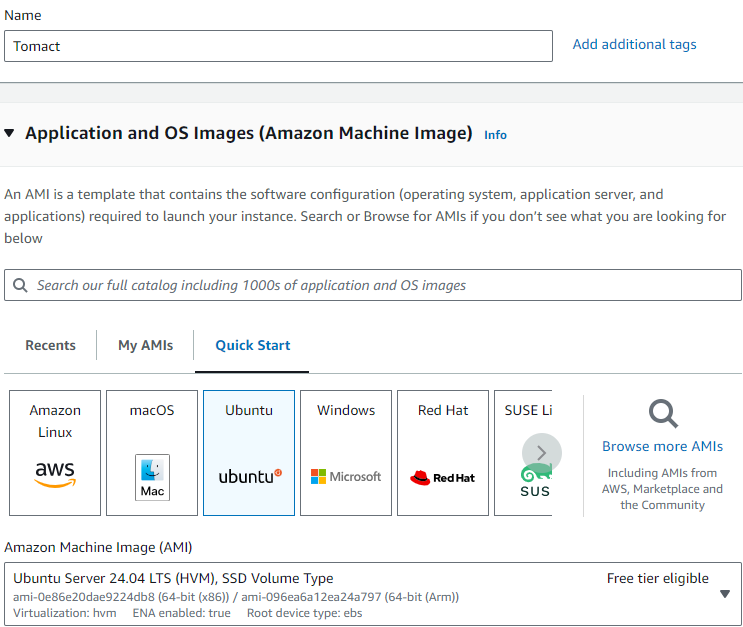
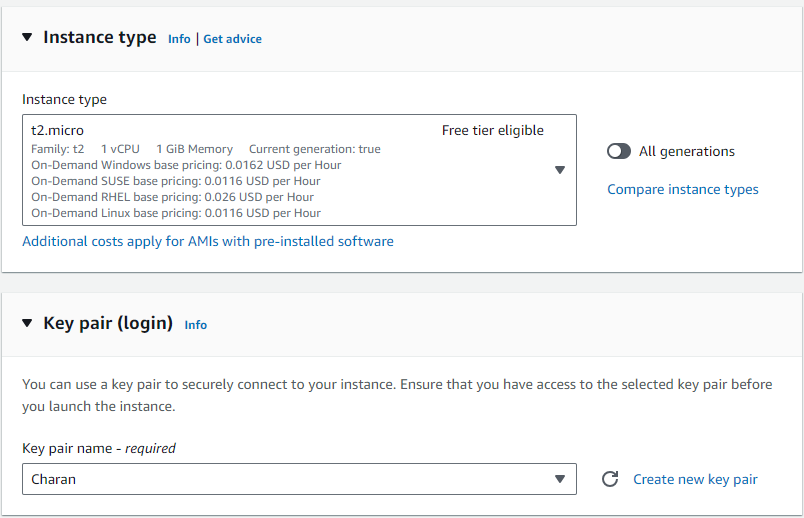
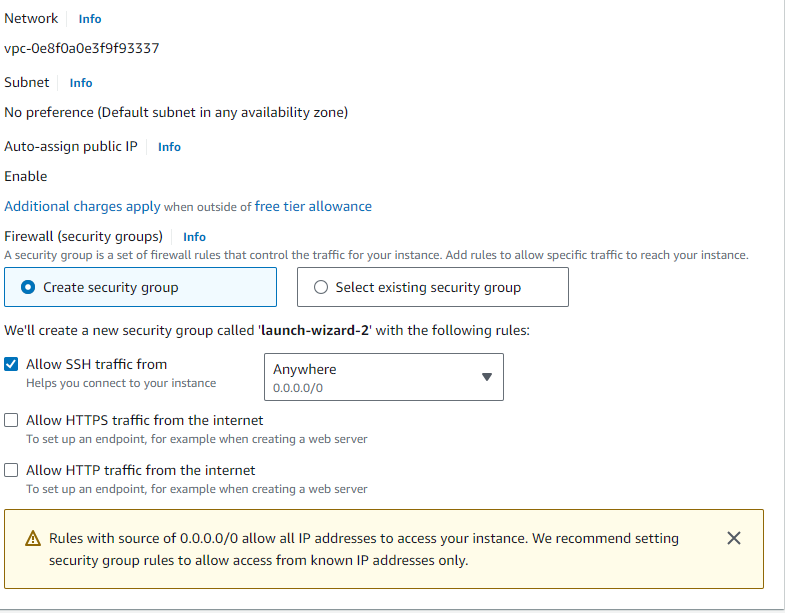
**Deployment of java application in multiple tomcat servers using jenkins**

1. Launch EC2 instance (Ubuntu) Install Below Requirement’s in EC2 Instance.





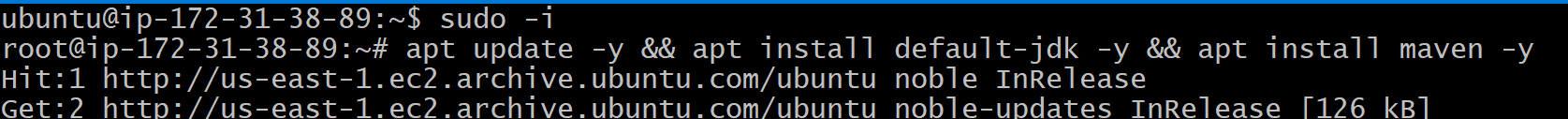




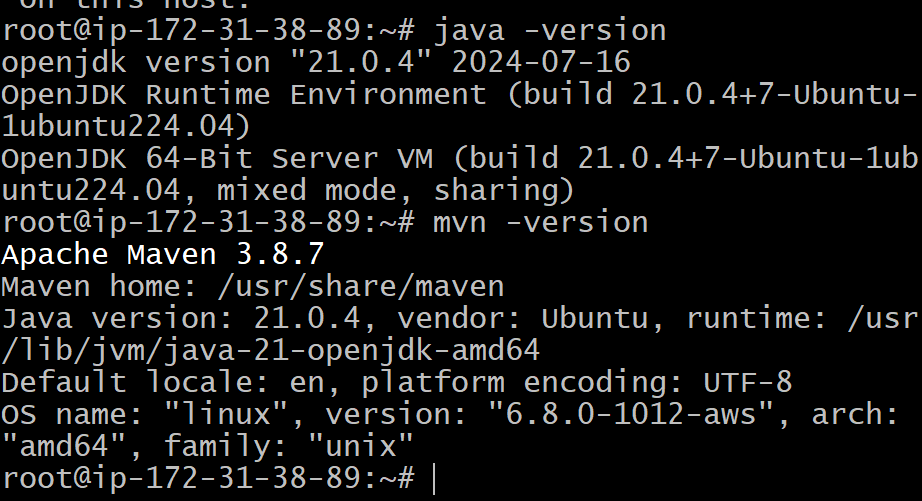
* Launch instance & Connect to the instance in git bash

**Update and installing** java & **maven & tomcat server**

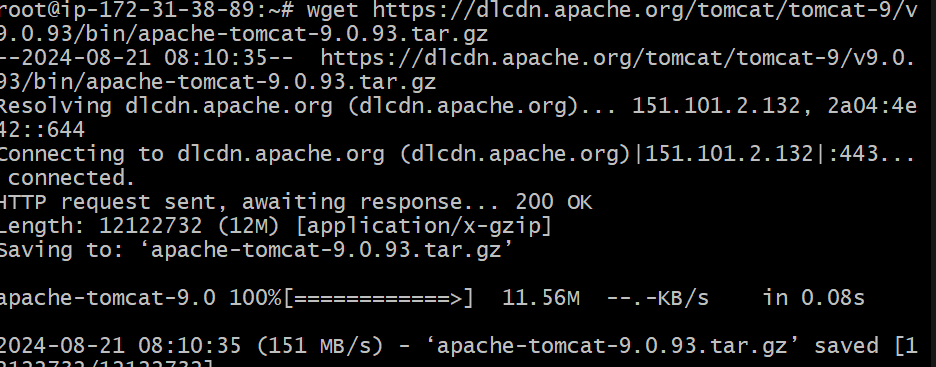
* **sudo -i**
* **apt update -y && apt install default-jdk -y && apt install maven -y**

****

* **java –version && mvn -version**

****

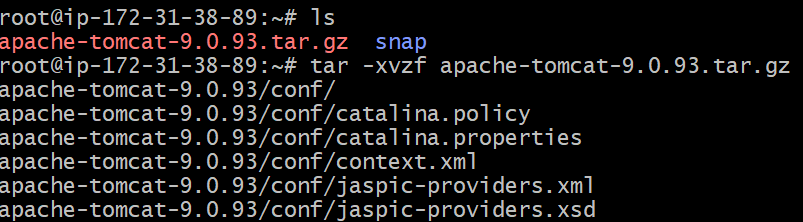
* **download the tar file of tomcat from browser with \**
* **wget https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.93/bin/apache-tomcat-9.0.93.tar.gz**

****

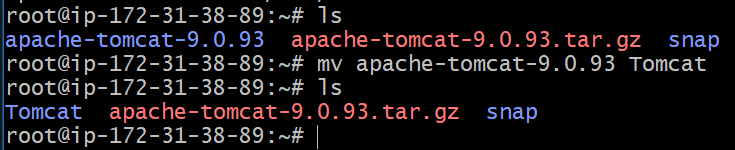
* **ls**

****

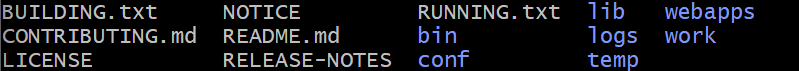
* **apache-tomcat-9.0.93.tar.gz snap**
* **tar -xvzf apache-tomcat-9.0.93.tar.gz**

****

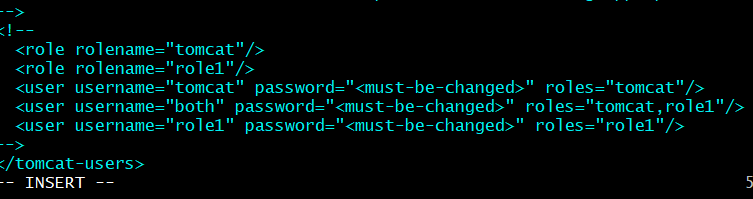
* **mv apache-tomcat-9.0.93.tar.gz Tomcat and click on ls**

****

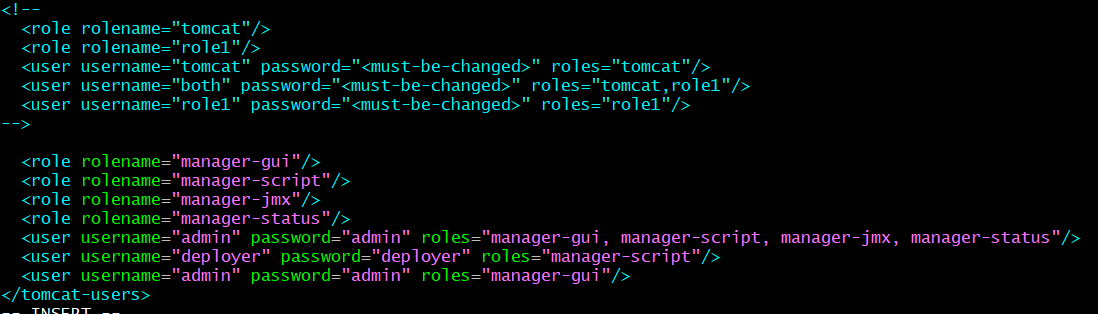
* **cd Tomcat**
* **ls**

****

* **cd conf**
* **vi tomcat-user.xml**
* **in tomcat-user.xml by default it will be as show below**

****

* **Add the manager-gui, manager-script, manager-jmx, manager-status. After adding the following**

****

* **Exit the vi tomcat-user.xml**
* **Cd ..**
* **Cd webapps**
* **Ls**

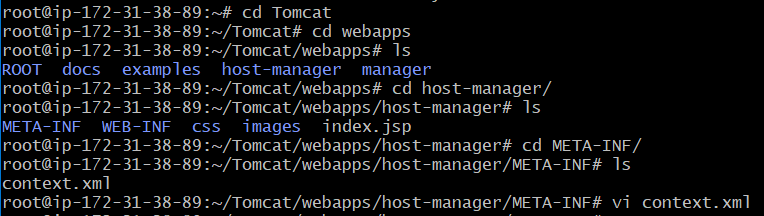
**ROOT docs examples host-manager manager**

* **Cd host-manager**
* **Ls**

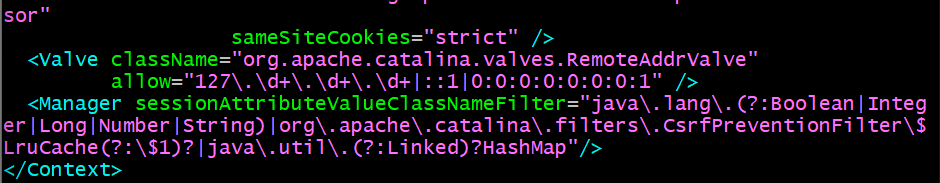
**META-INF WEB-INF css images index.jsp**

* **cd META-INF**
* **ls**

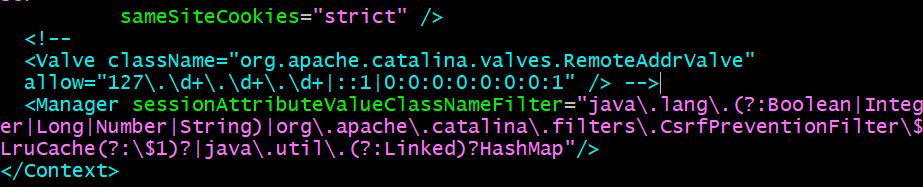
**context.xml**

****

* **vi.context.xml by default it will be as shown below**

****

* **add the <! -- under the samesitecookes and add --> near the allows**

****

* **Exit the vi context.xml**
* **Cd ..**
* **Cd ..**

****

* **Ls**

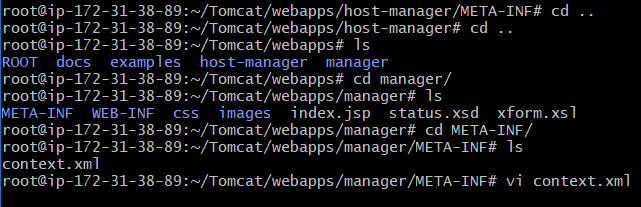
**ROOT docs example host-manager manager**

* **Cd manager**
* **Ls**

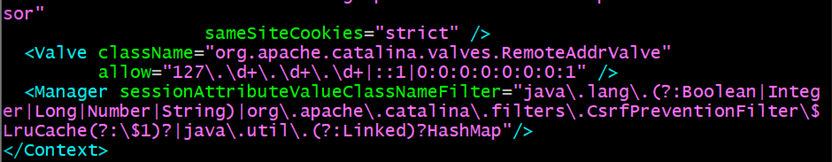
**META-INF WEB-INF css images index.jsp status.xsd xform.xsl**

* **META-INF**
* **Ls**

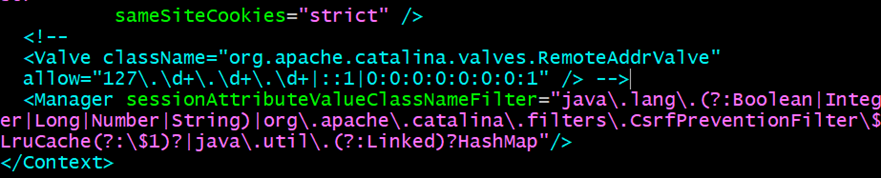
**Context.xml**

****

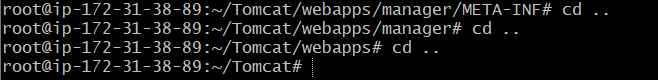
* **Vi context.xml by befault it will be as shown below**



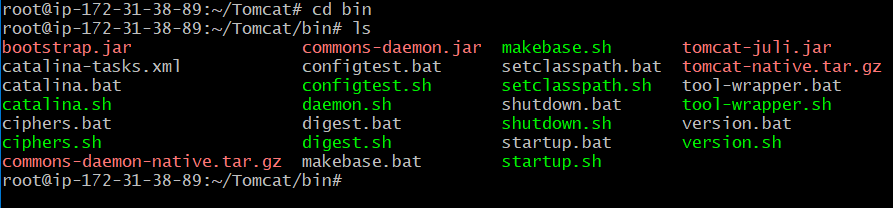
* **Add the <!--under the samesitecookies and add --> near allow**



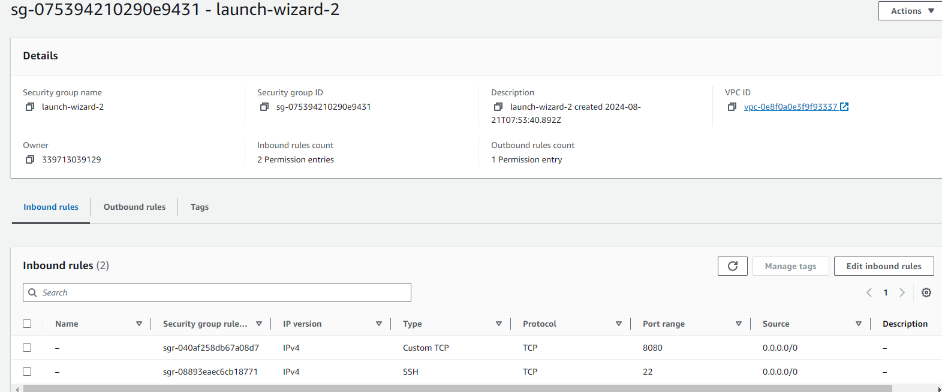
* **Exit the vi context.xml**
* **Cd ..**
* **Cd ..**
* **Cd ..**



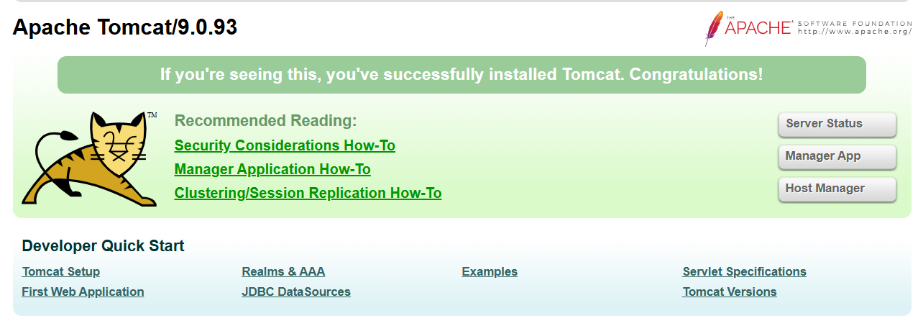
* **Cd bin**
* **Ls**

****

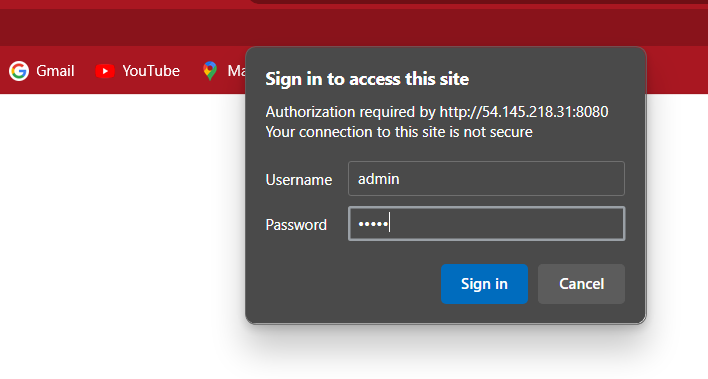
* **./startup.sh**
* **Now go to the security group which is assigned to the instance**
* **And add the port number :8080, Anywhere IPV4: 0.0.0.0/0**

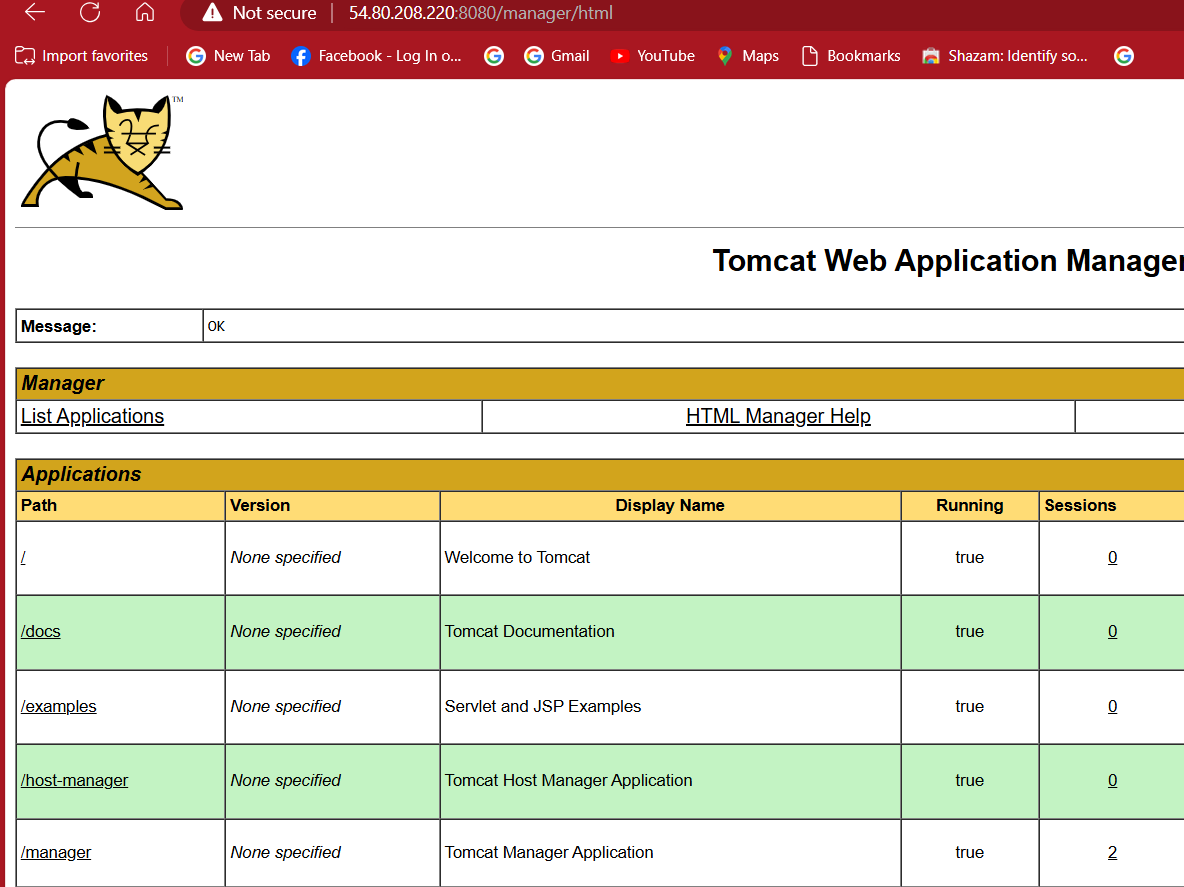
****

* **Now go to the instance copy the public ip (Tomcat -54.80.208.200)and past in the browser with the :8080 port number**
* **First click on manageapps**

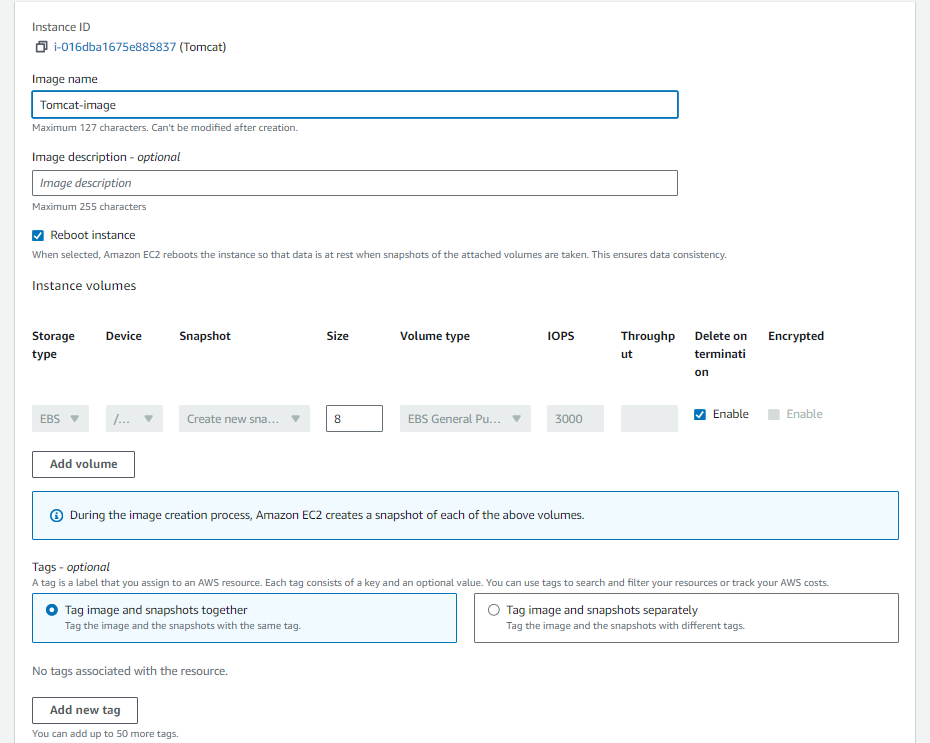
****

* **Click on the user and password**

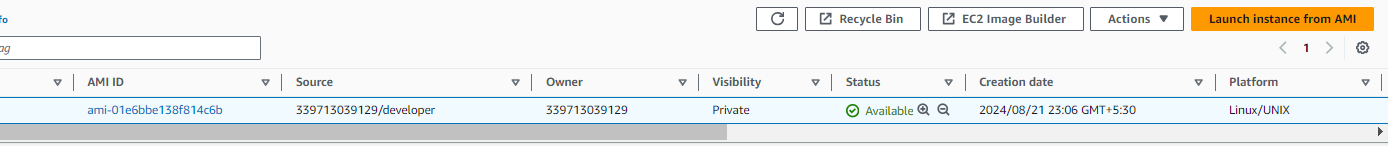
****

****

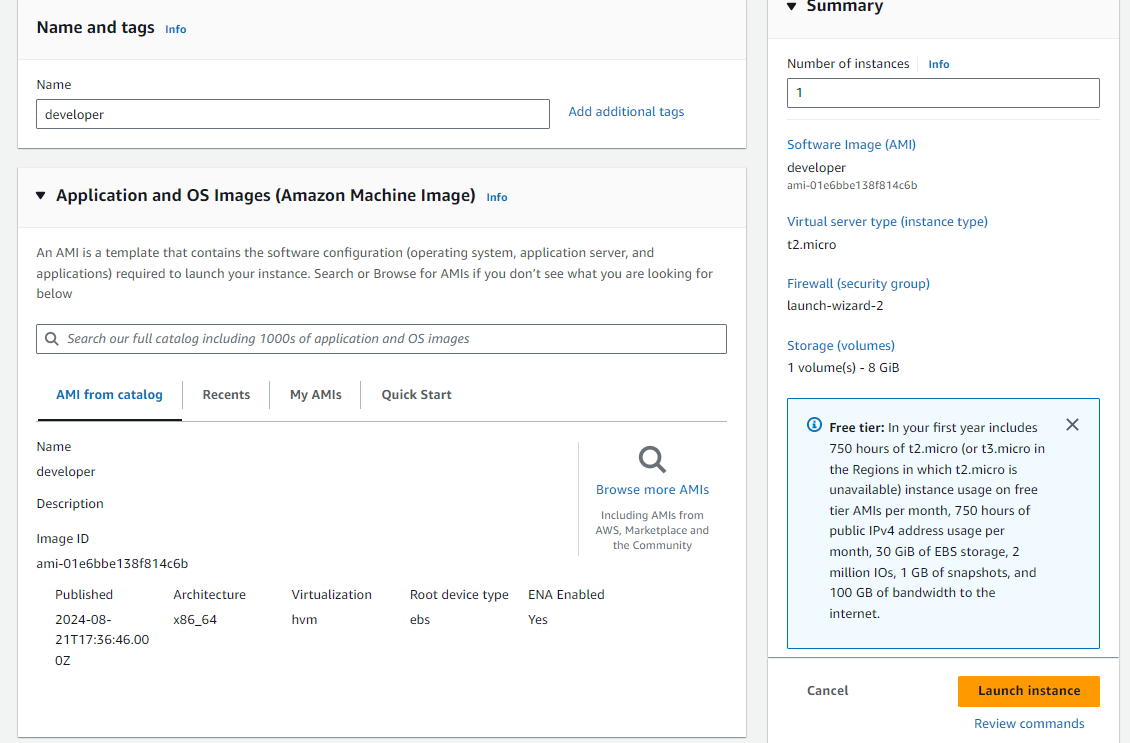
* **Next instance and create an image to the -(Tomcat instance)**

****

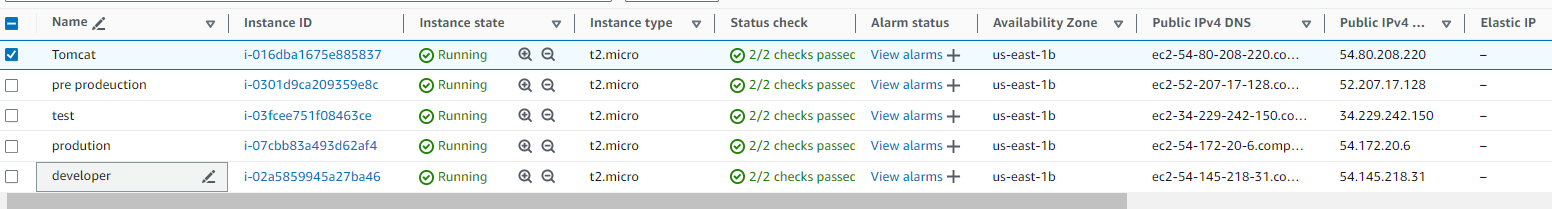
* **Click on create an image && name (Tomcat-image)**
* **After the image is create go to AMI**

****

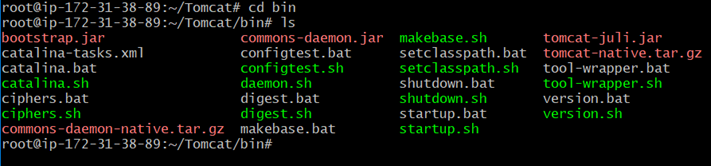
* **Next click on lunch instance from AMI (developer, test, production, pre-production)**

****

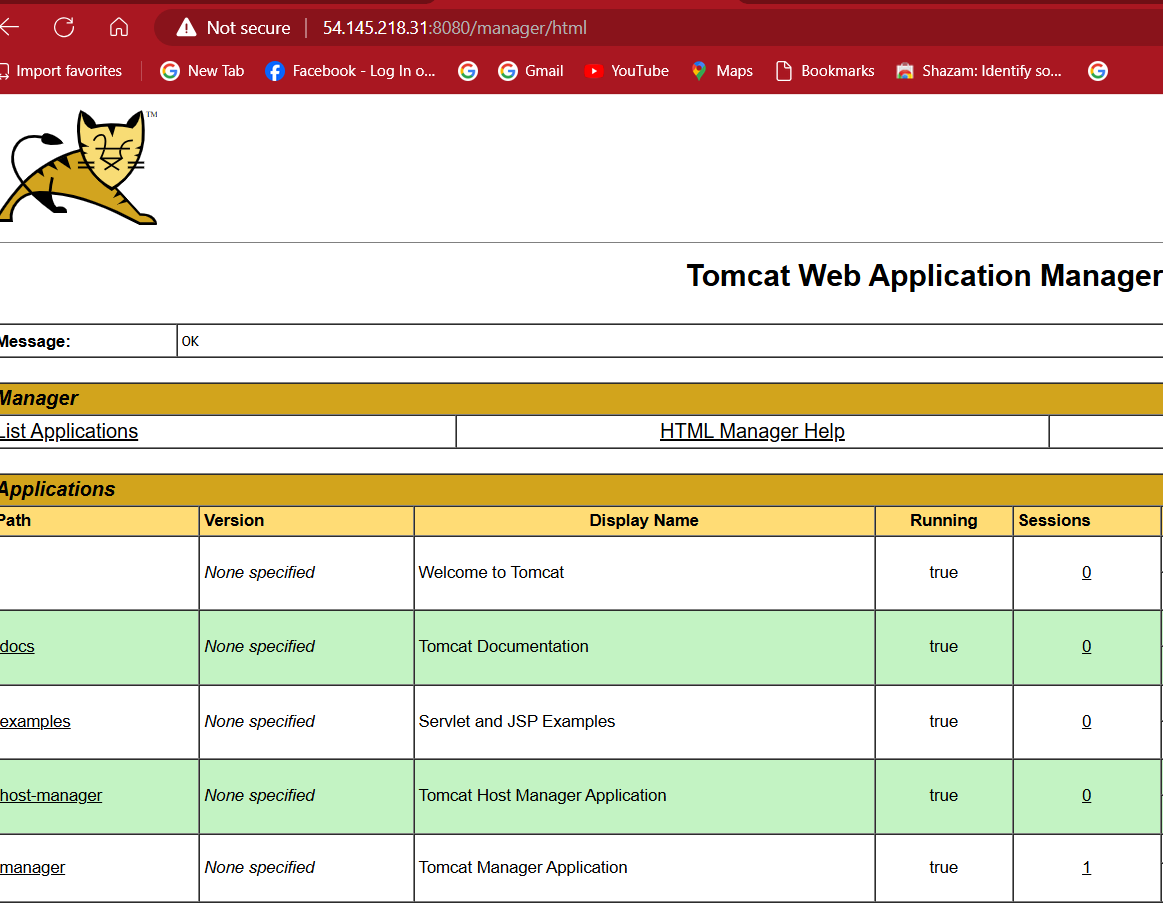
* **Create all in the same way using the AMI**

****

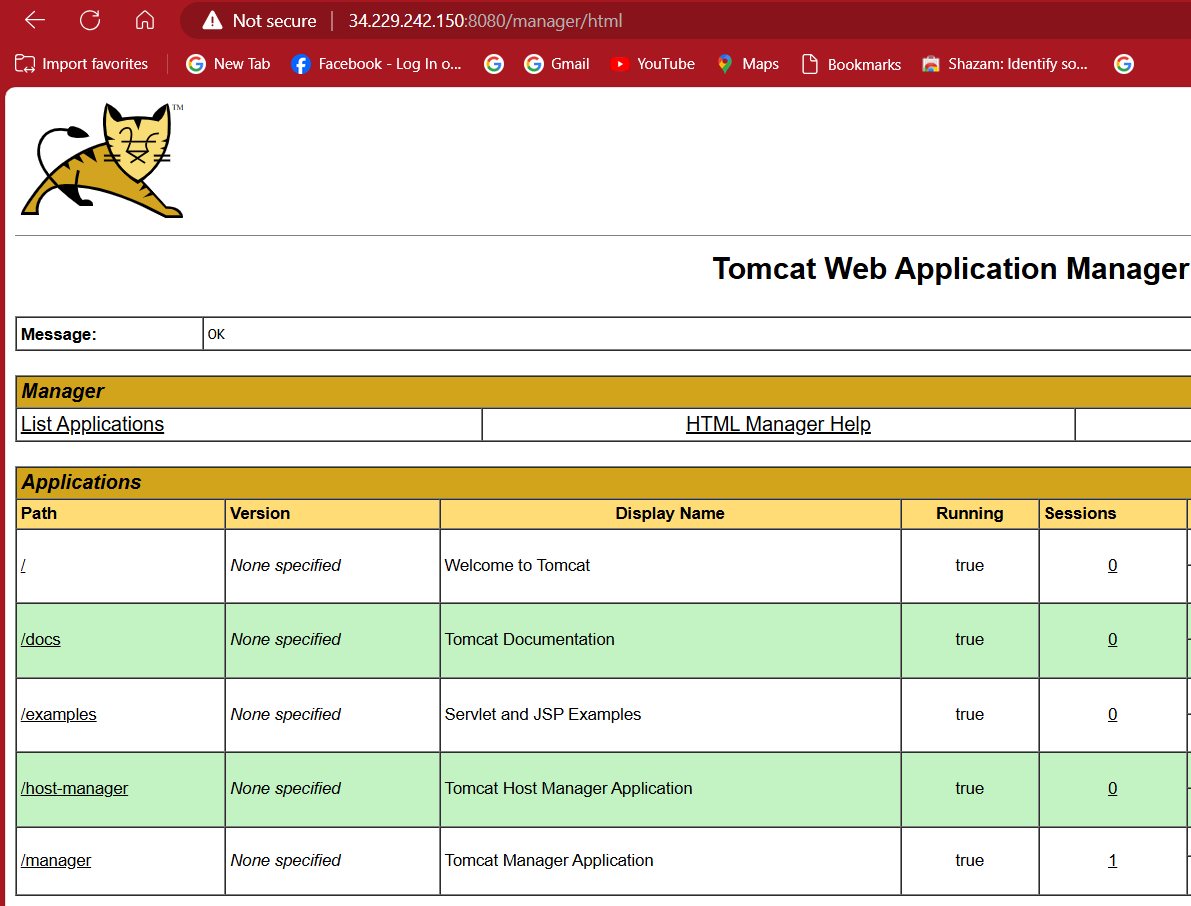
* **Now connect to all the instance which are created by the AMI image in the server**
* **Cd Tomcat**
* **Cd bin**
* **./startup.sh**

****

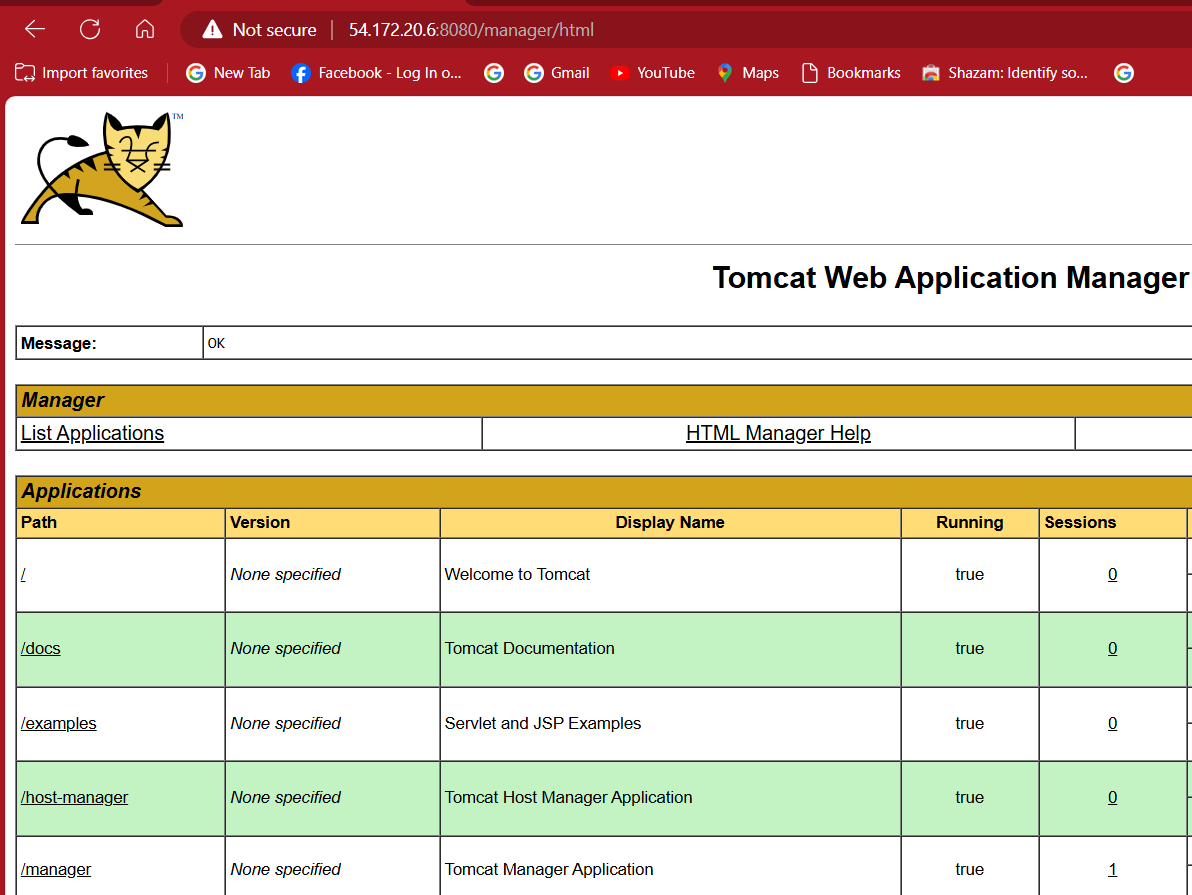
* **Do this process for all the instance (developer, test, production, preproduction). So that we can start the tomcat**
* **Next go the browser and past the public ip of the developer with :8080**

****

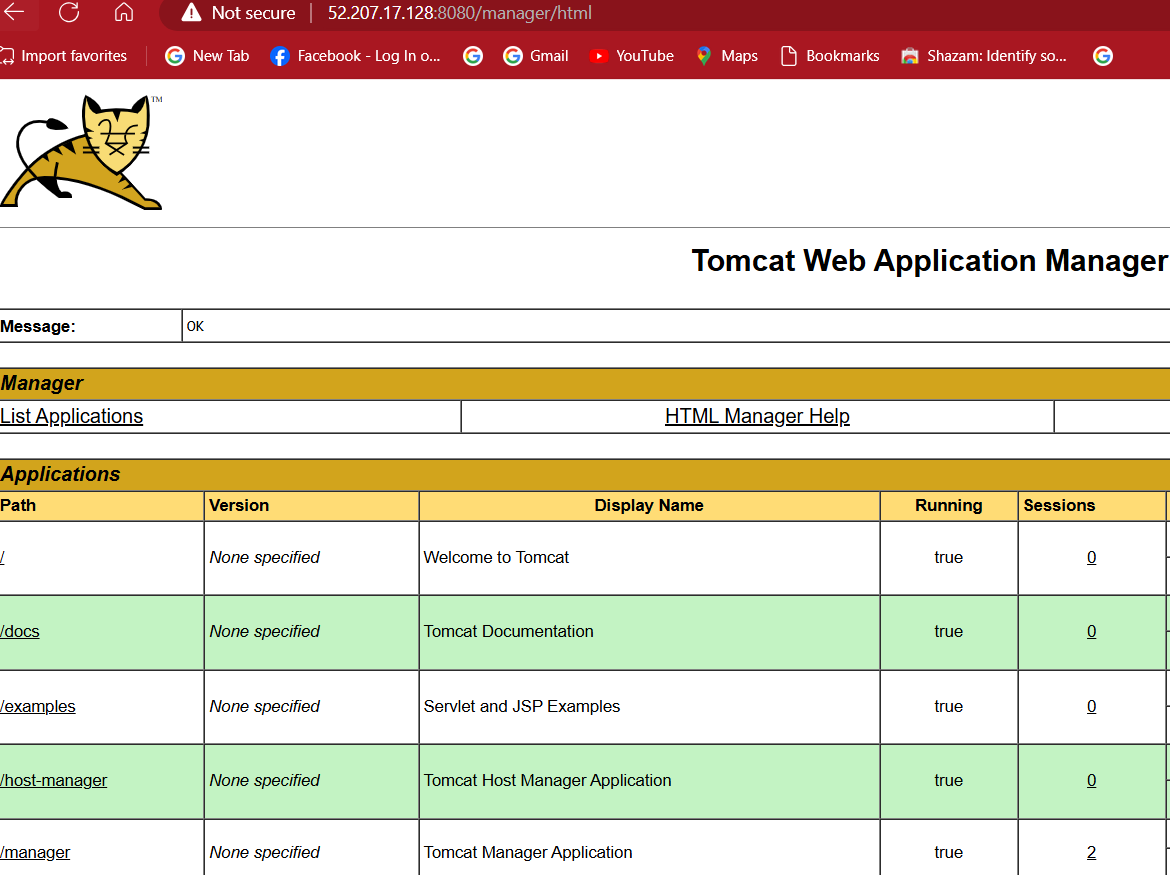
* **Next go the browser and past the public ip of the test with :8080**

****

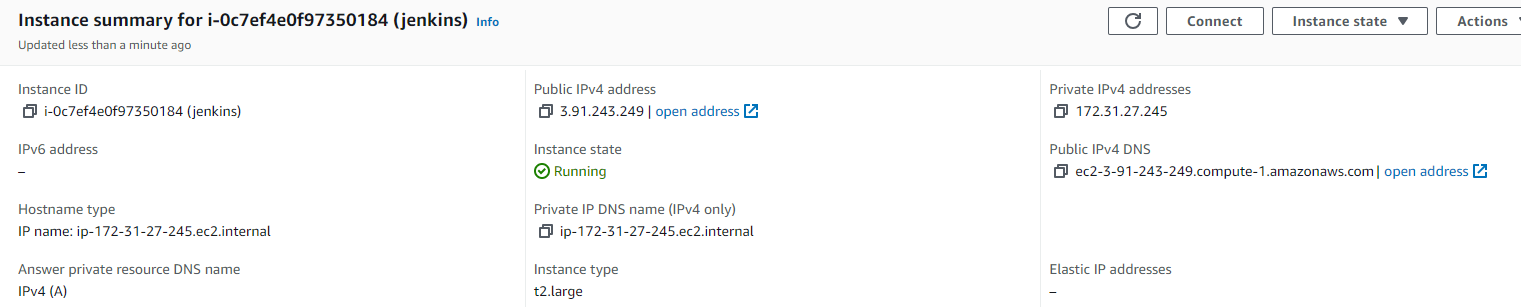
* **Next go the browser and past the public ip of the production with :8080**

****

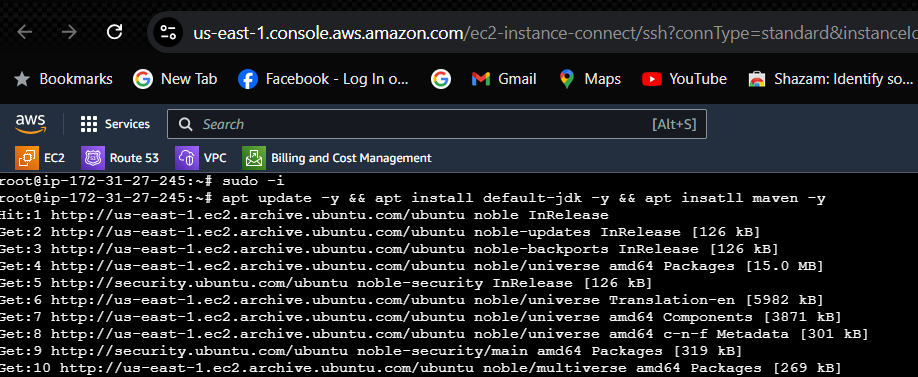
* **Next go the browser and past the public ip of the pre-production with :8080**

****

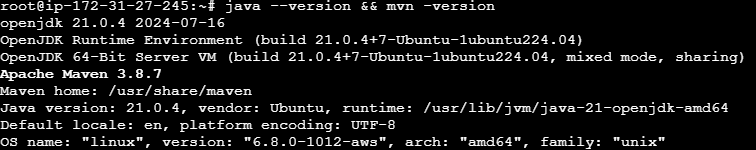
* **Now create an ec2 instance**
* **Ami – ubuntu**
* **Instance type – t2.large**
* **Add the key pair**



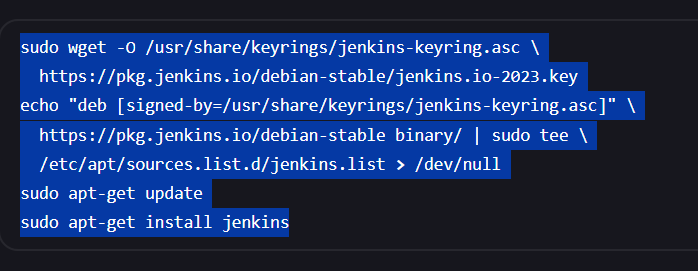
* **For installing Jenkins we need to install default-jdk & maven & jenkins**
* **Connect to the Jenkins**
* **apt update -y && apt install default-jdk -y && apt insatll maven -y**

****

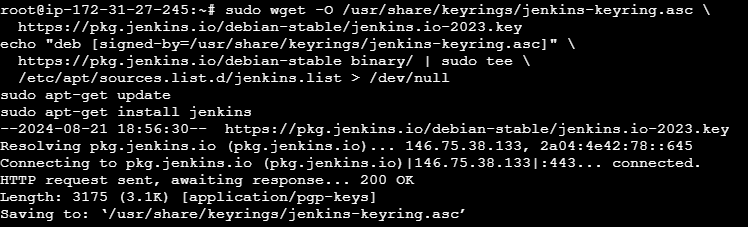
* **javan –version && mvn –version**

****

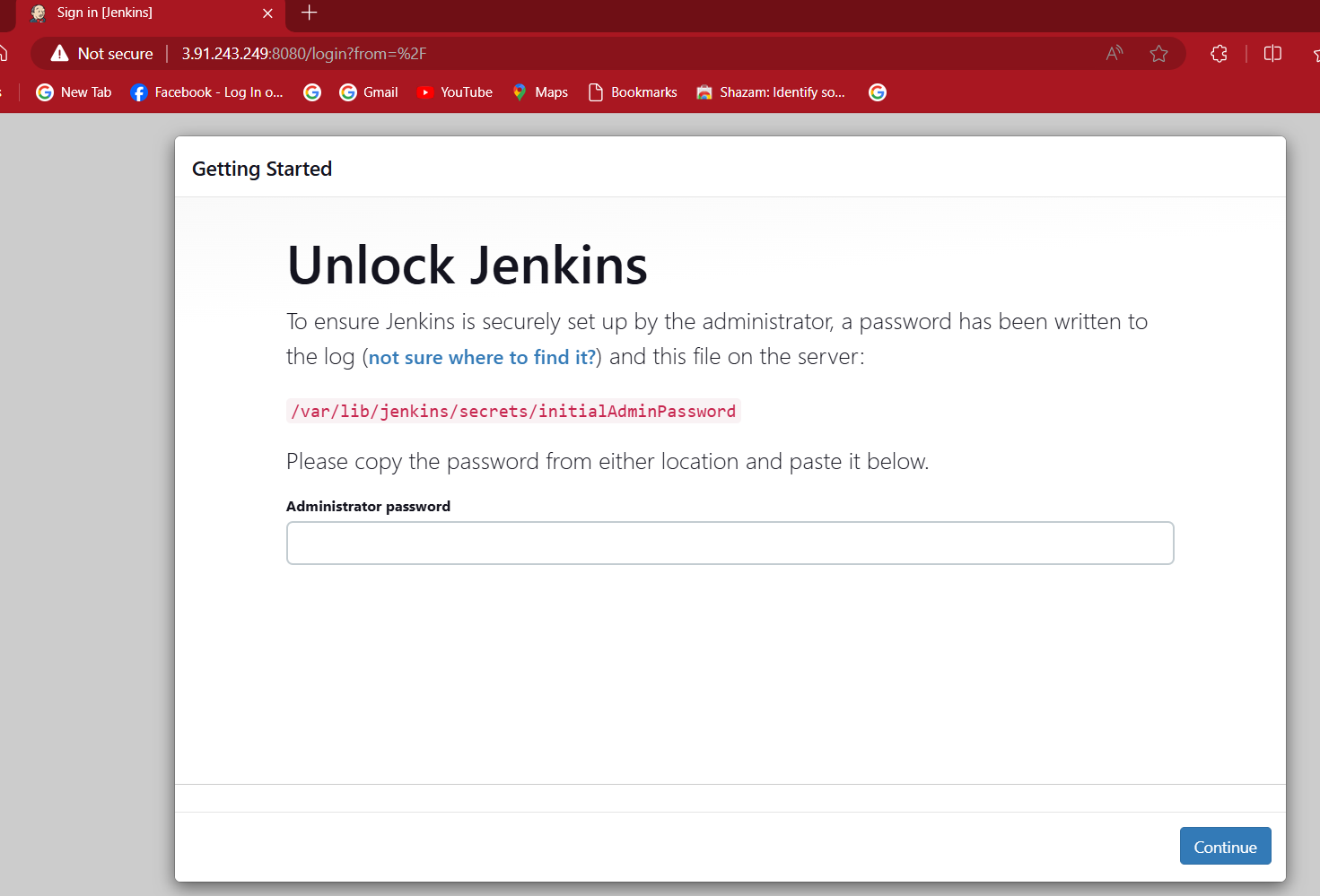
* **next install Jenkins for linux ubuntu get the installation cod from the browser**

****

* **past it in the Jenkins server and click on enter**

****

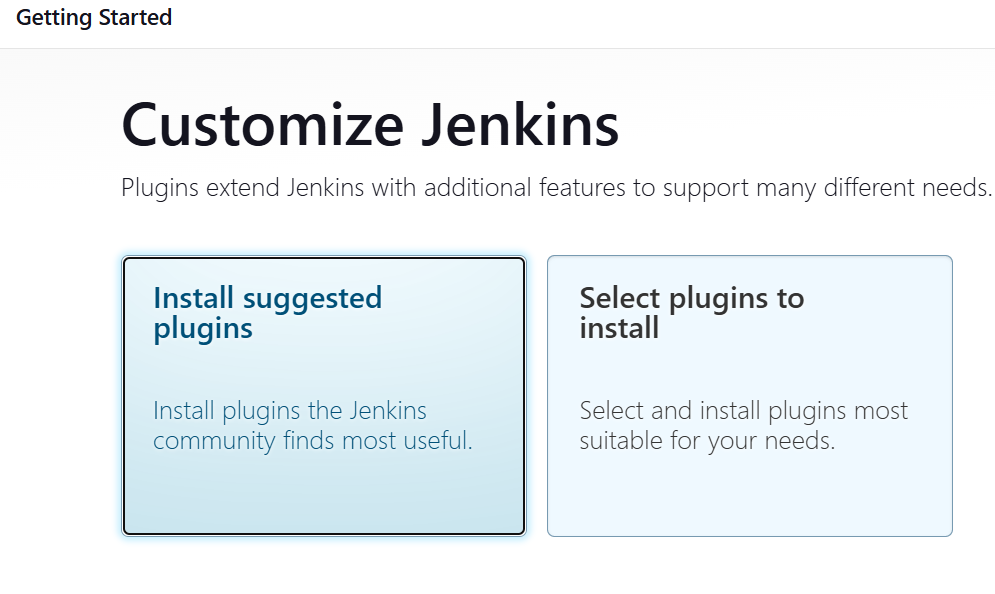
* **copy the public ip and add :8080 in the last in the browser**

****

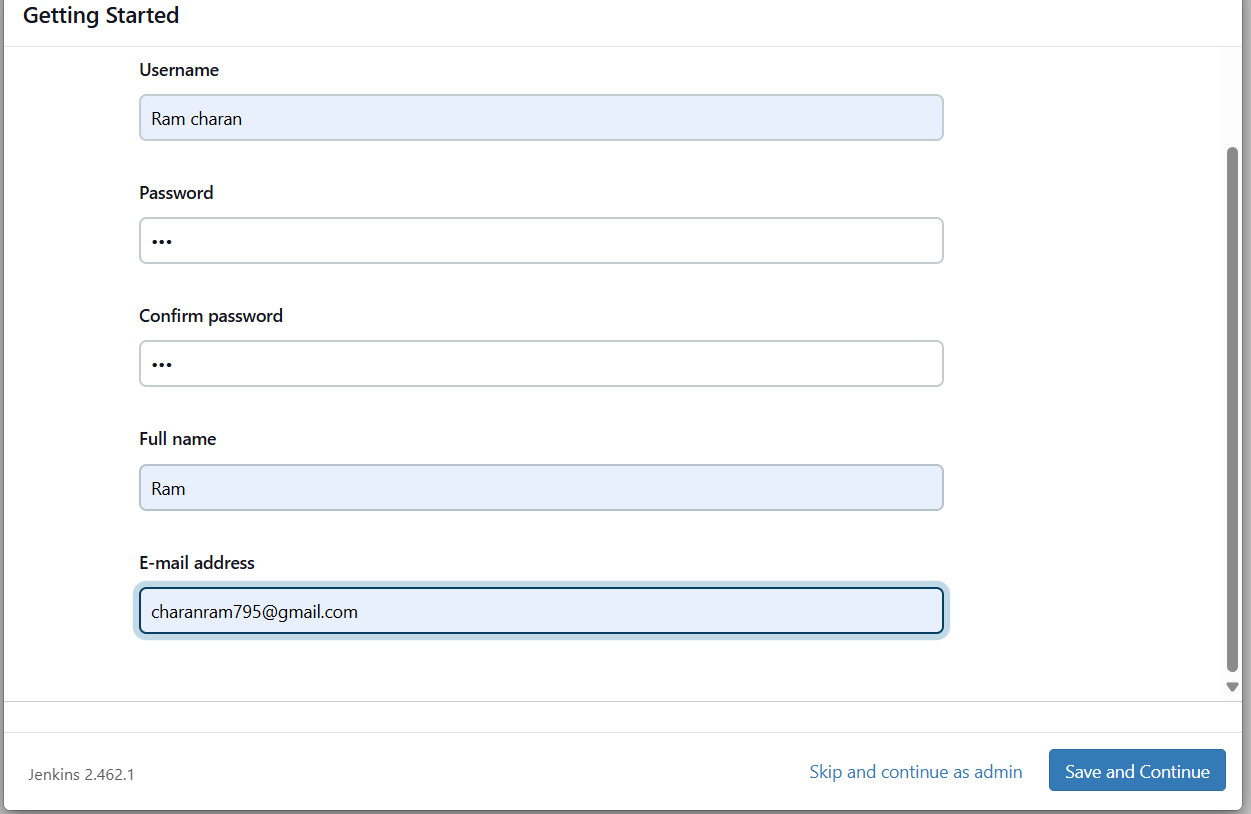
* **to get the administrator password copy the path and view the file using cat /var/lib/jenkins/secrets/initialAdminPassword in the Jenkins server**

****

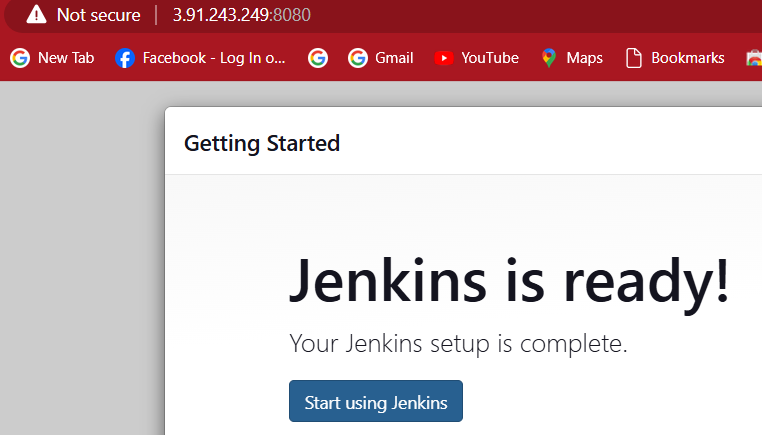
* **copy the password and past it in Jenkins**
* **click on start**

****

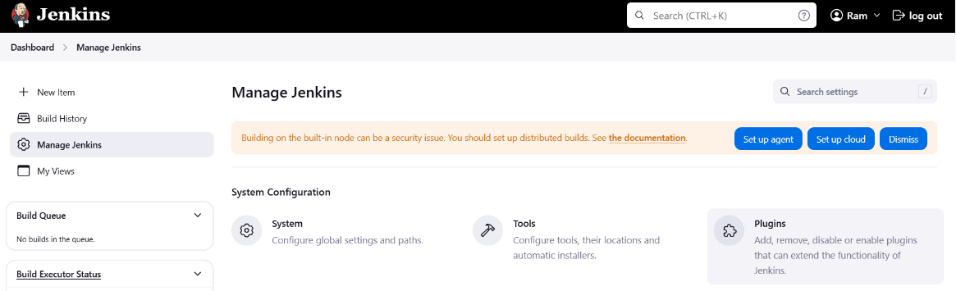
* **click on install suggested plugins & give the name, password, username, email**

****

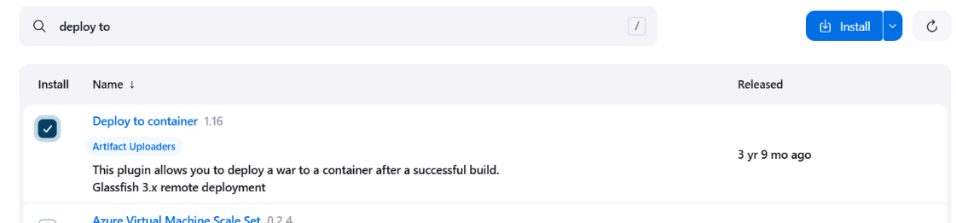
* **click on save and continue & click on start using jenkins**

****

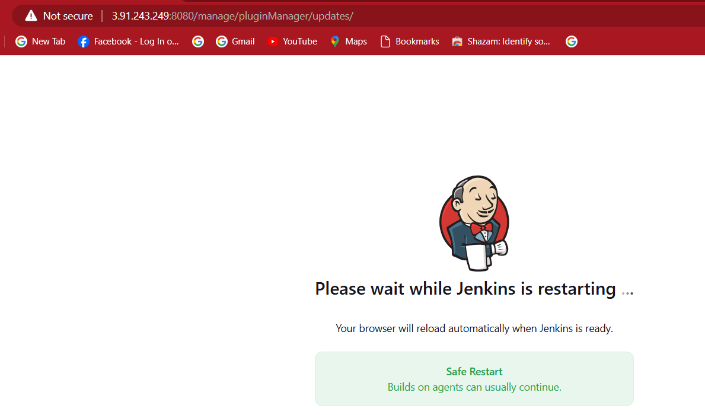
* **After opening Jenkins dashboard click on manger Jenkins**

****

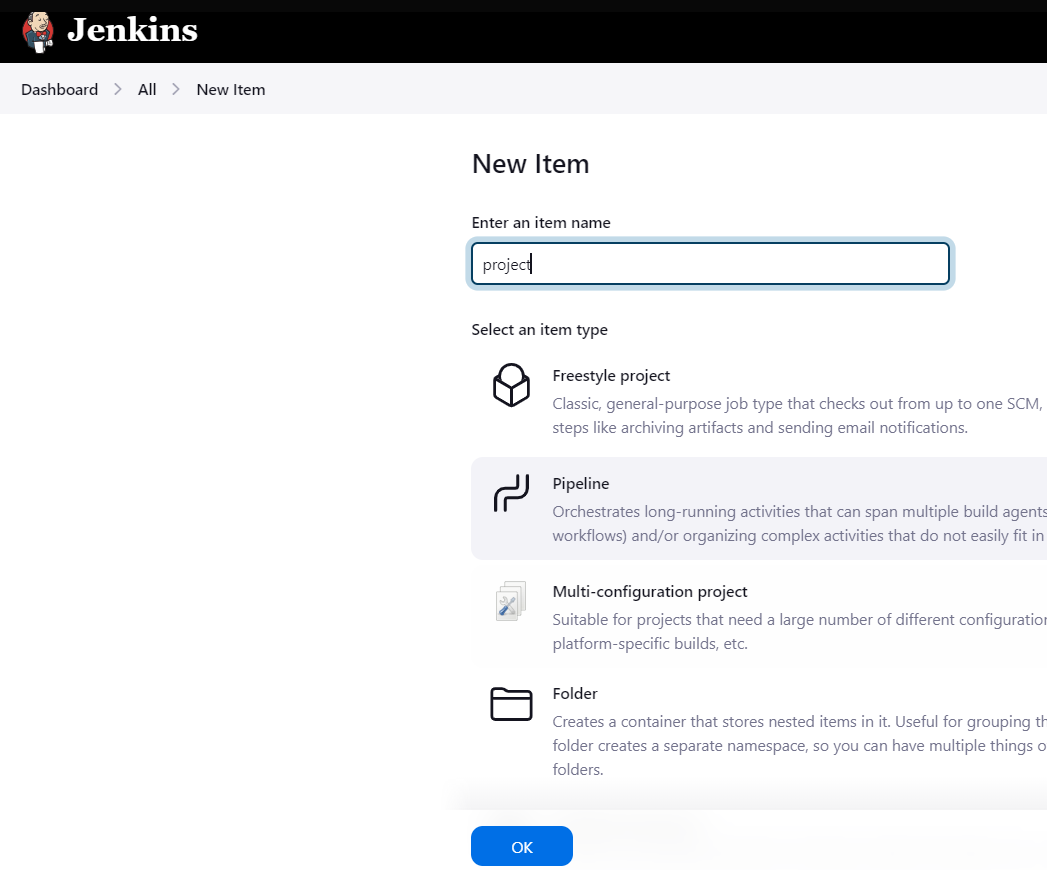
* **Click on plugins**
* **Download the deploy with container in Jenkins and click on insatll**

****

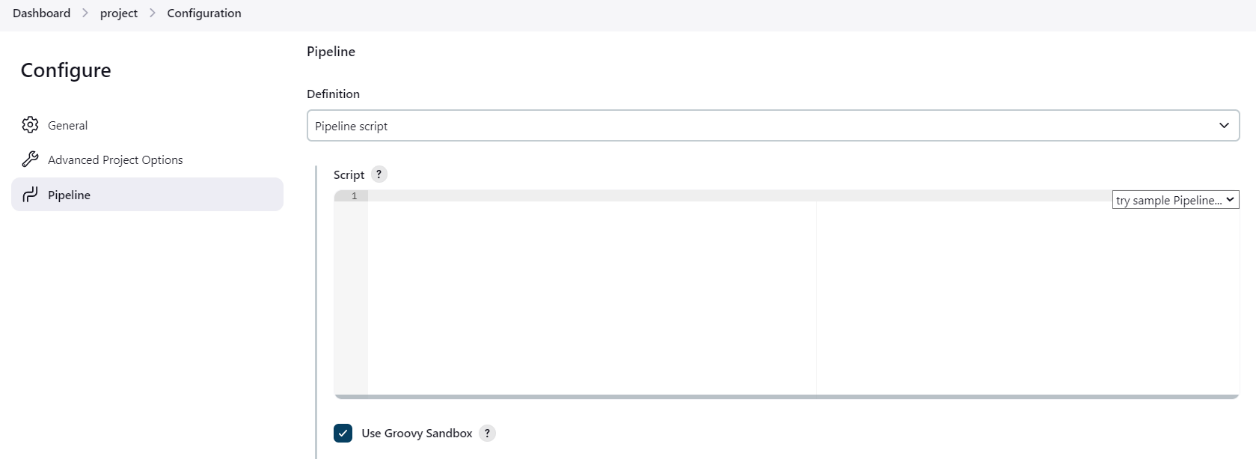
* **Next restart the Jenkins server to install the plugin**

****

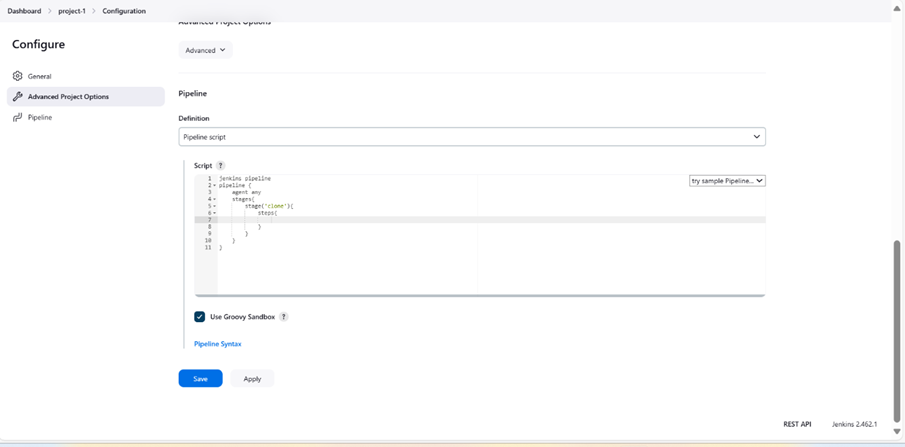
* **Next create a new job-(project) with the pipeline and click on ok**

****

* **Next go the pipeline script it shows a block to write the script**

****

* **This is a basic syntax common in all the pipeline script to clone a repository from the git hub**

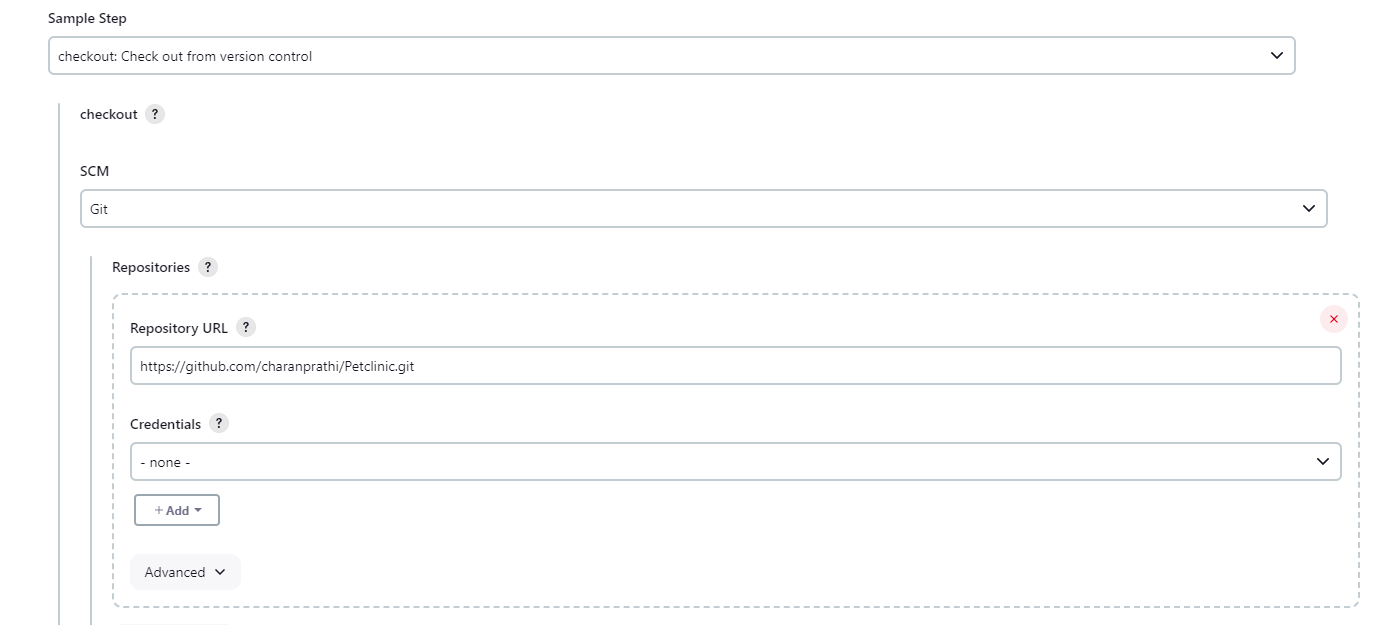


* **To get the shell script to clone click on pipeline syntax**
* **Select the checkout: Check out from version control**

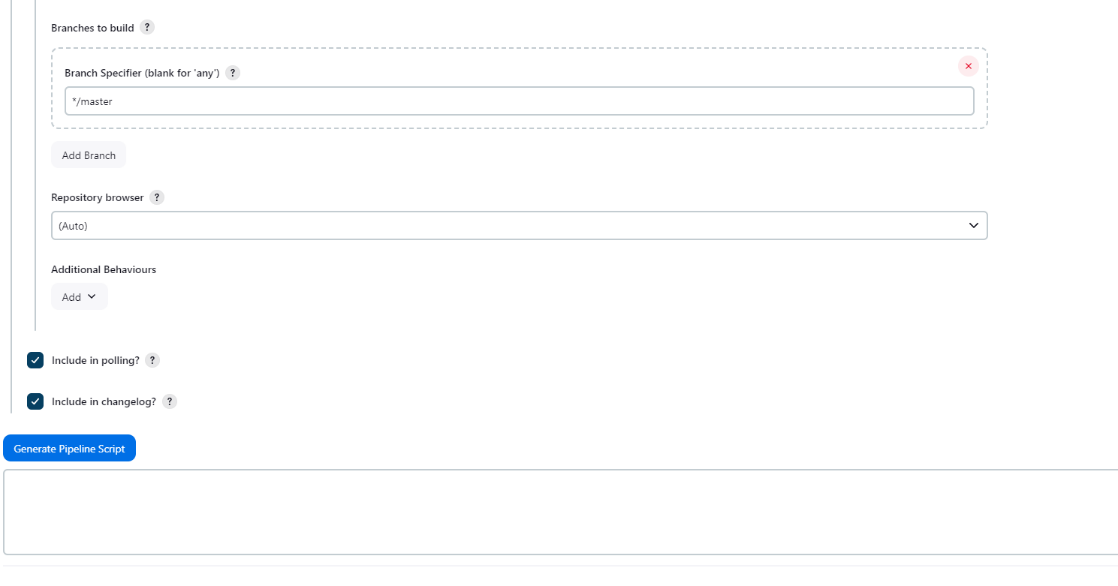
****

****

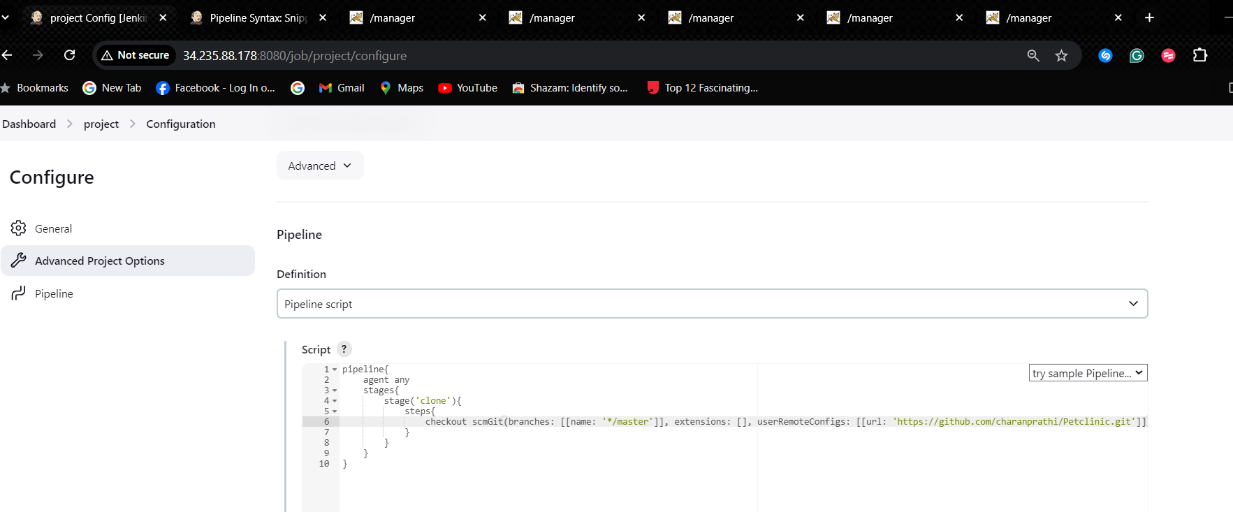
* **Next add the repositories URL here in the Respository block and if you repository is private you need to give the credentials.**
* **Copy the URL of your repository in the git hub.**

****

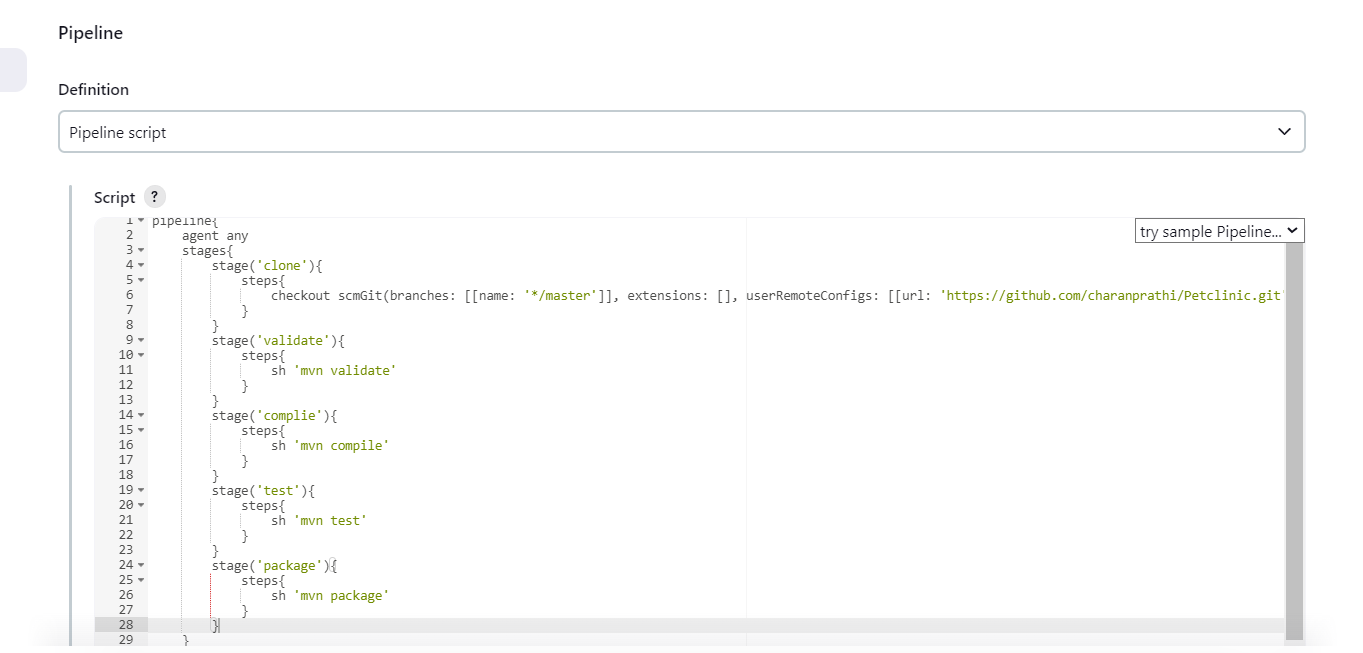
* **If the repository is public no need to give the credentials and branches to build in \*/master**

****

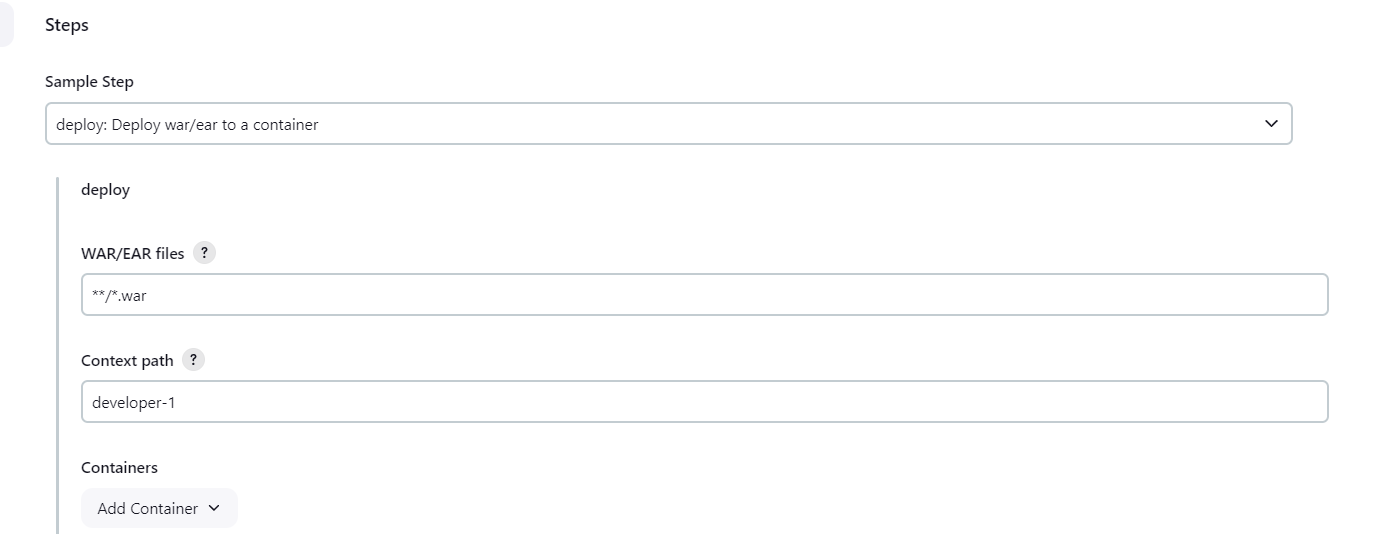
* **Now click on generate pipeline script and past in the clone steps in the pipeline script**

****

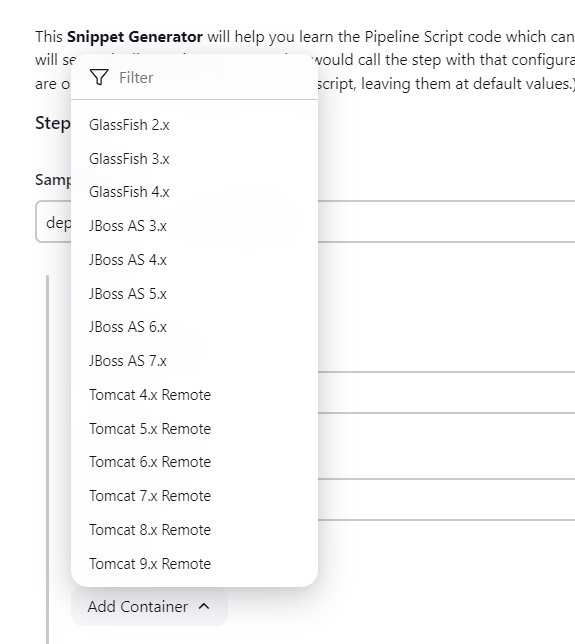
* **Add the stage of validate, test, compile, package in the shell script as shown below**

****

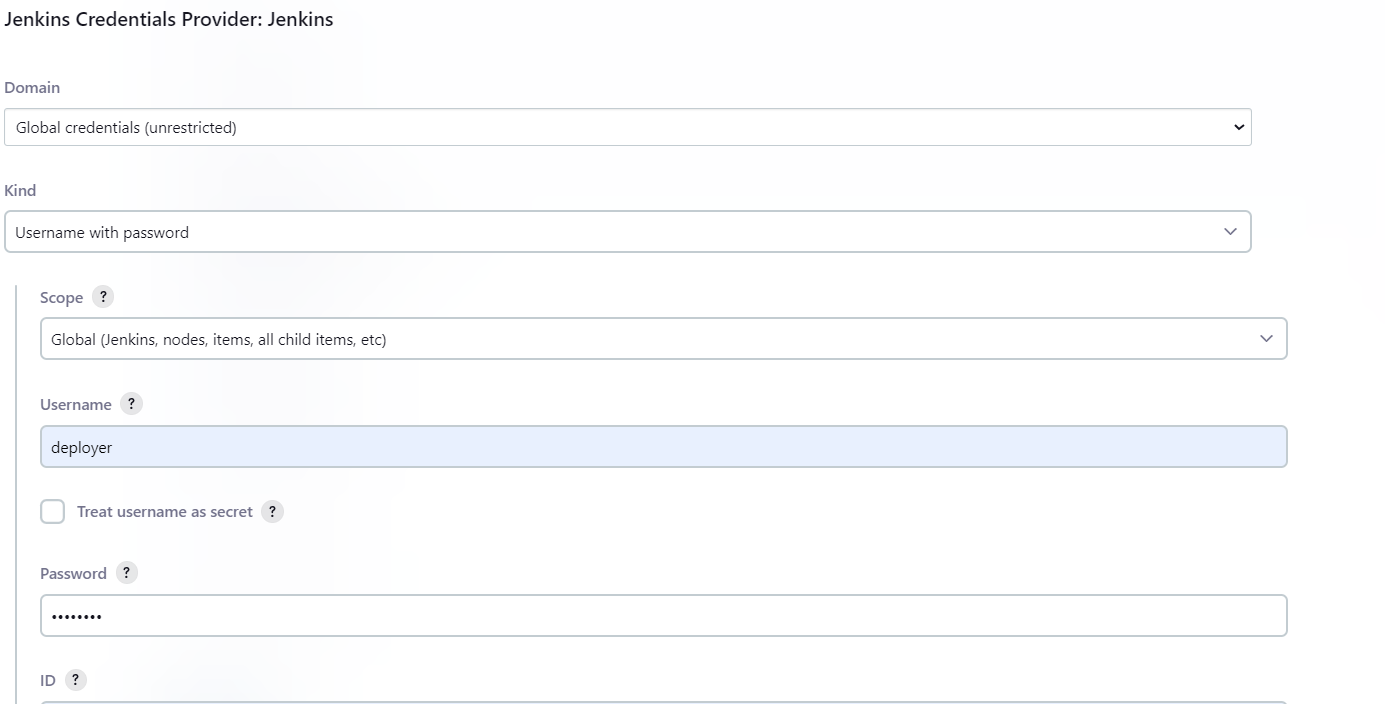
* **Next add stages to deploying to multi tomcat servers by pipeline script to generate a shell script using deployer war/ear to a container plugin which we previously installed in Jenkins**

****

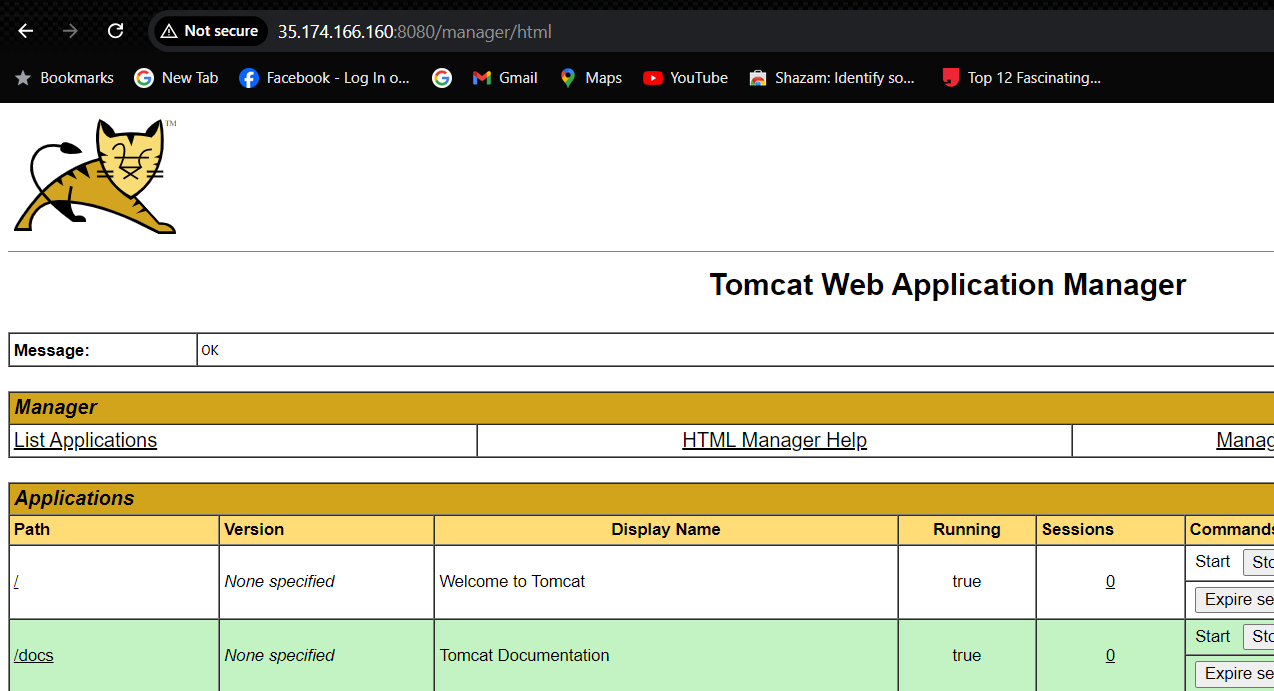
* **Click on add container – tomcat\*9 Remote**

****

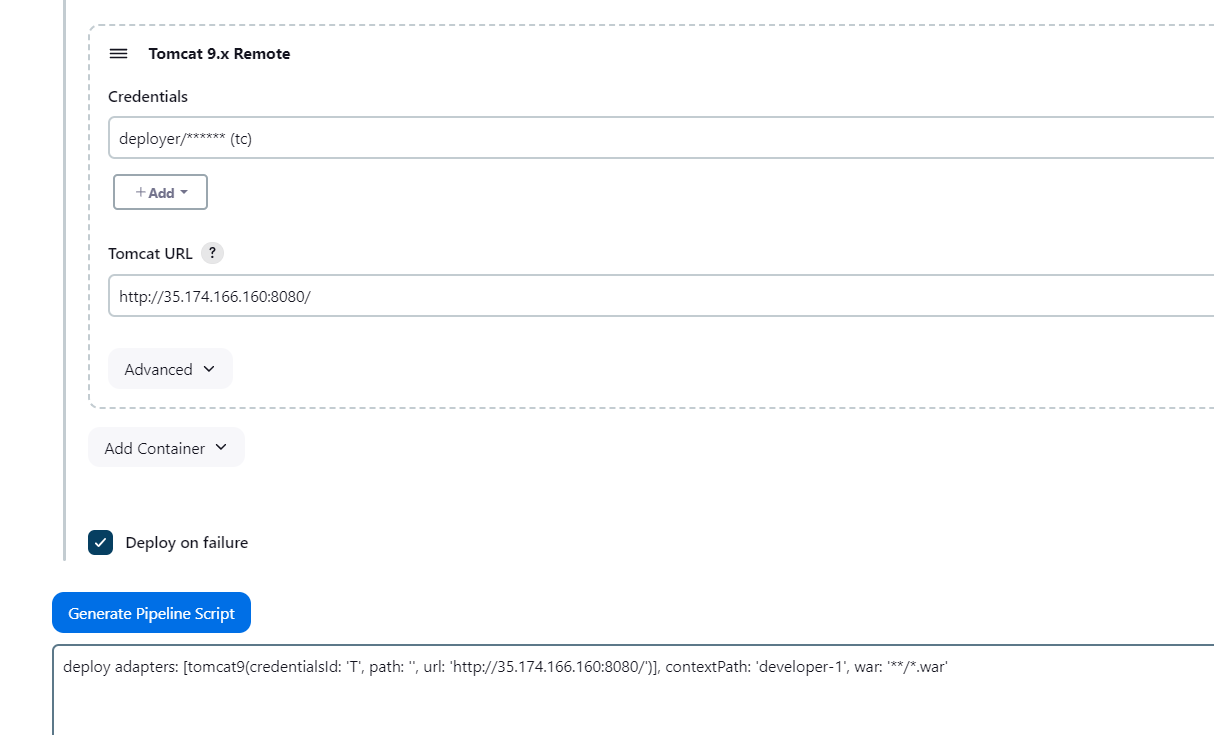
* **Now we need to give the credentials of tomcat and click on add**

****

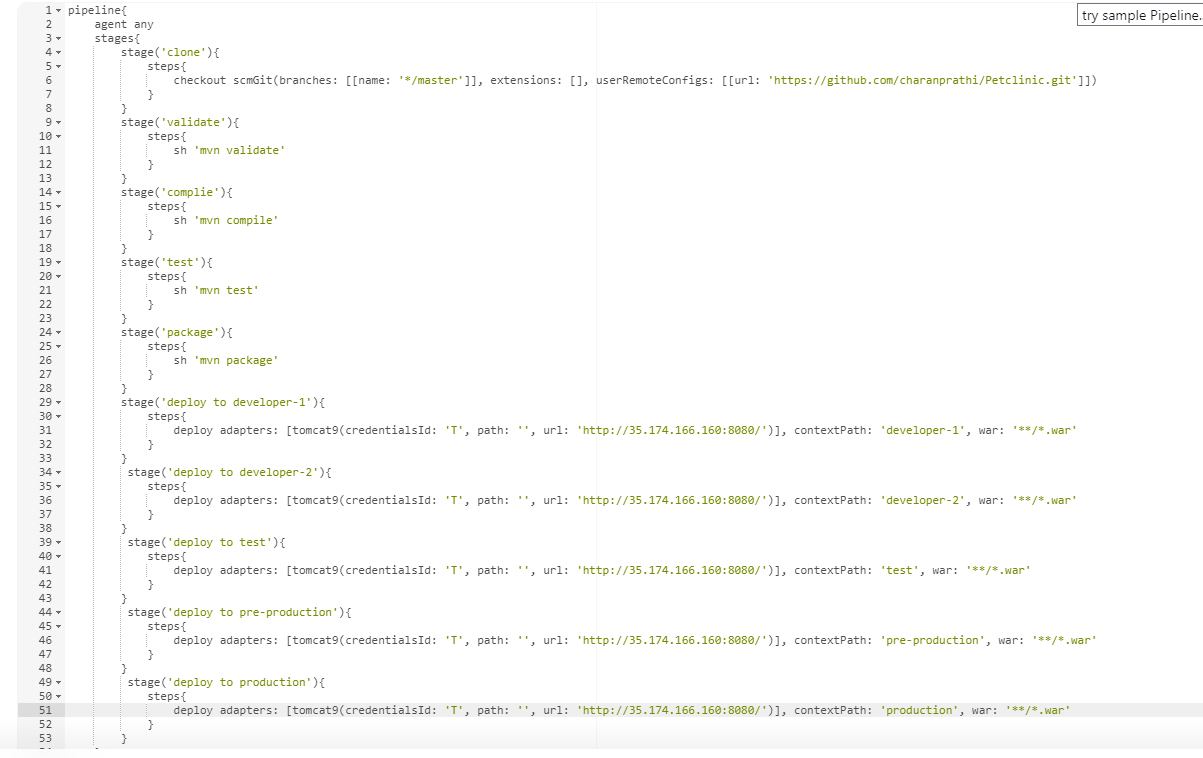
* **we need to give the tomcat URL to which server we need to deploy**

****

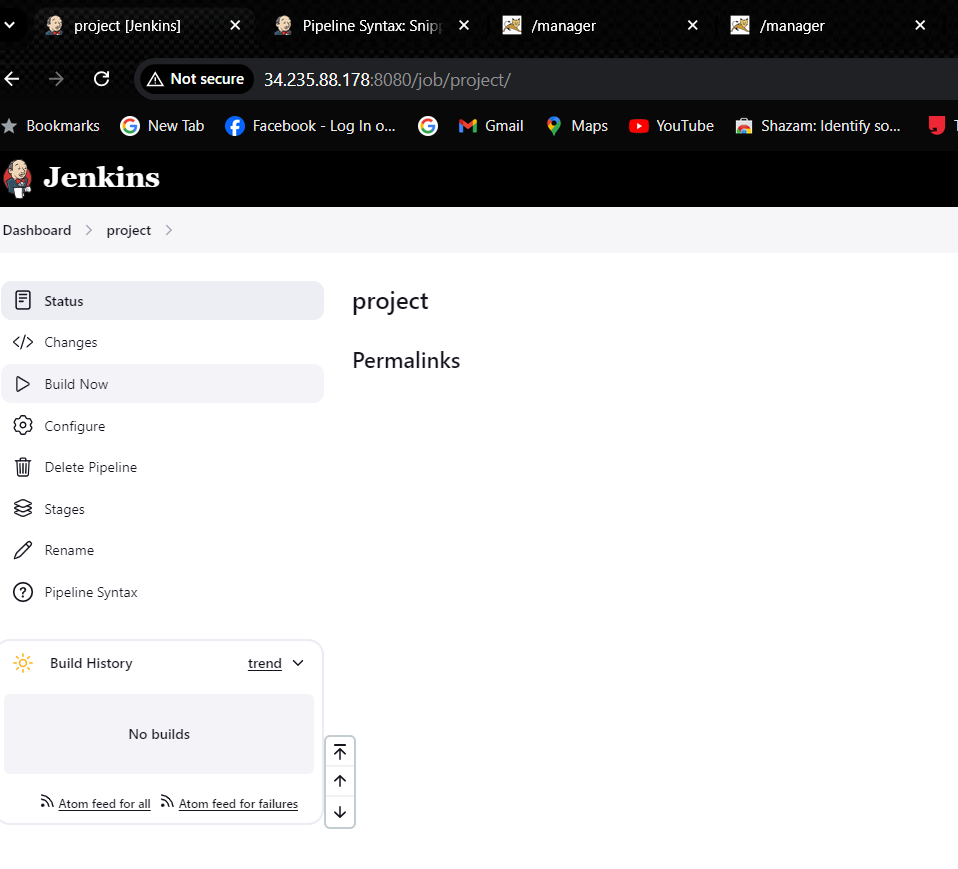
* **past the URL in the Tomcat URL section and next click on generate pipeline script**

****

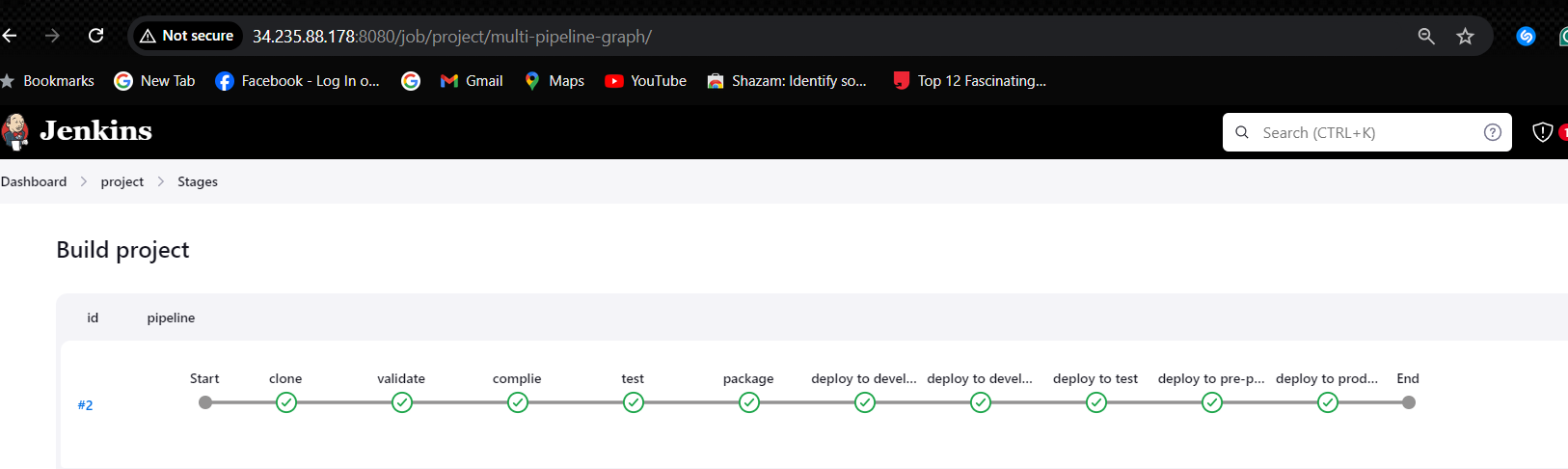
* **Next write another stage to deployer to tomcat server by coping the shell script as shown below**

****

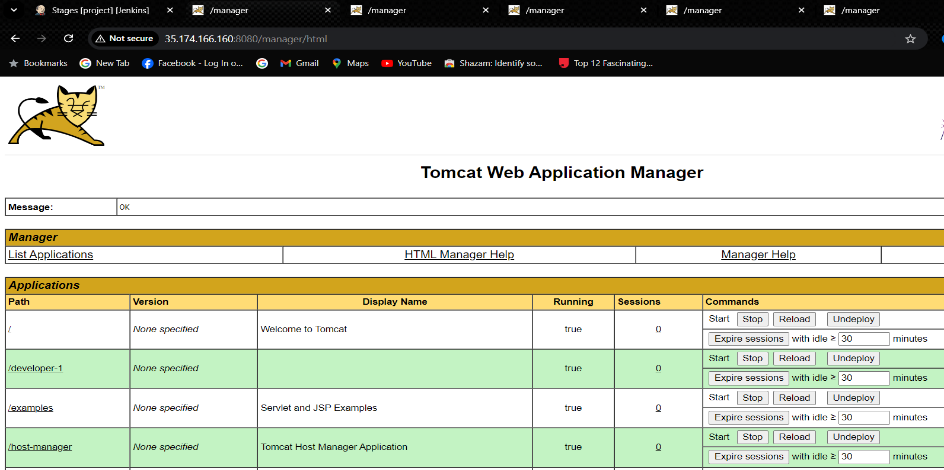
* **Create the pipeline syntax in the same as shown in the above picture for all the tomcat server**
* **Here I have 5 tomcat servers so I added then all in the stages to deploy application in the tomcat**
* **Now click on save and apply**
* **Before you click in build make sure that all your tomcat servers are in logon state if not it won’t deploy to your servers**

****

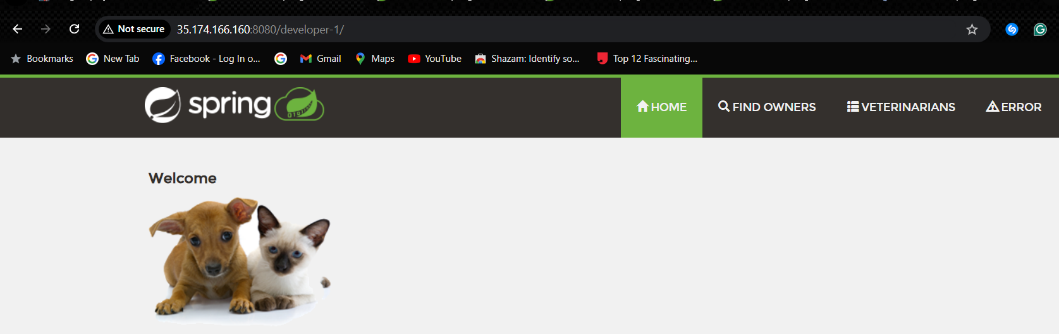
* **And click on Build now open stages to see the deployment**

****

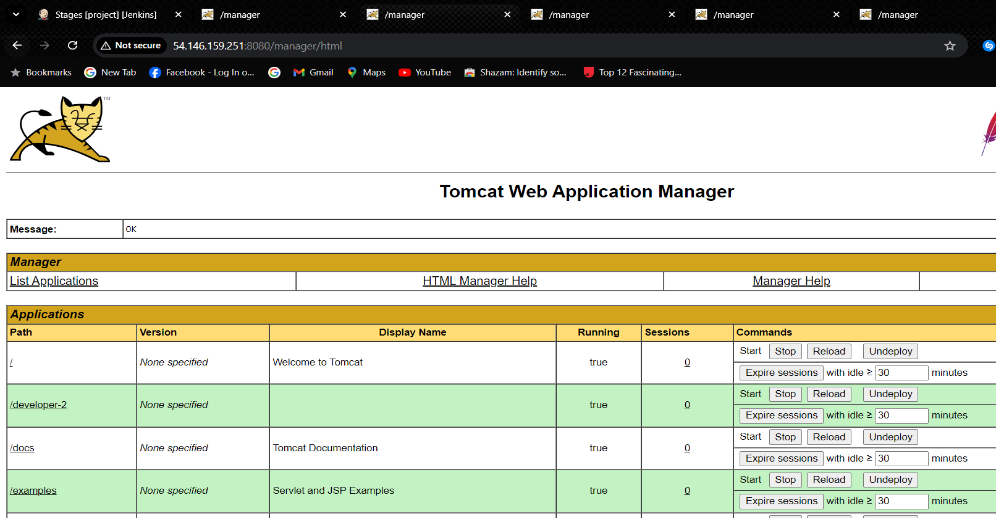
* **Now let’s check the tomcat servers one by one that the application is deployed or not**
* **Developer-1 in the first server (**[**http://35.174.166.160:8080/**](http://35.174.166.160:8080/)**)**

****

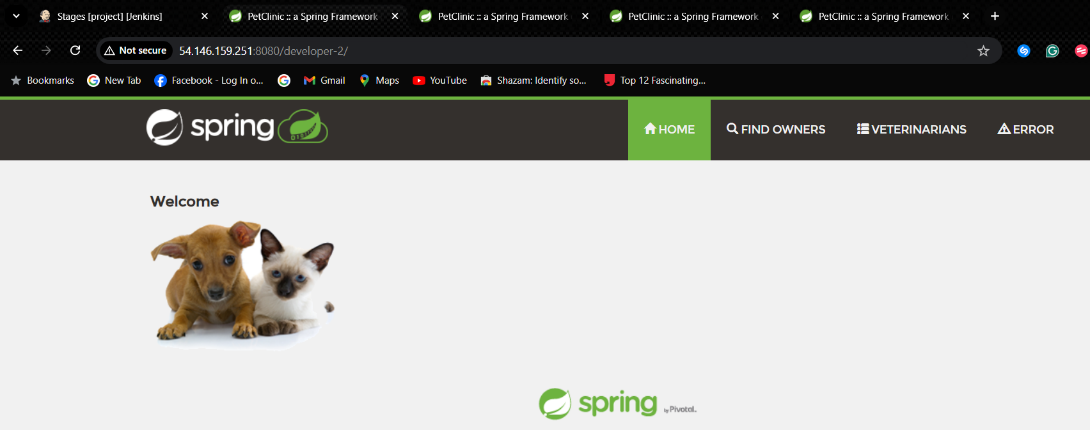
* **Now click on the developer-1 to see the application**

****

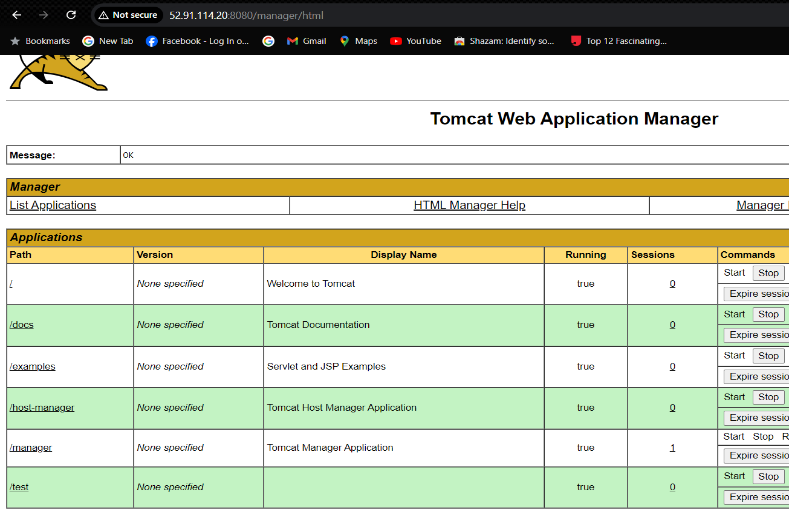
* **Developer-2 in the second server (**[**http://54.146.159.251:8080/**](http://54.146.159.251:8080/)**)**

****

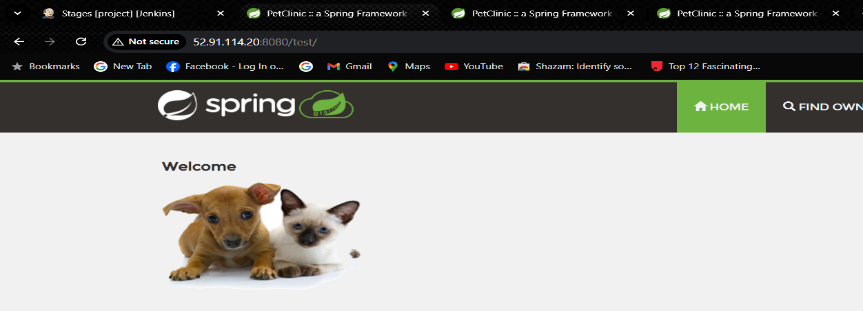
* **Now click on the developer-2 to see the application**

****

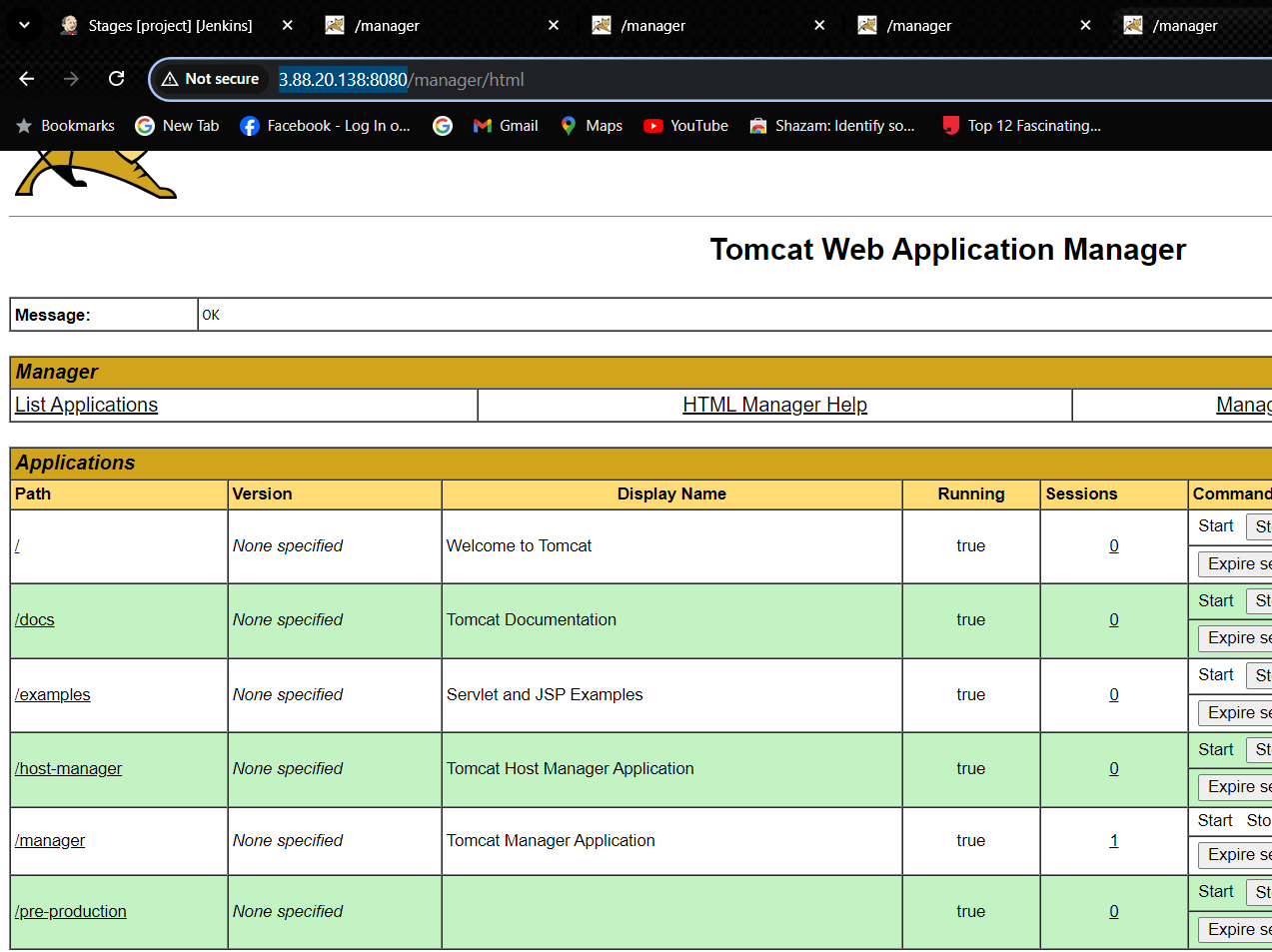
* **Test in the third server (**[**http://52.91.114.20:8080/**](http://52.91.114.20:8080/)**)**

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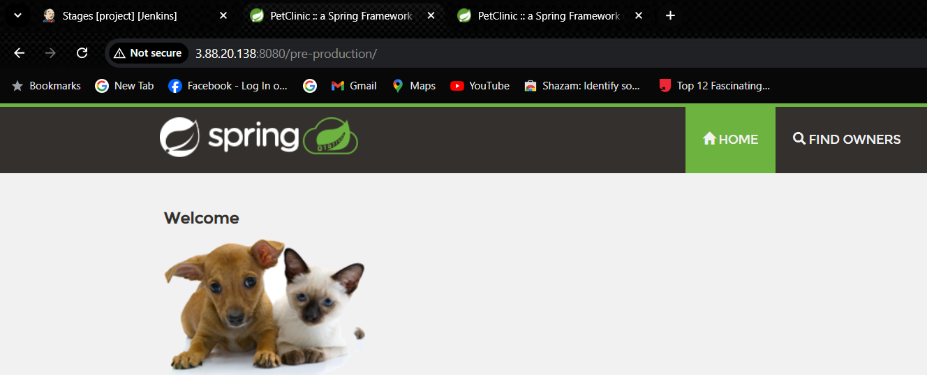
* **Now click on the test to see the application**

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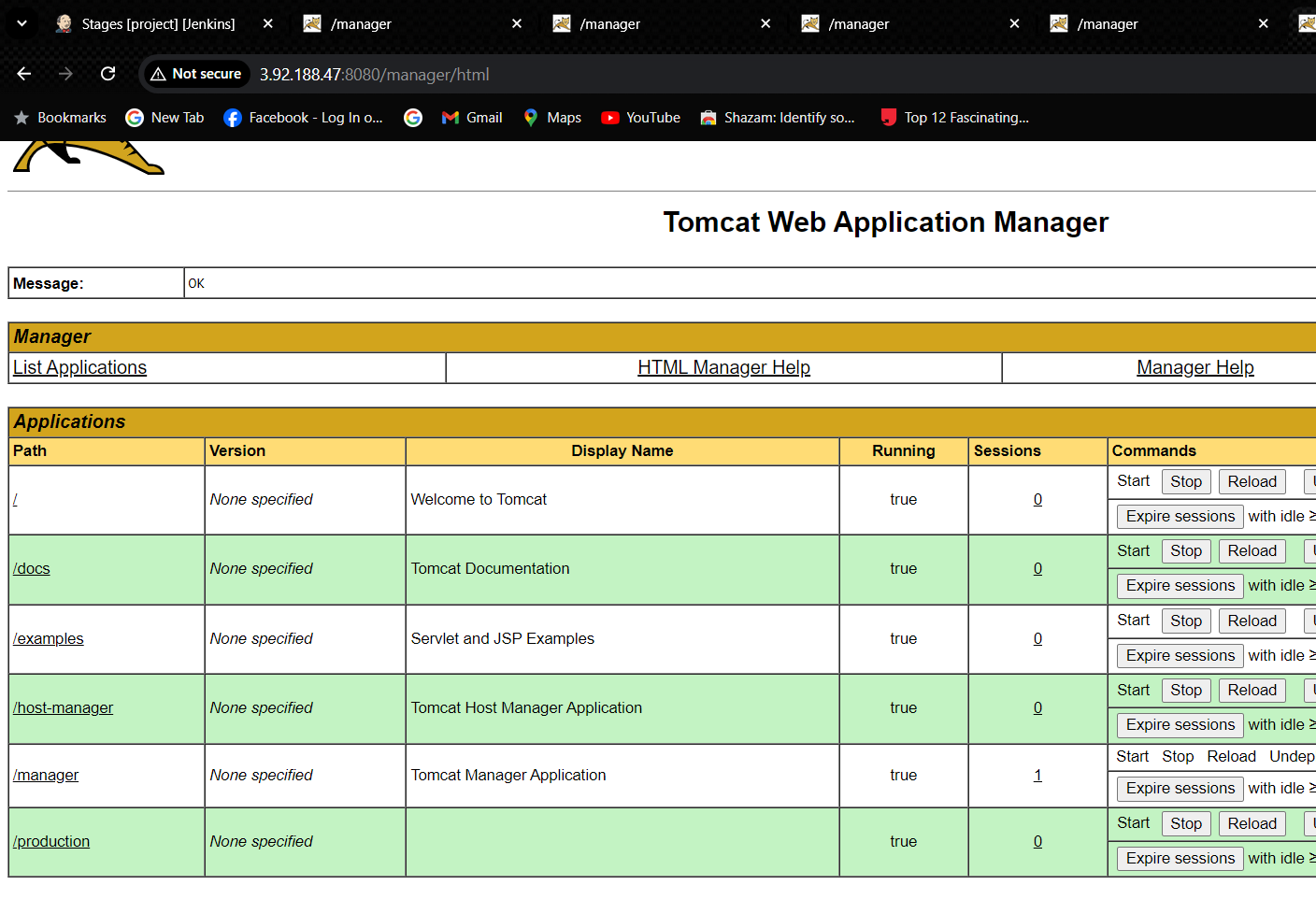
* **Pre-production in the fourth server (**[**http://3.88.20.138:8080/**](http://3.88.20.138:8080/)**)**

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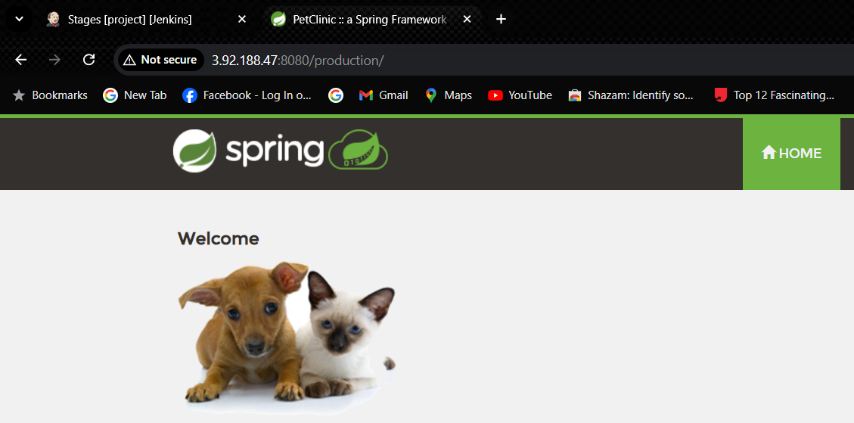
* **Now click on the pre-production to see the application**

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* **Production in the fifth server(**[**http://3.92.188.47:8080/**](http://3.92.188.47:8080/)**)**

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* **Now click on the production to see the application**

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***Thank you***