

## Module-8: Jenkins Assignment – 1

You have been asked to:

- Trigger a pipeline using Git when push on Develop branch
- Pipeline should pull git content to a folder

1.Create the EC2 instance and open the port 8080 in the security group

2.Install the java and Jenkins with the below link:

<https://github.com/lerndevops/labs/tree/master/jenkins/Install>

Configure with the name admin and same admin as a password.

3.Created New Ec2 instance called slave-1 and install the java on the slave-1 machine.

4.Go to manage Jenkins inside the Jenkins GUI->Security->Agents->Random->apply & save and install the plugins SSH agent from manage Jenkins.

5.Add the node: Manage Jenkins->Nodes->New node.

6.Slave-1->permanent agent->Create.

7.Remote root directory->/home/ubuntu/jenkins/

8.Launch method->Launch agent Via SSH ->Below this host->Update the private IP of the slave-1 machine

9.Credential->Add the credential of Jenkins->kind->SSH Username with private key ->username->ubuntu

10.Private key->enter directly ->Add private key for me its root key ->Add.

11.Hot key verification strategy->Non verify verification strategy->Save

12.We can also verify the slave machine is working or not with the cmd.In the slave machine we can go in the path : /home/ubuntu/jenkins/ in this path we can run “ls” by this we can see the Jenkins directory created.

13.Now are going to create the directory in the master machine from where we will try to push the changes in the github repository

14.Make directory as “mkdir git” and initlize it inside the local repository with “git init” and “touch masterfile” and “git add .” and “git status” and “git commit -m “1<sup>st</sup> change”” and we can also see that we are in the master branch “git branch”

15.Create new branch as per question requirement “git branch develop” and “git switch develop”

16.Add new repository inside the develop branch “touch developfile” and “git add .” and “git commit -m “2<sup>nd</sup> change””

17.Created the github repository named as Jenkins repository

18.Add the remote created github repository with “git remote add origin <https://github.com/Harshit407/Jenkins-repository.git>” and “git remote -v”

19.To push this into the github “git push --all”

20. Create the job -> Enter item name "Job1" -> free style -> Github project <https://github.com/Harshit407/Jenkins-repository.git> -> Restrict when this project can be run -> Label express "Slave-1".

21. Source code management -> git -> <https://github.com/Harshit407/Jenkins-repository.git> -> Branches to build -> As per the question requirement "/develop"

22. Select "Git hook trigger for GITScm polling" -> save.

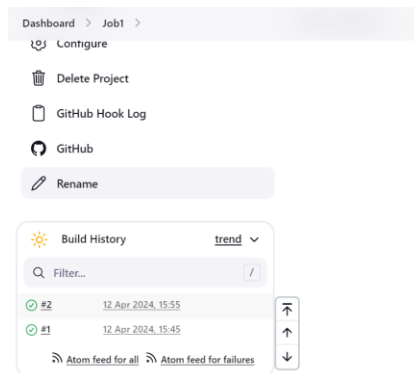
23. Need to create the webhooks in the github

In github -> Setting -> webhooks -> add webhook -> Playbook url : <https://pulisip:8080/github-webhook/> -> add webhook. To cross verify check the connectivity click on the link and recent deliveries it will show ping.

24. Build Now. Now we can see one folder is created inside the Jenkins folder.

25. Again I'm creating new file inside the master server.

26. Inside the develop "touch newfile" and "git add ." and "git commit -m "3rd change"" and "git push origin develop"



In the above picture we can see the second build is run automatically without we run.

### Summary:

Se we created the job1 in the Jenkins and with the build now this folder was started showing inside the slave-1 but first time we click on build it manually

But now we created the new folder inside the develop branch and run the pull command by which the repository we created that will push into the GitHub account now "build now" automatically trigger and the job1 folder will start showing in the workspace of the slave-1 which we created push from the master branch as per the question requirement -> we need to Trigger a pipeline using Git when push on Develop branch. (Humne Master branch mai folder bnaya and usko push kia github mai and jese hi push kia vo pipeline trigger hui or usse vo folder slave-1 mai show hone lg gya jiski humne abhi tk slave-1 ko touch bhi nhi kia tha mean it run automatically with Jenkins)

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