

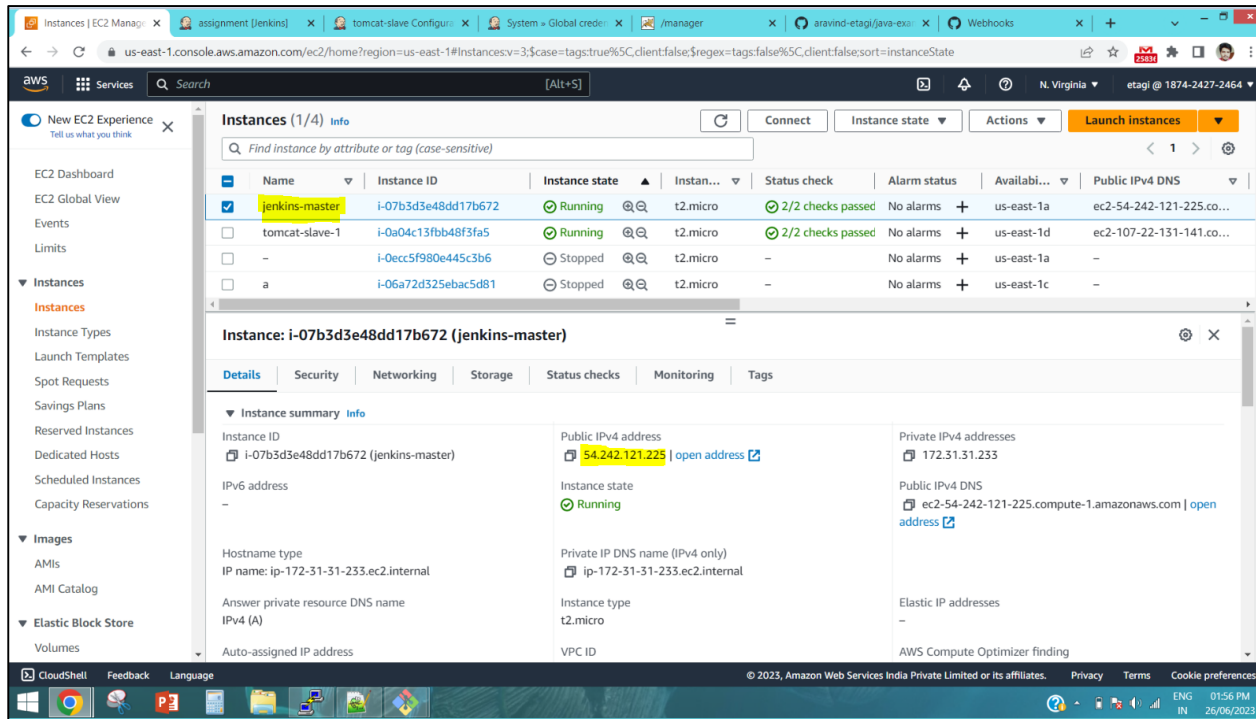
Assignment:

1. Setup Github Webhook

2. Setup Jenkins Master-Slave

3. Execute a job on slave machine by creating a new war file and deploy it in tomcat webapps folder

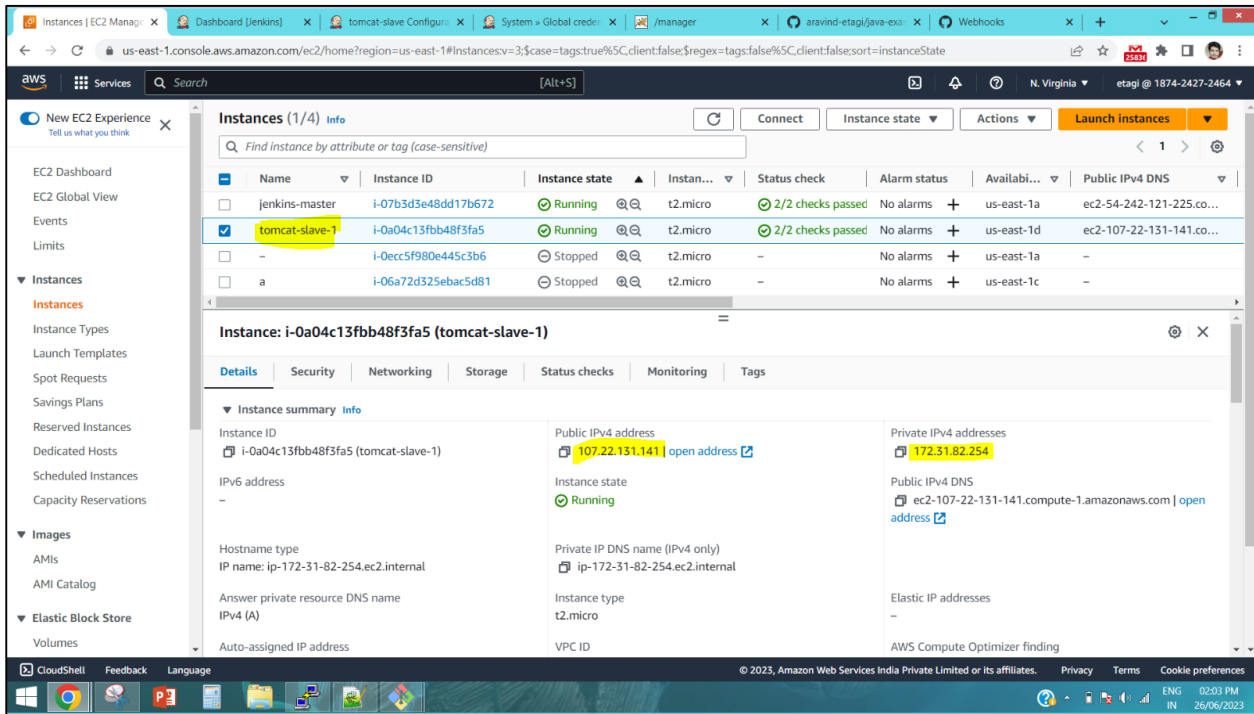
Created a **jenkins-master** server



Configured the jenkins server



Created the **tomcat-slave-1** server



The screenshot shows the AWS Management Console interface. The top navigation bar includes the AWS logo, a search bar, and the user's profile. The left sidebar contains navigation links for various AWS services. The main content area displays the 'Instances (1/4)' page. A table lists the instances, with 'tomcat-slave-1' highlighted. Below the table, the details for the selected instance are shown, including its ID, state, IP addresses, and instance type.

Name	Instance ID	Instance state	Instan...	Status check	Alarm status	Availabi...	Public IPv4 DNS
jenkins-master	i-07b3d3e48dd17b672	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a	ec2-54-242-121-225.co...
tomcat-slave-1	i-0a04c13fbb48f3fa5	Running	t2.micro	2/2 checks passed	No alarms	us-east-1d	ec2-107-22-131-141.co...
-	i-0ecc5f980e445c3b6	Stopped	t2.micro	-	No alarms	us-east-1a	-
a	i-06a72d325ebac5d81	Stopped	t2.micro	-	No alarms	us-east-1c	-

Instance: i-0a04c13fbb48f3fa5 (tomcat-slave-1)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary Info

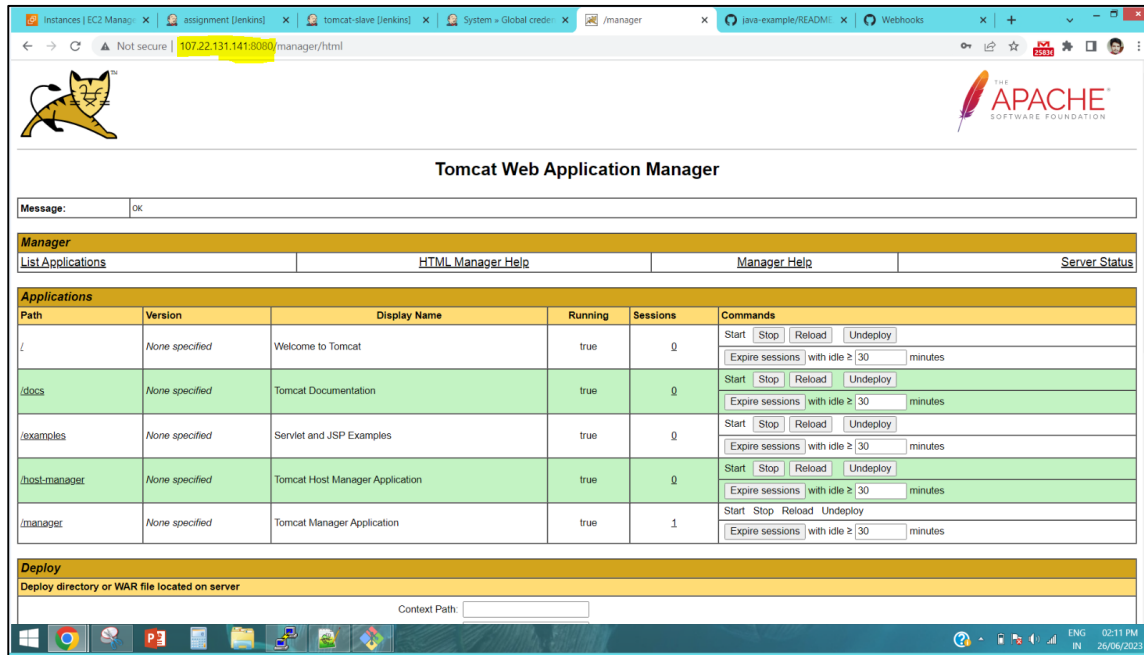
Instance ID	Public IPv4 address	Private IPv4 addresses
i-0a04c13fbb48f3fa5 (tomcat-slave-1)	107.22.131.141 open address	172.31.82.254
IPV6 address	Instance state	Public IPv4 DNS
-	Running	ec2-107-22-131-141.compute-1.amazonaws.com open address
Hostname type	Private IP DNS name (IPv4 only)	Elastic IP addresses
IP name: ip-172-31-82-254.ec2.internal	ip-172-31-82-254.ec2.internal	-
Answer private resource DNS name	Instance type	AWS Compute Optimizer finding
IPV4 (A)	t2.micro	
Auto-assigned IP address	VPC ID	

Configured the slave server

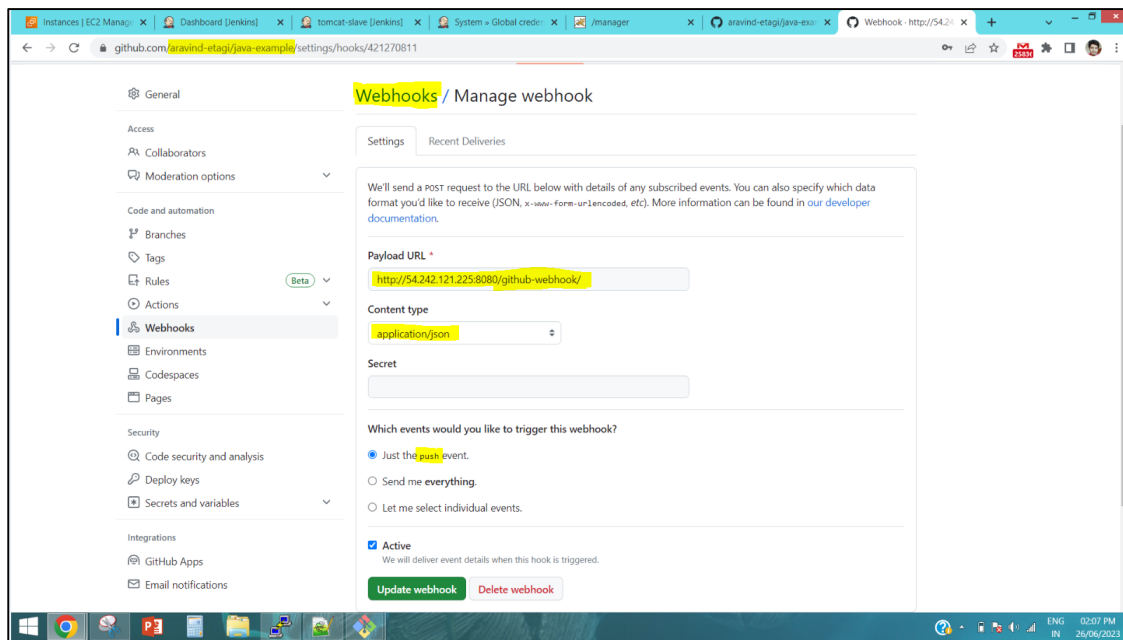
```
ubuntu@ip-172-31-82-254:~$ history
1  clear
2  vi .ssh/authorized_keys
3  sudo apt update
4  sudo apt install java maven -y
5  sudo apt install openjdk-11-jre maven -y
6  git clone https://github.com/OpqTech/tomcat-installation-ubuntu.git
7  cd tomcat-installation-ubuntu/
8  ls
9  sh install-tomcat-ubuntu.sh
10 cd /opt/tomcat/apache-tomcat-9.0.68/webapps/
11 history
12 cd
13 history
ubuntu@ip-172-31-82-254:~$
```

1. Installed java and maven
2. Installed and configured tomcat server with the help of preconfigured shell script

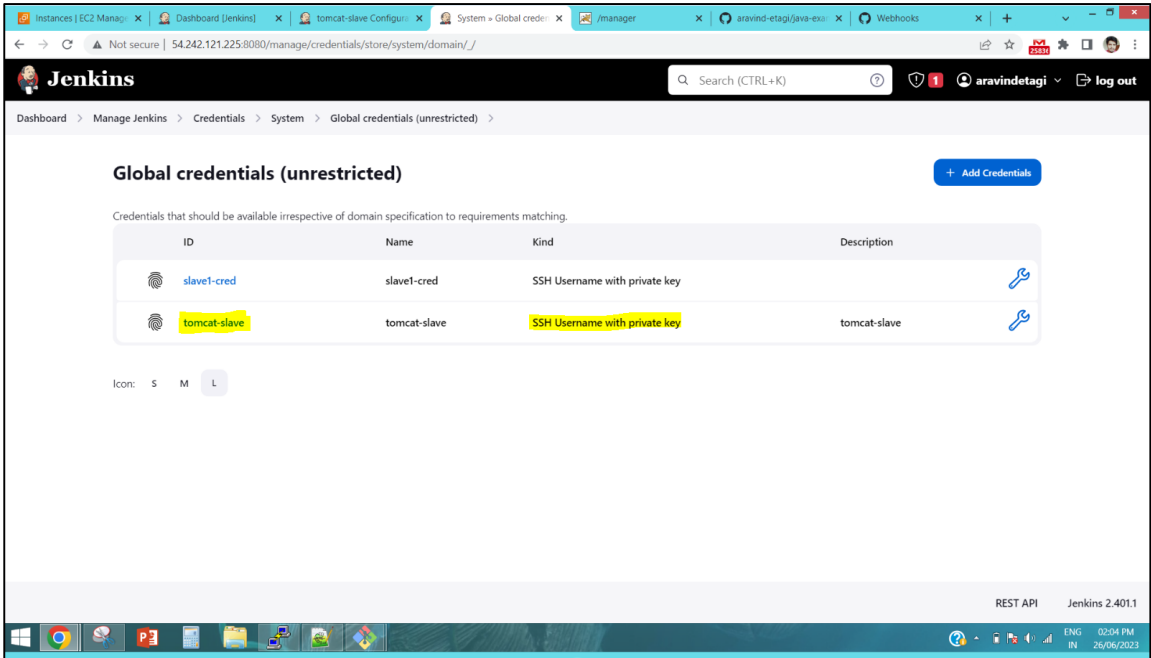
Tomcat is up and running



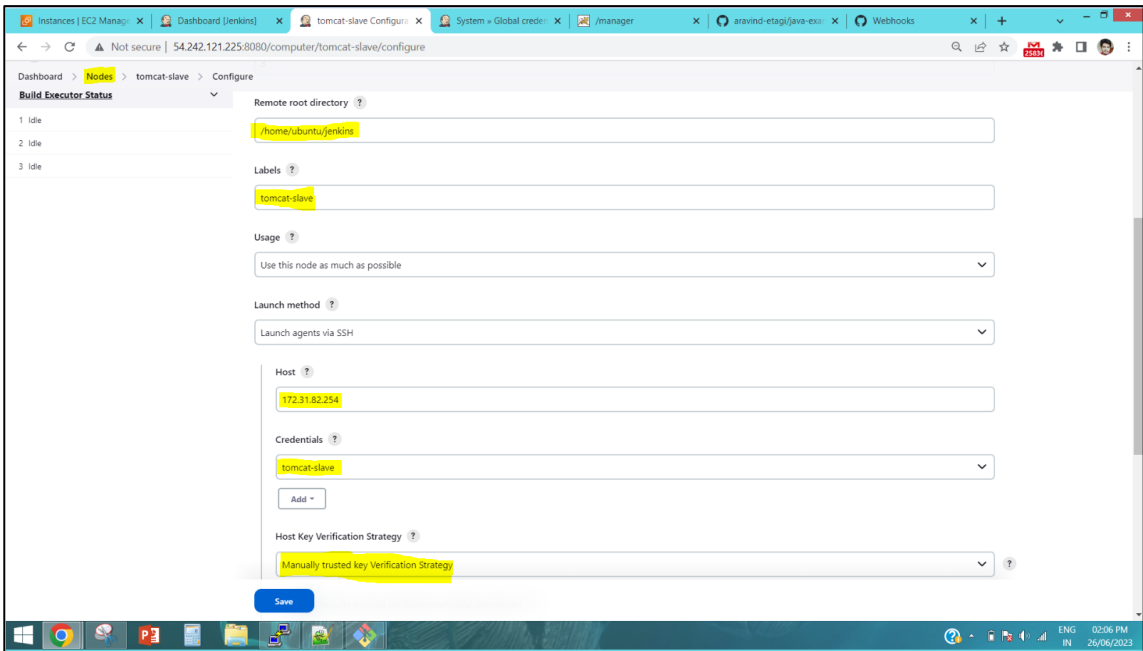
Created the Webhook in my repository to Jenkins server



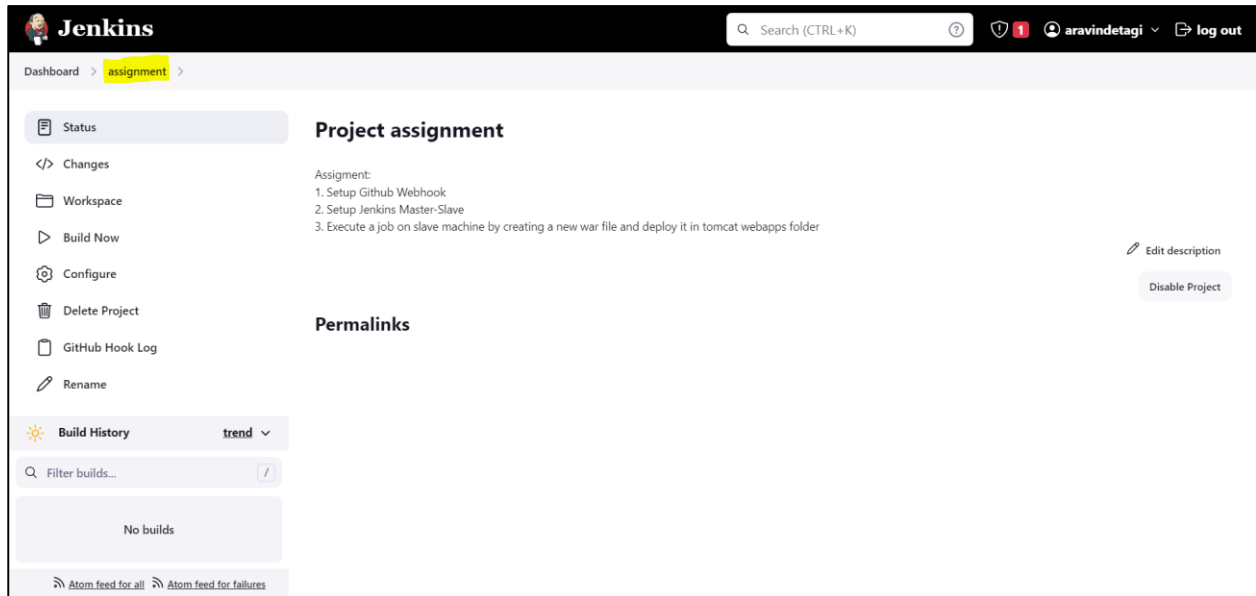
Created credential in Jenkins for doing ssh to slave node



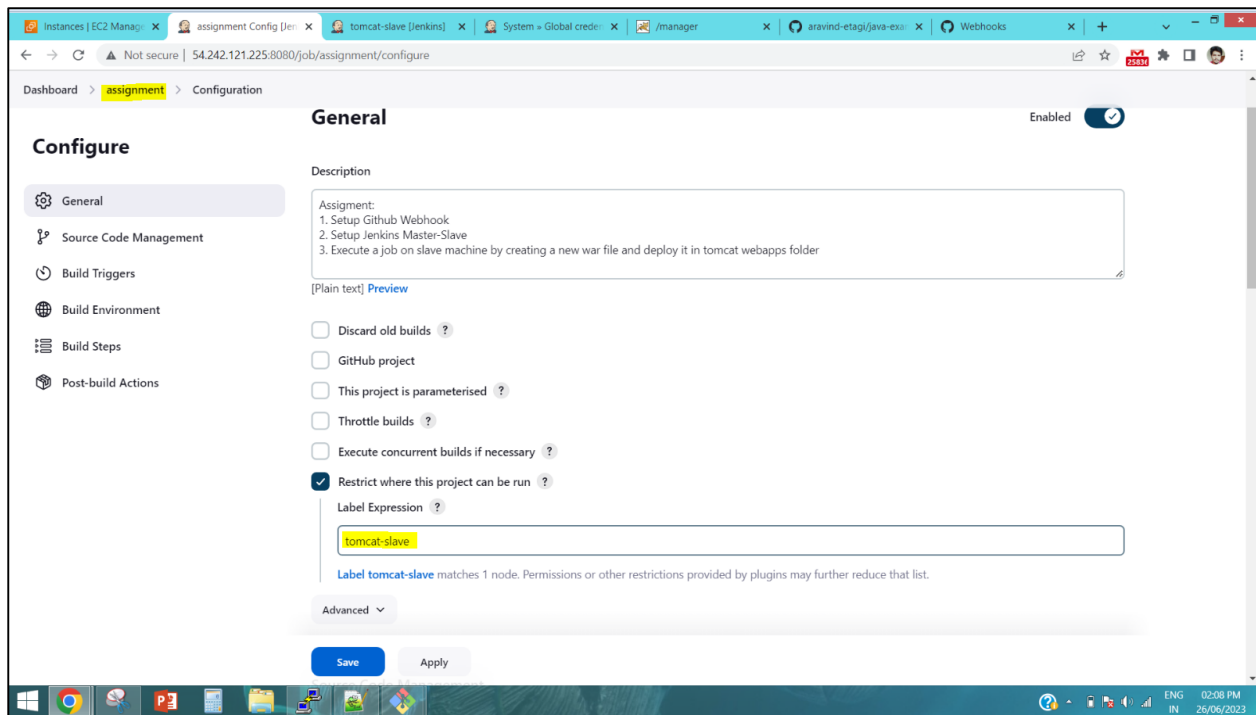
Added the slave node

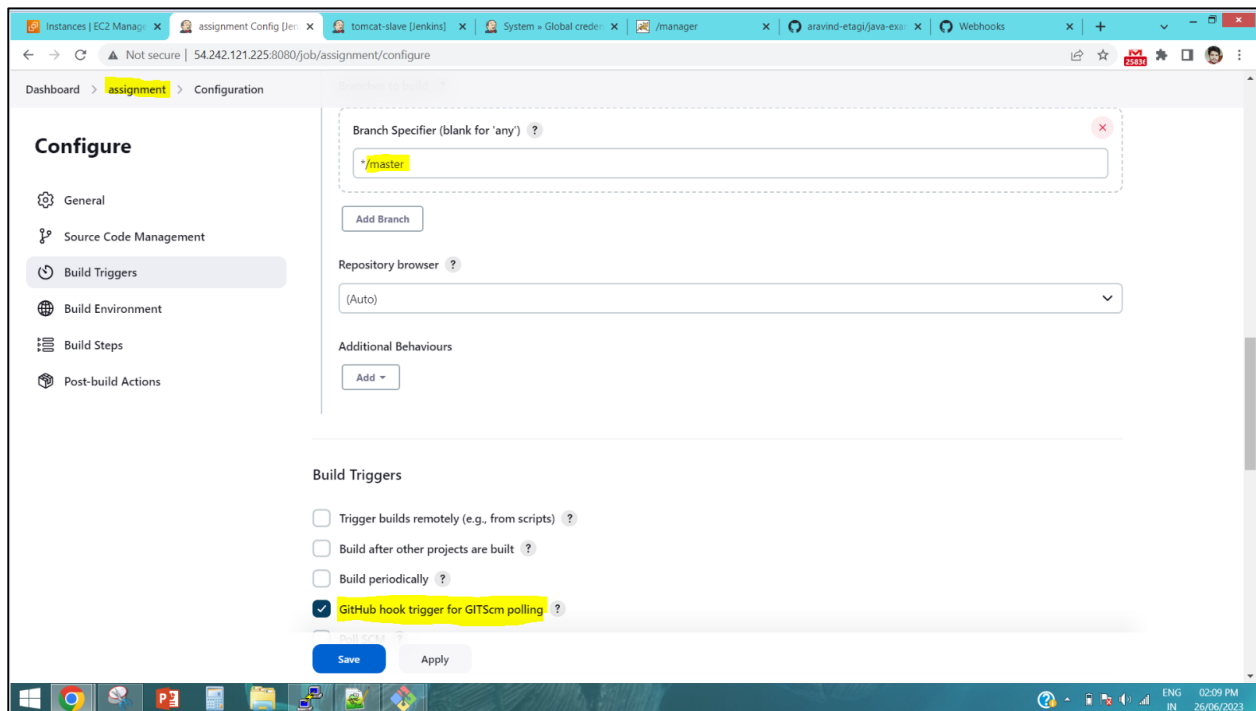
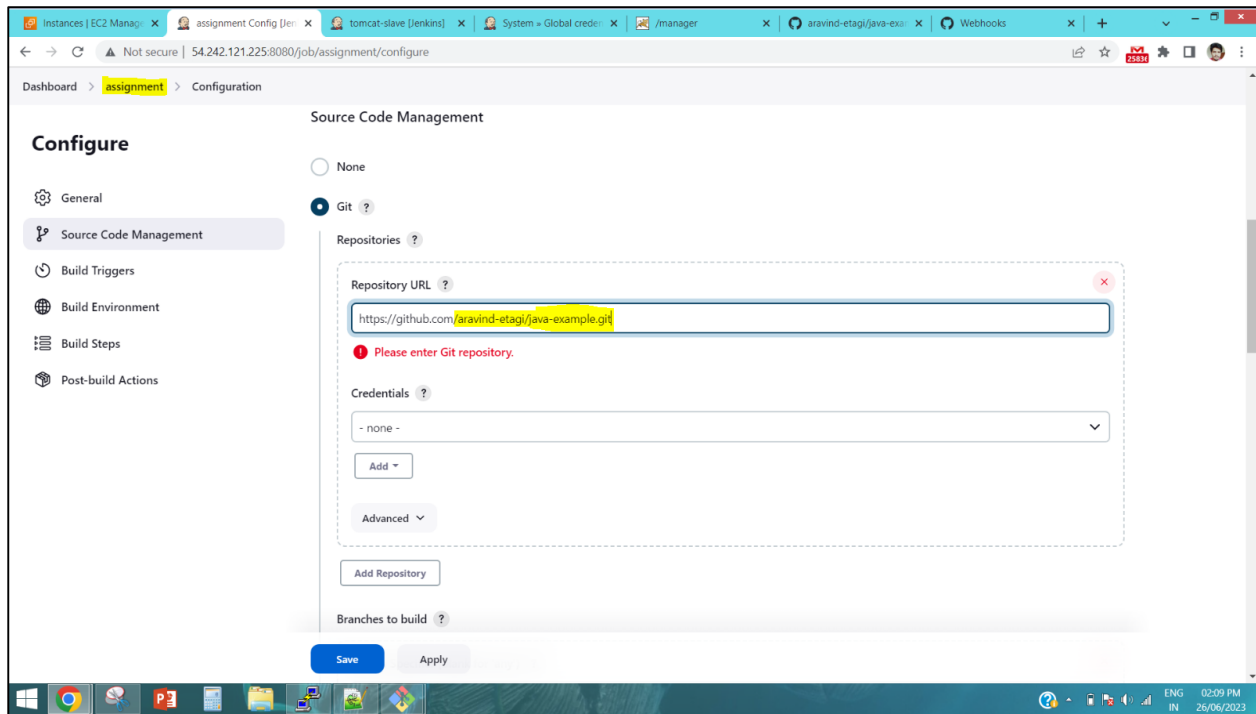


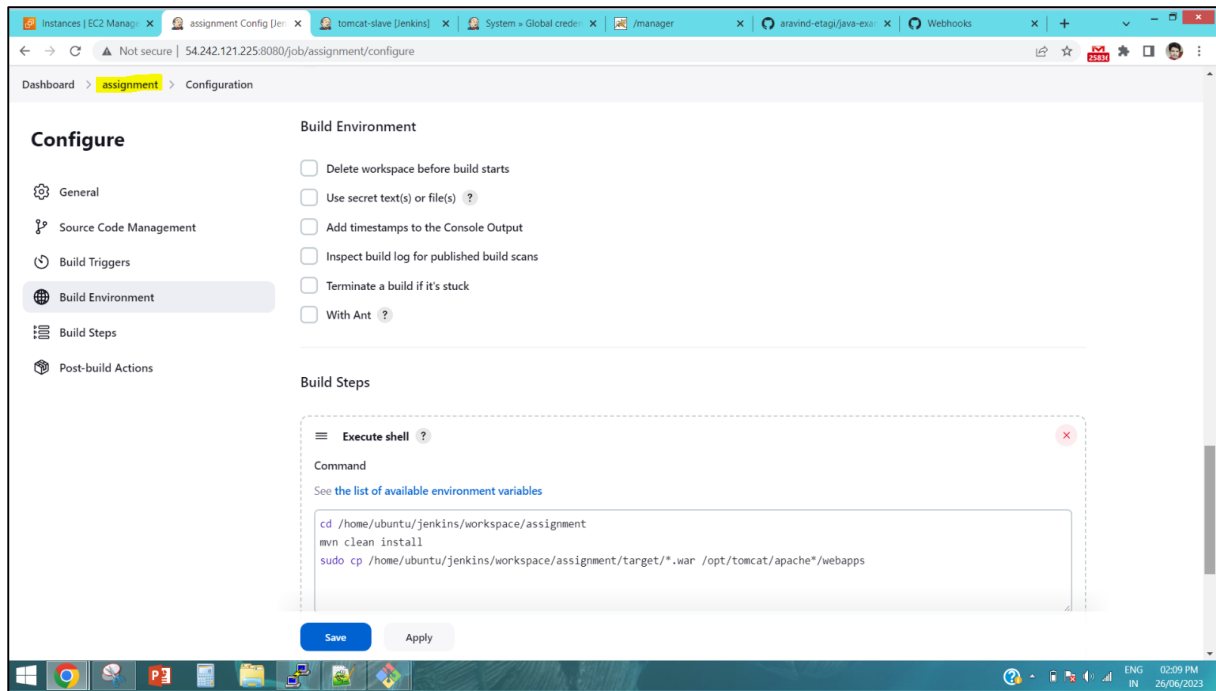
Created a project **assignment** in Jenkins



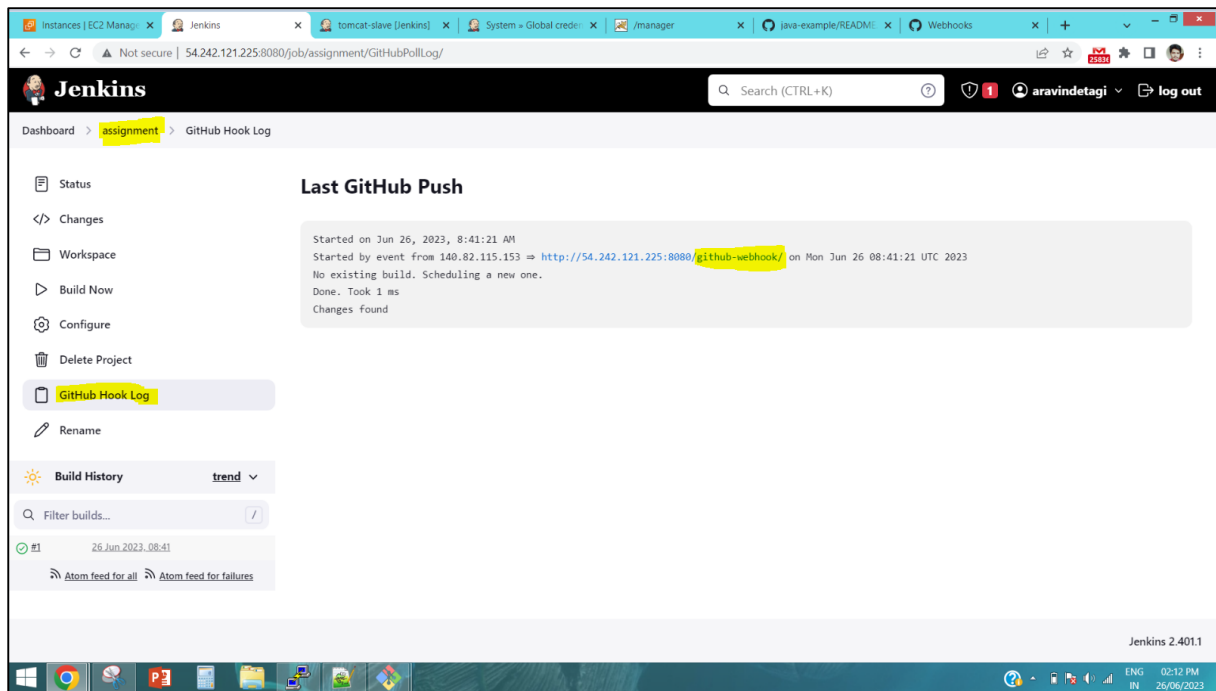
Configured the project as below







Added one new commit in my git repo and it created webhook trigger for Jenkins project



Instances | EC2 Man... | assignment #1 Co... | tomcat-slave [jen... | System > Global cre... | /manager | 107.22.131.141:80... | java-example/REA... | Webhooks

← → ↻ ⚠ Not secure | 54.242.121.225:8080/job/assignment/1/consoleFull

Jenkins

Search (CTRL+K)

aravindetagi log out

Dashboard > assignment > #1 > Console Output

Status

Changes

Console Output

View as plain text

Edit Build Information

Delete build '#1'

Polling Log

Git Build Data

Console Output

```
Started by GitHub push by aravind-etagi
Running as SYSTEM
Building remotely on tomcat-slave in workspace /home/ubuntu/jenkins/workspace/assignment
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/aravind-etagi/java-example.git
> git init /home/ubuntu/jenkins/workspace/assignment # timeout=10
Fetching upstream changes from https://github.com/aravind-etagi/java-example.git
> git --version # timeout=10
> git --version # 'git version 2.34.1'
> git fetch --tags --force --progress -- https://github.com/aravind-etagi/java-example.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git config remote.origin.url https://github.com/aravind-etagi/java-example.git # timeout=10
> git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision 6a5981f982b3dd8db528da2f195b0ce76f489c3c (refs/remotes/origin/master)
> git config core.sparsecheckout # timeout=10
> git checkout -f 6a5981f982b3dd8db528da2f195b0ce76f489c3c # timeout=10
Commit message: "Update README.md for webhook trigger"
First time build. Skipping changelog.
[assignment] $ /bin/sh -xe /tmp/jenkins2646069588306557618.sh
+ cd /home/ubuntu/jenkins/workspace/assignment
+ mvn clean install
```

Windows taskbar: Chrome, Firefox, VS Code, IntelliJ, Docker, Jenkins, etc. System tray: ENG 02:14 PM IN 26/06/2023

Instances | EC2 Manag... | assignment #1 Console... | tomcat-slave [jenkins... | System > Global cred... | /manager | java-example/README... | Webhooks

← → ↻ ⚠ Not secure | 54.242.121.225:8080/job/assignment/1/console

Dashboard > assignment > #1 > Console Output

Progress (1): 188/230 kB
Progress (1): 193/230 kB
Progress (1): 197/230 kB
Progress (1): 201/230 kB
Progress (1): 205/230 kB
Progress (1): 209/230 kB
Progress (1): 213/230 kB
Progress (1): 217/230 kB
Progress (1): 221/230 kB
Progress (1): 225/230 kB
Progress (1): 229/230 kB
Progress (1): 230 kB

Downloaded from central: https://repo.maven.apache.org/maven2/org/codehaus/plexus/plexus-utils/3.0.5/plexus-utils-3.0.5.jar (230 kB at 3.5 MB/s)

```
[*1;34mINFO-[m] Installing /home/ubuntu/jenkins/workspace/assignment/target/works-with-heroku-1.0.war to
/home/ubuntu/.m2/repository/works/buddy/samples/works-with-heroku/1.0/works-with-heroku-1.0.war
[*1;34mINFO-[m] Installing /home/ubuntu/jenkins/workspace/assignment/pom.xml to /home/ubuntu/.m2/repository/works/buddy/samples/works-with-
heroku/1.0/works-with-heroku-1.0.pom
[*1;34mINFO-[m] *[*1m-----+[*1m
[*1;34mINFO-[m] *[*1;32mBUILD SUCCESS-[m
[*1;34mINFO-[m] *[*1m-----+[*1m
[*1;34mINFO-[m] Total time: 24.740 s
[*1;34mINFO-[m] Finished at: 2023-06-26T08:42:03Z
[*1;34mINFO-[m] *[*1m-----+[*1m
+ sudo cp /home/ubuntu/jenkins/workspace/assignment/target/works-with-heroku-1.0.war /opt/tomcat/apache-tomcat-9.0.68/webapps
Finished: SUCCESS
```


REST API Jenkins 2.401.1


Windows taskbar: Chrome, Firefox, VS Code, IntelliJ, Docker, Jenkins, etc. System tray: ENG 02:13 PM IN 26/06/2023

Jenkins project built and pasted the war file to tomcat's webapps directory

Instances | EC2 Mana... | assignment #1 Conso... | tomcat-slave [Jenki... | System » Global credi... | /manager | java-example/README... | Webhooks

← → ↻ Not secure | 107.22.131.141:8080/manager/html





Tomcat Web Application Manager

Message: OK

Manager

List ApplicationsHTML Manager HelpManager HelpServer Status

Applications

Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>
/docs	None specified	Tomcat Documentation	true	0	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>
/examples	None specified	Servlet and JSP Examples	true	0	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>
/host-manager	None specified	Tomcat Host Manager Application	true	0	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>
/manager	None specified	Tomcat Manager Application	true	1	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>
/works-with-heroku-1.0	None specified	Works with Heroku	true	0	<div>Start Stop Reload Undeploy</div> <div>Expire sessions with idle ≥ 30 minutes</div>

Deploy

Instances | EC2 Mana... | assignment #1 C... | tomcat-slave [Jeni... | System » Global c... | /manager | 107.22.131.141:80... | java-example/REA... | Webhooks

← → ↻ Not secure | 107.22.131.141:8080/works-with-heroku-1.0/

WEB APP WORKING