JENKINS DEPLOYMENT

STEP 1: LAUNCH 1 INSTANCE FOR JENKINS

Name: Jenkins Server

AMI: Amazon Linux Server

Instance Type: t2.micro

Storage: 15-30 GB

Create a security group and make sure to allow SSH port 22 and TCP port 8080 from anywhere from the IP.

Now launch the instance and then connect it.

STEP 2: Now login as root user: sudo -i

Copy the below commands:

#!/bin/bash

- sudo yum update –y
- sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat-stable/jenkins.repo
- sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key
- sudo yum upgrade
- sudo yum install java-17-amazon-corretto -y
- sudo yum install jenkins git -y
- sudo systemctl enable jenkins
- sudo systemctl start jenkins
- sudo systemctl status jenkins
- sudo mkdir -p /var/tmp_disk
- sudo chmod 1777 /var/tmp_disk
- sudo mount --bind /var/tmp_disk /tmp
- echo '/var/tmp_disk /tmp none bind 0 0' | sudo tee -a /etc/fstab
- sudo systemctl mask tmp.mount
- df -h /tmp
- sudo systemctl restart Jenkins

Reference: https://github.com/Cloud-Boi-Sai/Installation-setups/blob/main/jenkins.sh

Execute the above commands one by one or use **.sh** file

Create a file: vim Jenkins.sh

Paste the commands from the repo and save it the file.

To execute the file: **sh jenkins.sh**

STEP 3: Jenkins gets installed in your instance. After installing the copy the public IP of Jenkins instance and port 8080.

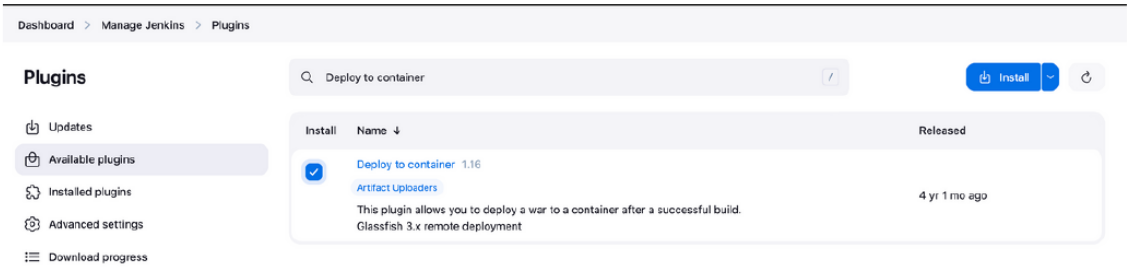
Ex: http://<public-ip>:8080

You will see the Jenkins dashboard, once you hit the URL.

Now Jenkins is Ready, Lets integrate it with GIT

Now Install Deploy to container plugin

Go to Manage Jenkins >> Plugins >> Available Plugins >> Deploy to container



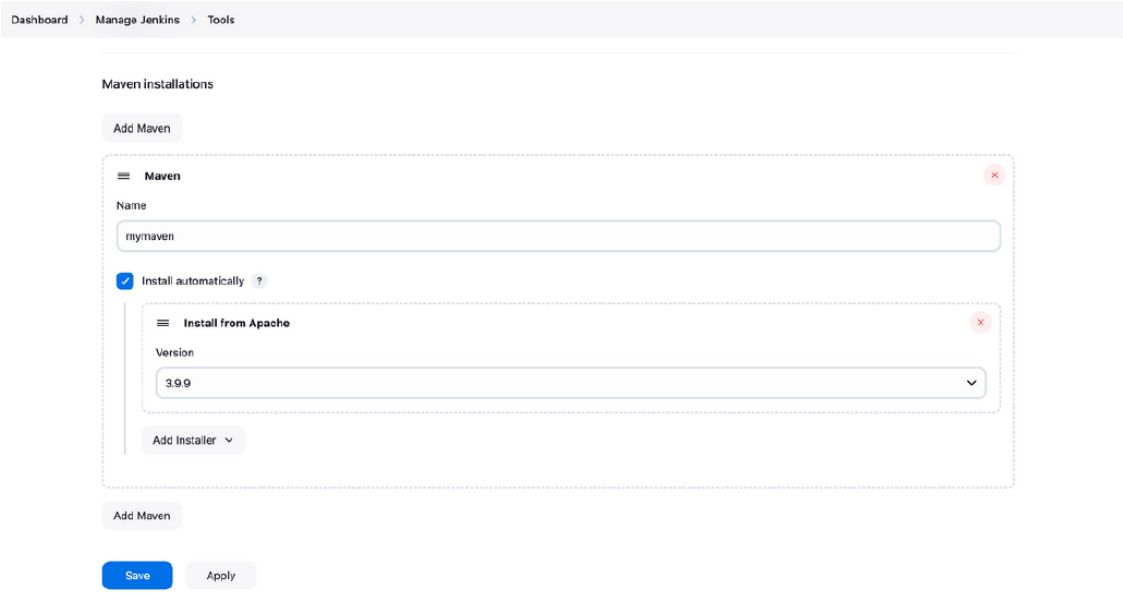
STEP 4: Integrate Maven

Go to Manage Jenkins >> tools and select maven

Under the Maven Installations click on Add Maven

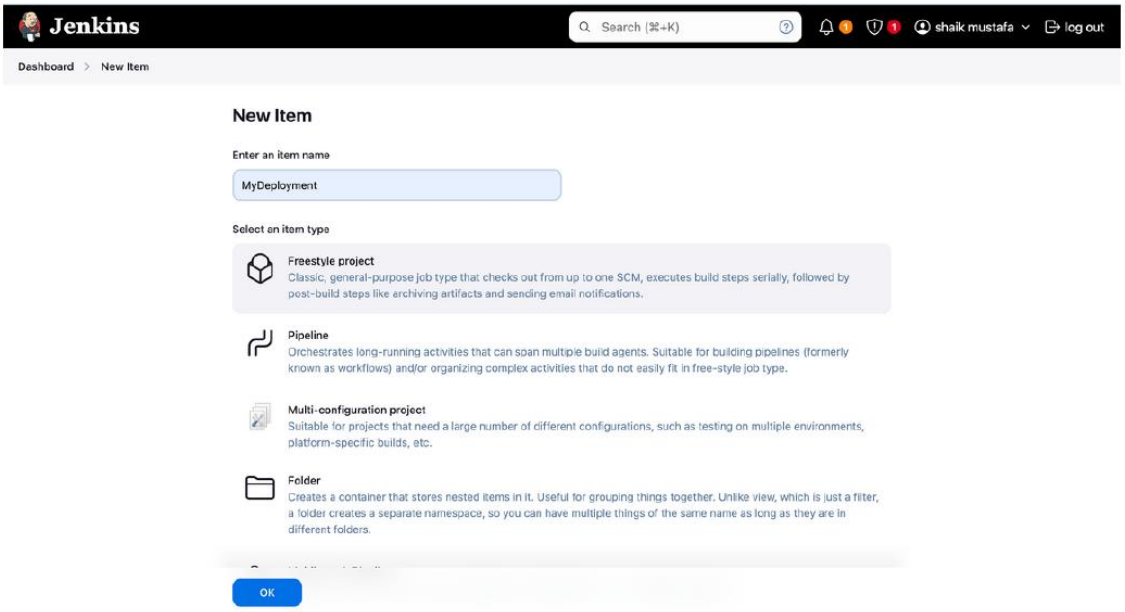
Name: MyMaven

Version: default (3.9.9)



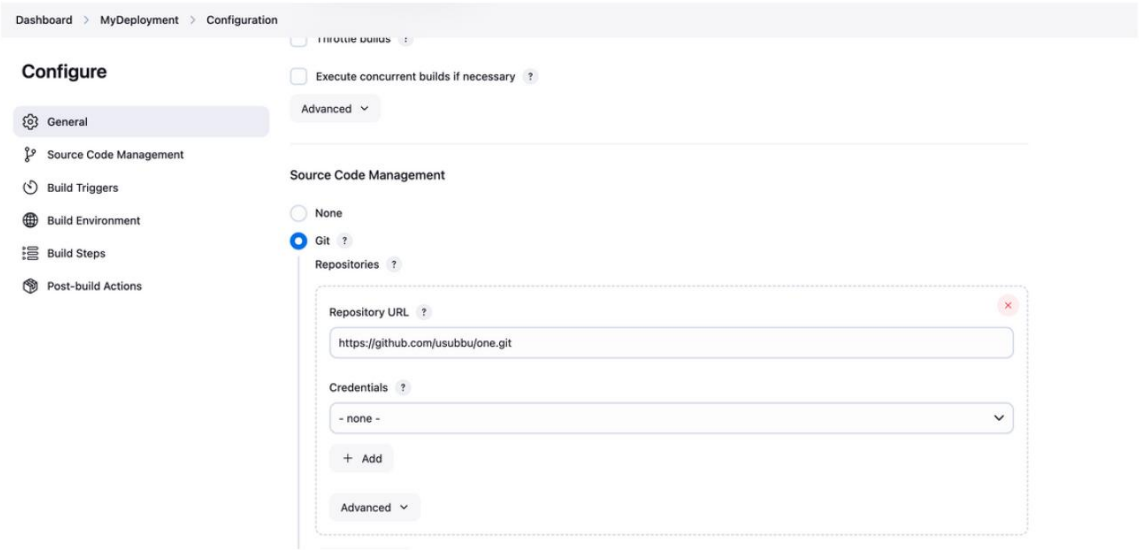
Now click on save

STEP 5: Create a Free Style Job



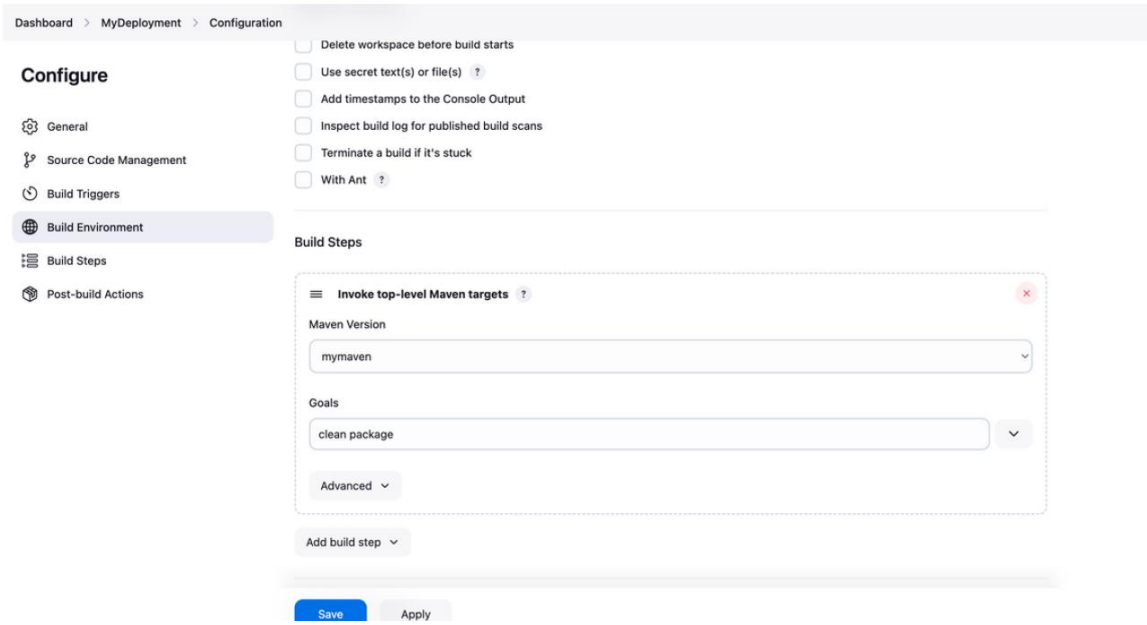
Go **to Source Code Management** and select **GIT** and enter the repo-url

(**https://github.com/usubbu/one.git**)

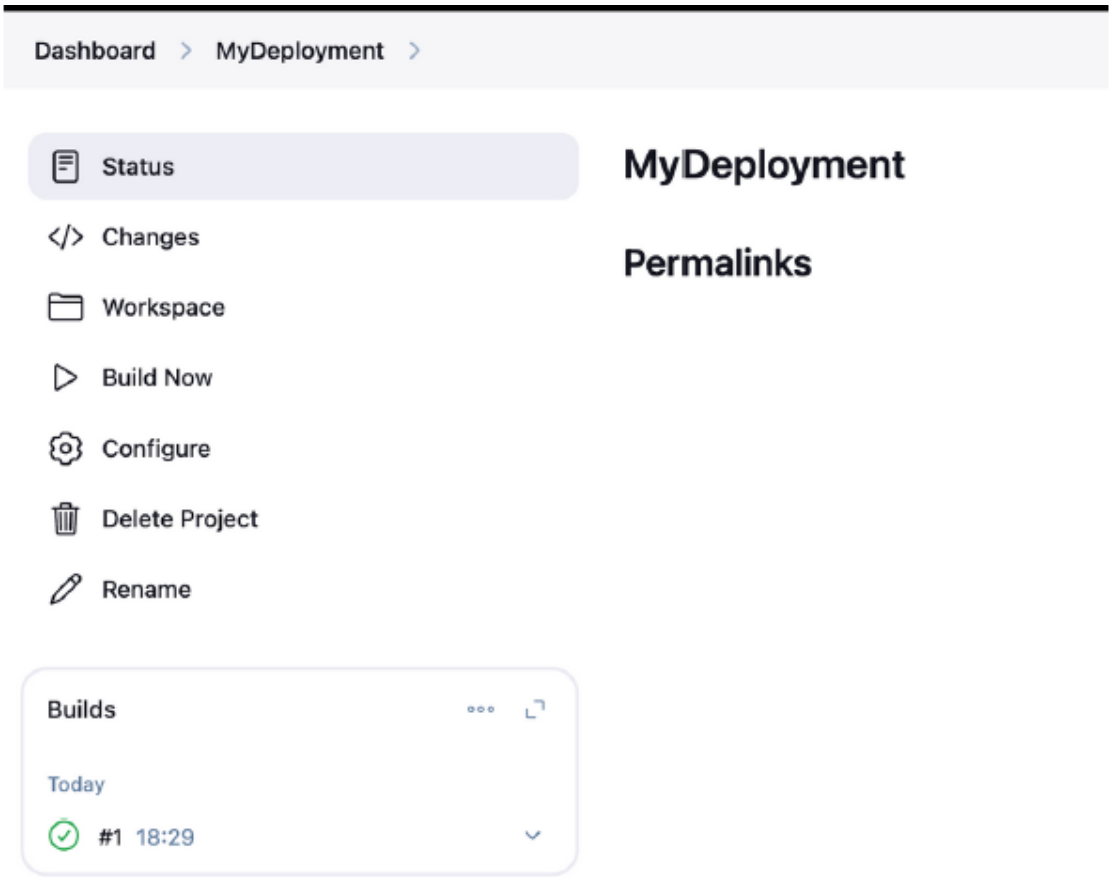


Go to **Build Steps** and select **Invoke top-level Maven targets** and select the Maven version as **mymaven**

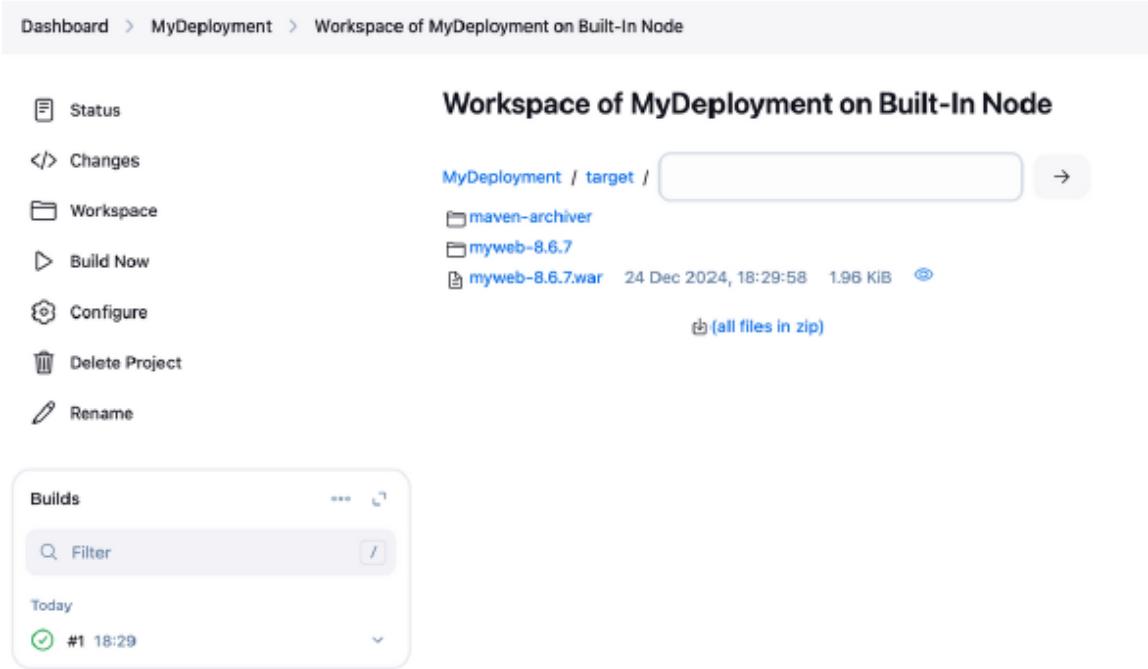
Now enter the goal as **clean package**



Save the job and click on Build Now



If the build gets success, go to workspace and open the target folder, we will get war file.



STEP 6: Now Launch one more instance for tomcat

Name: Tomcat

AMI: Amazon Linux Kernel-6.1

Instance Type: t2.micro

Storage: 15-30 GB

Now click on launch instance and then connect it.

Now login as root user: sudo -i

Copy the below commands:

#!/bin/bash

- yum install java-17-amazon-corretto -y
- wget https://dlcdn.apache.org/tomcat/tomcat-9/v9.0.108/bin/apache-tomcat-9.0.108.tar.gz
- tar -zxvf apache-tomcat-9.0.108.tar.gz
- sed -i '56 a\<role rolename="manager-gui"/>' apache-tomcat-9.0.108/conf/tomcat-users.xml
- sed -i '57 a\<role rolename="manager-script"/>' apache-tomcat-9.0.108/conf/tomcat-users.xml
- sed -i '58 a\<user username="tomcat" password="admin@123" roles="manager-gui, manager-script"/>' apache-tomcat-9.0.108/conf/tomcat-users.xml
- sed -i '59 a\</tomcat-users>' apache-tomcat-9.0.108/conf/tomcat-users.xml
- sed -i '56d' apache-tomcat-9.0.108/conf/tomcat-users.xml
- sed -i '21d' apache-tomcat-9.0.108/webapps/manager/META-INF/context.xml
- sed -i '22d' apache-tomcat-9.0.108/webapps/manager/META-INF/context.xml
- sh apache-tomcat-9.0.108/bin/startup.sh

You can find the commands or script in this repo

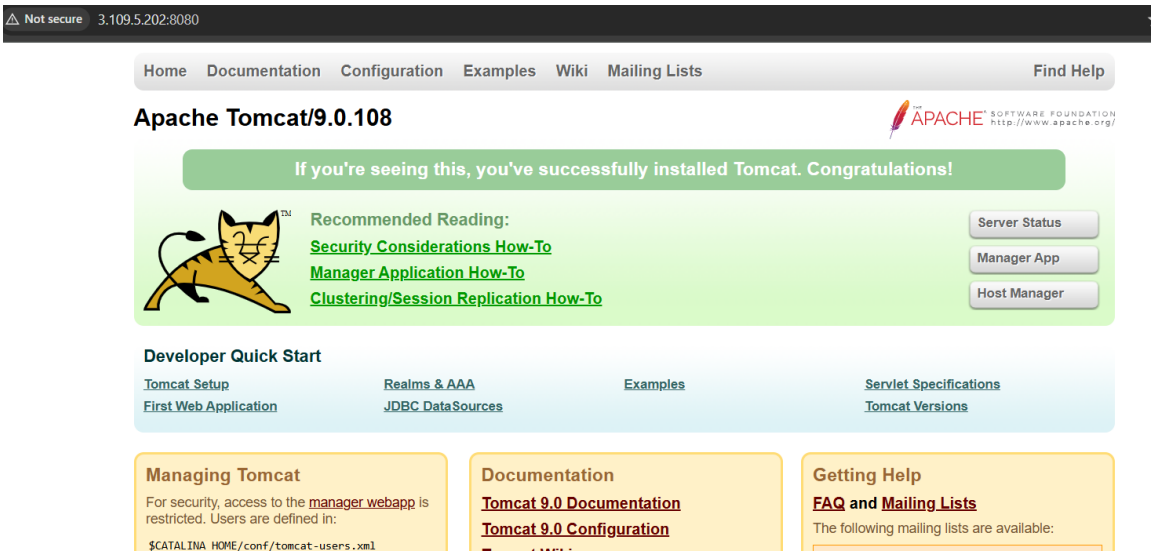
(**https://github.com/Cloud-Boi-Sai/Installation-setups/blob/main/tomcat.sh**)

Remember the tomcat credentials

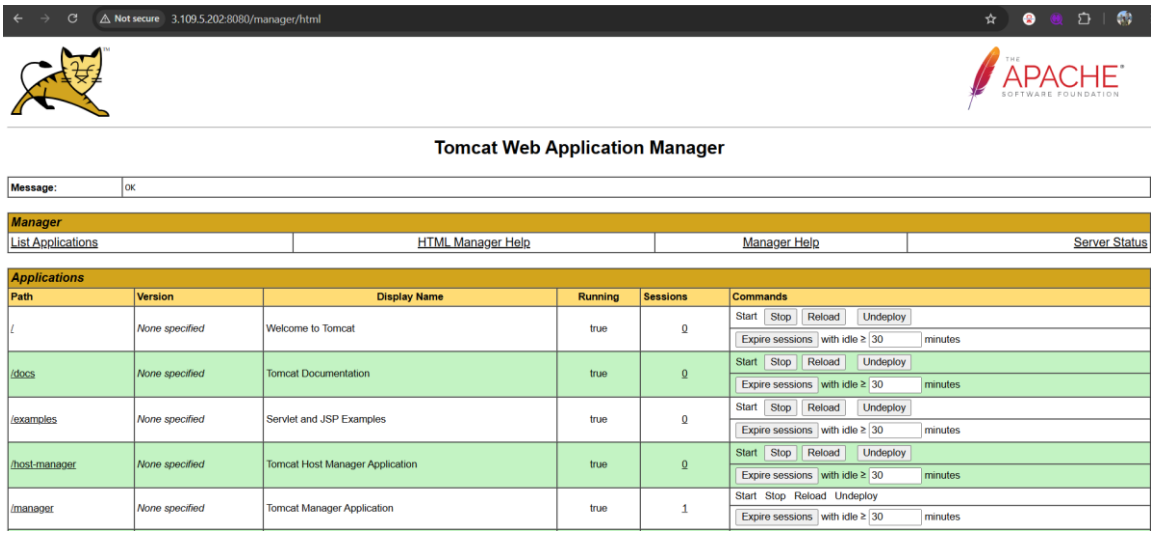
- username **= tomcat**
- password **= admin@123**

If you wish to modify, change the credentials on above script also.

Now access the tomcat dashboard with public-ip of tomcat server with 8080 port.



Now go to Manager App and enter the credentials, You will get the Tomcat Web Application Manager dashboard.

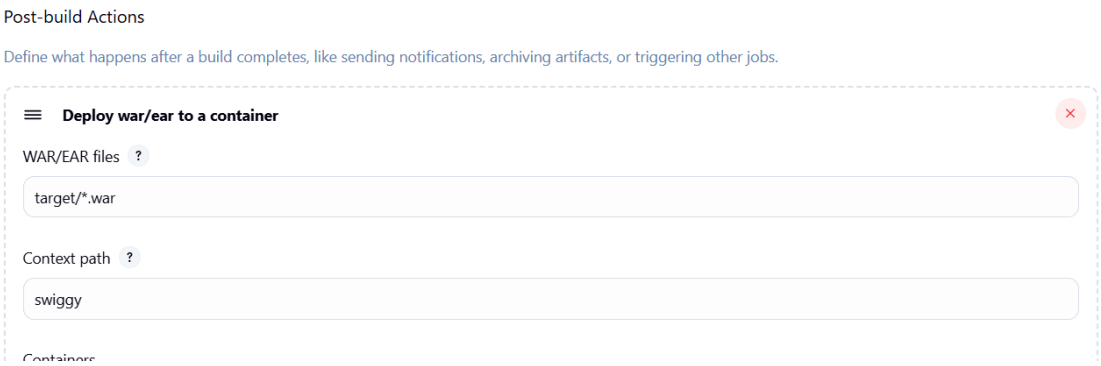


STEP 7: Integrate Tomcat with Jenkins

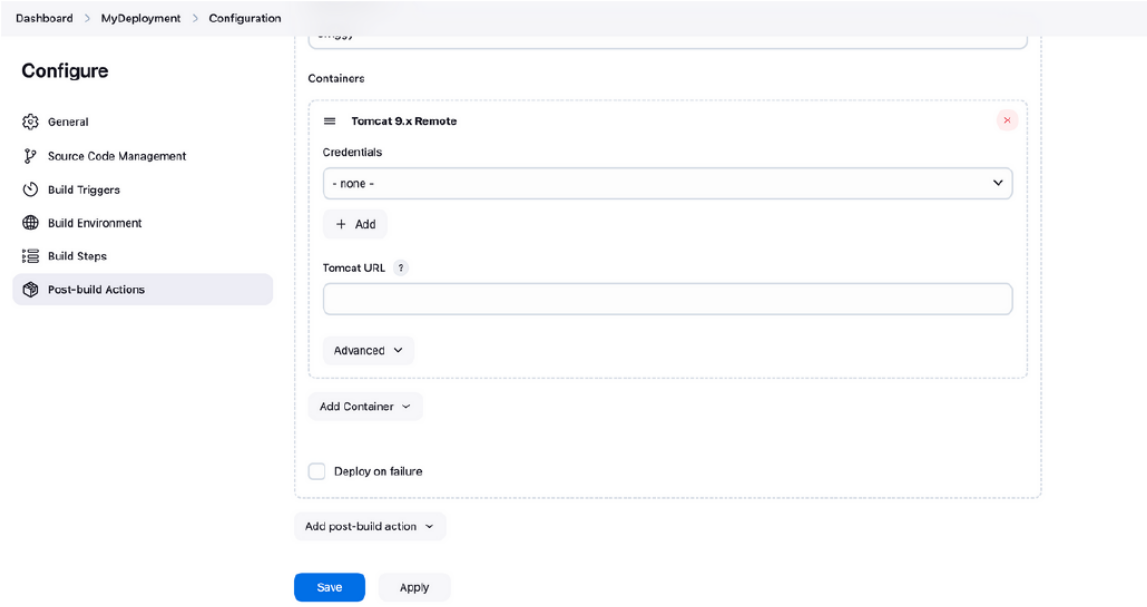
Configure the Jenkins job and select Post Build Actions and select Deploy war/ear to a container

WAR/EAR file: target/*.war

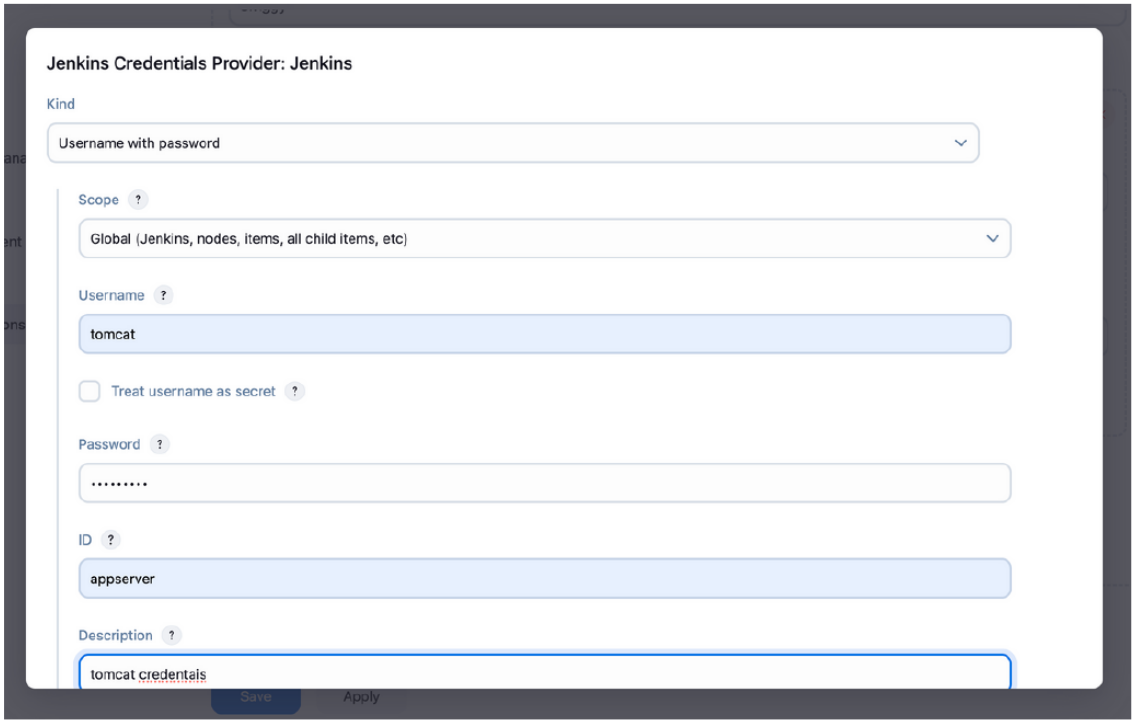
Context path: swiggy



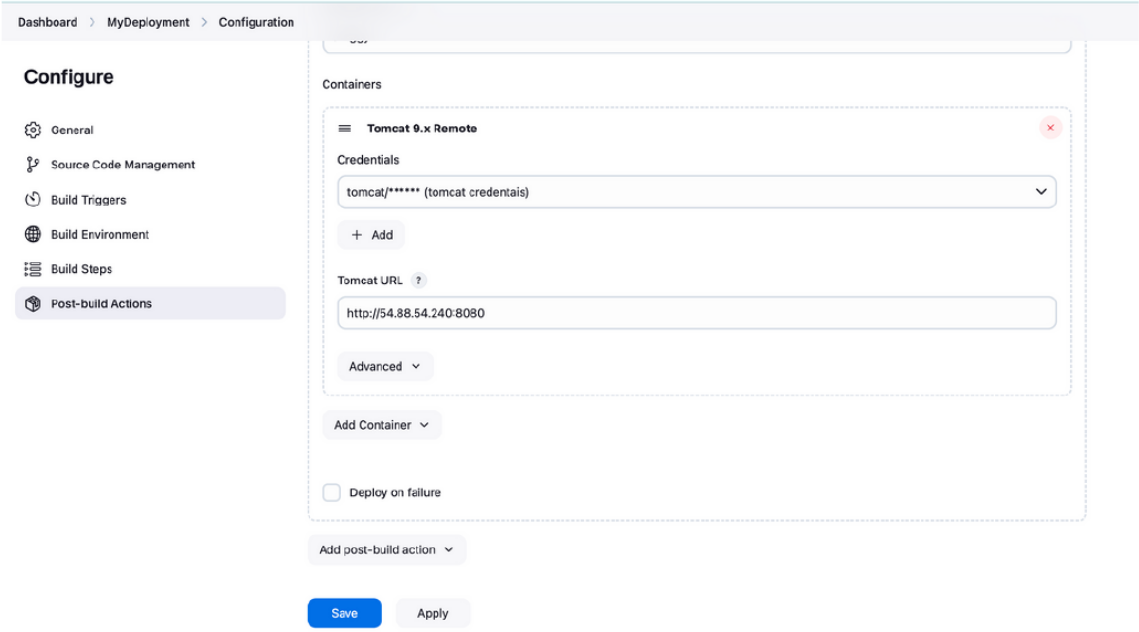
and click on add container and select Tomcat 9.x Remote



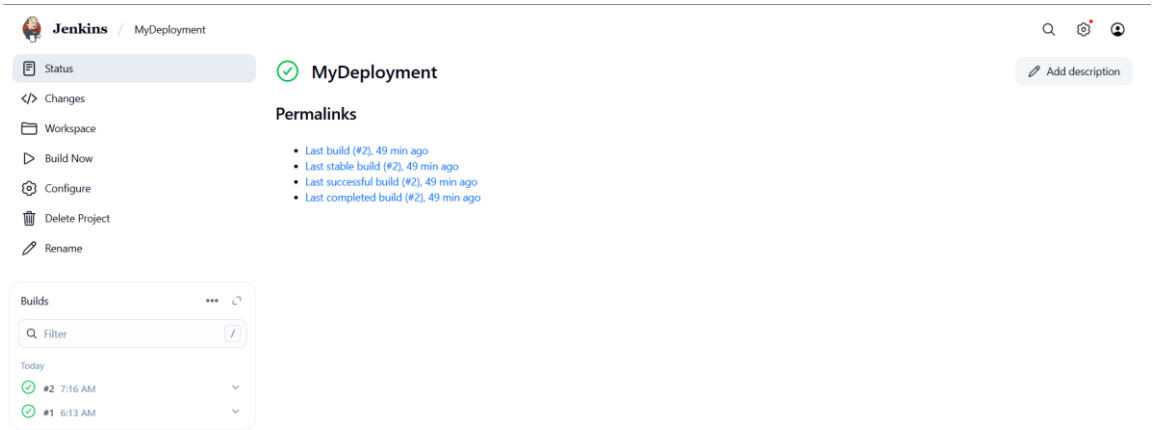
Now add the tomcat credentials, click on Add select Jenkins



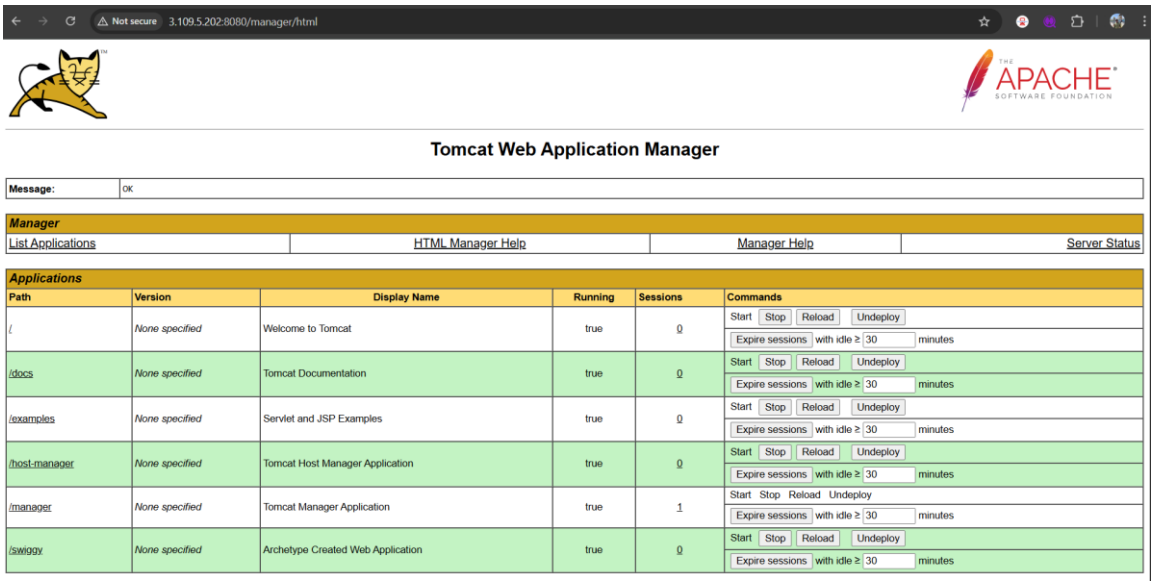
Now click on Add and select the credentials and enter the tomcat url



Now save the job and click on Build Now, If the build gets success, then our application will be deployed on tomcat successfully.



This build is success, now let's refresh the tomcat page and we will see swiggy app is running.



Open the swiggy app and check the output.