Jenkins 02

1) Configure 2 slave machines in jenkins master

→Launched two slave instances and one master instance:

Genereated ssh-key and copied public key into authorized_keys

Changed permissions to 700 for authorized _keys

→In Master machine configure slave's ssh key using ssh-keyscan command

ssh-keyscan-H slave-ip >> /var/lib/jenkins/.ssh/known_hosts

Permissions 700 for known_hosts

Change ownership to for known_hosts to Jenkins

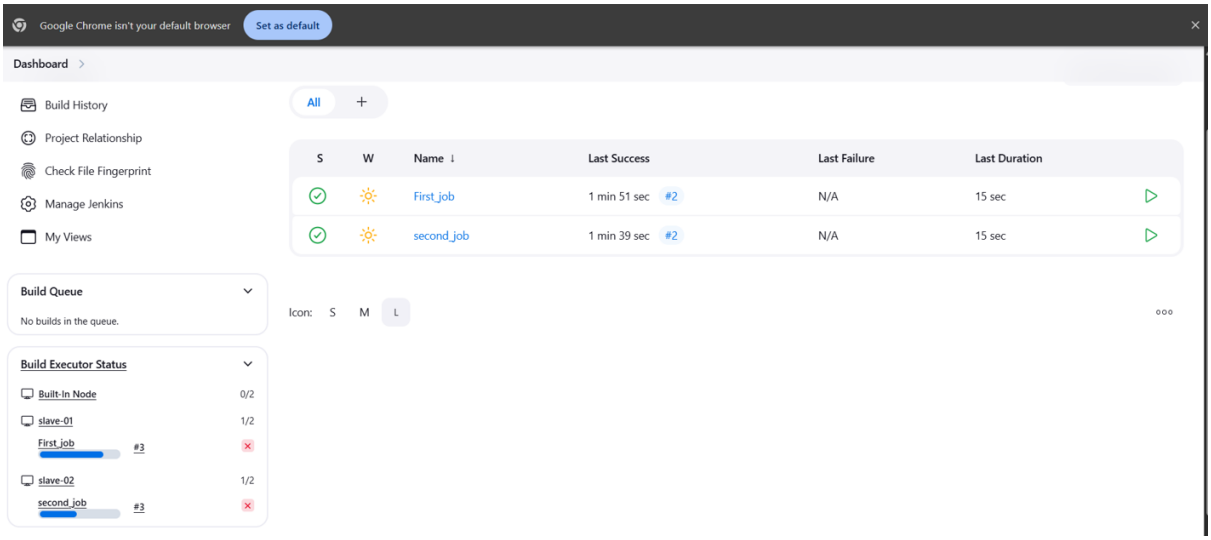
→In Jenkins web app:

Manage jenkins--> Nodes--> New node

Create two nodes with two slave ec2 instance Ips

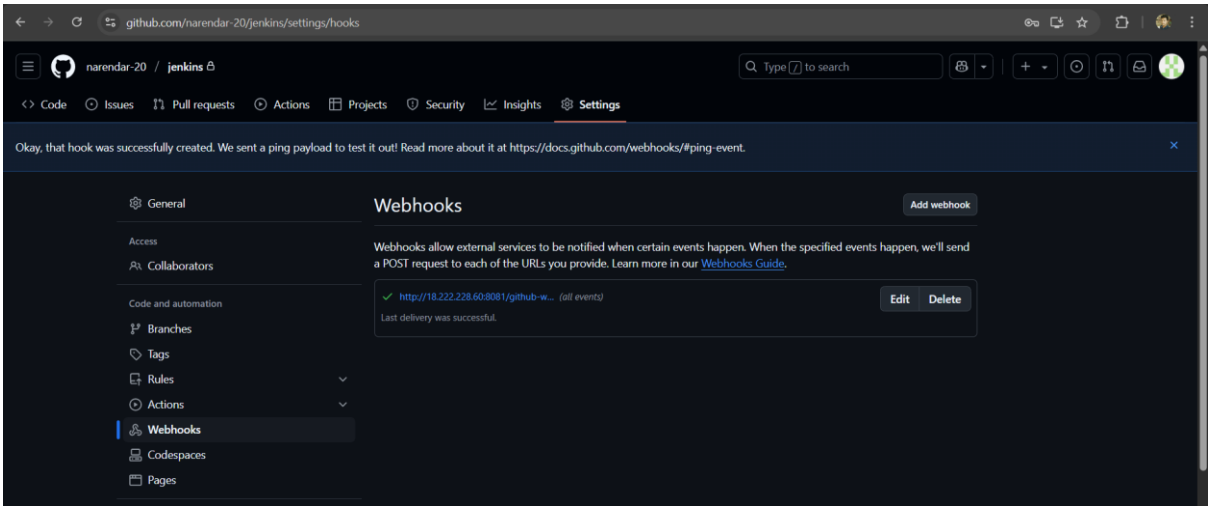
→ Created two slave machines in jenkins master

→Two jobs working on two nodes

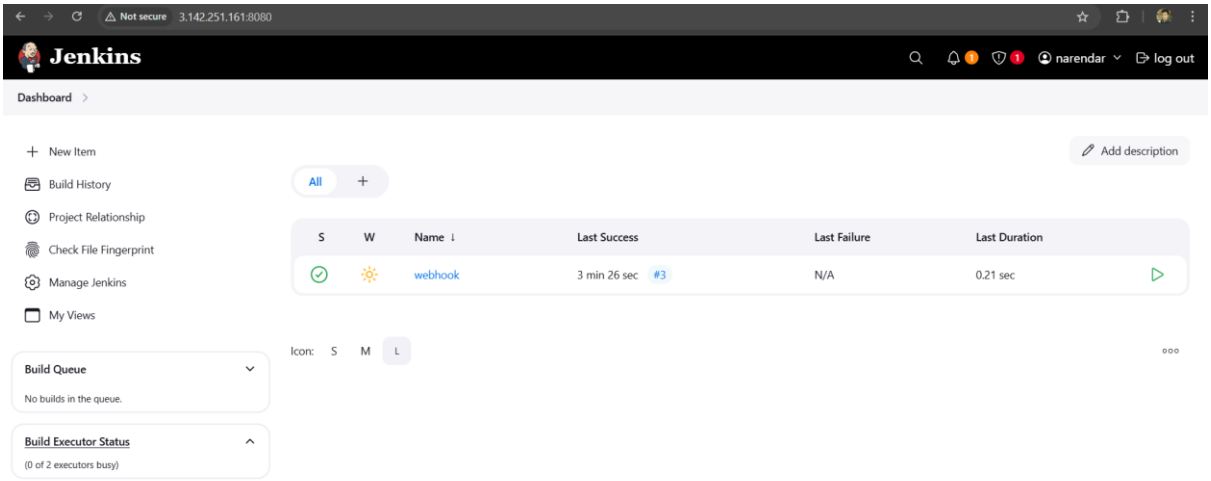


2) Configure webhooks to jenkins job.

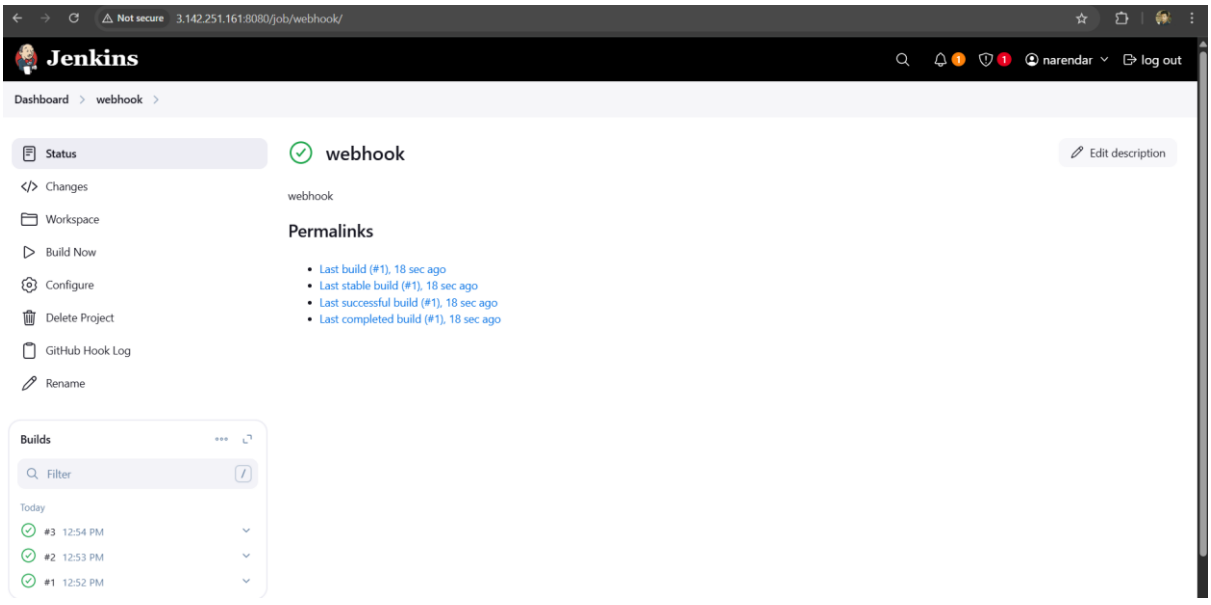
→Configured webhook in github



→Created job for webhook



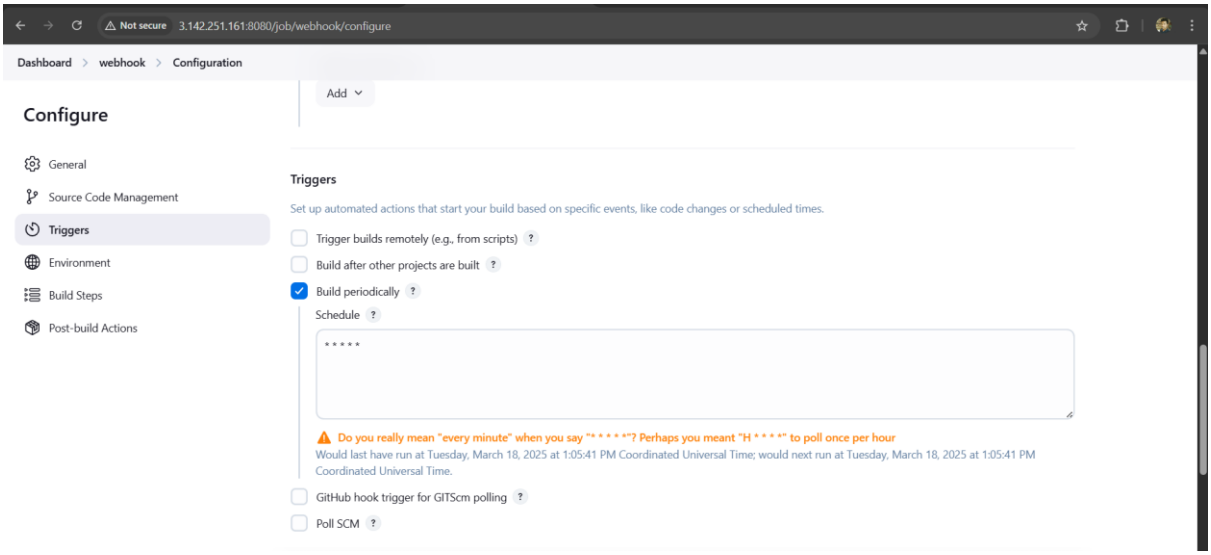
→jenkins build trigger on changes made in github repository



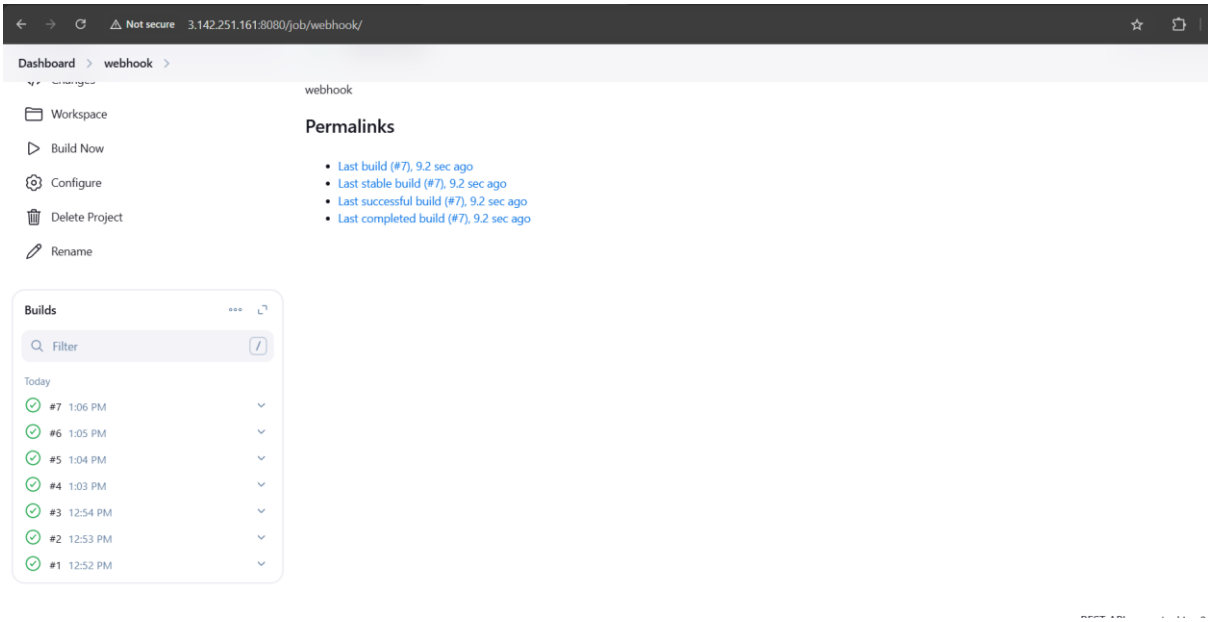

```
[root@ip-172-31-7-83 first_job]# cd /var/lib/jenkins/workspace/
[root@ip-172-31-7-83 workspace]# ls
first_job  first_job@tmp  webhook
[root@ip-172-31-7-83 workspace]# cd webhook
[root@ip-172-31-7-83 webhook]# ls
index  naren  README.md  web-hook
[root@ip-172-31-7-83 webhook]#
```

3) Configure poll scm and build periodical options in jenkins job.

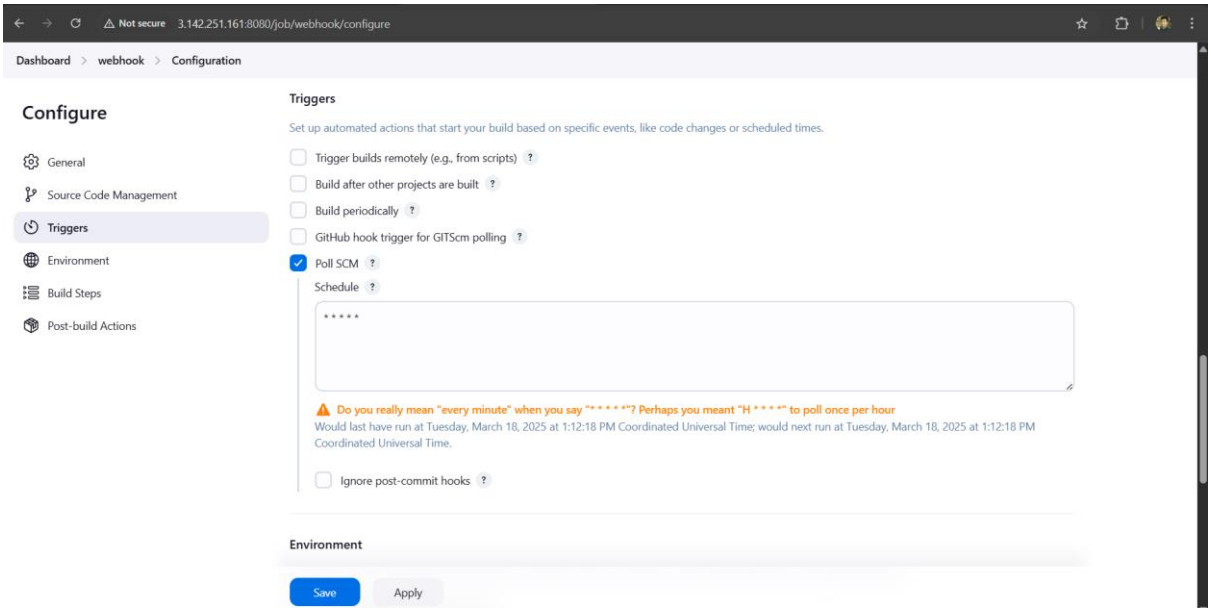
→Configuring Build periodically in Jenkins job



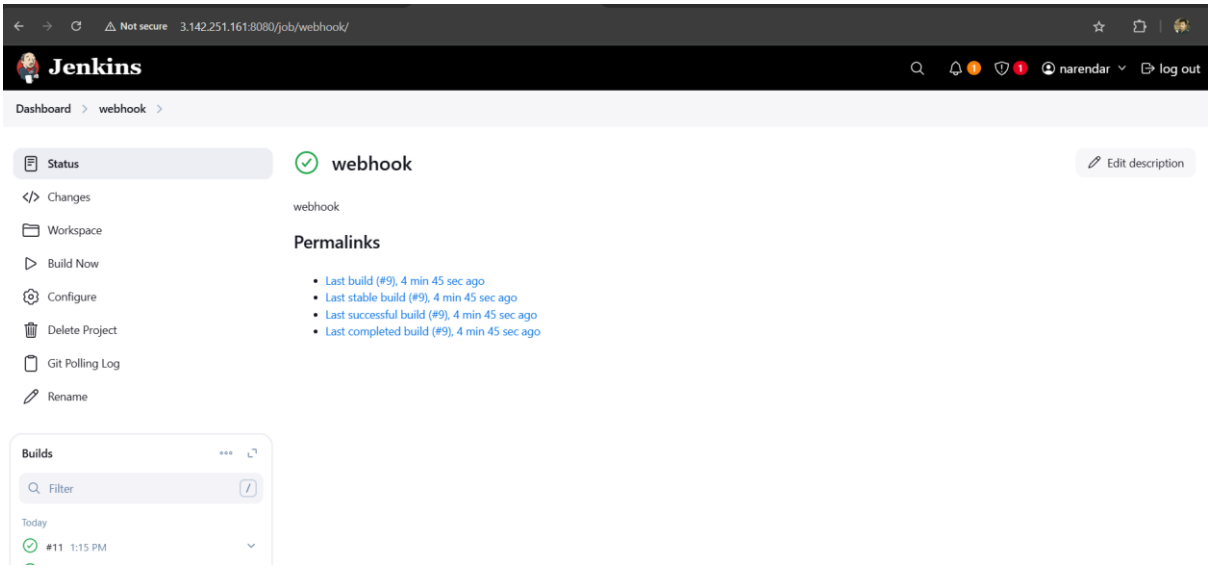
→Build tringgering every 15 seconds even there is no change in github repo



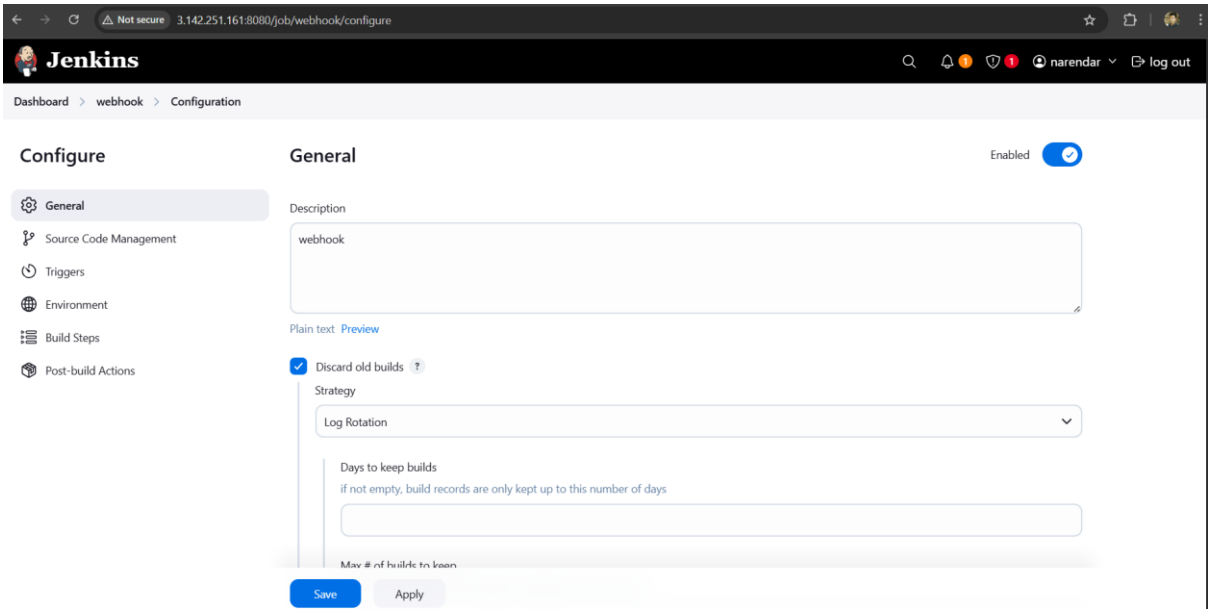
→configuring pole scm to make a build every 15 seconds if changes made in github

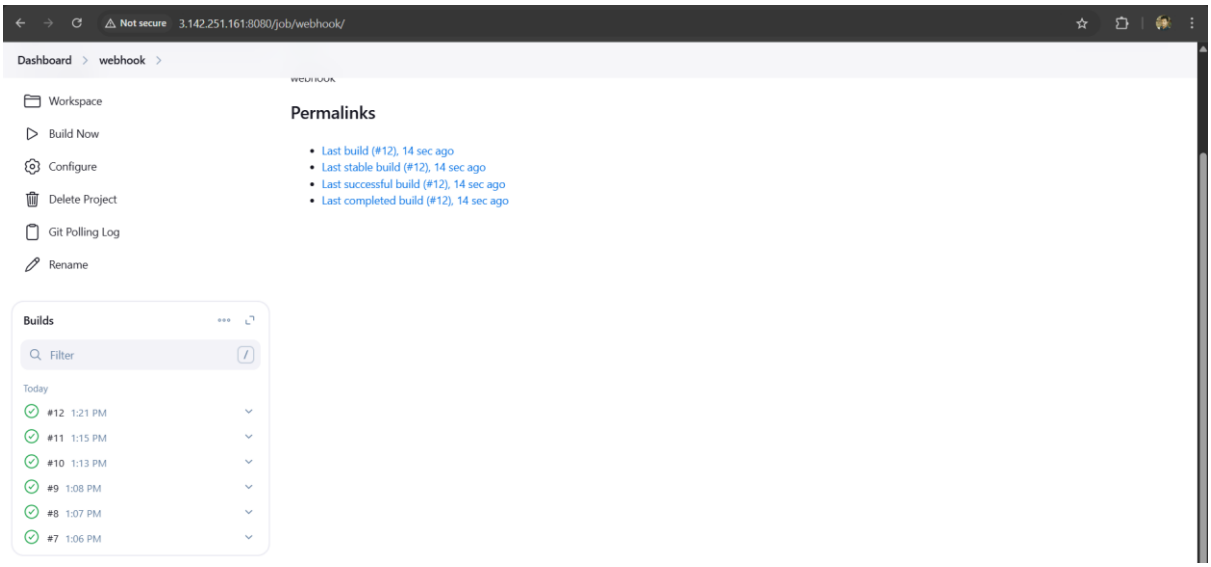


→build triggered only there made changes in github repo



Log rotation:

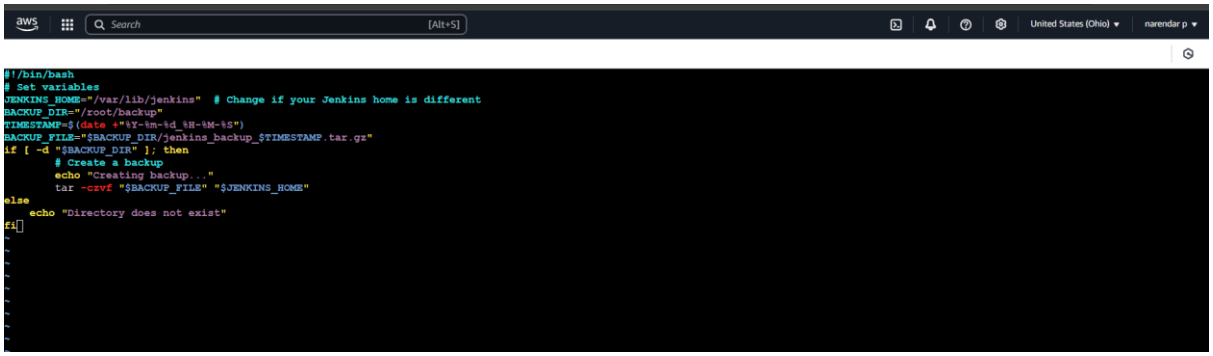




4) Take backup of jenkins server by using bash script:

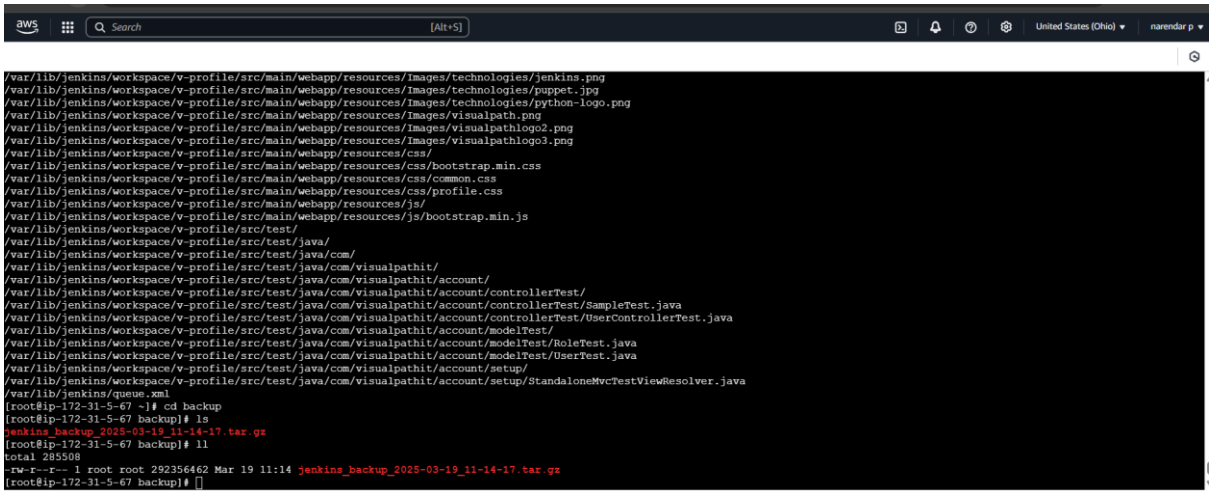
→Script to make a backup for jenkins server

→create a backup dir to have backups into it (/root/backup in my case)



```
#!/bin/bash
# Set variables
JENKINS_HOME="/var/lib/jenkins"  # Change if your Jenkins home is different
BACKUP_DIR="/root/backup"
TIMESTAMP=$(date +"%Y-%m-%d_%H-%M-%S")
BACKUP_FILE="$BACKUP_DIR/jenkins_backup_$TIMESTAMP.tar.gz"
if [ -d "$BACKUP_DIR" ]; then
        # Create a backup
        echo "Creating backup..."
        tar -czvf "$BACKUP_FILE" "$JENKINS_HOME"
else
    echo "Directory does not exist"
fi
```

→backing up jenkins jenkins serve: ./backup.sh



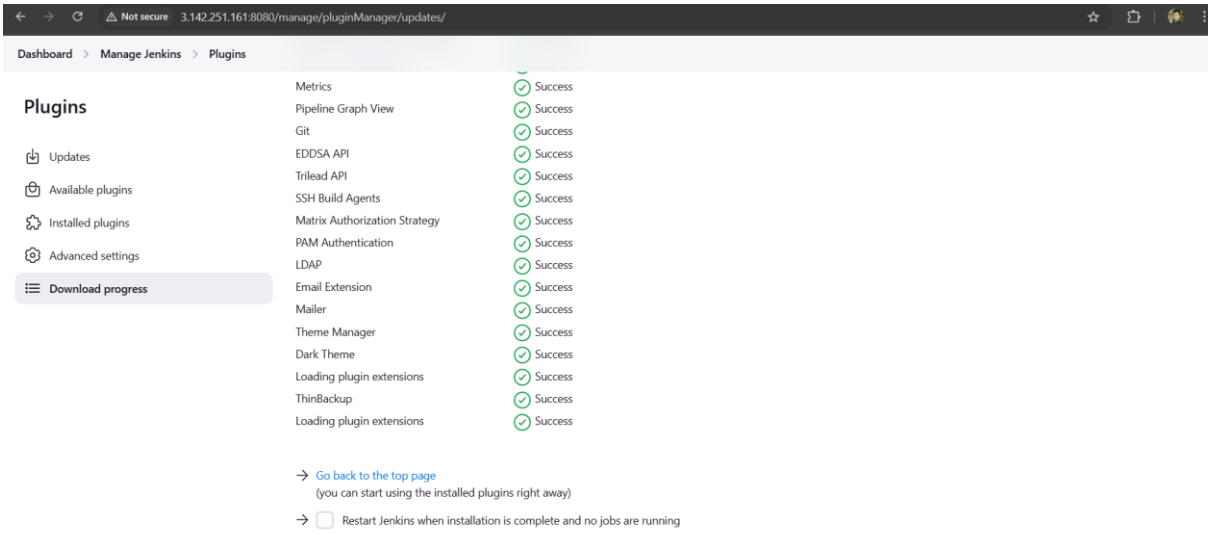
```
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/Images/technologies/jenkins.png
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/Images/technologies/puppet.jpg
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/Images/technologies/python-logo.png
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/Images/visualpath.png
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/Images/visualpathlogo2.png
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/Images/visualpathlogo3.png
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/css/
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/css/bootstrap.min.css
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/css/common.css
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/css/profile.css
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/js/
/var/lib/jenkins/workspace/v-profile/src/main/webapp/resources/js/bootstrap.min.js
/var/lib/jenkins/workspace/v-profile/src/test/
/var/lib/jenkins/workspace/v-profile/src/test/java/
/var/lib/jenkins/workspace/v-profile/src/test/java/com/
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/account/
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/account/controllerTest/
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/account/controllerTest/SampleTest.java
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/account/controllerTest/UserControllerTest.java
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/account/modelTest/
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/account/modelTest/RoleTest.java
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/account/modelTest/UserTest.java
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/account/setup/
/var/lib/jenkins/workspace/v-profile/src/test/java/com/visualpathit/account/setup/StandaloneMvcTestViewResolver.java
/var/lib/jenkins/queue.xml
[root@ip-172-31-5-67 ~]# cd backup
[root@ip-172-31-5-67 backup]# ls
jenkins_backup_2025-03-19_11-14-17.tar.gz
[root@ip-172-31-5-67 backup]# ll
total 285508
-rw-r--r-- 1 root root 292356462 Mar 19 11:14 jenkins_backup_2025-03-19_11-14-17.tar.gz
[root@ip-172-31-5-67 backup]#
```

→backup file created in desired location

```
[root@ip-172-31-5-67 ~]# cd backup
[root@ip-172-31-5-67 backup]# ll
total 571016
-rw-r--r-- 1 root root 292356462 Mar 19 11:14 jenkins_backup_2025-03-19_11-14-17.tar.gz
```

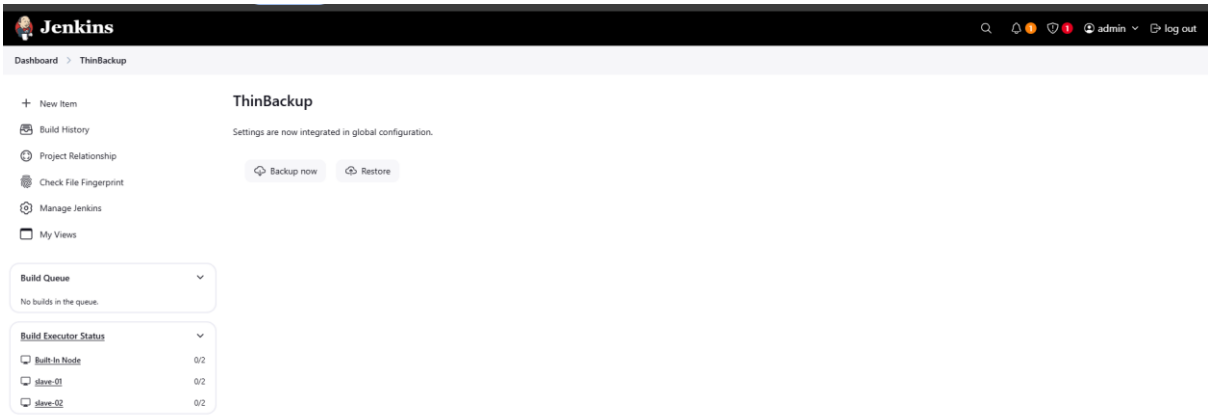
5) Take backup of jenkins using rethin backup plugin.

→Installed thin backup



→configuring backup path, backup schedule for full backups and number of backup sets

→made a backup using thin plugin



→Backup done in desired Location

```
[root@ip-172-31-40-167 backup]# ls
FULL-2025-03-18_15-48
[root@ip-172-31-40-167 backup]# cd FULL-2025-03-18_15-48/
[root@ip-172-31-40-167 FULL-2025-03-18_15-48]# ls
backup-completed.info
com.cloudbees.hudson.plugins.folder.config.AbstractFolderConfiguration.xml
config.xml
github-plugin-configuration.xml
hudson.model.UpdateCenter.xml
hudson.plugins.build_timeout.global.GlobalTimeOutConfiguration.xml
hudson.plugins.build_timeout.operations.BuildStepOperation.xml
hudson.plugins.emailext.ExtendedEmailPublisher.xml
hudson.plugins.git.GitSCM.xml
hudson.plugins.git.GitTool.xml
hudson.plugins.gradle.enriched.EnrichedSummaryConfig.xml
hudson.plugins.gradle.injection.InjectionConfig.xml
hudson.plugins.timestamper.TimestamperConfig.xml
hudson.tasks.Mailer.xml
hudson.tasks.Shell.xml
hudson.triggers.SCMTrigger.xml
installedPlugins.xml
io.jenkins.plugins.junit.storage.JunitTestResultStorageConfiguration.xml
jenkins.fingerprints.GlobalFingerprintConfiguration.xml
jenkins.metrics.api.MetricsAccessKey.xml
jenkins.model.ArtifactManagerConfiguration.xml
jenkins.model.GlobalBuildDiscarderConfiguration.xml
jenkins.model.GlobalComputerRetentionCheckIntervalConfiguration.xml
jenkins.model.JenkinsLocationConfiguration.xml
jenkins.security.ResourceDomainConfiguration.xml
jenkins.tasks.filters.EnvVarsFilterGlobalConfiguration.xml
jenkins.telemetry.Correlator.xml
nodeMonitors.xml
org.jenkinsci.plugins.displayurlapi.DefaultDisplayURLProviderGlobalConfiguration.xml
org.jenkinsci.plugins.github_branch_source.GitHubConfiguration.xml
org.jenkinsci.plugins.workflow.flow.GlobalDefaultFlowDurabilityLevel.xml
org.jenkinsci.plugins.workflow.libs.GlobalLibraries.xml
org.jenkinsci.plugins.workflow.libs.GlobalUntrustedLibraries.xml
org.jvnet.hudson.plugins.thinbackup.ThinBackupPluginImpl.xml
users
[root@ip-172-31-40-167 FULL-2025-03-18_15-48]#
```

6) Setup a new jenkins server and dump the backup taken in task4.

→ launched a new backup server (normal ec2 instance)

→ installed Jenkins

→scp bakcup file from master to backup server

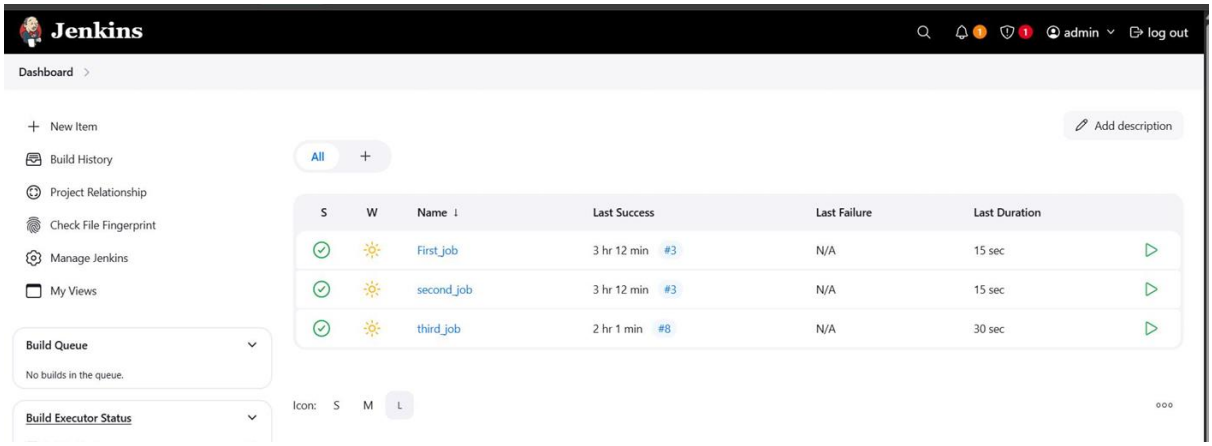
Scp-i key.pem /backup.tar.gz ec2-user@ip-backupserver:/dest/pat

```
[root@ip-172-31-40-167 ~]# ls
backup  backup.sh  test-rds.pem
[root@ip-172-31-40-167 ~]#  scp -i test-rds.pem /root/backup/jenkins_backup_2025-03-18_16-33-27.tar.gz ec2-user@13.208.172.103:/home/ec2-user/temp
jenkins_backup_2025-03-18_16-33-27.tar.gz                                     100%  241MB 107.9MB/s   00:02
[root@ip-172-31-40-167 ~]#
```

→Backup file received from main server

```
[ec2-user@ip-172-31-44-68 temp]$ ls
jenkins_backup_2025-03-18_16-33-27.tar.gz
[ec2-user@ip-172-31-44-68 temp]$
```

→ Extract the file into /var/lib/ path to make a copy of main servers home

→start jenkins server and login to jenkins web app with main servers credentials

→we can see all the configured jobs and lables from main server from backup server