1) Configure 2 slave machines in jenkins master.

Login to slave machine
Install java (amazon-linux-extras install java-openjdk11)
Create ssh-keygen
Cd .ssh/
Cat id_rsa.pub > authorized_keys
Chmod 700 authorized_keys

```
|       .  =B+       |
+----[SHA256]-----+
[ec2-user@ip-172-31-83-191 ~]$ cd .ssh/
[ec2-user@ip-172-31-83-191 .ssh]$ ls
authorized_keys  id_rsa  id_rsa.pub
[ec2-user@ip-172-31-83-191 .ssh]$ cat id_rsa.pub > authorized_keys
[ec2-user@ip-172-31-83-191 .ssh]$ ls
authorized_keys  id_rsa  id_rsa.pub
[ec2-user@ip-172-31-83-191 .ssh]$ ll
total 12
-rw-------  1 ec2-user ec2-user  420 Nov 28 11:30 authorized_keys
-rw-------  1 ec2-user ec2-user 1679 Nov 28 11:28 id_rsa
-rw-r--r--  1 ec2-user ec2-user  420 Nov 28 11:28 id_rsa.pub
[ec2-user@ip-172-31-83-191 .ssh]$ chmod 700 authorized_keys
[ec2-user@ip-172-31-83-191 .ssh]$ ll
total 12
-rwx------  1 ec2-user ec2-user  420 Nov 28 11:30 authorized_keys
-rw-------  1 ec2-user ec2-user 1679 Nov 28 11:28 id_rsa
-rw-r--r--  1 ec2-user ec2-user  420 Nov 28 11:28 id_rsa.pub
[ec2-user@ip-172-31-83-191 .ssh]$
```

Login to master machine
mkdir -p /var/lib/jenkins/.ssh
cd /var/lib/jenkins/.ssh
ssh-keyscan -H <slave-Node-IP> >> /var/lib/jenkins/.ssh/known_hosts

```
[root@ip-168-0-0-25 .ssh]# ls
authorized_keys  id_rsa  id_rsa.pub
[root@ip-168-0-0-25 .ssh]# chmod 700 authorized_keys
[root@ip-168-0-0-25 .ssh]# exit
logout
[ec2-user@ip-168-0-0-25 ~]$ ls
[ec2-user@ip-168-0-0-25 ~]$ mkdir slave2
[ec2-user@ip-168-0-0-25 ~]$ ls
slave2
[ec2-user@ip-168-0-0-25 ~]$ cd slave2/
[ec2-user@ip-168-0-0-25 slave2]$ pwd
/home/ec2-user/slave2
[ec2-user@ip-168-0-0-25 slave2]$ ls
remoting  remoting.jar  workspace
[ec2-user@ip-168-0-0-25 slave2]$ cd workspace/
[ec2-user@ip-168-0-0-25 workspace]$ ls
javajob
[ec2-user@ip-168-0-0-25 workspace]$ cd javajob/
[ec2-user@ip-168-0-0-25 javajob]$ ls
All bash script.docx               cloudtask 2.docx          Git and github task 1.docx   VPC peering task1.docx
ALL Linux command pratice1.docx    cloudtask.docx            Git&github final task.docx   web and apps server creation task.docx
bash scripting task 3.docx         Endpoint and Transit Task1.docx   task day 3.docx
Basic bash scripting 1.docx        files.text                task day 4.docx
[ec2-user@ip-168-0-0-25 javajob]$
```

i-09b478c7b7a82e3ff (slave2)

PublicIPs: 3.27.123.184   PrivateIPs: 168.0.0.25

2) Configure webhooks to jenkins job.


```
[ec2-user@ip-168-0-0-27 ~]$ ls
[ec2-user@ip-168-0-0-27 ~]$ cd /var/lib/
[ec2-user@ip-168-0-0-27 lib]$ ls
alternatives  authconfig  cloud     dhclient   gssproxy       initramfs  logrotate  misc      nfs         plymouth  rpcbind  rpm-state  stateless  update-motd  yum
amazon        chrony      dbus      games      hibinit-agent  jenkins    machines   mlocate   os-prober   postfix   rpm      rsyslog    systemd    xfsdump
[ec2-user@ip-168-0-0-27 lib]$ cd jenkins/
[ec2-user@ip-168-0-0-27 jenkins]$ ls
%C                           hudson.plugins.git.GitTool.xml                jenkins.install.UpgradeWizard.state            jobs          plugins       secret.key.not-so-secret   userContent
config.xml                   identity.key.enc                              jenkins.model.JenkinsLocationConfiguration.xml  logs          queue.xml     secrets                    users
hudson.model.UpdateCenter.xml  jenkins.install.InstallUtil.lastExecVersion  jenkins.telemetry.Correlator.xml               nodeMonitors.xml  secret.key  updates                    workspace
[ec2-user@ip-168-0-0-27 jenkins]$ cd workspace/
[ec2-user@ip-168-0-0-27 workspace]$ ls
First_job
[ec2-user@ip-168-0-0-27 workspace]$ cd First_job/
[ec2-user@ip-168-0-0-27 First_job]$ ls
All bash script.docx           Basic bash scripting 1.docx   Endpoint and Transit Task1.docx   Git&github final task.docx   VPC peering task1.docx
ALL Linux command pratice1.docx  cloudtask 2.docx             files.text                      task day 3.docx              web and apps server creation task.docx
bash scripting task 3.docx       cloudtask.docx              Git and github task 1.docx      task day 4.docx
[ec2-user@ip-168-0-0-27 First_job]$
```

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

Poll scm:
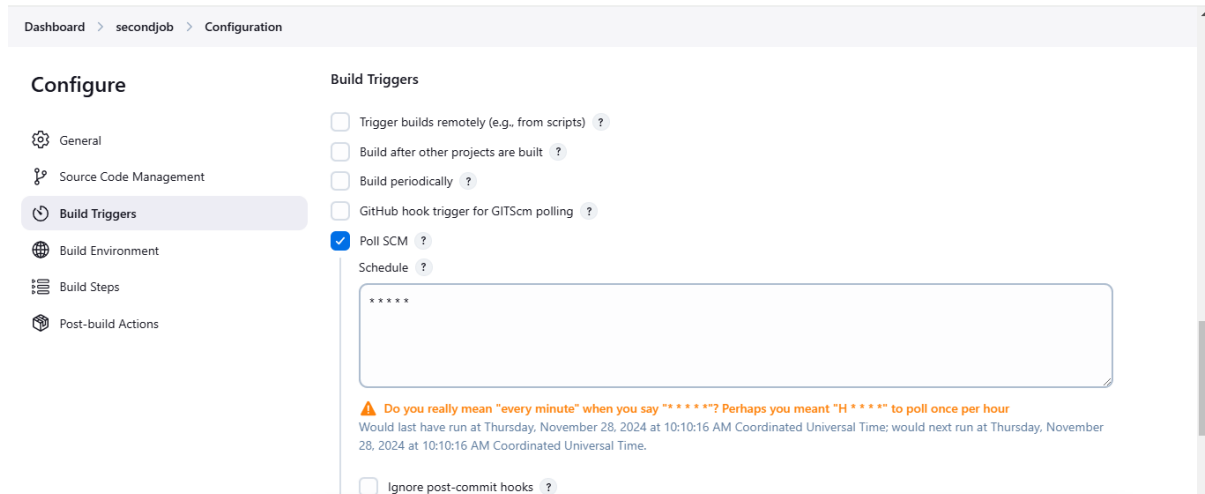
build periodical:
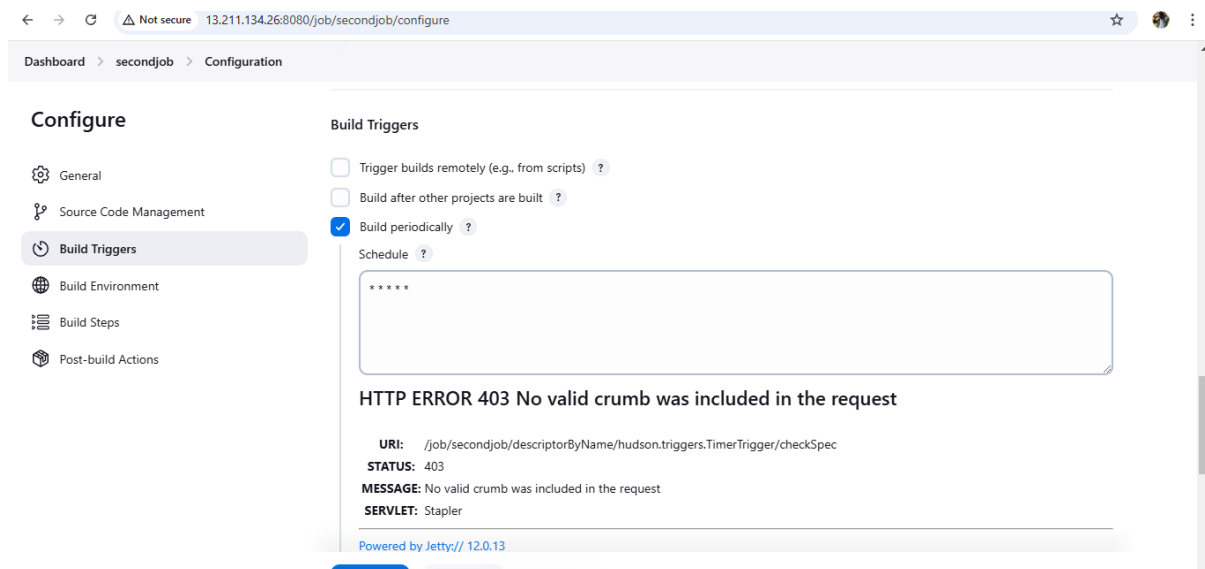
4) Take backup of jenkins server by using bash script

```
./credentials.xml
./nodes/
./nodes/slave1/
./nodes/slave1/config.xml
./nodes/slave2/
./nodes/slave2/config.xml
./fingerprints/
./fingerprints/21/
./fingerprints/21/9a/
./fingerprints/21/9a/6b975d982a8a7aa8276f7725c8e6.xml
./queue.xml.bak
./queue.xml
Backup completed: /root/backup_jenkins/jenkins_backup_2024-11-28_12-38-16.tar.gz
[root@ip-168-0-0-27 script]# cd ..
[root@ip-168-0-0-27 ~]# ls
backup_jenkins  script
[root@ip-168-0-0-27 ~]# cd backup_jenkins/
[root@ip-168-0-0-27 backup_jenkins]# ls
jenkins_backup_2024-11-28_12-38-16.tar.gz
[root@ip-168-0-0-27 backup_jenkins]#
```

```
./fingerprints/21/
./fingerprints/21/9a/
./fingerprints/21/9a/6b975d982a8a7aa8276f7725c8e6.xml
./queue.xml.bak
./queue.xml
[root@ip-168-0-0-27 backup_jenkins]# ls
%C              hudson.model.UpdateCenter.xml        jenkins.install.InstallUtil.lastExecVersion    jobs      plugi
config.xml      hudson.plugins.git.GitTool.xml       jenkins.install.UpgradeWizard.state            logs      queue
credentials.xml identity.key.enc                     jenkins.model.JenkinsLocationConfiguration.xml nodeMonitors.xml queue
fingerprints    jenkins_backup_2024-11-28_12-38-16.tar.gz jenkins.telemetry.Correlator.xml          nodes     secre
[root@ip-168-0-0-27 backup_jenkins]#
```

5) Take backup of jenkins using rethin backup plugin.

```
jenkins.install.InstallUtil.lastExecVersion                                          userContent
jenkins.install.UpgradeWizard.state                                                  users
jenkins.metrics.api.MetricsAccessKey.xml                                             workspace
jenkins.model.ArtifactManagerConfiguration.xml
[root@ip-168-0-0-27 jenkins]# cd backup_thin/
[root@ip-168-0-0-27 backup_thin]# ls
FULL-2024-11-28_14-54
[root@ip-168-0-0-27 backup_thin]# cd FULL-2024-11-28_14-54/
[root@ip-168-0-0-27 FULL-2024-11-28_14-54]# ls
backup-completed.info                                                jenkins.fingerprints.GlobalFingerprintConfiguration.xml
com.cloudbees.hudson.plugins.folder.config.AbstractFolderConfiguration.xml jenkins.metrics.api.MetricsAccessKey.xml
config.xml                                                           jenkins.model.ArtifactManagerConfiguration.xml
credentials.xml                                                      jenkins.model.GlobalBuildDiscarderConfiguration.xml
github-plugin-configuration.xml                                      jenkins.model.GlobalComputerRetentionCheckIntervalConfiguration.xml
hudson.model.UpdateCenter.xml                                        jenkins.model.JenkinsLocationConfiguration.xml
hudson.plugins.build_timeout.global.GlobalTimeOutConfiguration.xml   jenkins.security.ResourceDomainConfiguration.xml
hudson.plugins.build_timeout.operations.BuildStepOperation.xml       jenkins.tasks.filters.EnvVarsFilterGlobalConfiguration.xml
hudson.plugins.emailext.ExtendedEmailPublisher.xml                   jenkins.telemetry.Correlator.xml
hudson.plugins.git.GitSCM.xml                                        jobs
hudson.plugins.git.GitTool.xml                                       nodeMonitors.xml
hudson.plugins.gradle.enriched.EnrichedSummaryConfig.xml             nodes
hudson.plugins.gradle.injection.InjectionConfig.xml                  org.jenkinsci.plugins.displayurlapi.DefaultDisplayURLProviderGlobalConfiguration.xml
hudson.plugins.timestamper.TimestamperConfig.xml                     org.jenkinsci.plugins.github_branch_source.GitHubConfiguration.xml
hudson.tasks.Mailer.xml                                              org.jenkinsci.plugins.workflow.flow.GlobalDefaultFlowDurabilityLevel.xml
hudson.tasks.Shell.xml                                               org.jenkinsci.plugins.workflow.libs.GlobalLibraries.xml
hudson.triggers.SCMTrigger.xml                                       org.jenkinsci.plugins.workflow.libs.GlobalUntrustedLibraries.xml
installedPlugins.xml                                                 org.jvnet.hudson.plugins.thinbackup.ThinBackupPluginImpl.xml
io.jenkins.plugins.junit.storage.JunitTestResultStorageConfiguration.xml users
[root@ip-168-0-0-27 FULL-2024-11-28_14-54]#
```

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

```
credentials.xml                                                      jenkins.tasks.filters.EnvVarsFilterGlobalConfiguration.xml
fingerprints                                                         jenkins.telemetry.Correlator.xml
github-plugin-configuration.xml                                      jobs
hudson.model.UpdateCenter.xml                                        logs
hudson.plugins.build_timeout.global.GlobalTimeOutConfiguration.xml   nodeMonitors.xml
hudson.plugins.build_timeout.operations.BuildStepOperation.xml       nodes
hudson.plugins.emailext.ExtendedEmailPublisher.xml                   org.jenkinsci.plugins.displayurlapi.DefaultDisplayURLProviderGlobalConfiguration
hudson.plugins.git.GitSCM.xml                                        org.jenkinsci.plugins.github_branch_source.GitHubConfiguration.xml
hudson.plugins.git.GitTool.xml                                       org.jenkinsci.plugins.workflow.flow.GlobalDefaultFlowDurabilityLevel.xml
hudson.plugins.gradle.enriched.EnrichedSummaryConfig.xml             org.jenkinsci.plugins.workflow.libs.GlobalLibraries.xml
hudson.plugins.gradle.injection.InjectionConfig.xml                  org.jenkinsci.plugins.workflow.libs.GlobalUntrustedLibraries.xml
hudson.plugins.timestamper.TimestamperConfig.xml                     org.jvnet.hudson.plugins.thinbackup.ThinBackupPluginImpl.xml
hudson.tasks.Mailer.xml                                              plugins
hudson.tasks.Shell.xml                                               queue.xml.bak
hudson.triggers.SCMTrigger.xml                                       secret.key
identity.key.enc                                                     secret.key.not-so-secret
io.jenkins.plugins.junit.storage.JunitTestResultStorageConfiguration.xml secrets
jenkins_backup_2024-11-28_15-00-26.tar.gz                            sheelamhello.pem
jenkins.fingerprints.GlobalFingerprintConfiguration.xml              updates
jenkins.install.InstallUtil.lastExecVersion                          userContent
jenkins.install.UpgradeWizard.state                                  users
jenkins.metrics.api.MetricsAccessKey.xml                             workspace
jenkins.model.ArtifactManagerConfiguration.xml
[root@ip-168-0-0-27 backup]# scp -i sheelamhello.pem jenkins_backup_2024-11-28_15-00-26.tar.gz ec2-user@52.65.49.240:/tmp
The authenticity of host '52.65.49.240 (52.65.49.240)' can't be established.
ECDSA key fingerprint is SHA256:y9mtmiCi8WmqnBKepkYjOwiSR1xmwhRRXPDs3r8eueO.
ECDSA key fingerprint is MD5:f8:39:32:b6:1e:e1:86:49:32:c7:49:c8:64:bc:26:56.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '52.65.49.240' (ECDSA) to the list of known hosts.
jenkins_backup_2024-11-28_15-00-26.tar.gz
[root@ip-168-0-0-27 backup]#
```

```
jenkins.tasks.filters.EnvVarsFilterGlobalConfiguration.xml
jenkins.telemetry.Correlator.xml
jobs
logs
nodeMonitors.xml
nodes
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
plugins
queue.xml.bak
secret.key
secret.key.not-so-secret
secrets
updates
userContent
users
workspace
[root@ip-168-0-0-21 jenkins]# cd ..
[root@ip-168-0-0-21 lib]# systemctl restart jenkins
[root@ip-168-0-0-21 lib]#
```