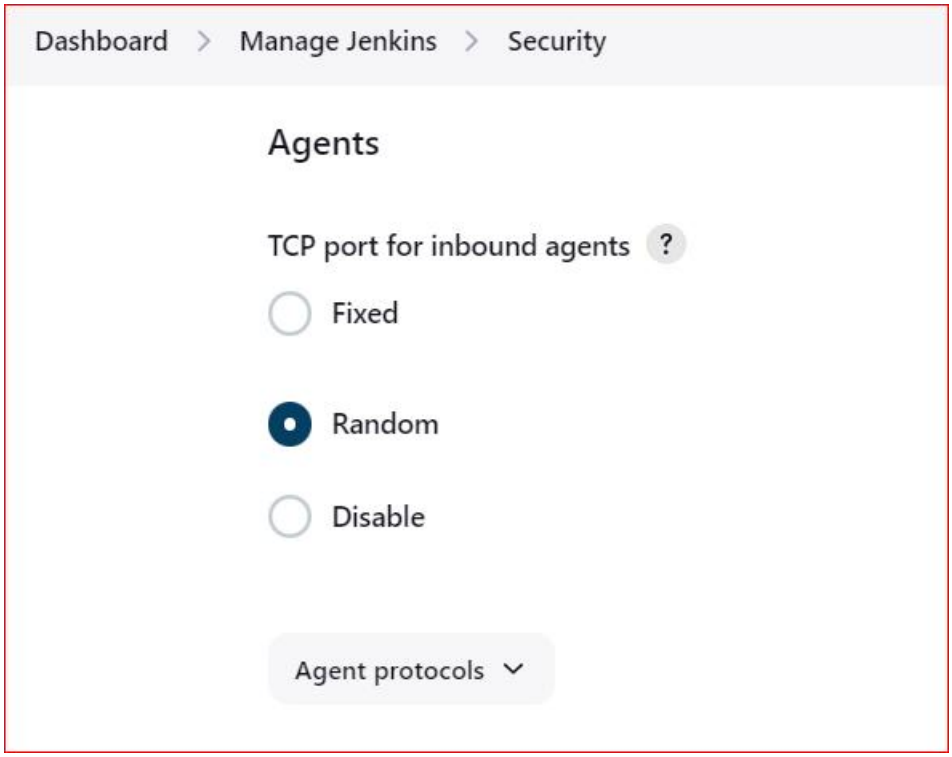
Module 6: Jenkins Assignment - 2

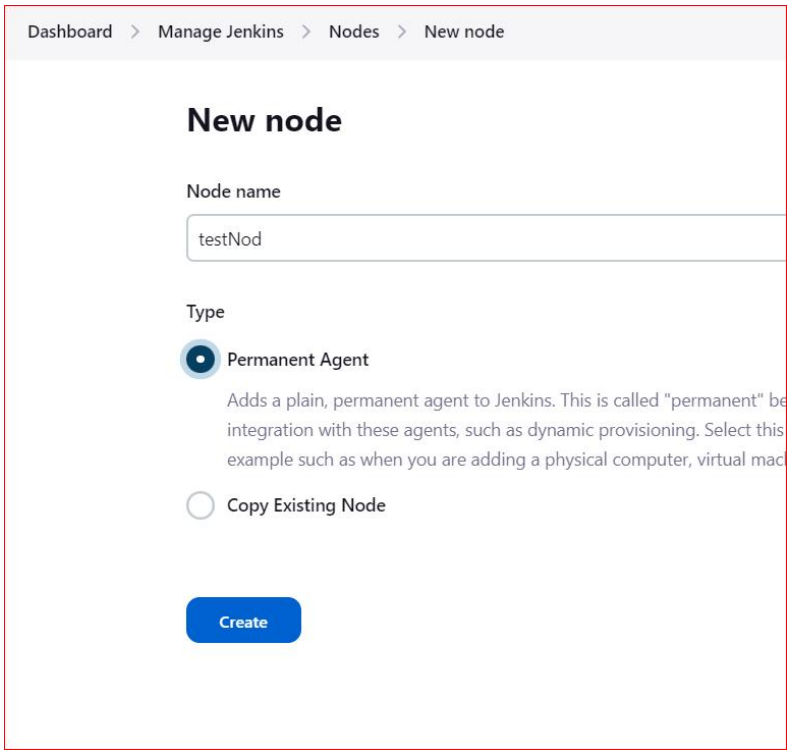
1. Add 2 nodes to Jenkins master
2. Create 2 jobs with the following jobs:
    a. Push to test
    b. Push to prod
3. Once a push is made to test branch, copy Git files to test server
4. Once a push is made to master branch, copy Git files to prod server.

Solution:-

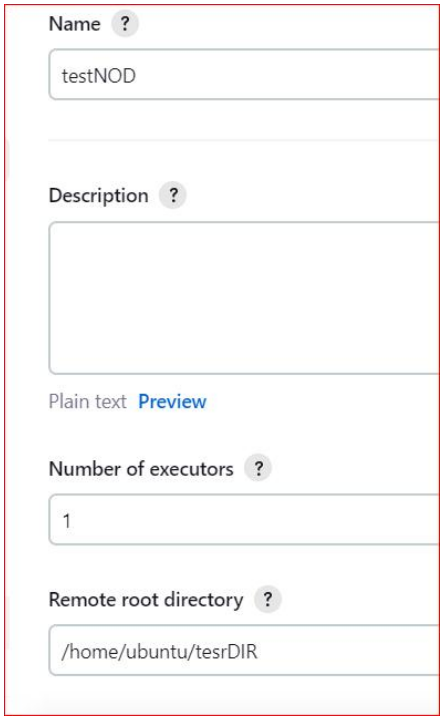
* Create two more machines for test and prod.
* Created two nodes:- dashboard -> manage jenkins -> configure global security -> tcp port for inbound agents -> rendom -> save



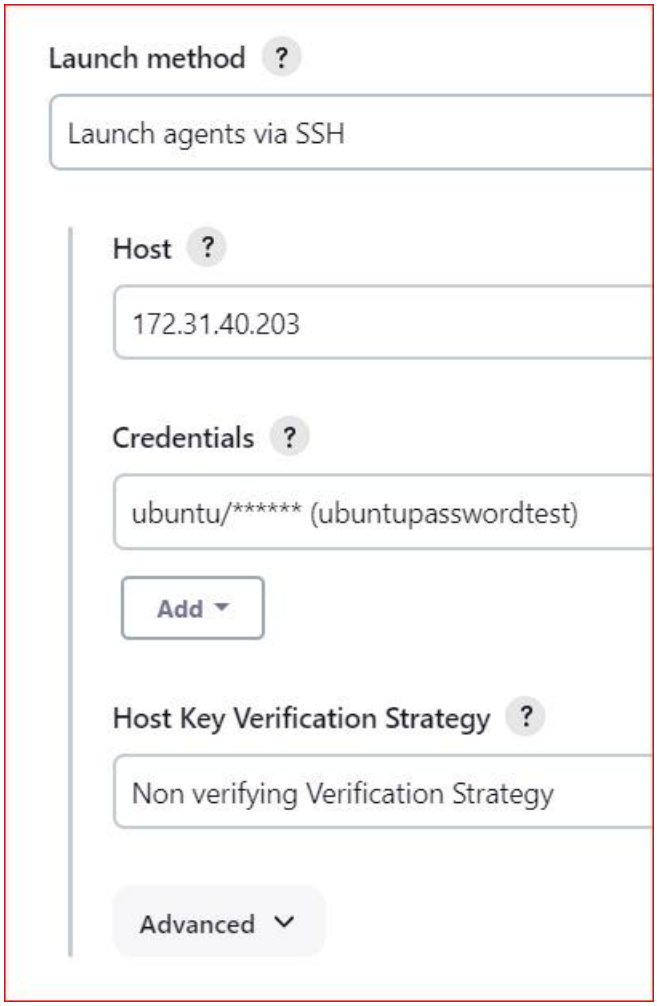
* Give a name:- manage nodes and clouds -> new node -> name -> permanent agent -> create



* Insert remote root path:- remote root directory -> /home/ubuntu/testDIR



* Insert these info:- launch method -> launch agents by a ssh -> host -> paste private ip of node not server-> credential -> add -> domain-> global credential (unrestricted) -> kind -> ssh username with private key -> scope -> global (jenkins, nodes, items, all child items, etc.) -> username -> Jenkins-Node -> private key -> enter directly -> copy and paste key of node-> add -> host key verification stretagy -> non verifying verification staretegy -> Save -> refresh status



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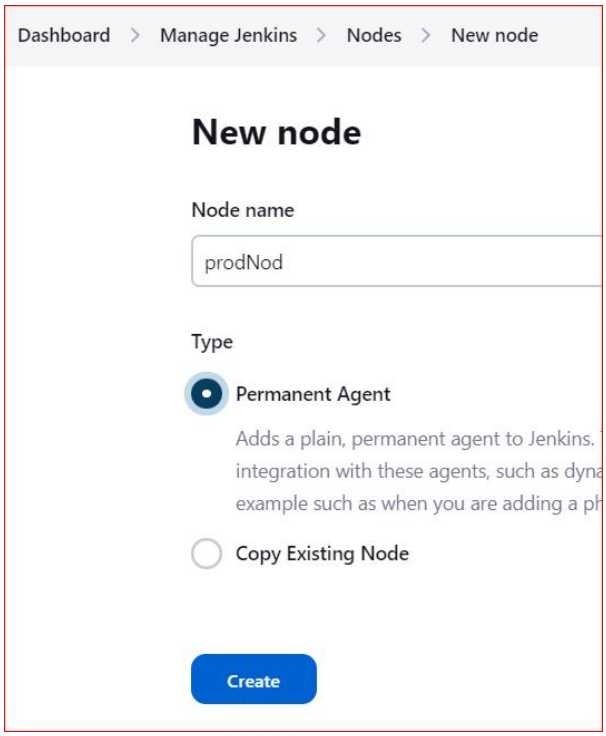
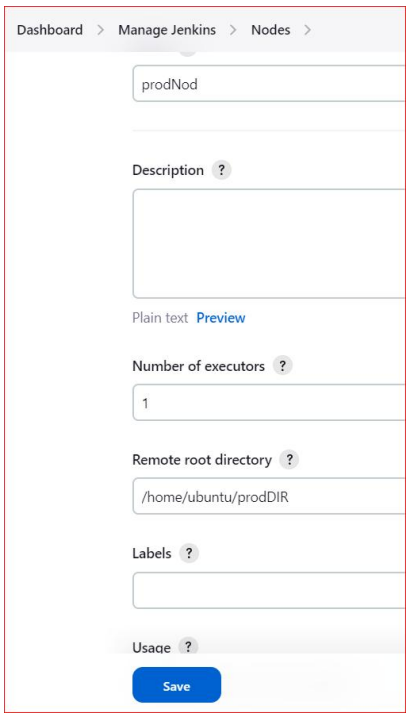


* Insert remote root path:- remote root directory -> /home/ubuntu/prodDIR



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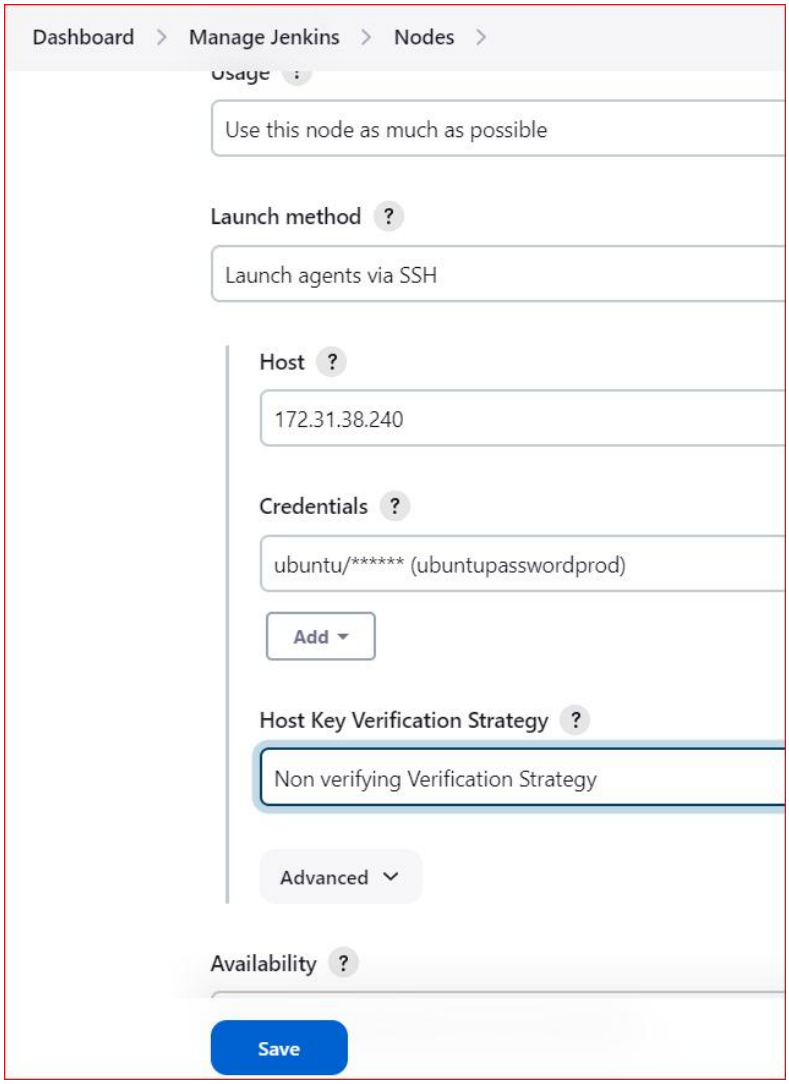
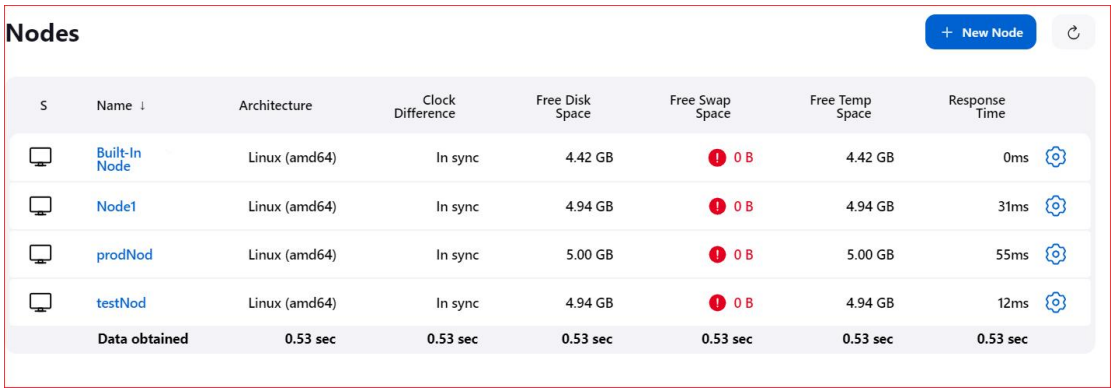


* List of Nodes present in jenkins:-



Nodes

+ New Node

S	Name ↓	Architecture	Clock Difference	Free Disk Space	Free Swap Space	Free Temp Space	Response Time
	Built-In Node	Linux (amd64)	In sync	4.42 GB	0 B	4.42 GB	0ms
	Node1	Linux (amd64)	In sync	4.94 GB	0 B	4.94 GB	31ms
	prodNod	Linux (amd64)	In sync	5.00 GB	0 B	5.00 GB	55ms
	testNod	Linux (amd64)	In sync	4.94 GB	0 B	4.94 GB	12ms
	Data obtained	0.53 sec	0.53 sec	0.53 sec	0.53 sec	0.53 sec	0.53 sec

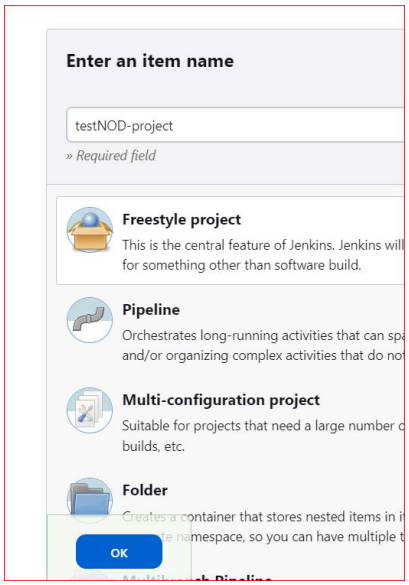
$ ls

```
ubuntu@test-server:~/tesrDIR$ ls
remoting  remoting.jar
ubuntu@test-server:~/tesrDIR$
```

$ ls

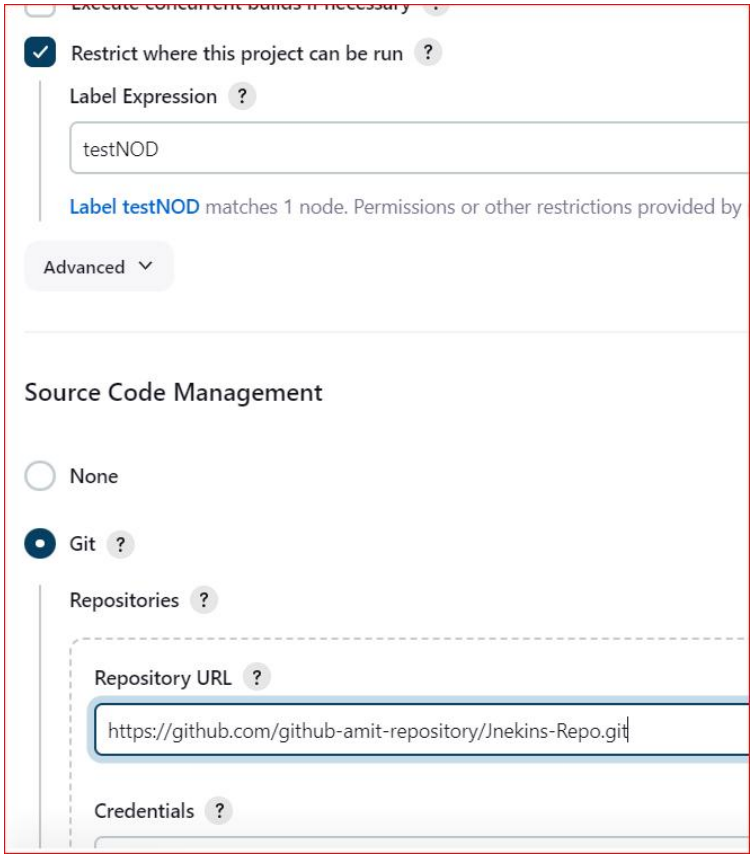
```
ubuntu@prod-server:~/prodDIR$ ls
remoting  remoting.jar
ubuntu@prod-server:~/prodDIR$
```

* Create job:- Jenkins -> new items -> name -> free style project -> ok

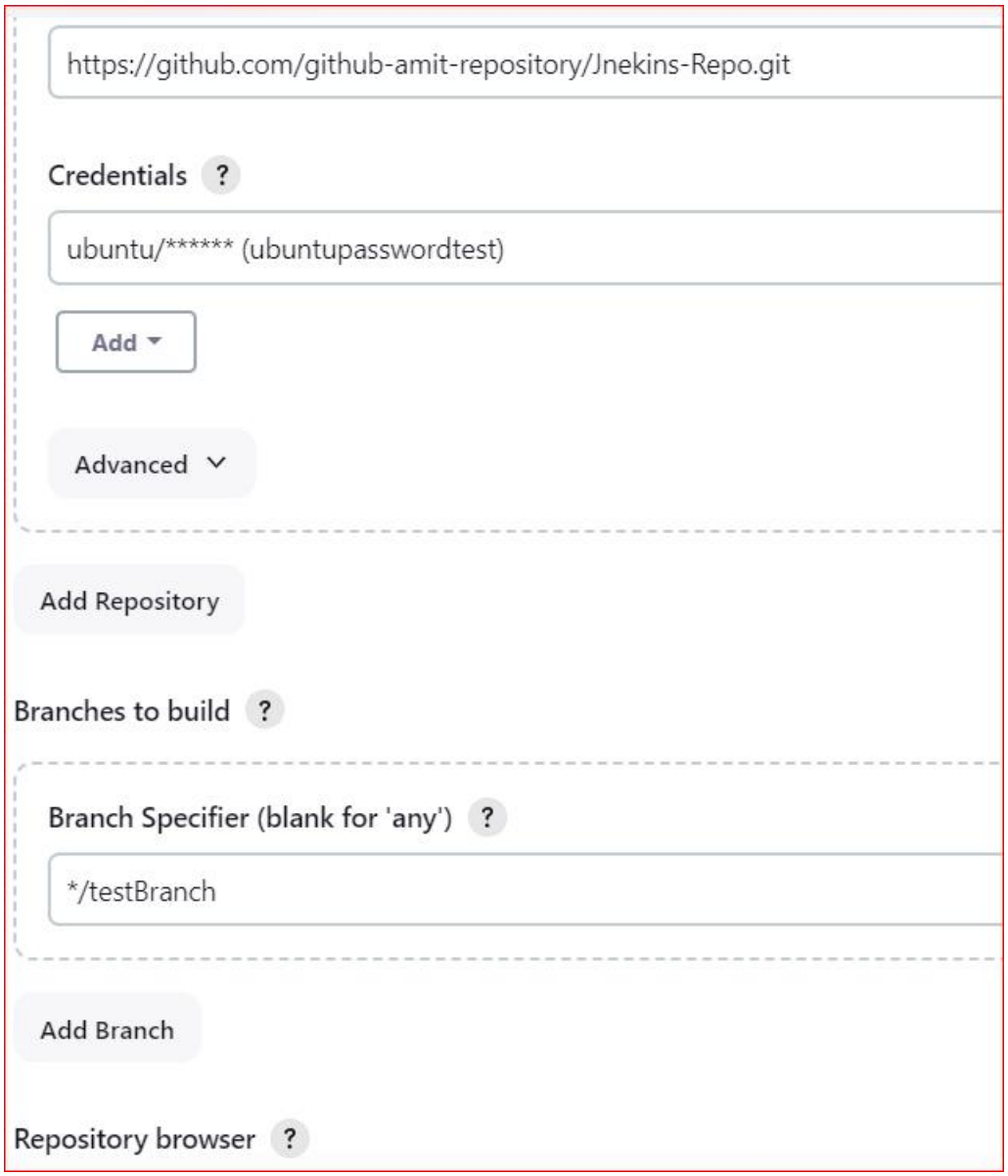


* Insert github url:- Github project -> project url-> paste repo url -> restrict where this project can be run

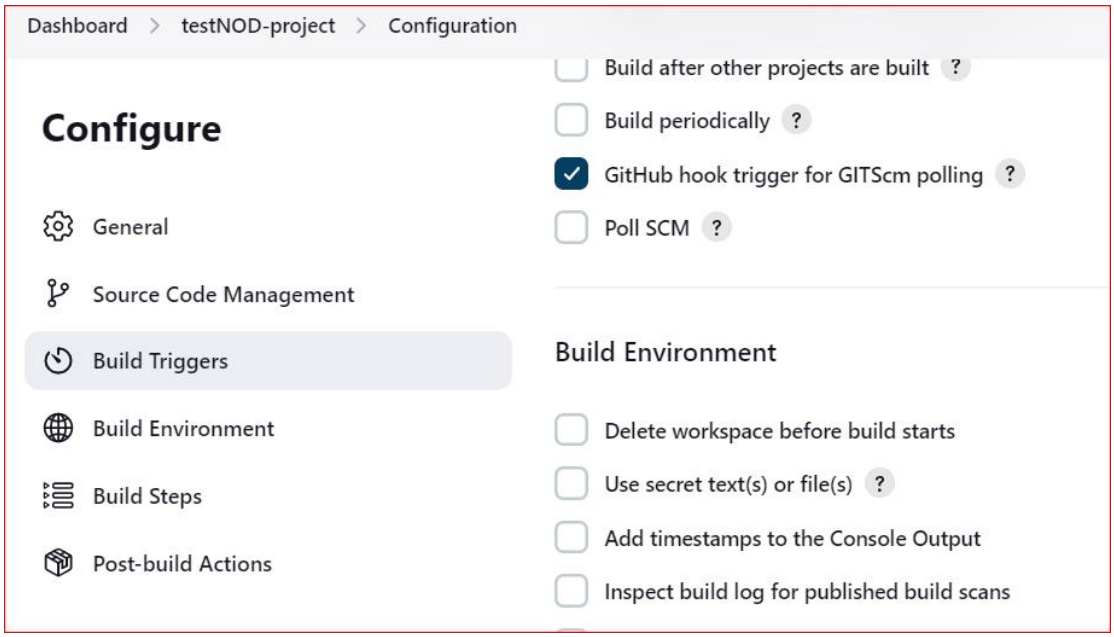
* Give node name:- Label expression -> testNOD->source code managemnt -> git -> repo url



* Create credential and insert branch name:- branch -> */testBranch -> build triggers



* Select gitscm:- github hook trigger for gitscm polling -> apply -> save



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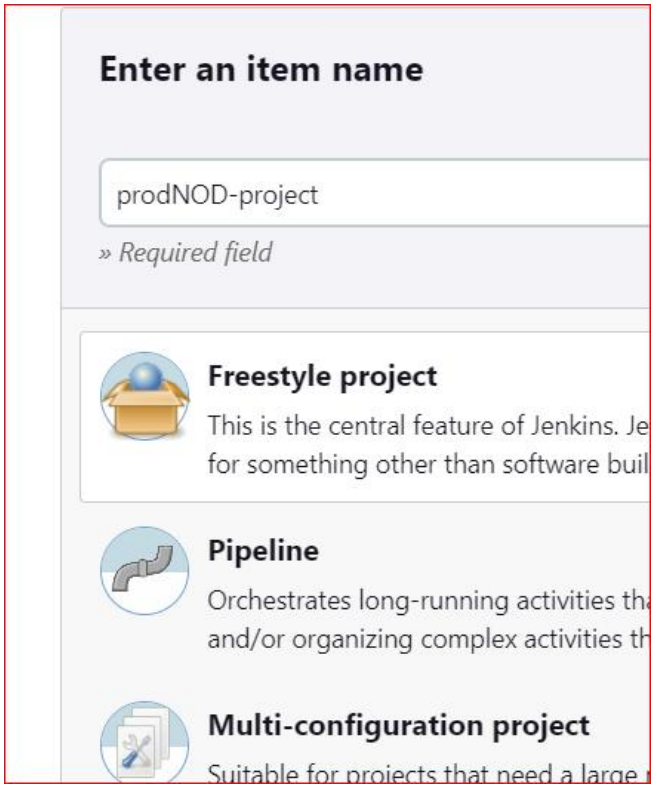
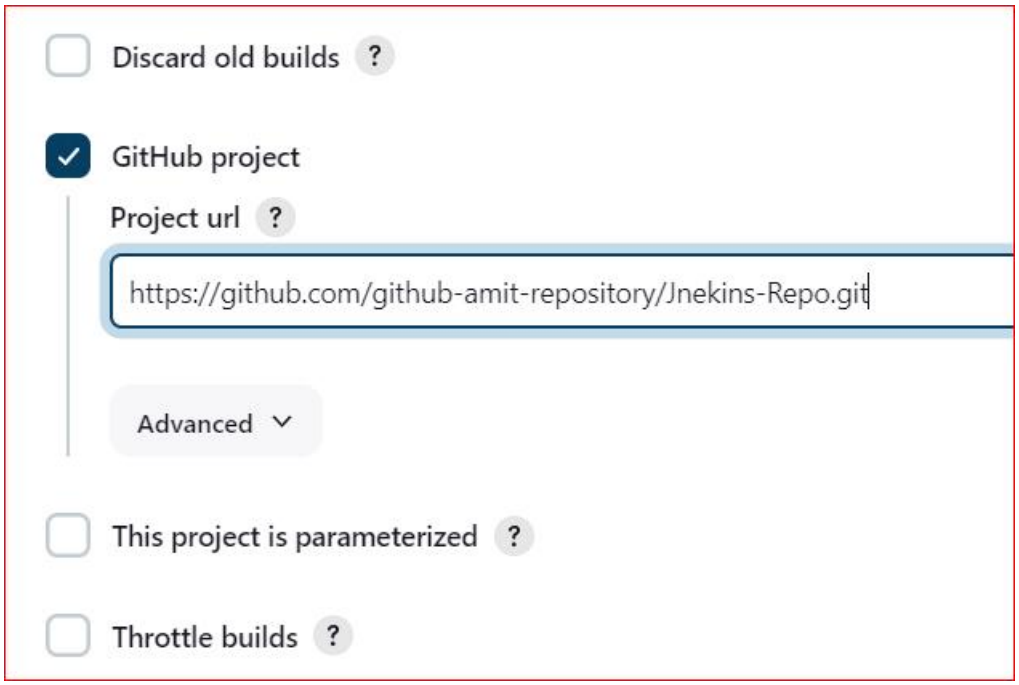
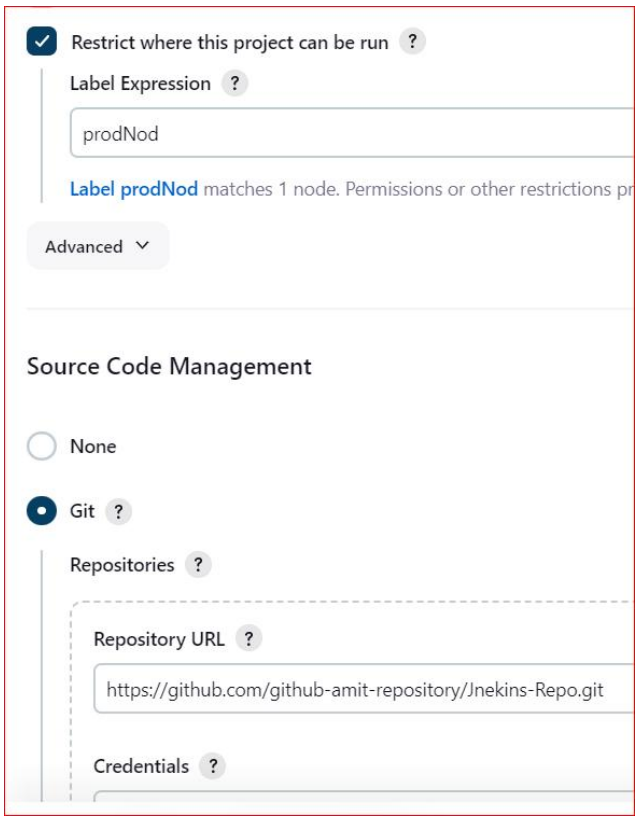


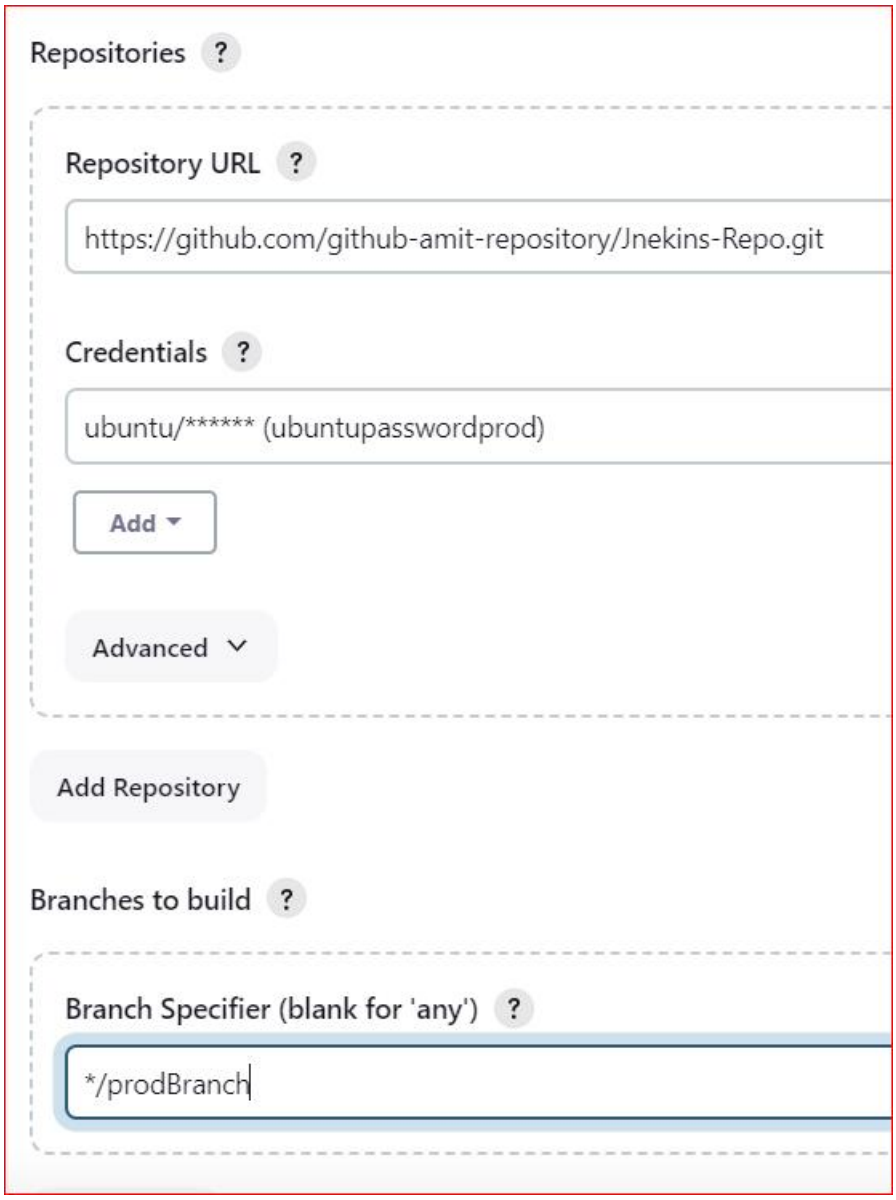
* Insert github url:- Github project -> project url-> paste repo url



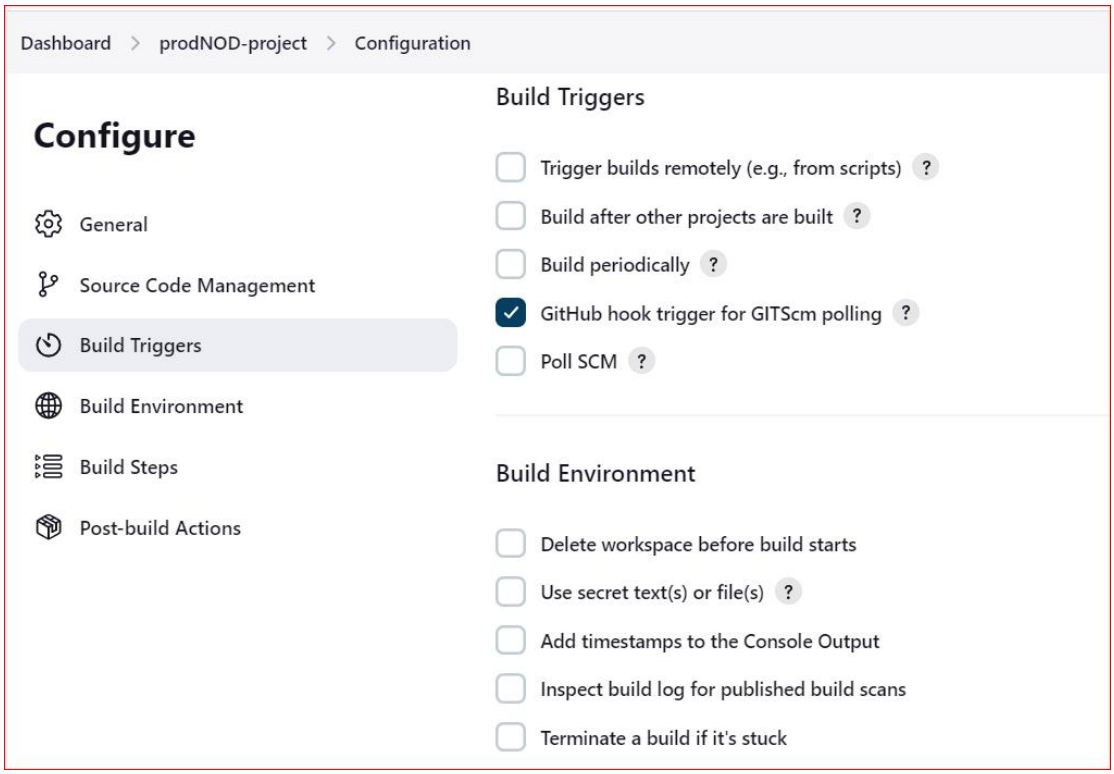
* Give node name:- Label expression -> prodNOD->source code managemnt -> git -> repo url



* Create credential and insert branch name:- branch -> */prodBranch



* Select gitscm:- build triggers ->github hook trigger for gitscm polling -> apply -> save



$ git checksum testBranch

```
ubuntu@Jenkins-Master:~/Git$ git checkout testBranch
Switched to branch 'testBranch'
```

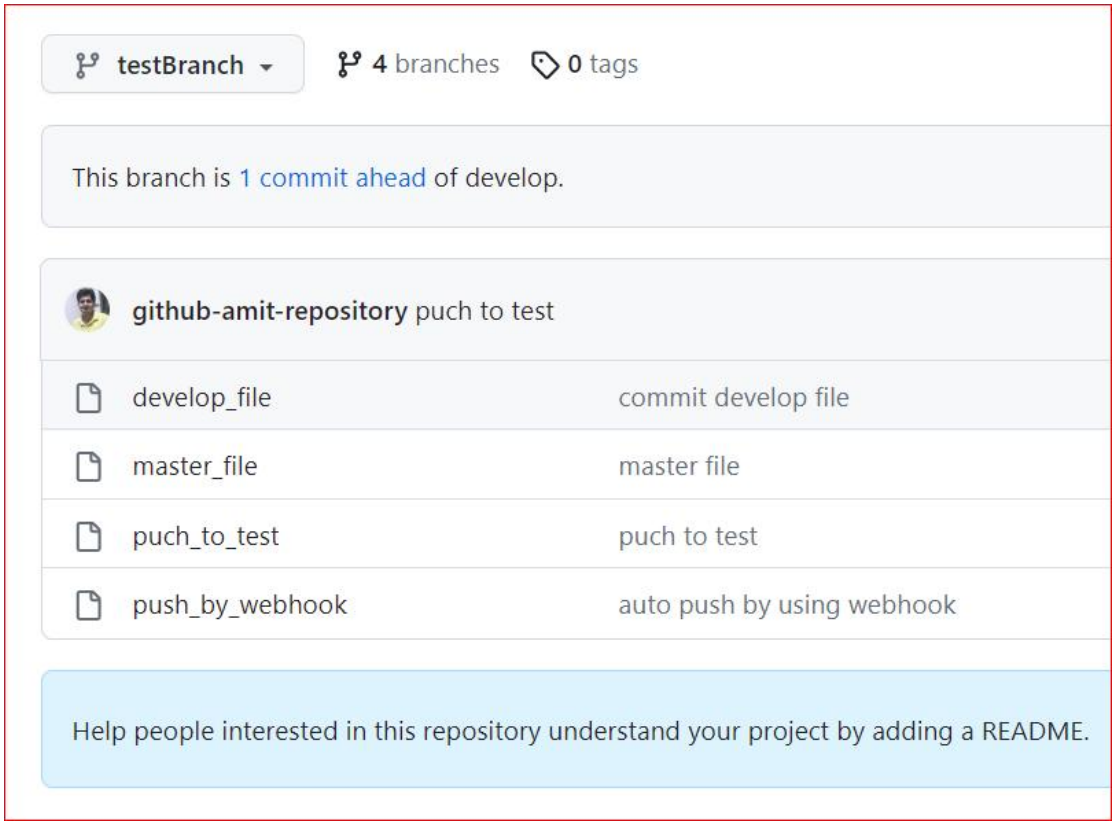
$ git add puch_to_test
$ git commit -m “puch to test”

```
ubuntu@Jenkins-Master:~/Git$ git add puch_to_test
ubuntu@Jenkins-Master:~/Git$ git commit -m "puch to test"
[testBranch 13c04af] puch to test
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 puch_to_test
```

$ git push origin testBranch

```
ubuntu@Jenkins-Master:~/Git$ git push origin testBranch
Username for 'https://github.com': github-amit-repository
Password for 'https://github-amit-repository@github.com':
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 271 bytes | 271.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
```

* Now in github repo we can see files are added:-



$ ls
$ cd workspace/testNOD-project
$ ls

```
ubuntu@test-server:~/tesrDIR$ ls
remoting  remoting.jar
ubuntu@test-server:~/tesrDIR$ ls
remoting  remoting.jar  workspace
ubuntu@test-server:~/tesrDIR$ cd workspace/testNOD-project
ubuntu@test-server:~/tesrDIR/workspace/testNOD-project$ ls
develop_file  master_file  puch_to_test  push_by_webhook
ubuntu@test-server:~/tesrDIR/workspace/testNOD-project$
```

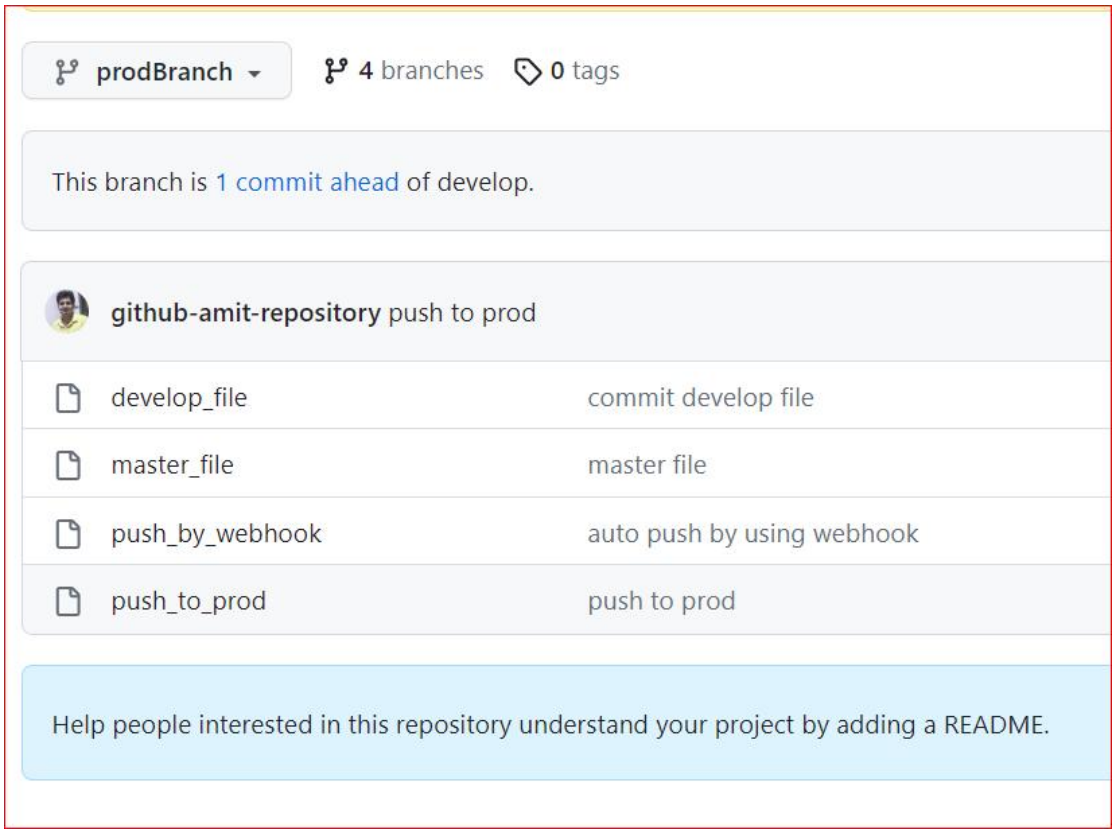
$ git checkout prodBranch
$ touch push_to_prod

```
ubuntu@Jenkins-Master:~/Git$ git checkout prodBranch
Switched to branch 'prodBranch'
ubuntu@Jenkins-Master:~/Git$ touch push_to_prod
```

$ git add push_to_prod
$ git commit push_to_prod -m “push to prod”

```
ubuntu@Jenkins-Master:~/Git$ git add push_to_prod
ubuntu@Jenkins-Master:~/Git$ git commit push_to_prod -m "push to prod"
[prodBranch acad8d9] push to prod
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 push_to_prod
ubuntu@Jenkins-Master:~/Git$ git push origin prodBranch
Username for 'https://github.com': github-amit-repository
Password for 'https://github-amit-repository@github.com':
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 277 bytes | 277.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
remote:
remote: Create a pull request for 'prodBranch' on GitHub by visiting:
remote:      https://github.com/github-amit-repository/Jnekins-Repo/pull/new/prodBranch
remote:
To https://github.com/github-amit-repository/Jnekins-Repo.git
 * [new branch]      prodBranch -> prodBranch
```

* Now in github repo we can see files are added:-



$ cd workspace
$ ls
$ cd prodNOD-project
$ ls

```
ubuntu@prod-server:~/prodDIR$ cd workspace/
ubuntu@prod-server:~/prodDIR/workspace$ ls
prodNOD-project  prodNOD-project@tmp
ubuntu@prod-server:~/prodDIR/workspace$ cd prodNOD-project
ubuntu@prod-server:~/prodDIR/workspace/prodNOD-project$ ls
develop_file  master_file  push_by_webhook  push_to_prod
ubuntu@prod-server:~/prodDIR/workspace/prodNOD-project$
```