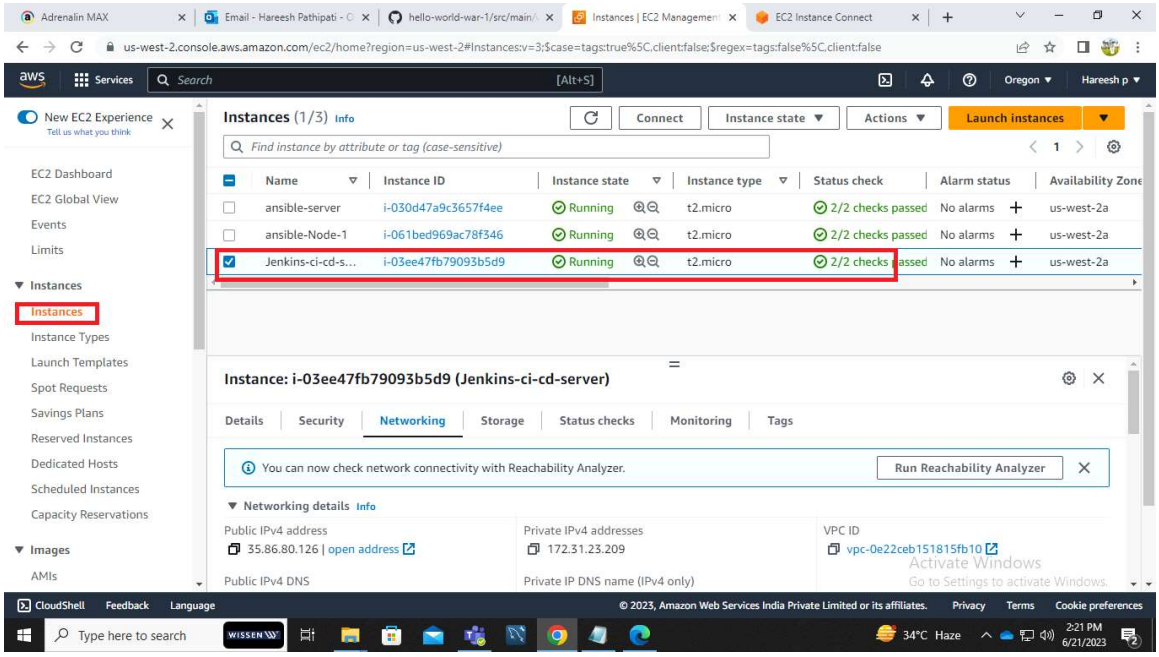
jenkins and ansible-server integration and deploying war file into multiple ansible-nodes using Tomcat application.

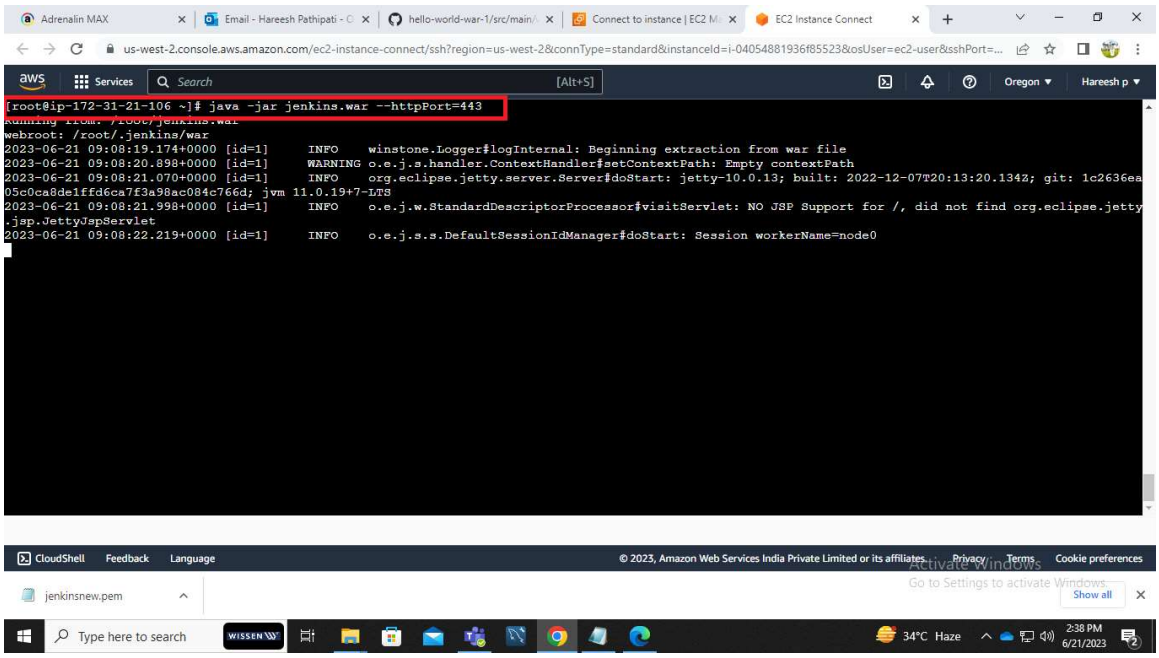
- Login to ec2 dashboard
- Launch the jenkins-server , ansible-server,ansible-node-1

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

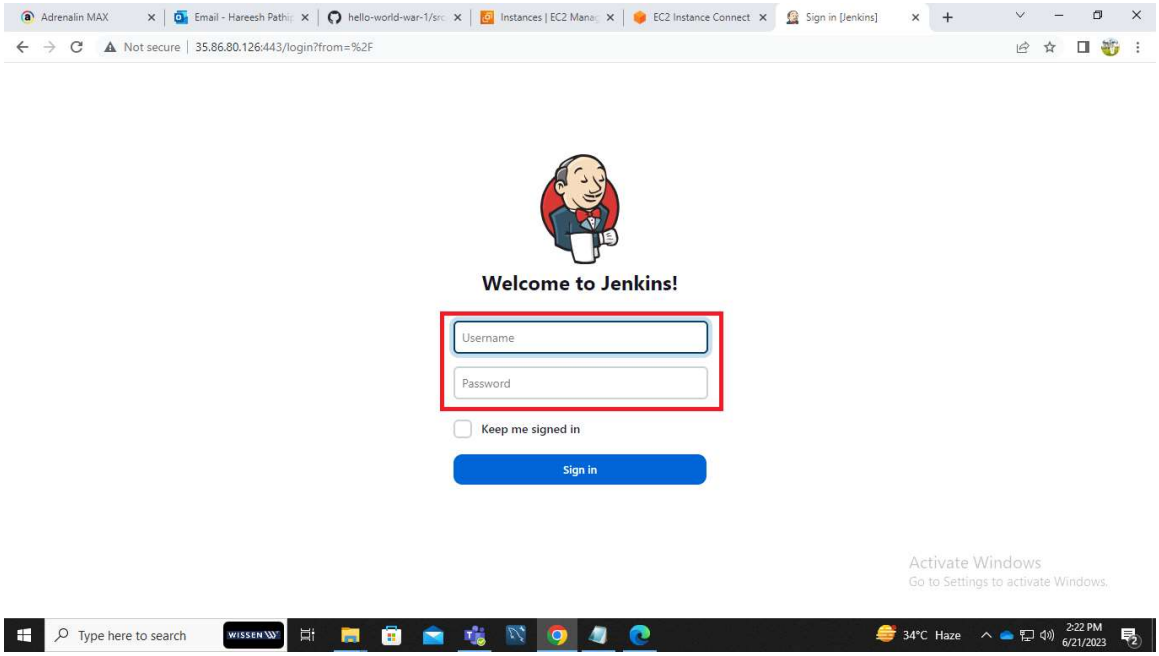


- we already installed the jenkins and pre requisites like (java and Git) in this jenkins-server.
- Here we changed the port number of jenkins and run the jenkins-server using below command

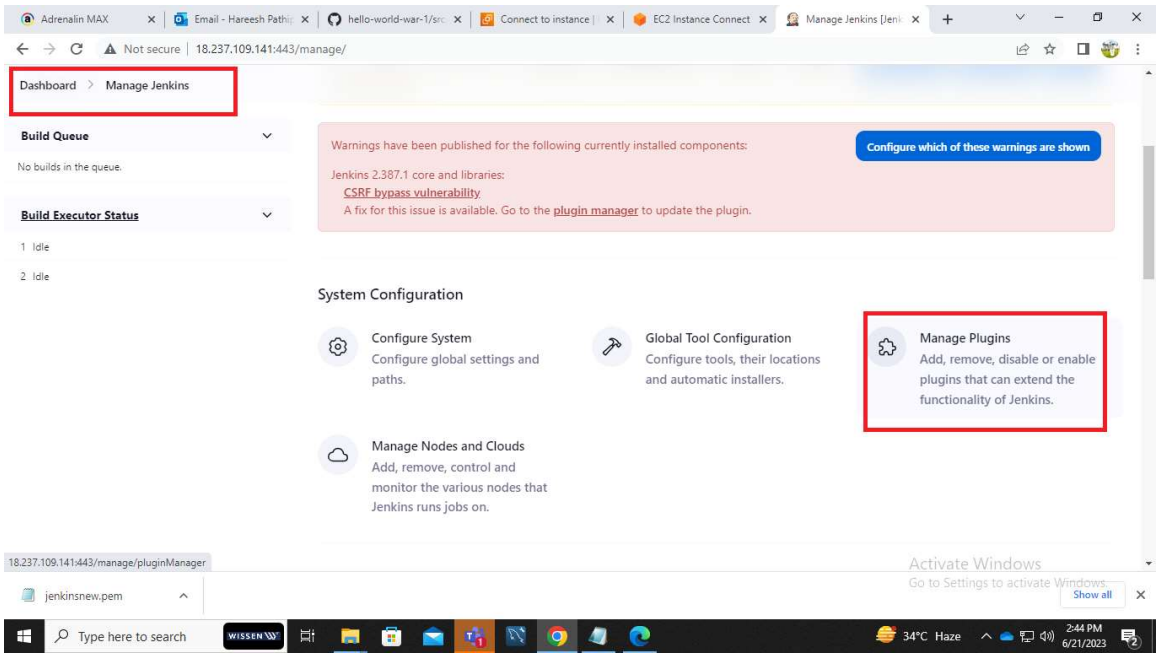
java -jar jenkins.war --httpPort=443



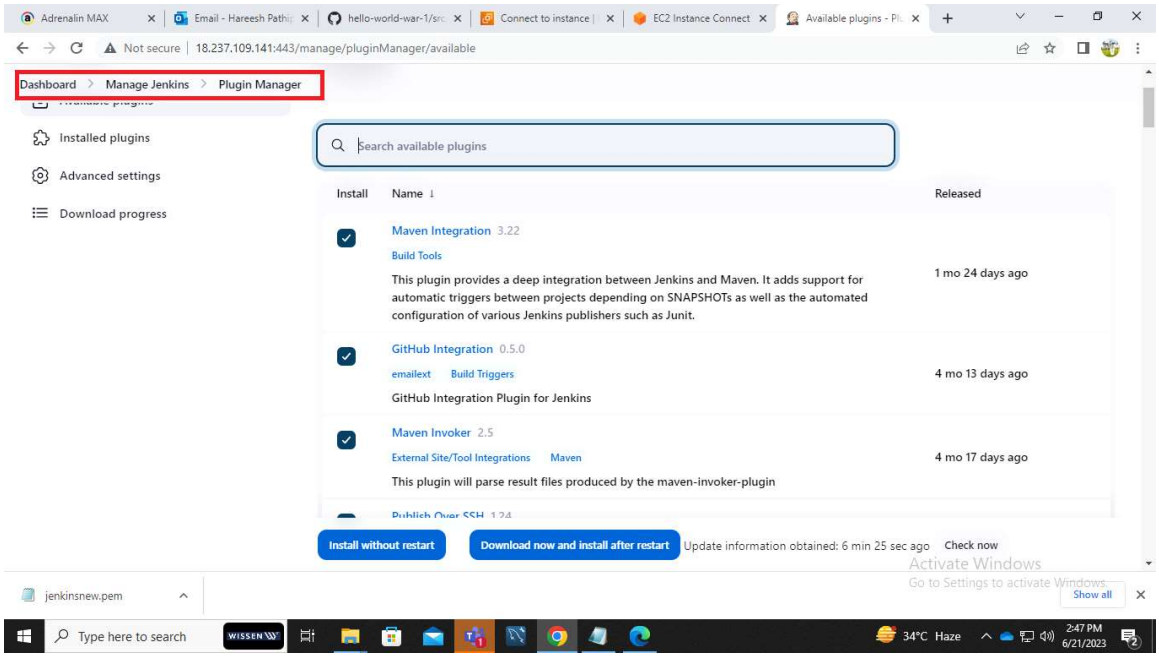
- Take the public IP of jenkins server and paste on the browser using given port .



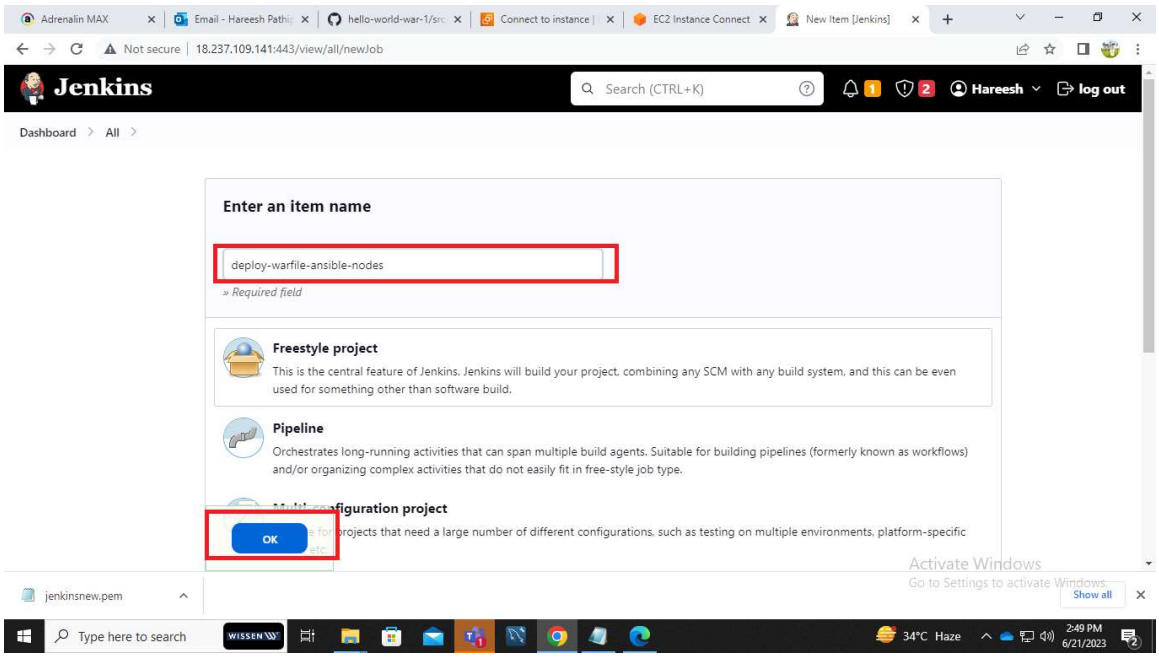
- Open the jenkins dash board
- After that navigate to Manage jenkins and install the project required plugins.



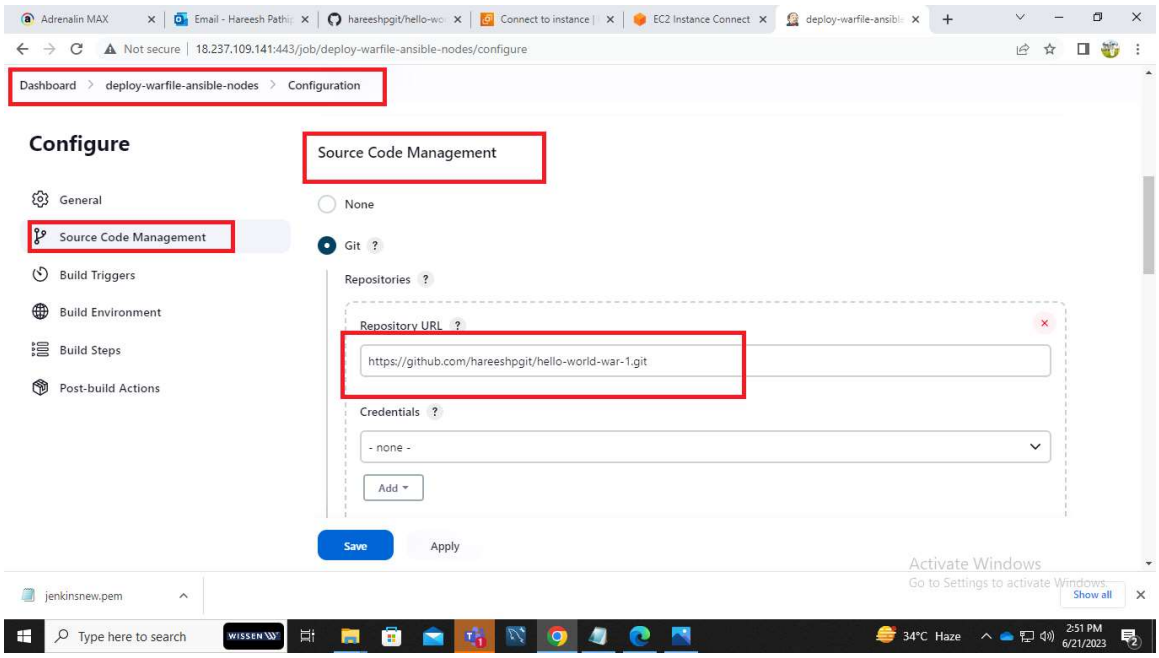
- Here we need plugins like
- Github integration , maven integration , maven invoker , Publish over ssh.

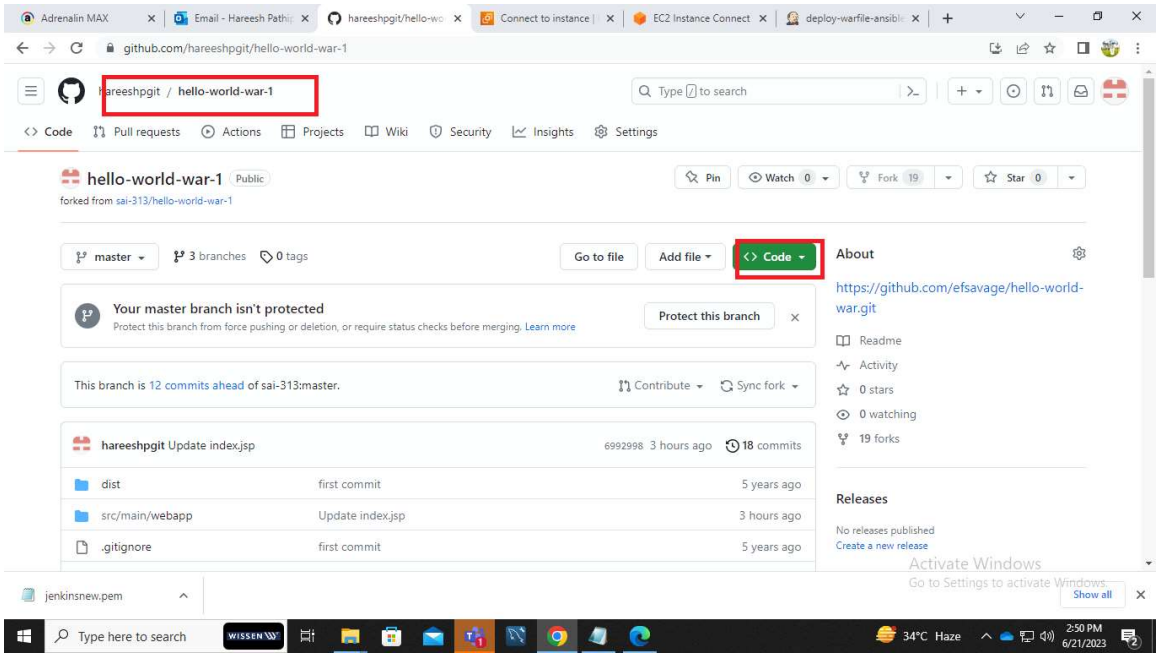


- Open the jenkins dashboard and create a job under freestyle project.
- click on OK



- 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

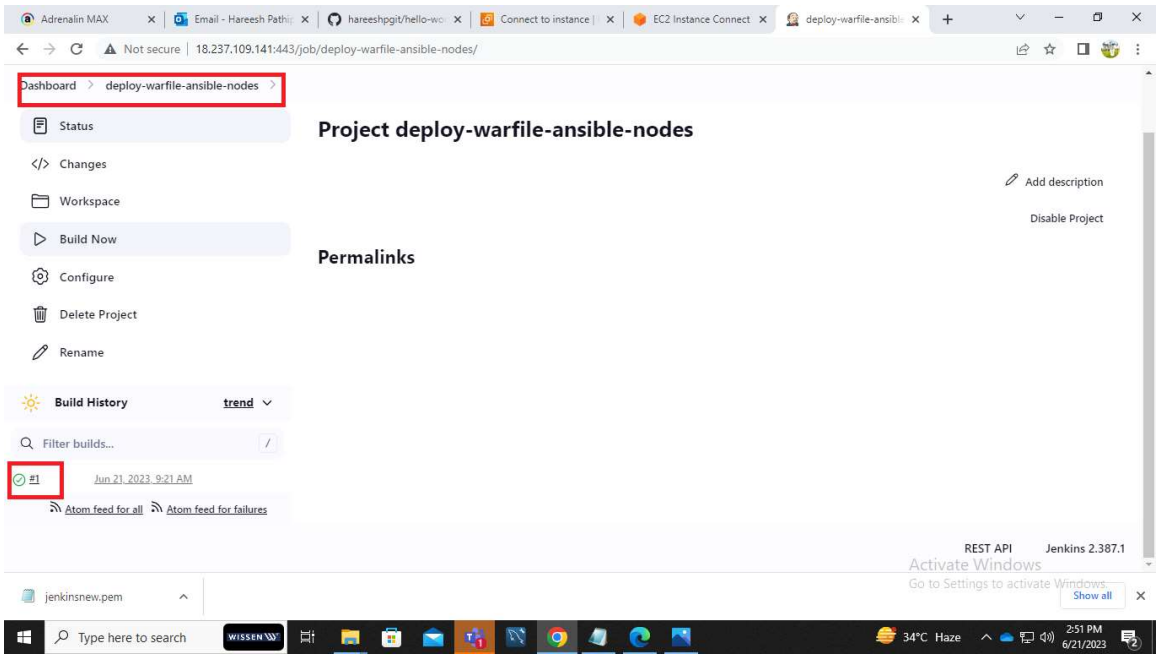


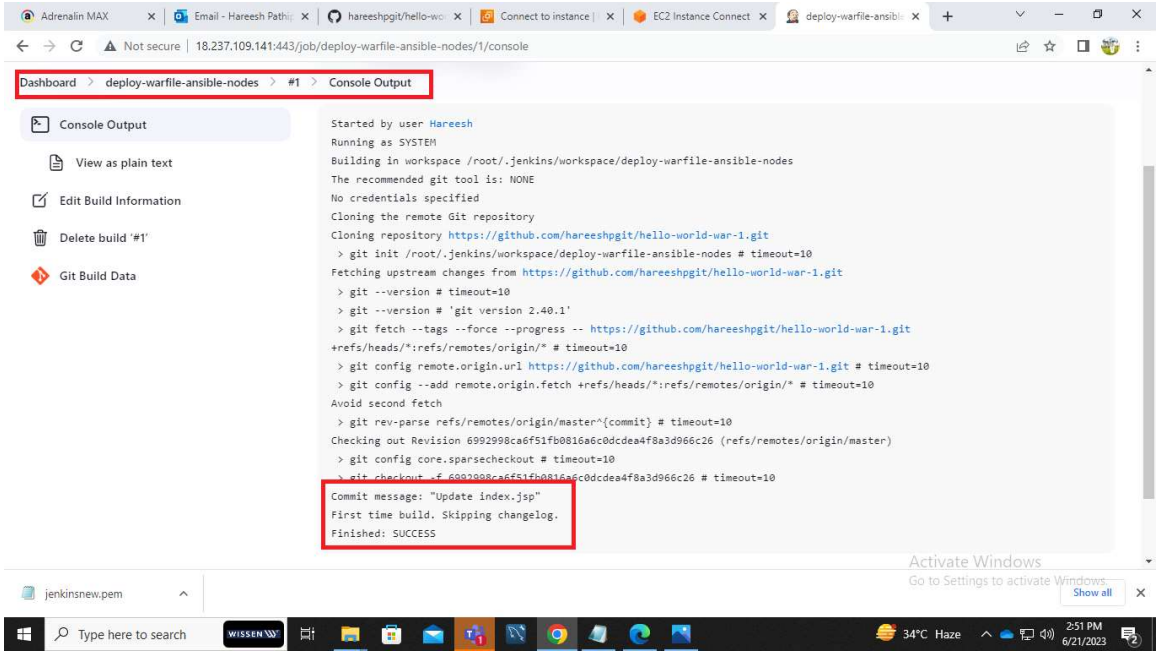


First-step:

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

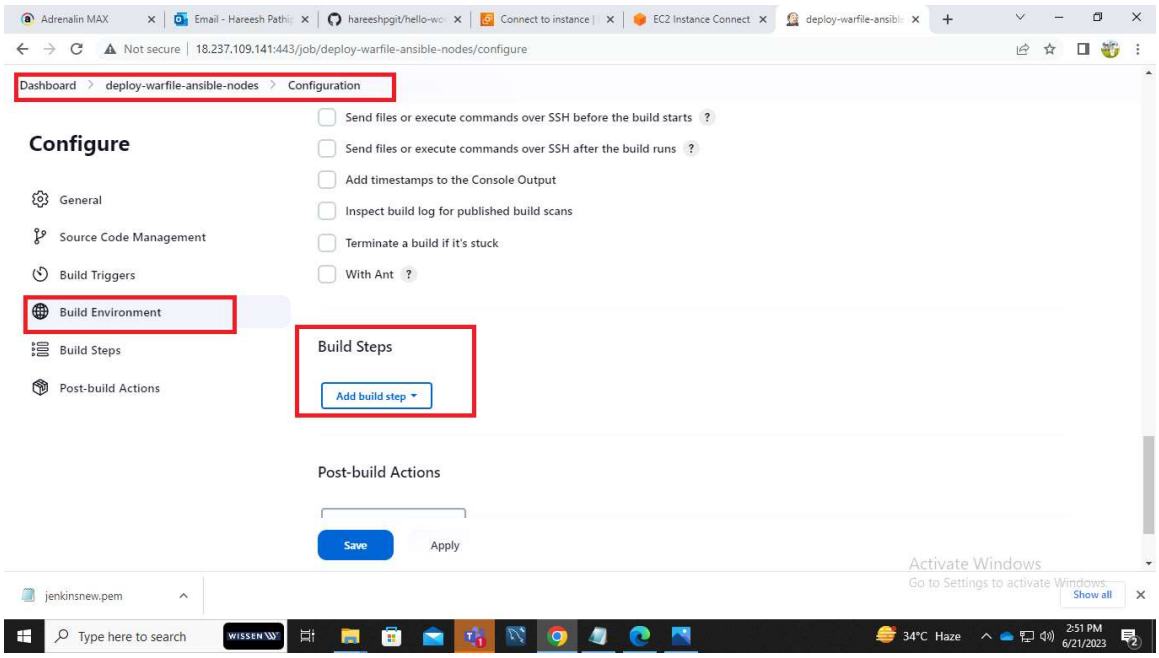
- Select the Job and check the --- #1- Build history uisng console output





Second-step:

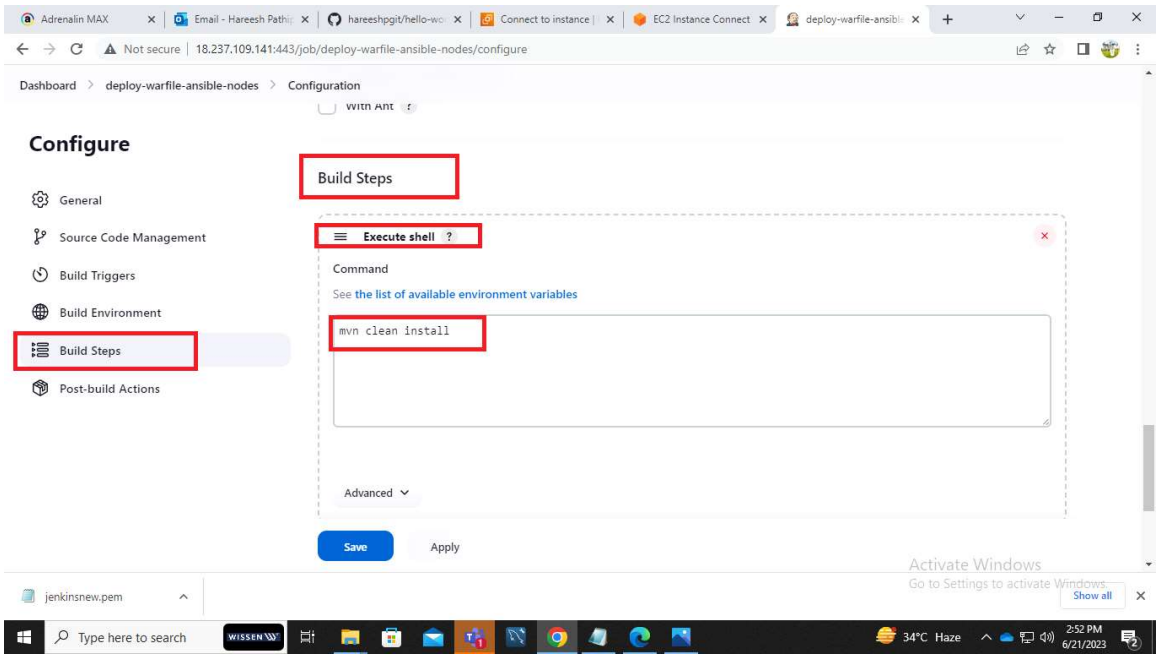
- Click on the job and configure
- Add the Build Steps



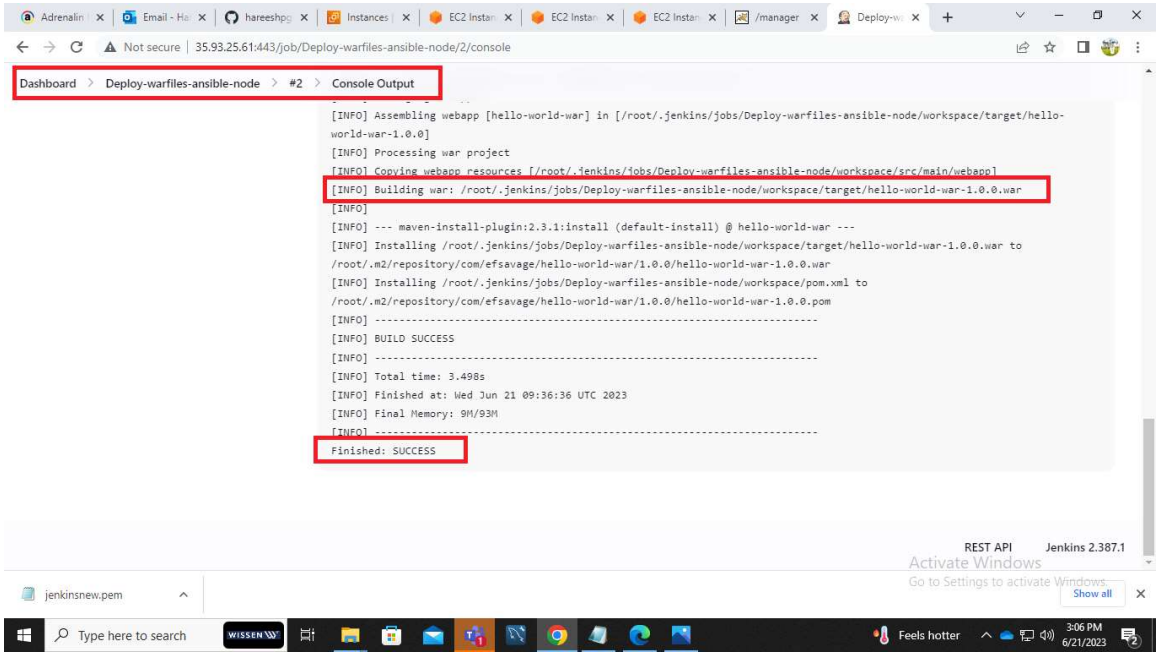
- Select the Build Steps
- select the Execute Shell ---- Here we add Maven Goals

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.

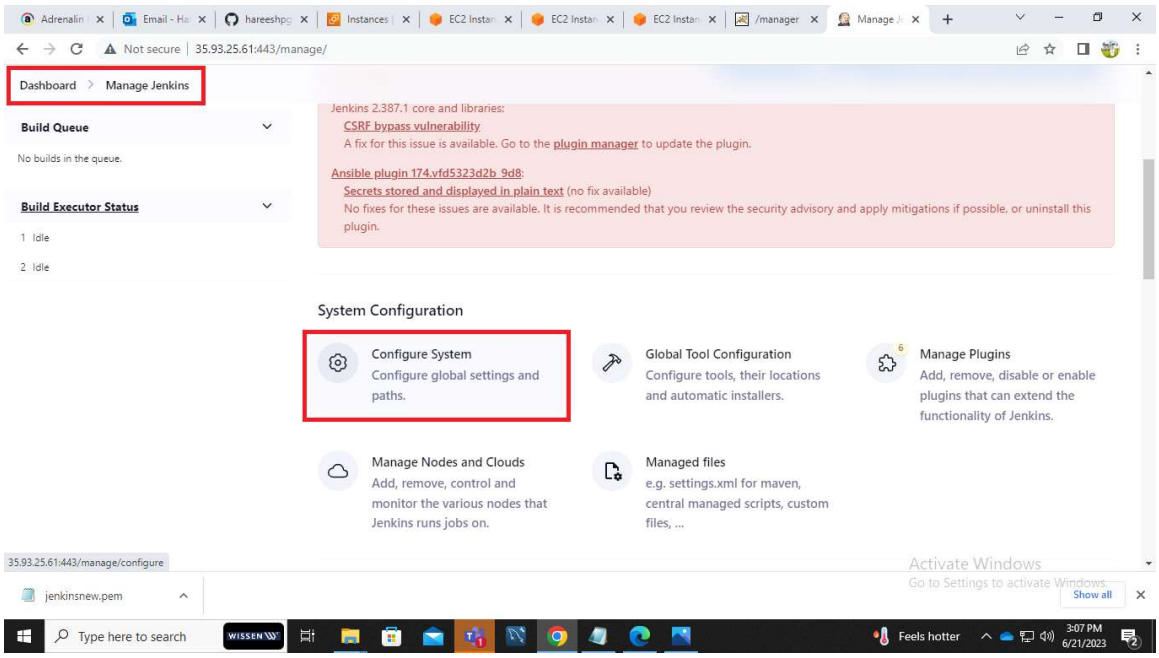


- Here below console output shows the #2 job Build details.

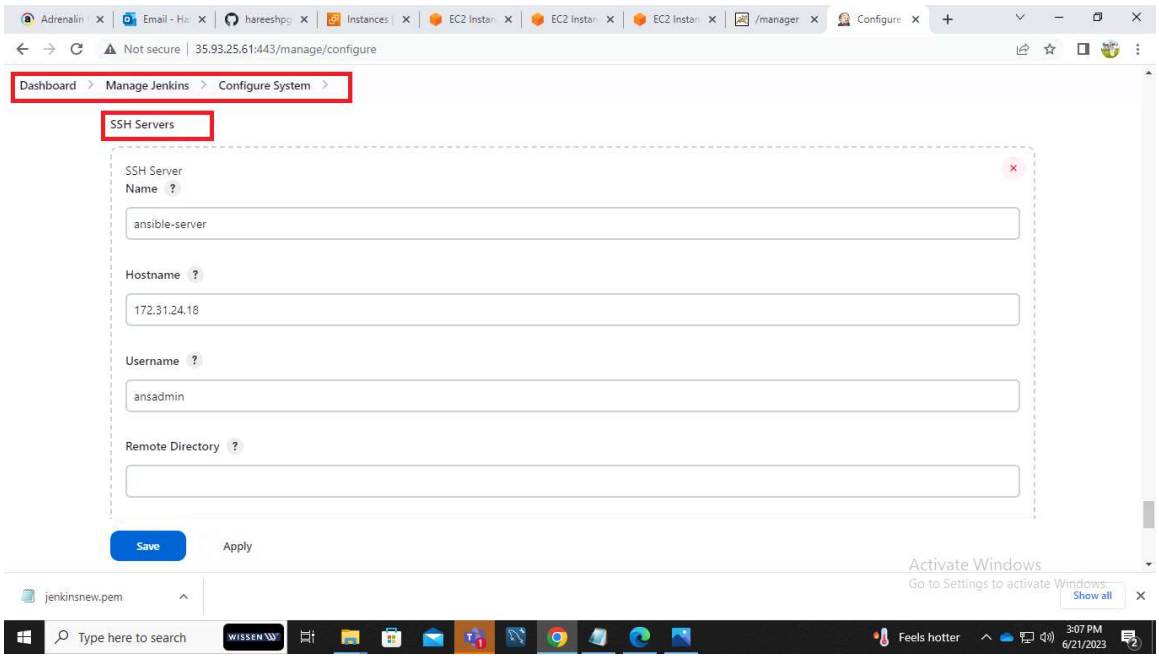


Third-step:

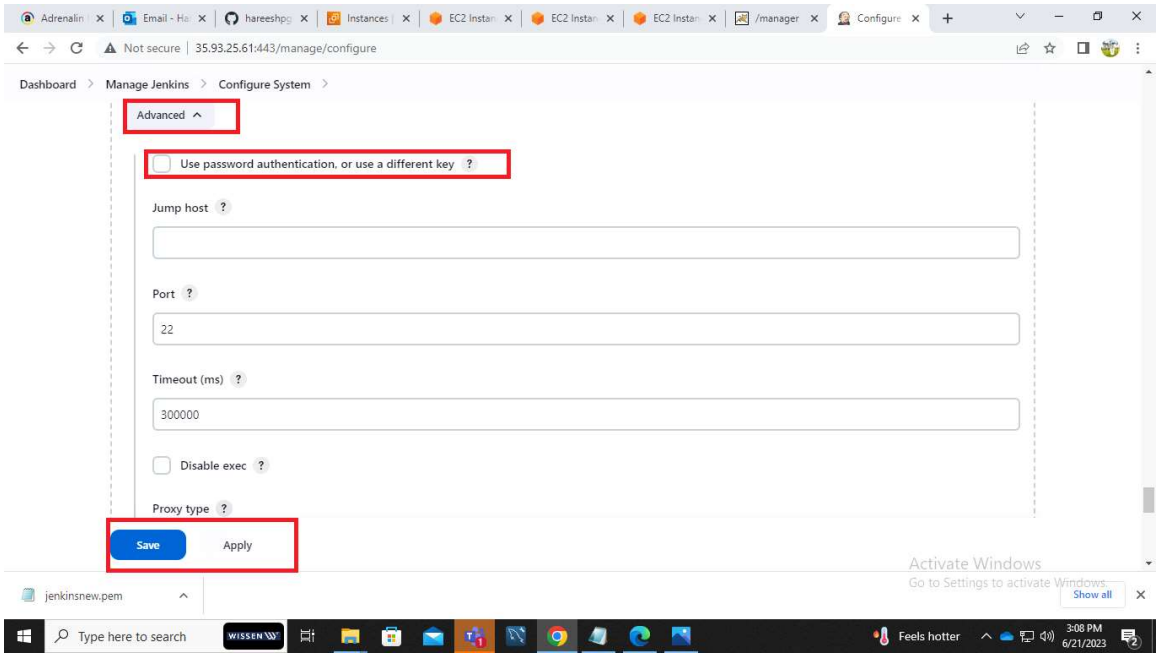
- Now we integrating the jenkins and Ansible-server for deploying war file into Multiple ansible-nodes.
- For that first we have to configure the ssh section in system configuration of jenkins.
- Navigate to Manage jenkins
- Select the configure system



- 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

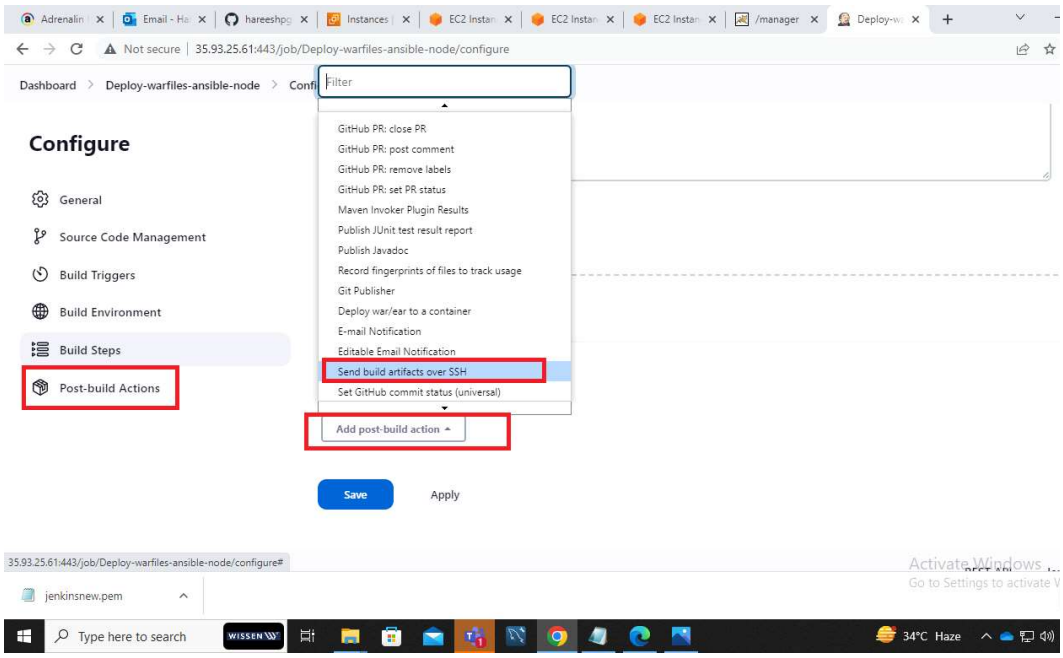


- Select the Advance section in SSH servers
- Add the Password of user or ansible root password
- Under the password section click the Test configuration
- After the success message then only it will establish the connection between jenkins and ansible server.
- Click on save and Aplly

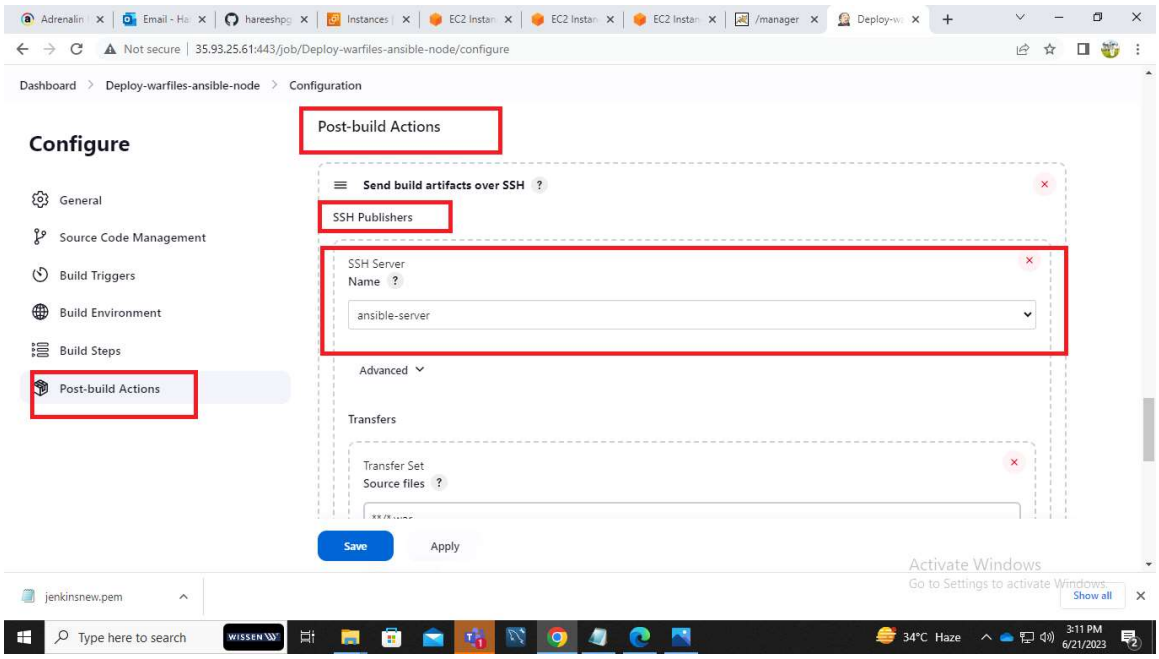


Fourth-Step:

- 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.**

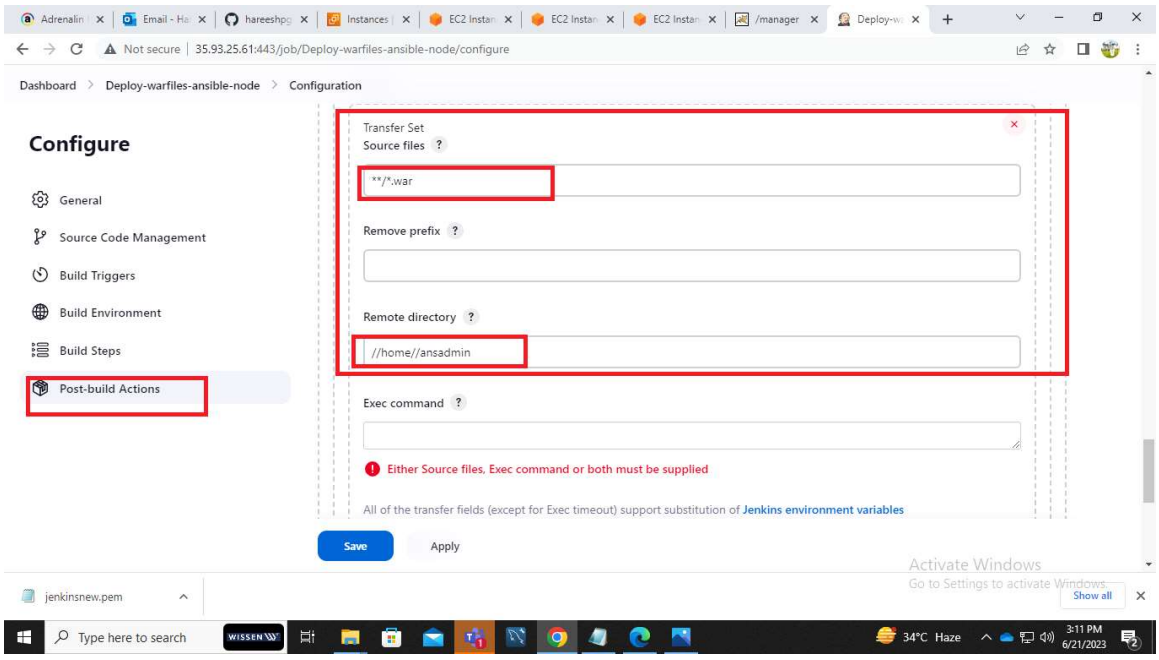
- 

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

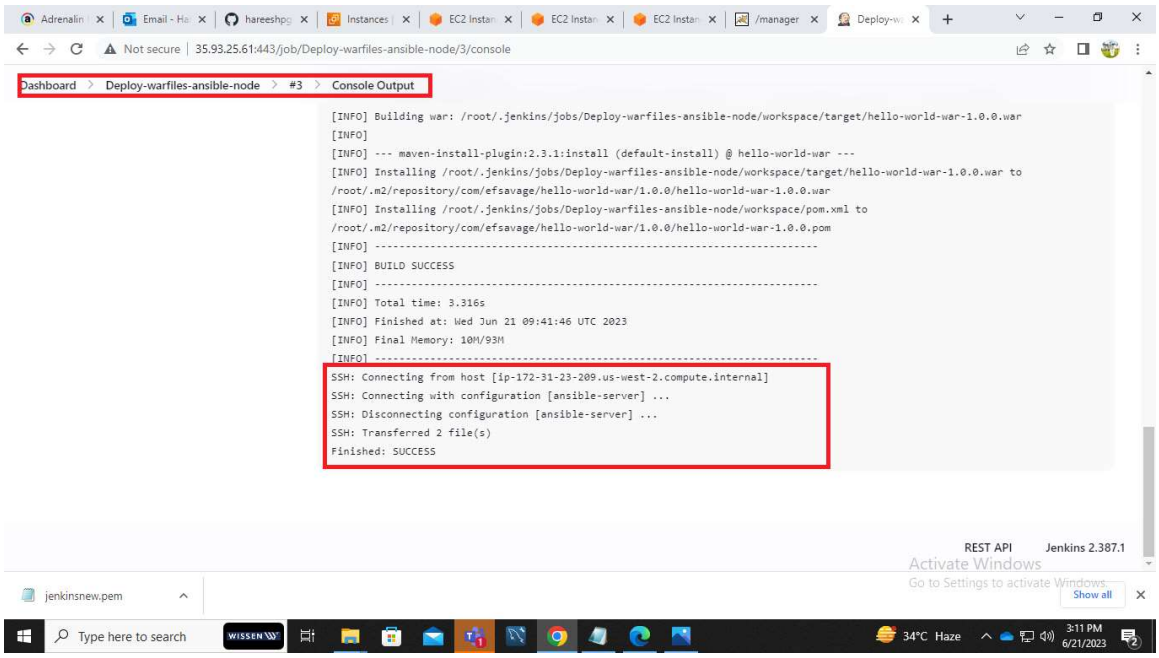


- Here we have to give that war files path
- Under the source file section we add -- **/*.war
- After that we add Remote directory path -- //home//ansadmin

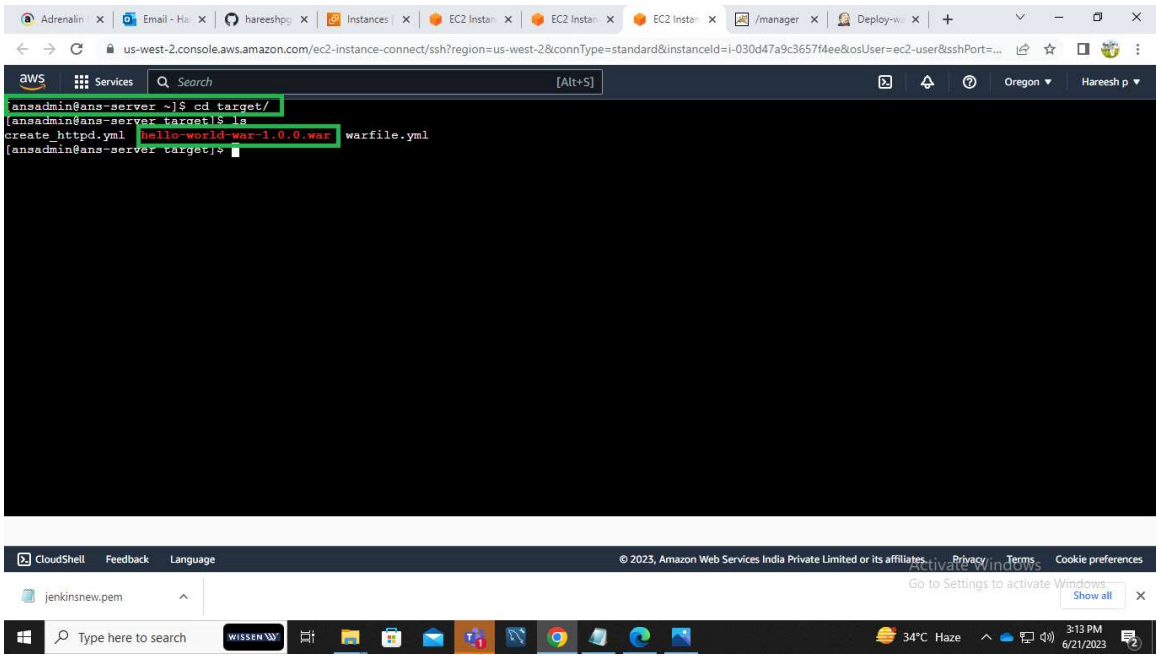
- The below path is Ansible-server current path here only that war file was transferred after build the war file.



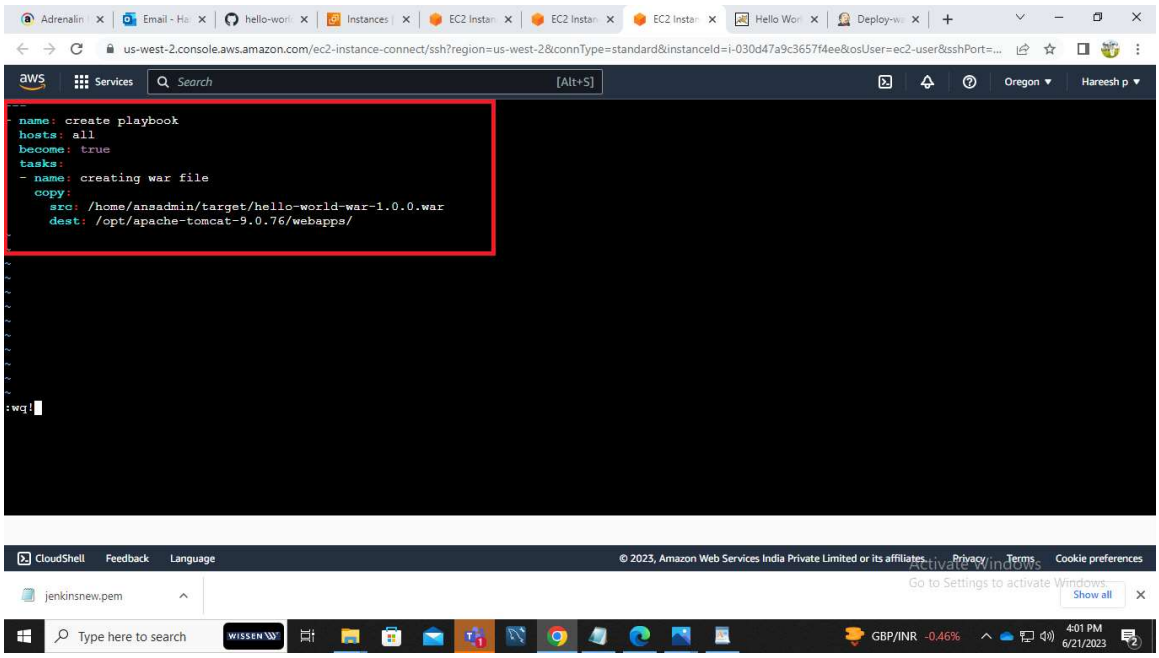
- Here we can see the console output of #3 build
- two files was transferred to Remote ansible-server with the help of **send build artifact over SSH.**



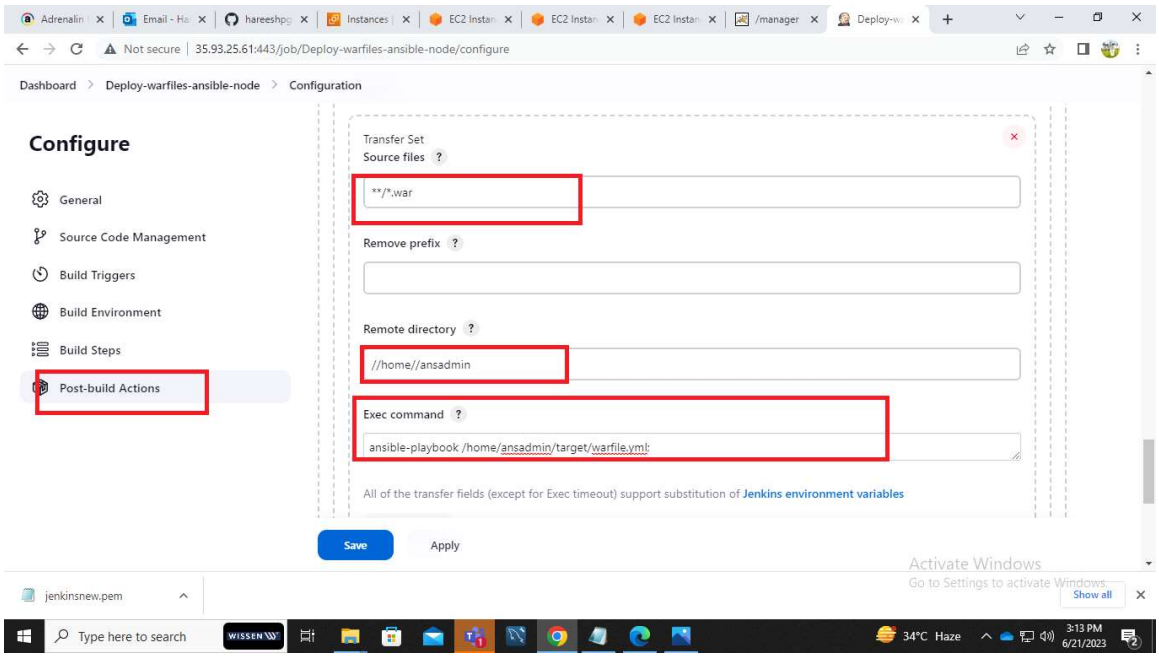
- After build the job that war file is transferred into **Ansible-server** --**hello-world-war-1.0.0.war**.

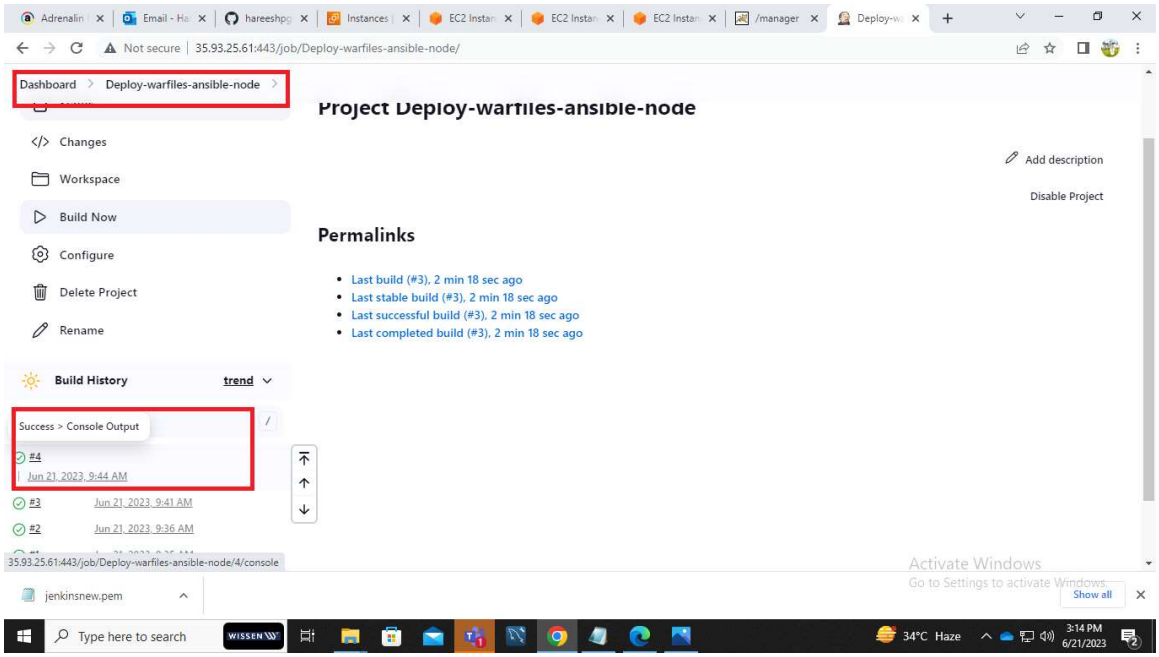


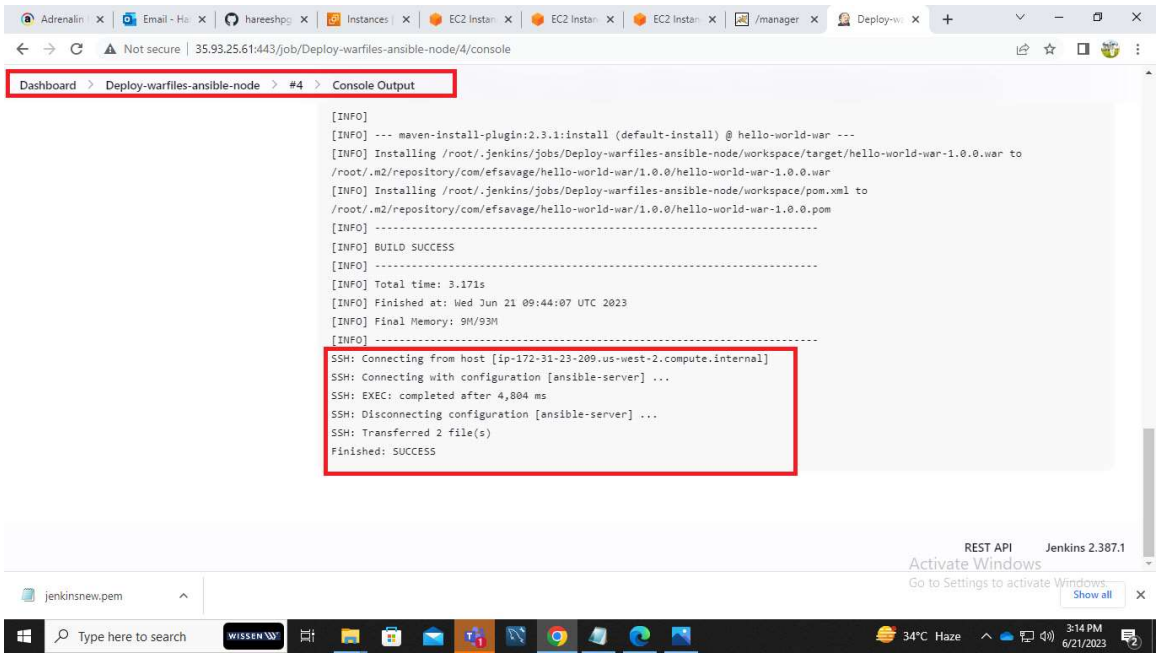
- Here we have to write a playbook to transfer that war file into multiple ansible-nodes from ansible-server.



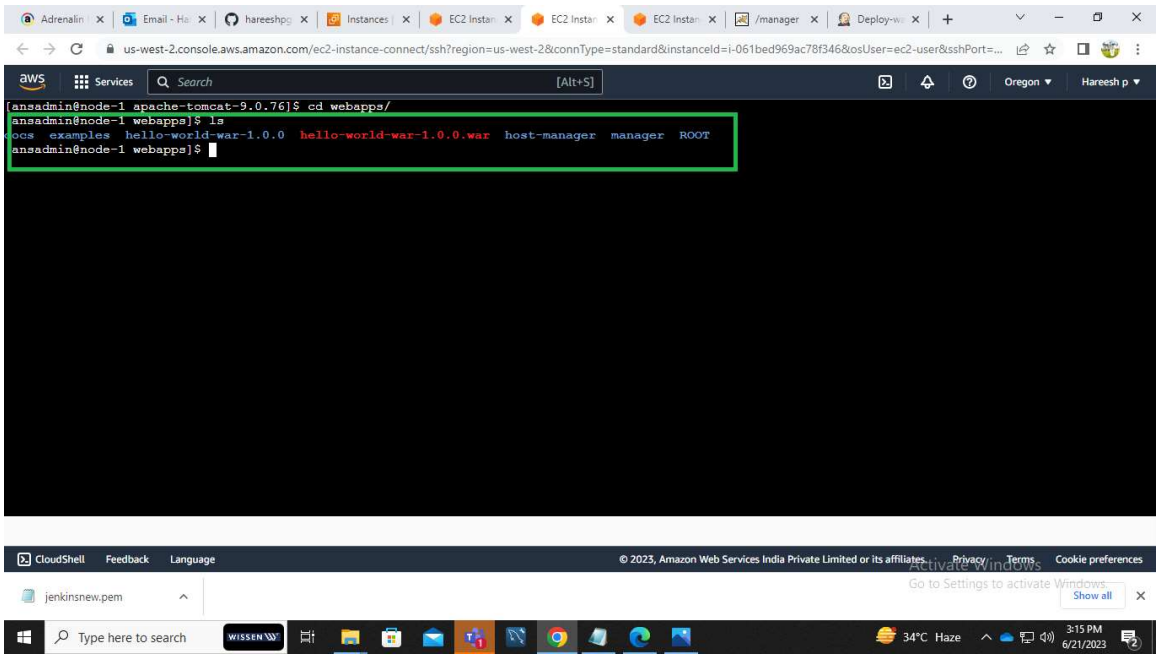
- Instead of manuall execution of that playbook we do automation.
- so far that we add that playbook execution command in jenkins job
- In the exec command section we add that command
- *** so when we add that command before we have to install tomcat into multiple ansible-nodes. ***
- ***For that we have to run a playbook to install the tomcat application and run the tomcat server then only we can execute the war file into multiple nodes.***
- Finally when we build the JOB
- first - the war file is created and transferred to remote ansible-server.
- second- that playbook is executed in the remote server
- After that it will copy the war file into ansible-nodes


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
jenkinsnew.pem
Show all
Type here to search
34°C Haze
3:13 PM
6/21/2023


Not secure | 35.93.25.61:443/job/Deploy-warfiles-ansible-node/
Dashboard > Deploy-warfiles-ansible-node
Changes
Workspace
Build Now
Configure
Delete Project
Rename
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
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
35.93.25.61:443/job/Deploy-warfiles-ansible-node/4/console
jenkinsnew.pem
Show all
Type here to search
34°C Haze
3:14 PM
6/21/2023



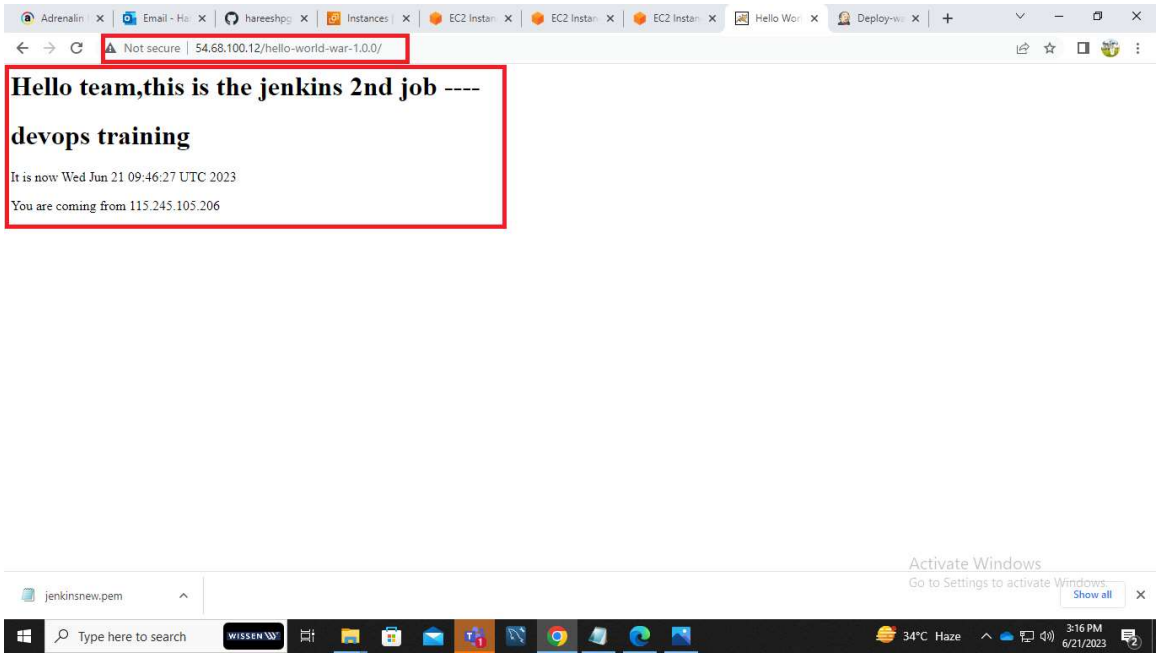
- In the **ansible-node1** we can see our final war file under the--- Webapps/ directory



- 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 assigen port number.

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

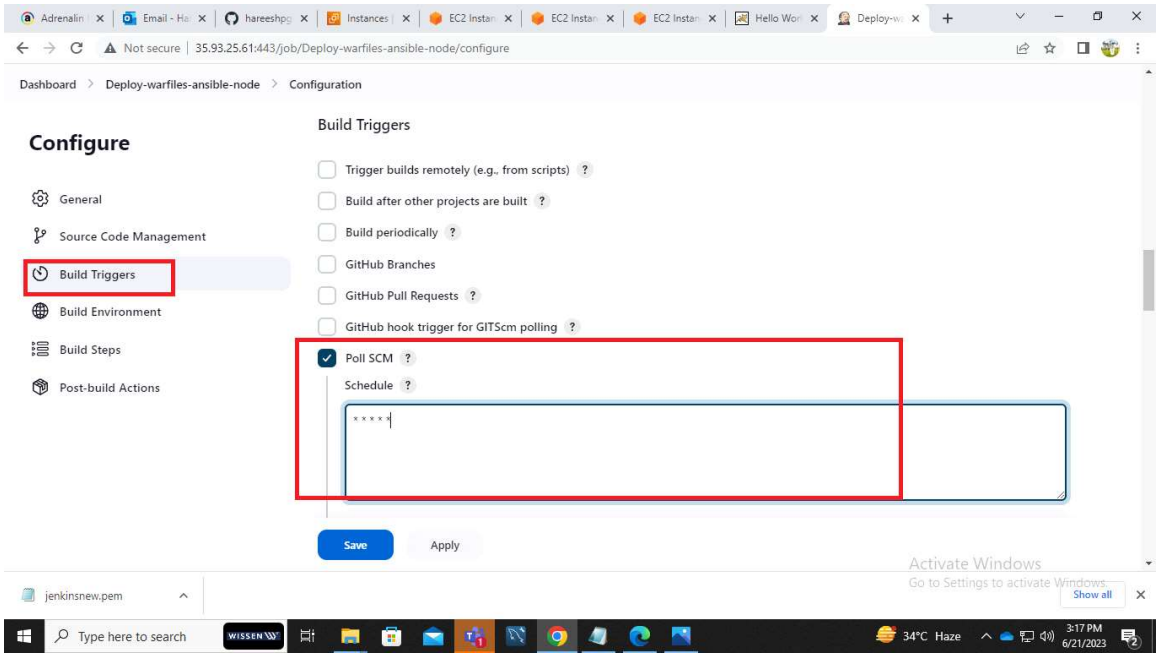
- This is our final web content



- 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)



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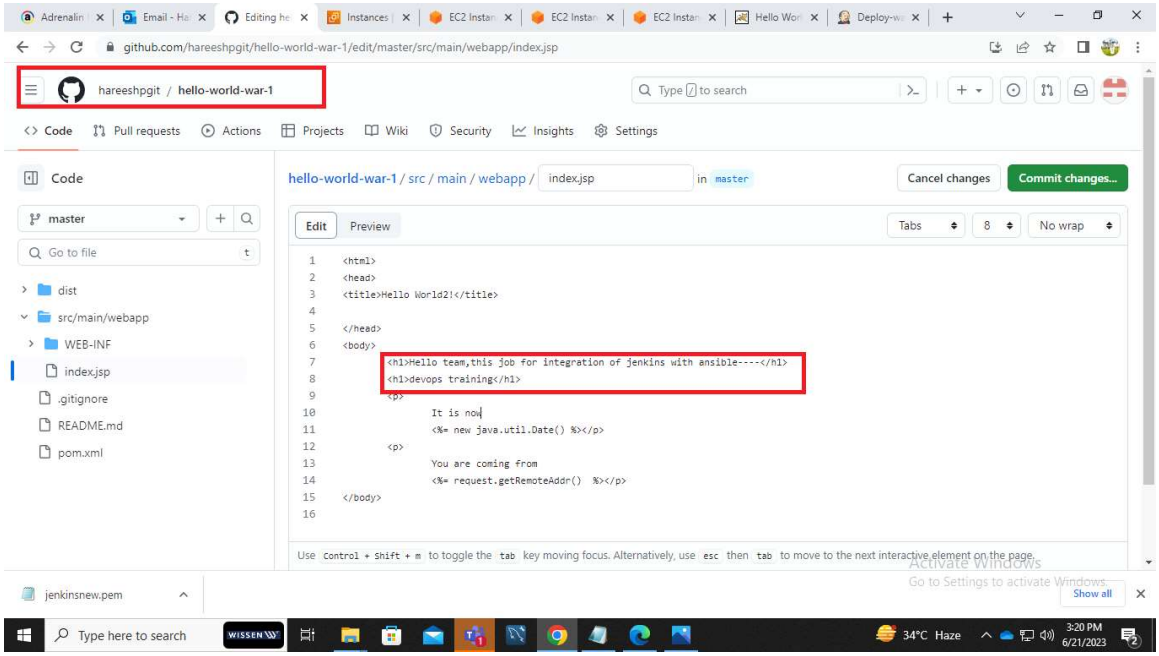
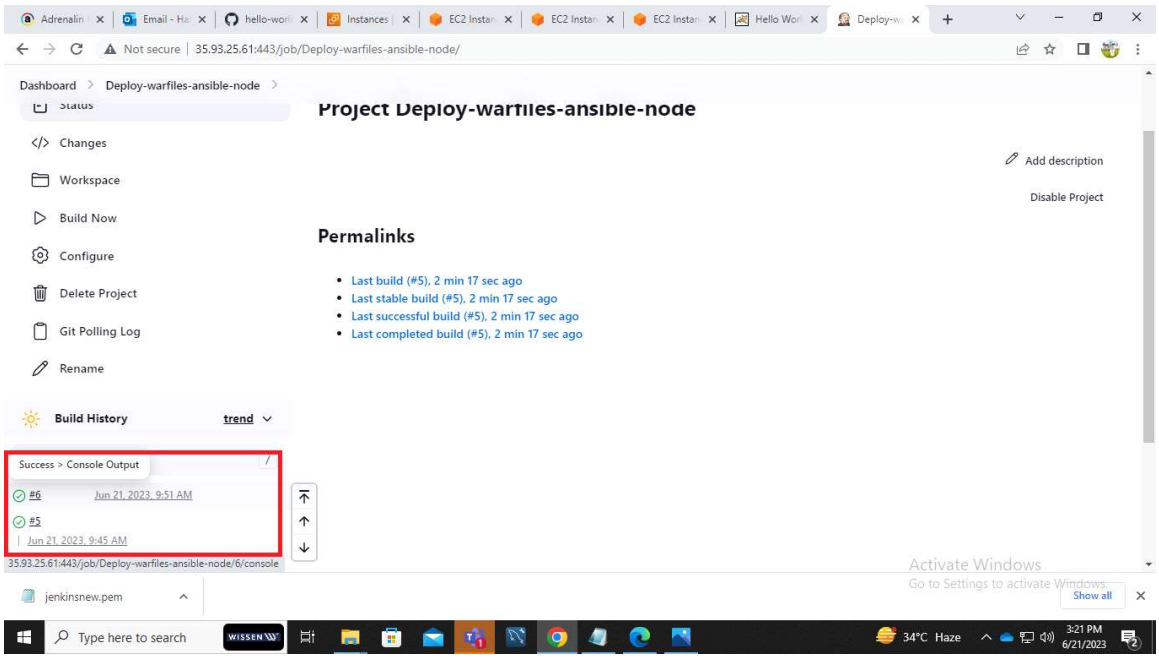
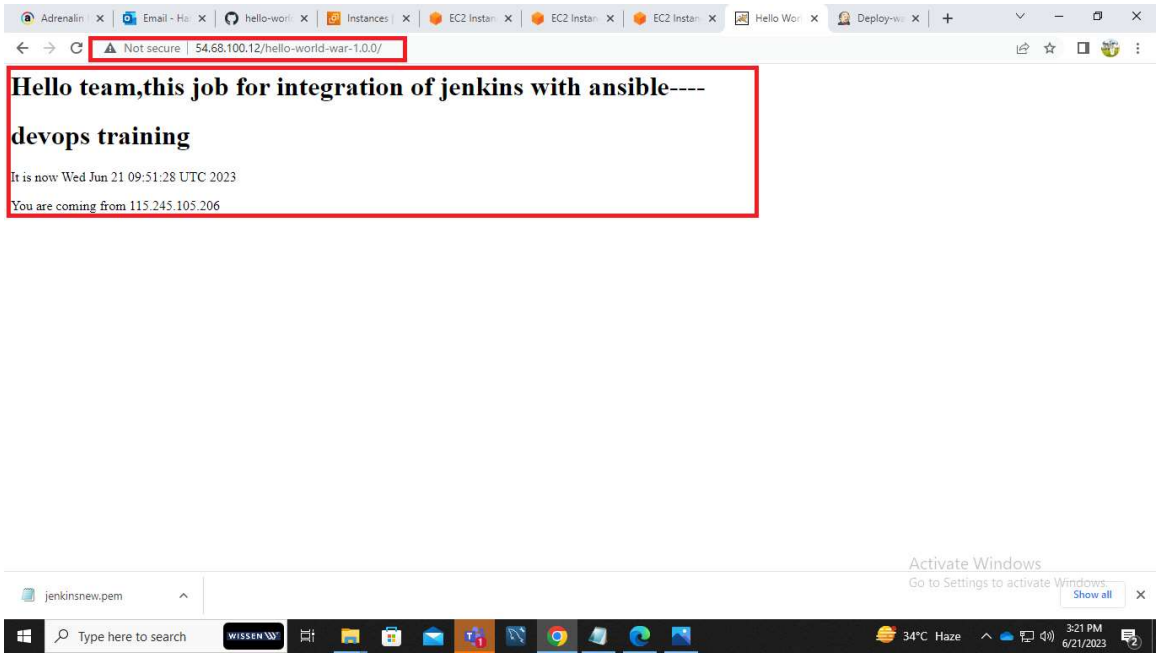


- Before the job build number is #5 -- when we add poll scm new build is happend and

success.


Not secure | 35.93.25.61:443/job/Deploy-warfiles-ansible-node/
Dashboard > Deploy-warfiles-ansible-node
Project Deploy-warfiles-ansible-node
Changes
Workspace
Build Now
Configure
Delete Project
Git Polling Log
Rename
Add description
Disable Project
Permalinks
Last build (#5), 2 min 17 sec ago
Last stable build (#5), 2 min 17 sec ago
Last successful build (#5), 2 min 17 sec ago
Last completed build (#5), 2 min 17 sec ago
Build History
trend
Success > Console Output
#6 Jun 21, 2023, 9:51 AM
#5 Jun 21, 2023, 9:45 AM
35.93.25.61:443/job/Deploy-warfiles-ansible-node/6/console
Activate Windows
Go to Settings to activate Windows.
jenkinsnew.pem
Show all
Type here to search
34°C Haze
3:21 PM
6/21/2023


Not secure | 54.68.100.12/hello-world-war-1.0.0/
Hello team,this job for integration of jenkins with ansible----
devops training
It is now Wed Jun 21 09:51:28 UTC 2023
You are coming from 115.245.105.206
Activate Windows
Go to Settings to activate Windows.
jenkinsnew.pem
Show all
Type here to search
34°C Haze
3:21 PM
6/21/2023