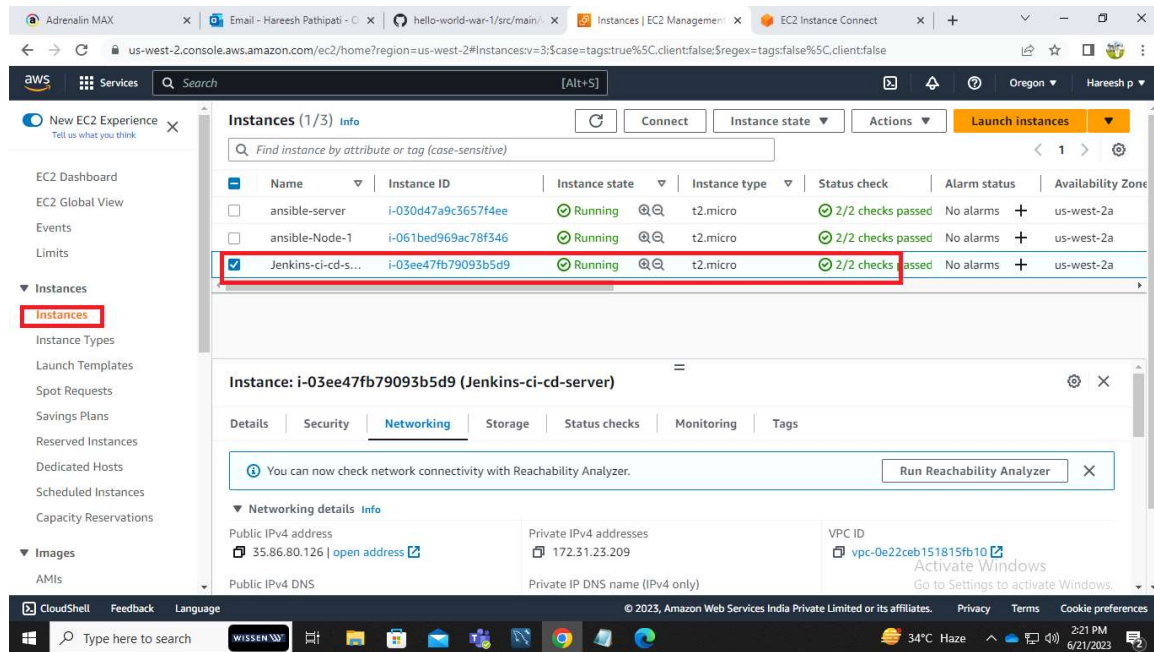


jenkins and ansible-server integration and deploying war file into multiple ansible-nodes using Tomcat application.

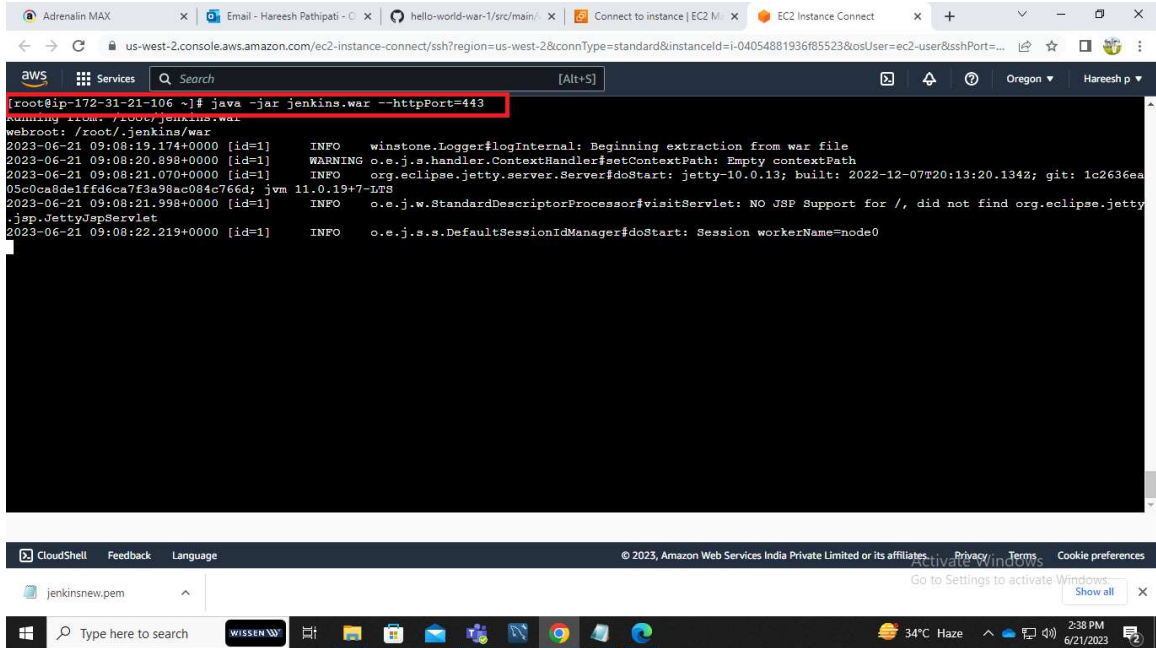
- Login to ec2 dashboard
- Launch the jenkins-server , ansible-server,ansible-node-1

Note - Before integration of jenkins and ansible.First we have to establish the connection between ansible-server and ansible-node-1.



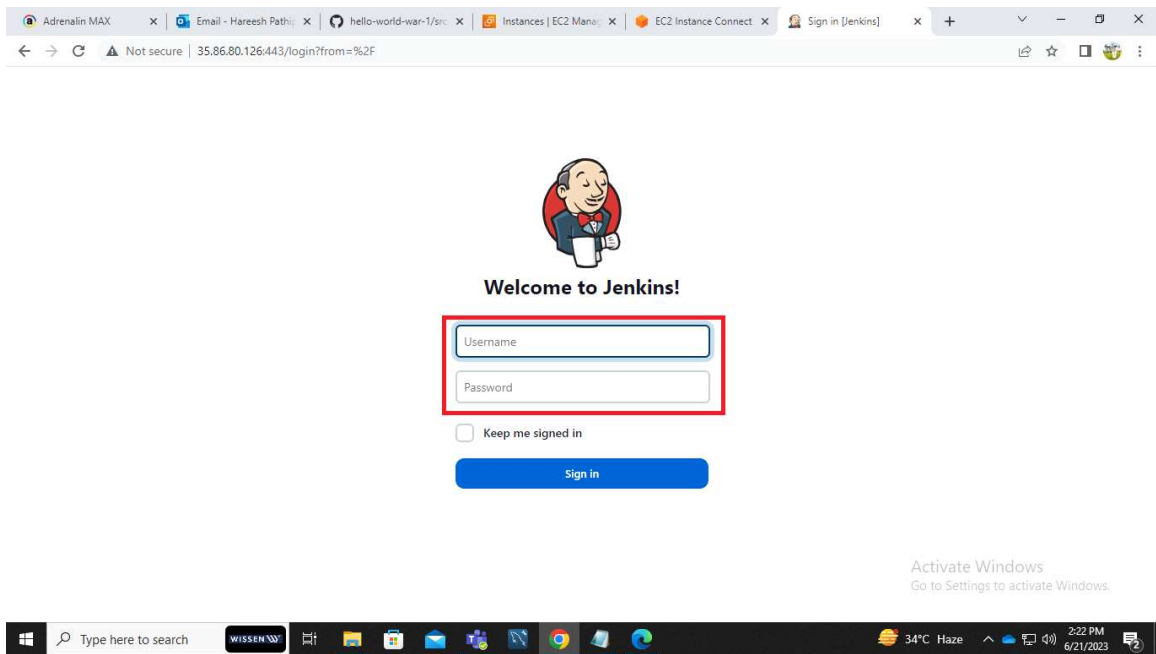
- we already installed the jenkins and pre requisites like (java and Git) in this jenkins-server.
- Here we changed the port number of jenkins and run the jenkins-server using below command

```
java -jar jenkins.war --httpPort=443
```

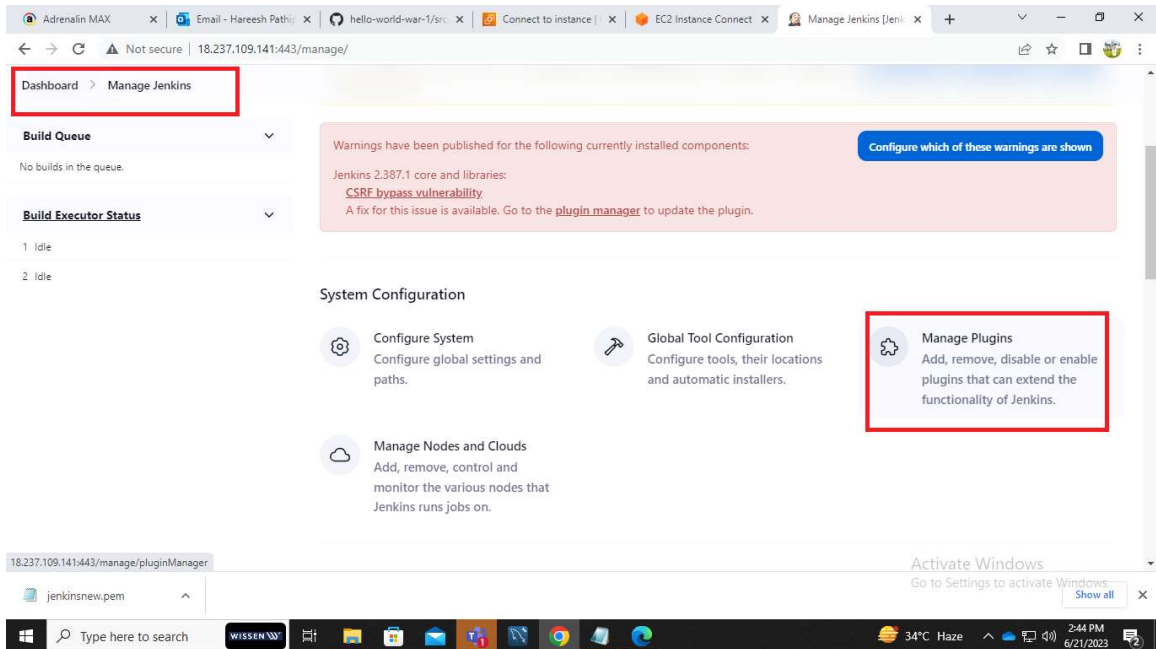


The screenshot shows a terminal window in AWS CloudShell. The command executed is `java -jar jenkins.war --httpPort=443`. The output shows Jenkins starting up, including log messages from `winstone.Logger#logInternal`, `org.eclipse.jetty.server.Server#doStart`, and `o.e.j.w.StandardDescriptorProcessor#visitServlet`. The terminal also shows the file path `/root/.jenkins/war` and the version `11.0.19+7-ITS`.

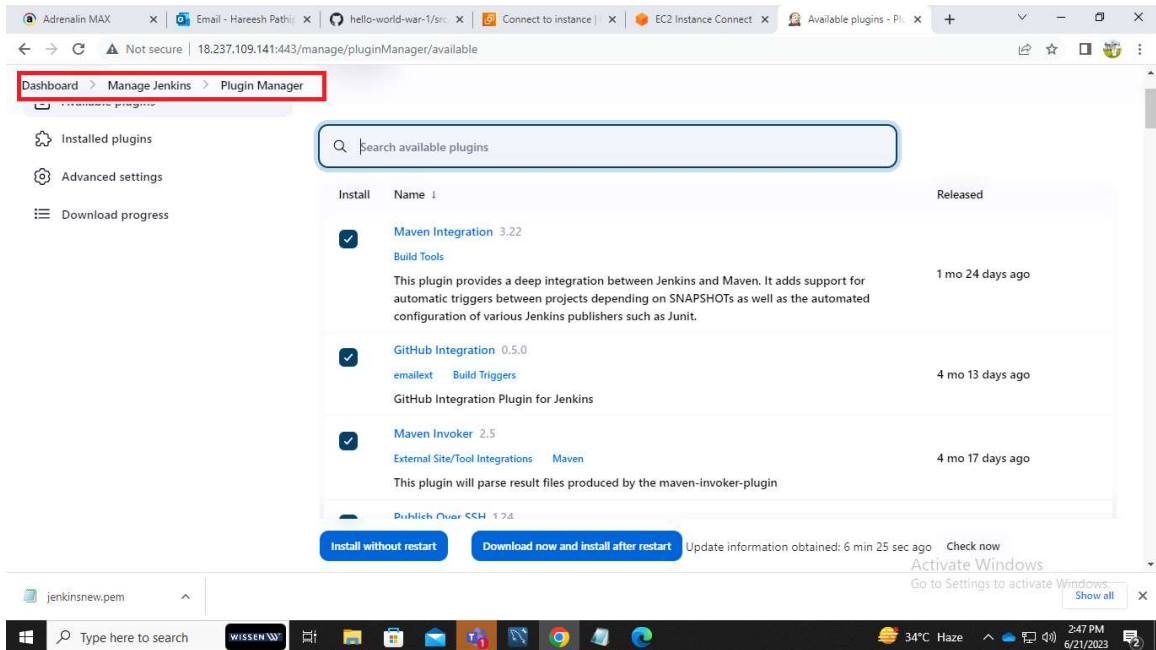
- Take the public IP of jenkins server and paste on the browser using given port .



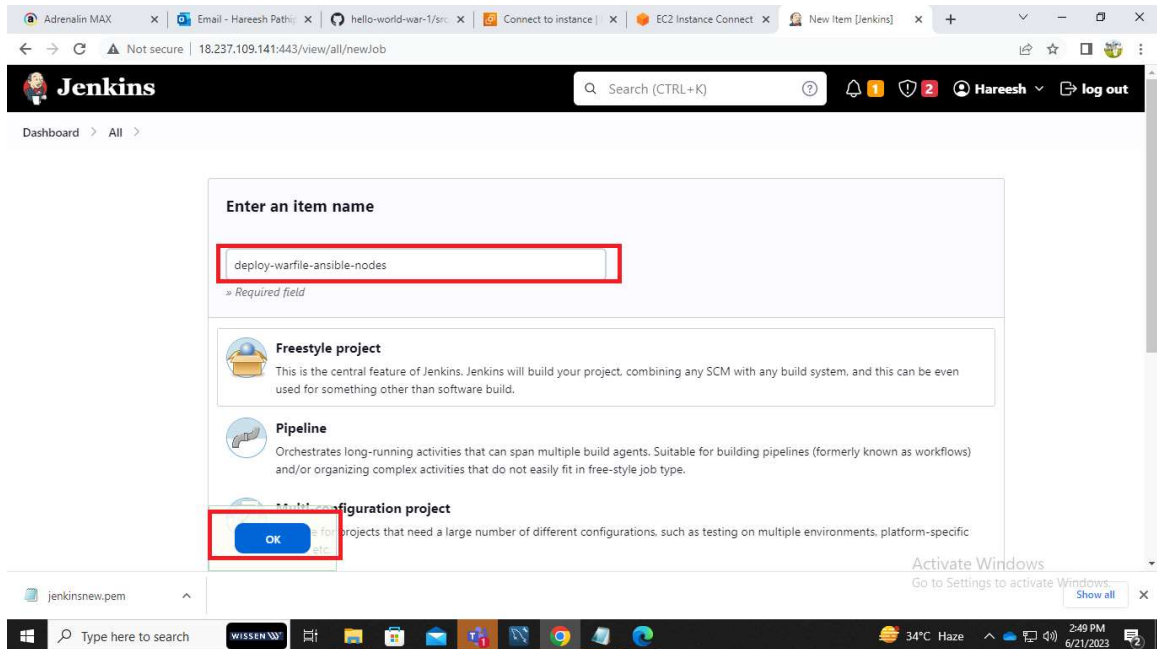
- Open the jenkins dash board
- After that navigate to Manage jenkins and install the project required plugins.



- Here we need plugins like
- Github integration , maven integration , maven invoker , Publish over ssh.



- Open the jenkins dashboard and create a job under freestyle project.
- click on OK



- select the job
- click on configure the job
- Select the source code management (Git)
- Add the Repository URL from GitHub
- click on Apply and save

The first screenshot shows the Jenkins 'Configure' page for a job named 'deploy-warfile-ansible-nodes'. The 'Source Code Management' tab is selected, and 'Git' is chosen as the provider. The 'Repository URL' is set to 'https://github.com/hareeshpgit/hello-world-war-1.git'. The 'Credentials' dropdown is set to 'none'. The 'Save' button is highlighted.

The second screenshot shows the GitHub repository 'hello-world-war-1' by user 'hareeshpgit'. The 'Code' button is highlighted, which is used to clone the repository. The repository details show it is 12 commits ahead of the forked source.

First-step:

- Select the job and Build Now
- In the Build history we can see output of job

- Select the Job and check the --- #1- Build history using console output

The first screenshot shows the Jenkins dashboard for the project 'deploy-warfile-ansible-nodes'. The 'Build History' tab is selected, and build #1 is highlighted. The console output for build #1 is shown in the second screenshot, detailing the execution of git commands and the successful commit message: "Update index.jsp".

Build History

Filter builds...

Jun 21, 2023, 9:21 AM

Atom feed for all Atom feed for failures

Console Output

Started by user Hareesh

Running as SYSTEM

Building in workspace /root/.jenkins/workspace/deploy-warfile-ansible-nodes

The recommended git tool is: NONE

No credentials specified

Cloning the remote Git repository

Cloning repository https://github.com/hareeshpgit/hello-world-war-1.git

> git init /root/.jenkins/workspace/deploy-warfile-ansible-nodes # timeout=10

Fetching upstream changes from https://github.com/hareeshpgit/hello-world-war-1.git

> git --version # timeout=10

> git --version # 'git version 2.40.1'

> git fetch --tags --force --progress -- https://github.com/hareeshpgit/hello-world-war-1.git +refs/heads/*:refs/remotes/origin/* # timeout=10

> git config remote.origin.url https://github.com/hareeshpgit/hello-world-war-1.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 6992998ca6f51fb0816a6c0dcdea4f8a3d966c26 (refs/remotes/origin/master)

> git config core.sparsecheckout # timeout=10

> git checkout -f 6992998ca6f51fb0816a6c0dcdea4f8a3d966c26 # timeout=10

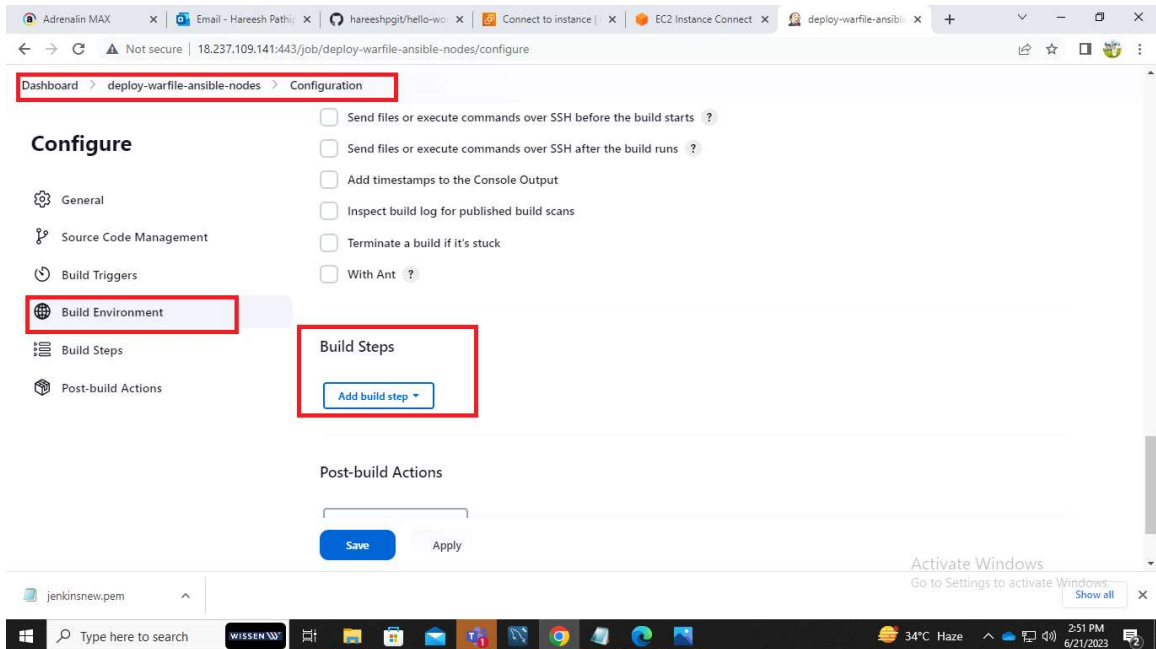
Commit message: "Update index.jsp"

First time build. Skipping changelog.

Finished: SUCCESS

Second-step:

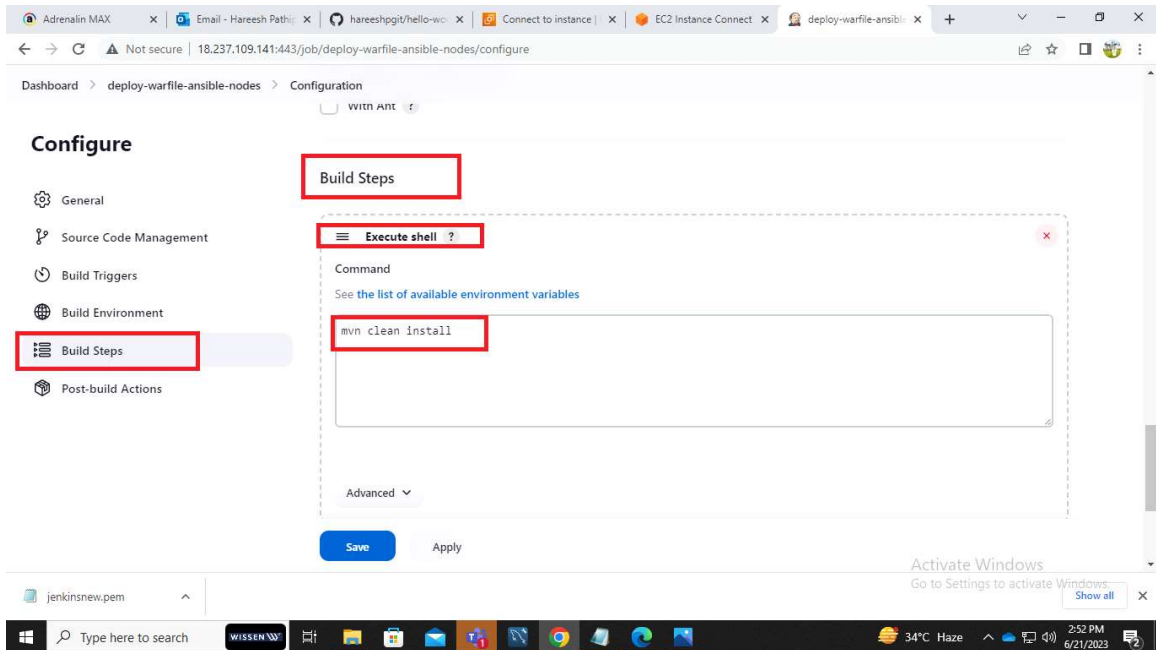
- Click on the job and configure
- Add the Build Steps



- Select the Build Steps
- select the Execute Shell ---- Here we add Maven Goals

cmd ----- mvn clean install

- The above command cleans the project and removes all files generated by the previous build as well as Deploy the package jar/war files to the local repository.



- Here below console output shows the #2 job Build details.

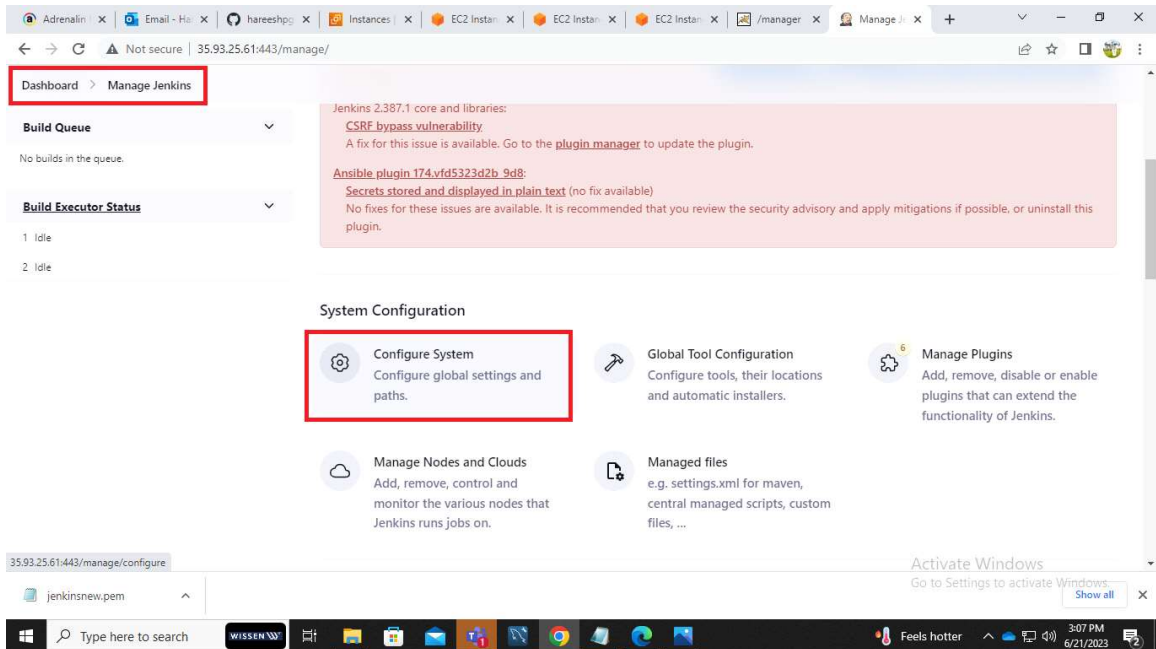
The screenshot shows the Jenkins web interface with the console output for job #2. The breadcrumb navigation at the top reads: Dashboard > Deploy-warfiles-ansible-node > #2 > Console Output. The console output contains the following log entries:

```
[INFO] Assembling webapp [hello-world-war] in [/root/.jenkins/jobs/Deploy-warfiles-ansible-node/workspace/target/hello-world-war-1.0.0]
[INFO] Processing war project
[INFO] Copying webapp resources [/root/.jenkins/jobs/Deploy-warfiles-ansible-node/workspace/src/main/webapp]
[INFO] Building war: /root/.jenkins/jobs/Deploy-warfiles-ansible-node/workspace/target/hello-world-war-1.0.0.war
[INFO] --- maven-install-plugin:2.3.1:install (default-install) @ hello-world-war ---
[INFO] Installing /root/.jenkins/jobs/Deploy-warfiles-ansible-node/workspace/target/hello-world-war-1.0.0.war to /root/.m2/repository/com/efsavage/hello-world-war/1.0.0/hello-world-war-1.0.0.war
[INFO] Installing /root/.jenkins/jobs/Deploy-warfiles-ansible-node/workspace/pom.xml to /root/.m2/repository/com/efsavage/hello-world-war/1.0.0/hello-world-war-1.0.0.pom
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 3.498s
[INFO] Finished at: Wed Jun 21 09:36:36 UTC 2023
[INFO] Final Memory: 9M/93M
[INFO] -----
Finished: SUCCESS
```

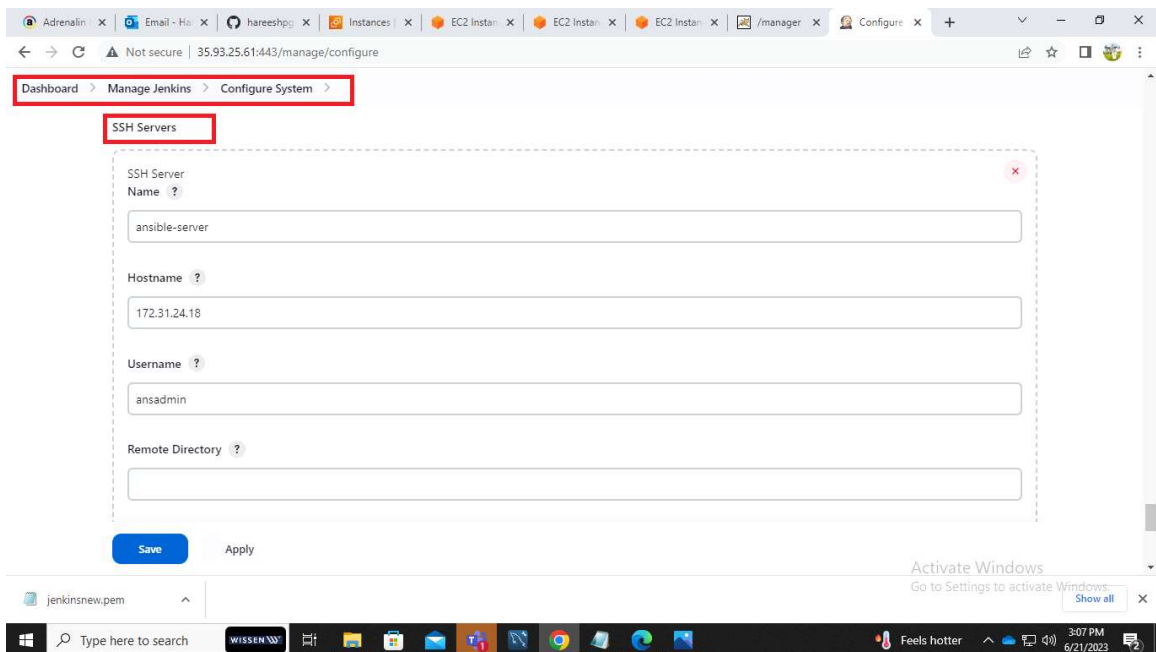
The bottom of the screenshot shows the Jenkins footer with "REST API", "Jenkins 2.387.1", and an "Activate Windows" watermark. The Windows taskbar at the very bottom shows the time as 3:06 PM on 6/21/2023.

Third-step:

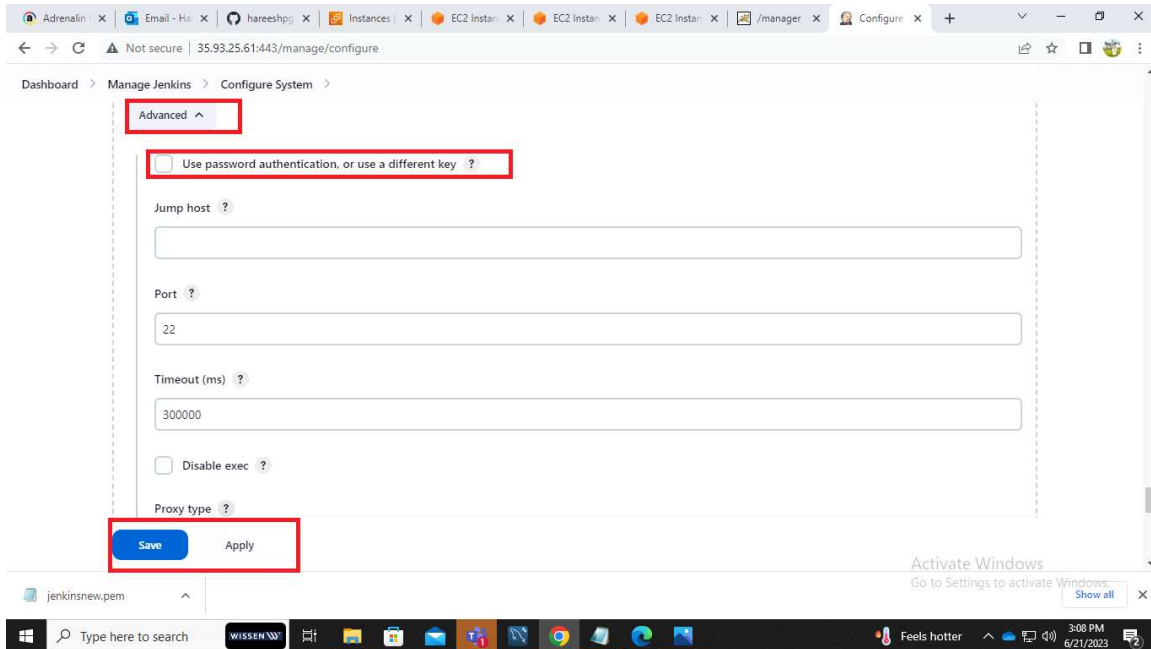
- Now we integrating the jenkins and Ansible-server for deploying war file into Multiple ansible-nodes.
- For that first we have to configure the ssh section in system configuration of jenkins.
- Navigate to Manage jenkins
- Select the configure system



- Open the SSH servers
- In the name section we have to give remote server --- ansible-server
- In the hostname section we have to add Private IP of ansible-server
- username section we can give user name -- ansadmin

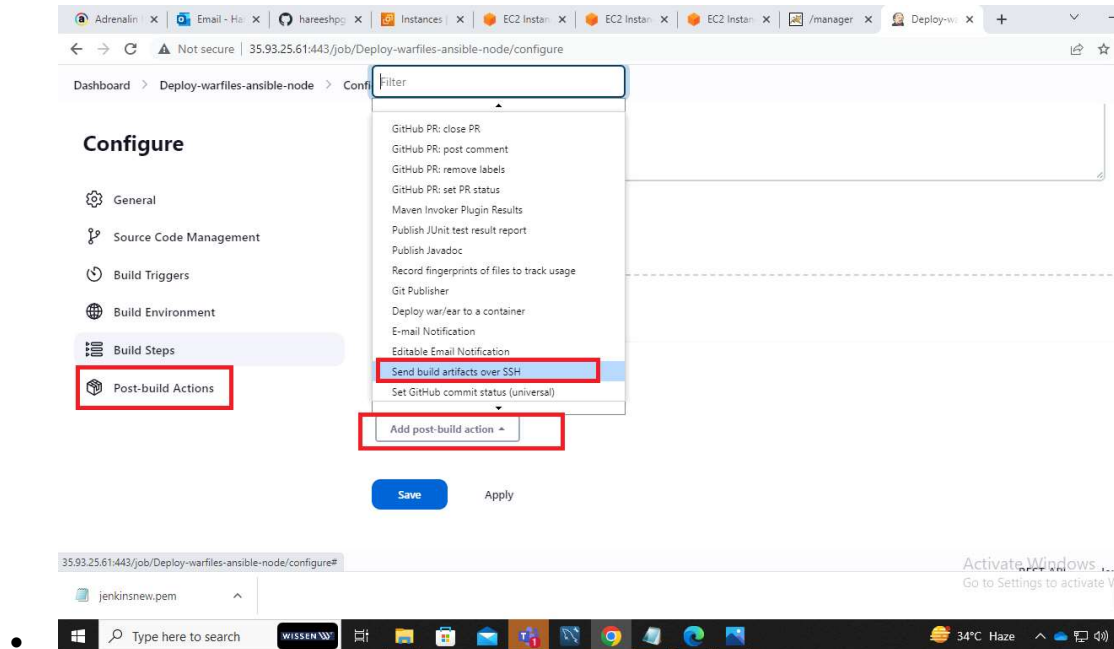


- Select the Advance section in SSH servers
- Add the Password of user or ansible root password
- Under the password section click the Test configuration
- After the success message then only it will establish the connection between jenkins and ansible server.
- Click on save and Apply

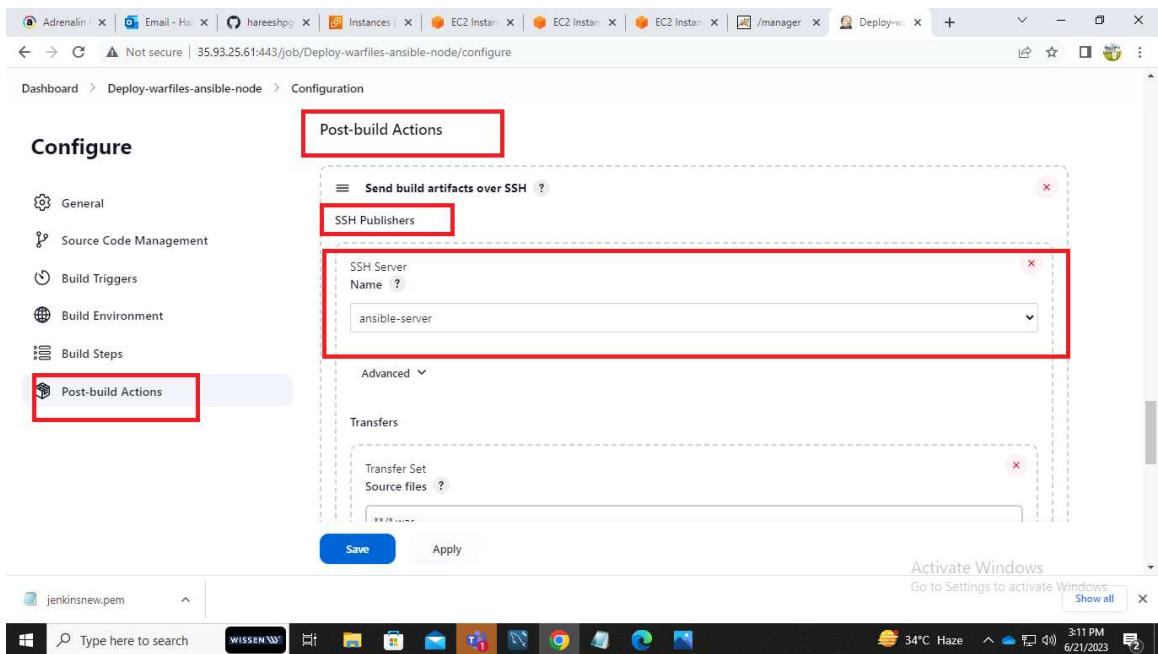


Fourth-Step:

- Here post-build actions we have to deploy our war file into multiple servers
- Now we intergating the ansible-server with jenkins for deploy that war file into Remote ansible-server after that war file should be deploy into multiple ansible-nodes.
- so here we need a plugin for this execution ---(**Publish over SSH**)plugin
- when ever we installed that plugin after in that post-build actions we get an section called **send buid artifact over SSH**.

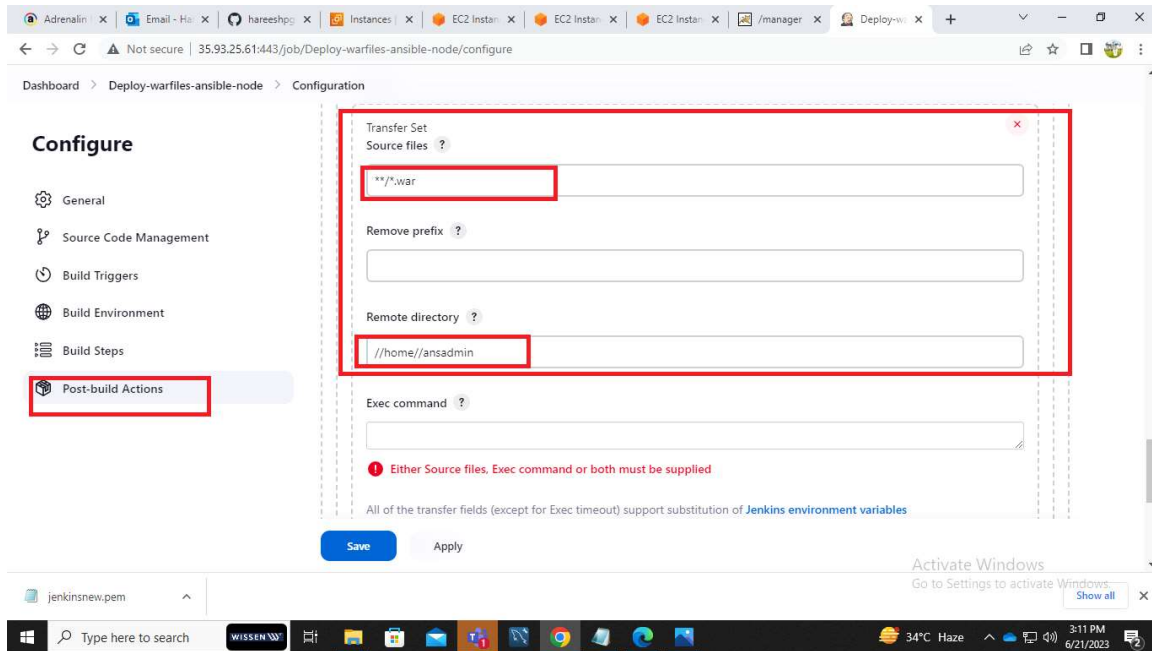


- Select that below section and add the ansible-server details

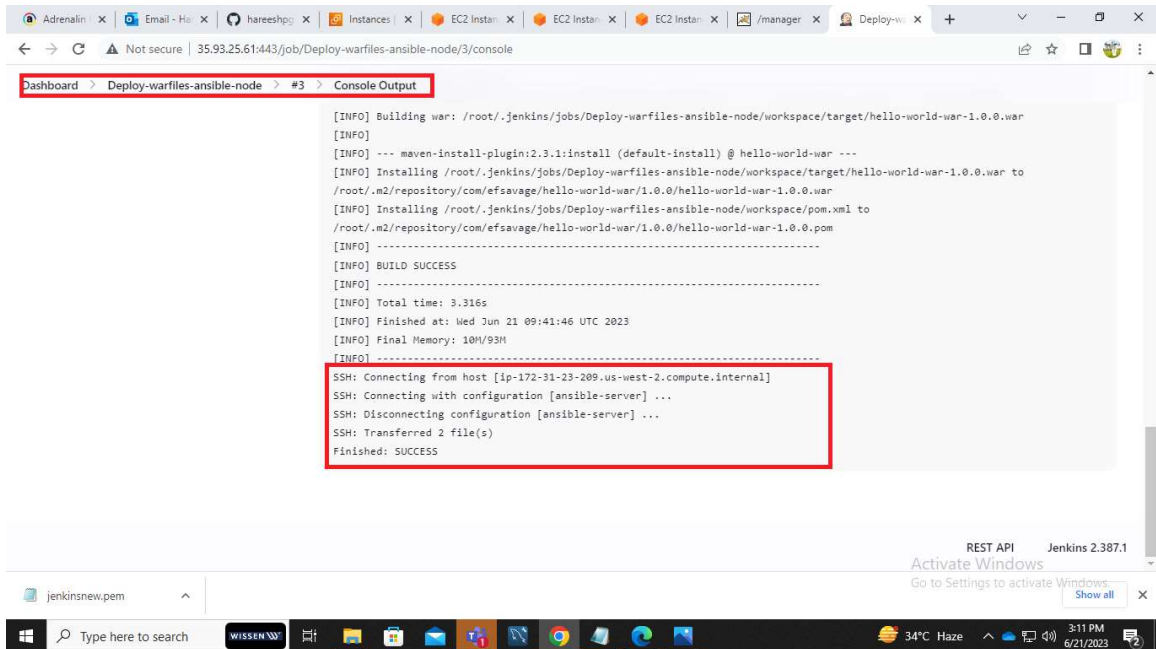


- Here we have to give that war files path
- Under the source file section we add -- **/*.war
- After that we add Remote directory path -- //home//ansadmin

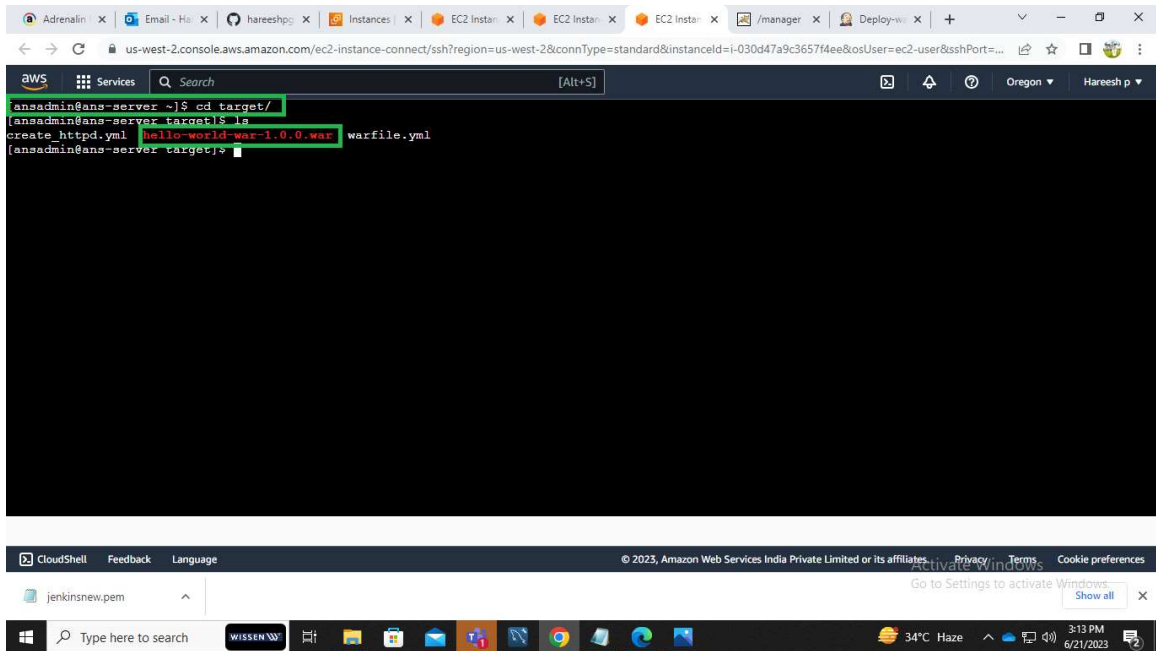
- The below path is Ansible-server current path here only that war file was transferred after build the war file.



- Here we can see the console output of #3 build
- two files was transferred to Remote ansible-server with the help of **send build artifact over SSH**.



- After build the job that war file is transferred into **Ansible-server --hello-world-war-1.0.0.war**.



- Here we have to write a playbook to transfer that war file into multiple ansible-nodes from ansible-server.

Adrenalin x Email - Har x hareeshp x Instances x EC2 Instan x EC2 Instan x EC2 Instan x /manager x Deploy-wi x

Not secure | 35.93.25.61:443/job/Deploy-warfiles-ansible-node/configure

Dashboard > Deploy-warfiles-ansible-node > Configuration

Configure

- General
- Source Code Management
- Build Triggers
- Build Environment
- Build Steps
- Post-build Actions**

Transfer Set

Source files ?

****/*.war**

Remove prefix ?

Remote directory ?

//home//ansadmin

Exec command ?

ansible-playbook /home//ansadmin/target/warfile.yml

All of the transfer fields (except for Exec timeout) support substitution of [Jenkins environment variables](#)

Save Apply

Activate Windows
Go to Settings to activate Windows
[Show all](#)

jenkinsnew.pem

Type here to search WISSEN

34°C Haze 3:13 PM 6/21/2023

Adrenalin x Email - Har x hareeshp x Instances x EC2 Instan x EC2 Instan x EC2 Instan x /manager x Deploy-wi x

Not secure | 35.93.25.61:443/job/Deploy-warfiles-ansible-node/

Dashboard > Deploy-warfiles-ansible-node

Project Deploy-warfiles-ansible-node

[Add description](#)
[Disable Project](#)

Permalinks

- Last build (#3), 2 min 18 sec ago
- Last stable build (#3), 2 min 18 sec ago
- Last successful build (#3), 2 min 18 sec ago
- Last completed build (#3), 2 min 18 sec ago

Build History

trend

Success > Console Output

#4 Jun 21, 2023 9:44 AM

#3 Jun 21, 2023 9:41 AM

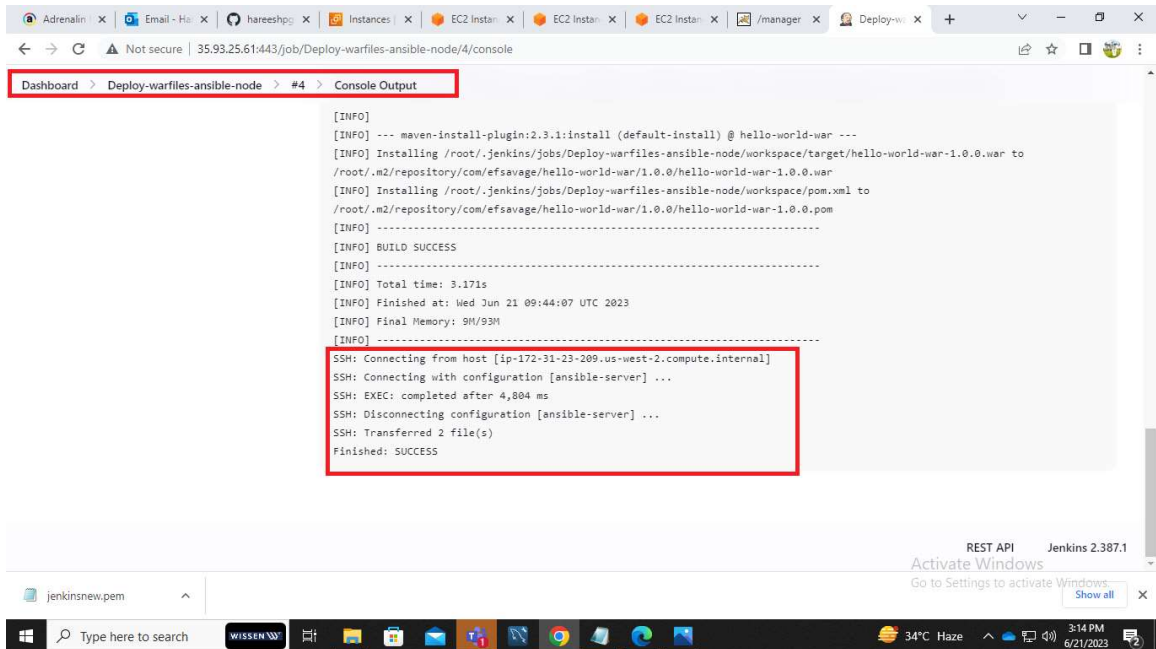
#2 Jun 21, 2023 9:36 AM

35.93.25.61:443/job/Deploy-warfiles-ansible-node/4/console

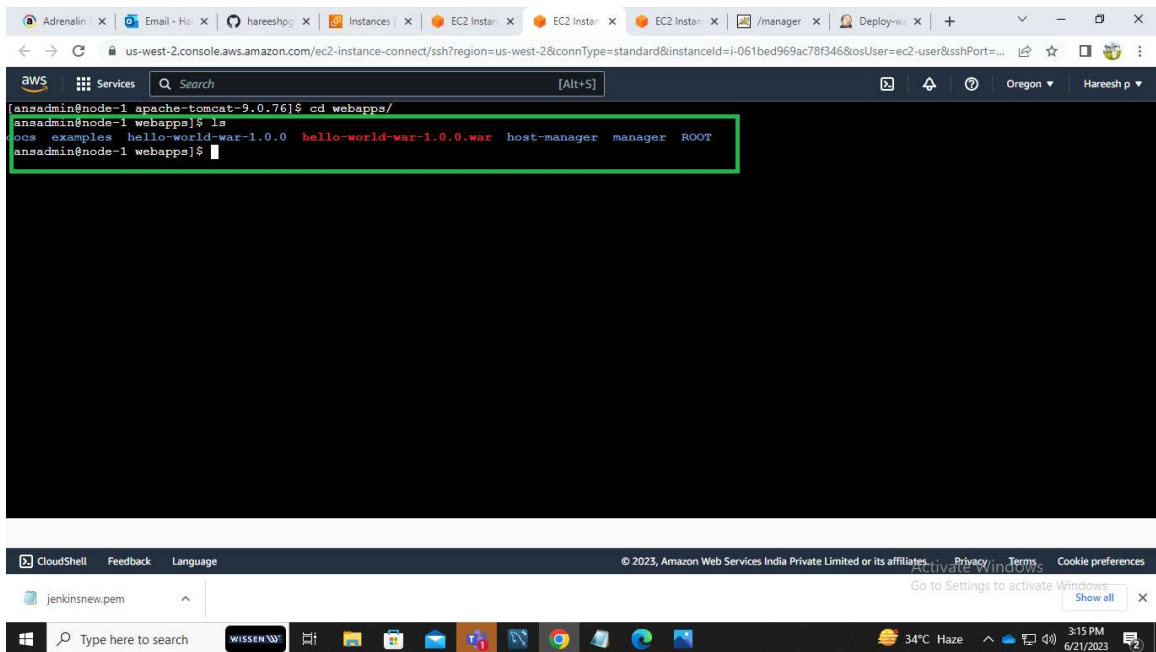
jenkinsnew.pem

Type here to search WISSEN

34°C Haze 3:14 PM 6/21/2023



- In the **ansible-node1** we can see our final war file under the--- Webapps/ directory



- Before that we have to take the public IP of tomcat server running in the Ansible-node.
- copy public IP and paste on the browser with assign port number.

- Here we can see our war file was deployed in tomcat application server

The screenshot shows the Tomcat Manager web interface. At the top, there are navigation links: [List Applications](#), [HTML Manager Help](#), [Manager Help](#), and [Server Status](#). Below this is a table titled "Applications" with the following columns: Path, Version, Display Name, Running, Sessions, and Commands.

Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/docs	None specified	Tomcat Documentation	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/examples	None specified	Servlet and JSP Examples	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/hello-world-war-1.0.0	None specified		true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/host-manager	None specified	Tomcat Host Manager Application	true	0	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes
/manager	None specified	Tomcat Manager Application	true	1	Start Stop Reload Undeploy Expire sessions with idle ≥ 30 minutes

Below the table is a "Deploy" section with a text input field for "Deploy directory or WAR file located on server" and a "Context Path:" label. The browser's address bar shows "54.68.100.12/manager/html".

- This is our final web content

The screenshot shows the web application "hello-world-war-1.0.0" running on the Tomcat server. The browser's address bar shows "54.68.100.12/hello-world-war-1.0.0/". The page content is as follows:

Hello team, this is the jenkins 2nd job ----

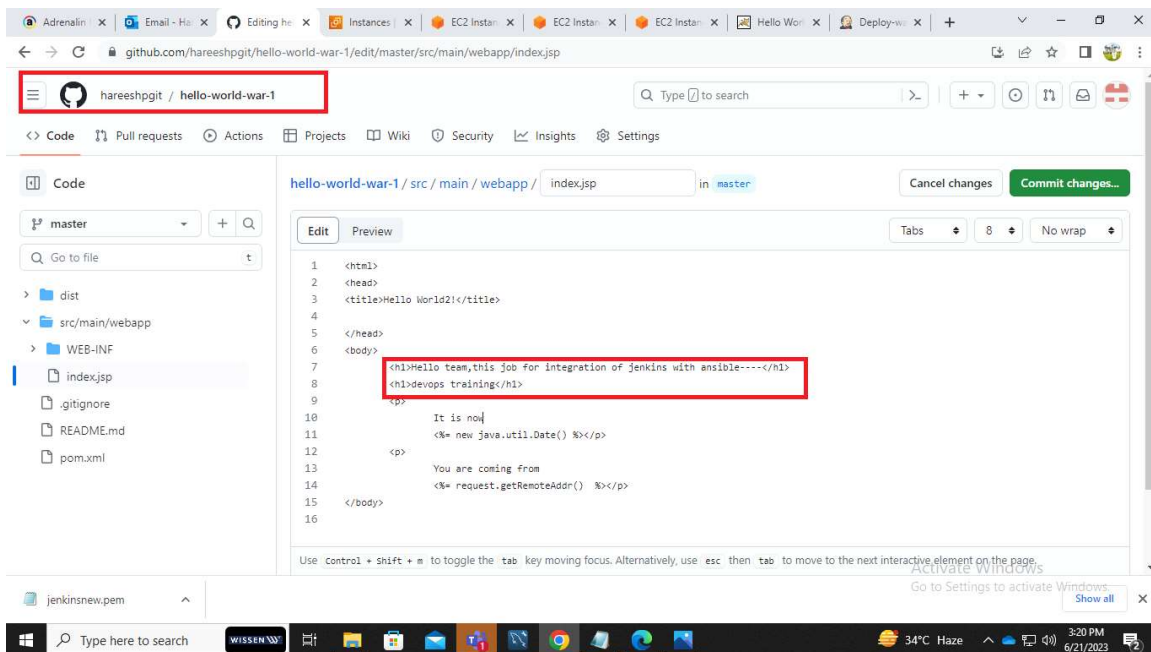
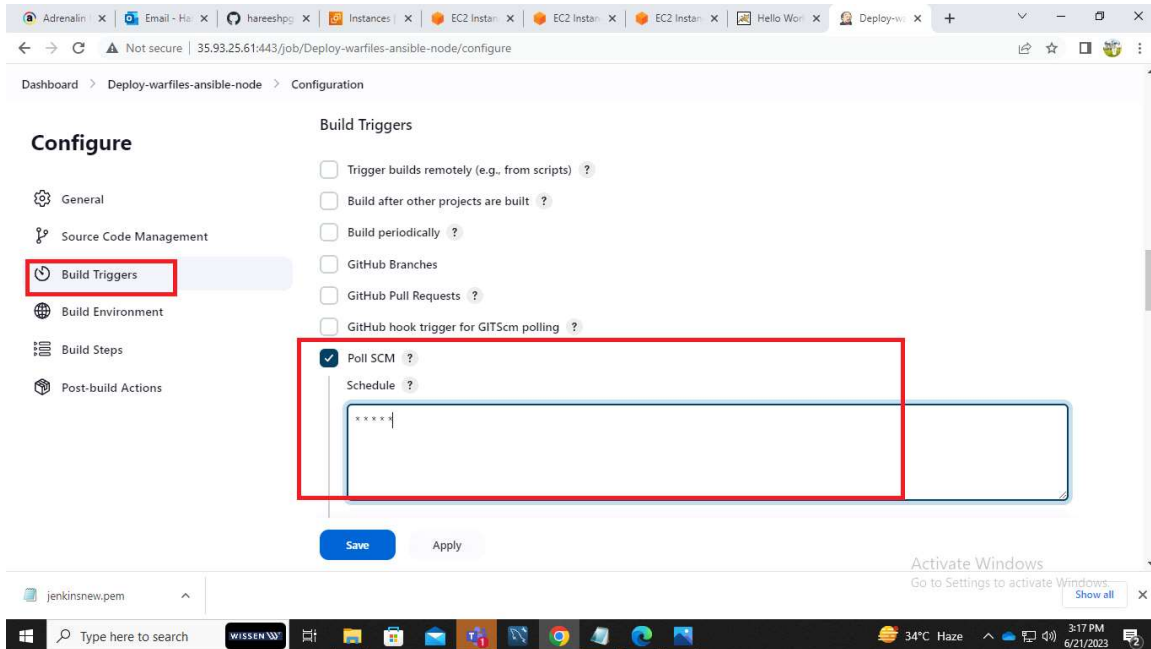
devops training

It is now: Wed Jun 21 09:46:27 UTC 2023

You are coming from 115.245.105.206

- Here developer changes the code every time so we need to automate that job using concept called **Poll scm**
- In the build triggers section we have to add Poll scm

- **In the poll scm -- when ever developer add and commit the code to github.
- ***For every minute That jenkins server checks the Github repo and build the job***
- For that we give -- * * * * * (5 -stars)



- Before the job build number is #5 -- when we add poll scm new build is happend and

success.

The screenshot shows the Jenkins web interface for a project named 'Deploy-warfiles-ansible-node'. The left sidebar contains navigation links: Dashboard, Changes, Workspace, Build Now, Configure, Delete Project, Git Polling Log, and Rename. The main area displays 'Permalinks' for the last build (#5), which completed 2 minutes and 17 seconds ago. Below this, the 'Build History' section shows a list of builds, with the most recent one (#5) highlighted in a red box. The console output for this build is visible, showing a successful status and the time 'Jun 21, 2023, 9:51 AM'.

The screenshot shows a terminal window with a red border. The message displayed is: 'Hello team, this job for integration of Jenkins with Ansible---- devops training'. Below the message, it shows the current date and time: 'It is now: Wed Jun 21 09:51:28 UTC 2023' and the IP address: 'You are coming from 115.245.105.206'.

The screenshot shows a terminal window with a red border. The message displayed is: 'Hello team, this job for integration of Jenkins with Ansible---- devops training'. Below the message, it shows the current date and time: 'It is now: Wed Jun 21 09:51:28 UTC 2023' and the IP address: 'You are coming from 115.245.105.206'.