**JENKINS**

**Jenkins installation on Linux:**

* **Guide** [**https://www.jenkins.io/doc/tutorials/tutorial-for-installing-jenkins-on-AWS/**](https://www.jenkins.io/doc/tutorials/tutorial-for-installing-jenkins-on-AWS/)

**Steps:**

**# sudo yum update –y**

**# sudo wget -O /etc/yum.repos.d/jenkins.repo \**

**https://pkg.jenkins.io/redhat-stable/jenkins.repo**

**# sudo rpm --import https://pkg.jenkins.io/redhat-stable/jenkins.io-2023.key**

**# sudo yum upgrade**

**# sudo dnf install java-11-amazon-corretto -y**

**# sudo yum install jenkins -y**

**# sudo systemctl enable jenkins**

**# sudo systemctl start jenkins**

**# sudo systemctl status jenkins**

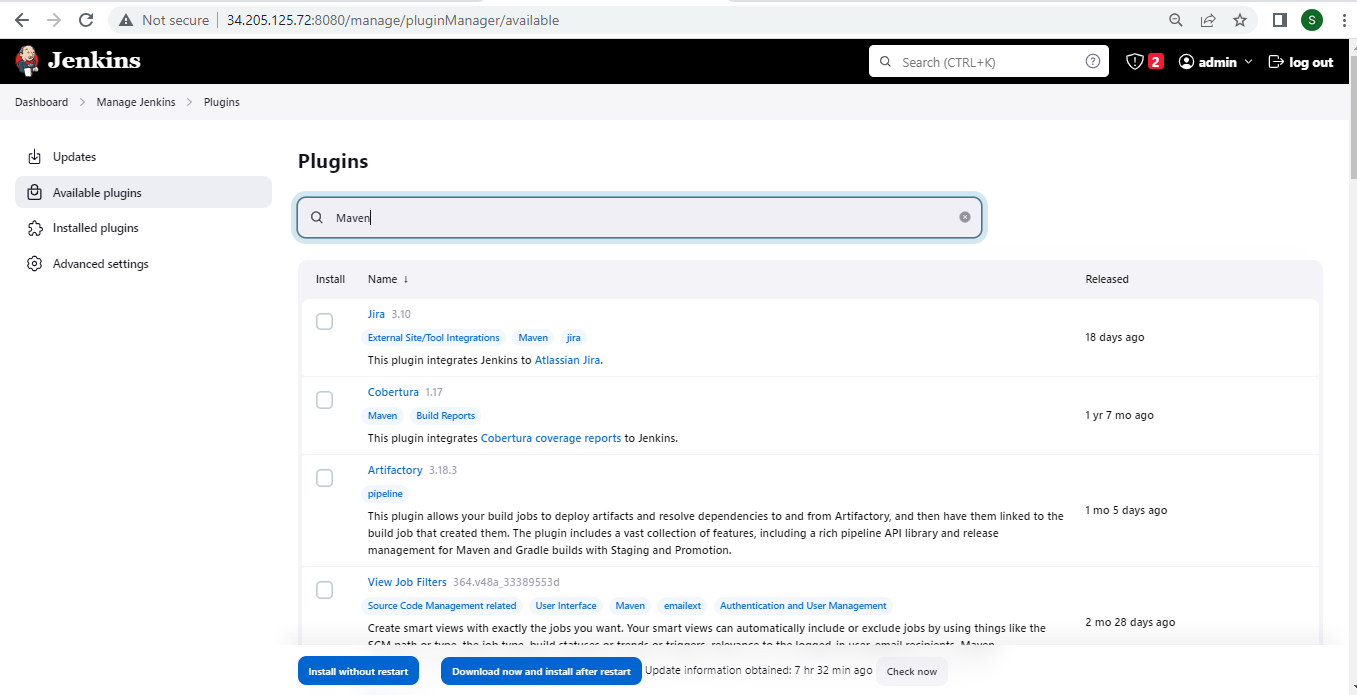
**# sudo cat /var/lib/jenkins/secrets/initialAdminPassword**

**Install Server :**

**# sudo yum install git –y**

**# sudo yum install maven -y**

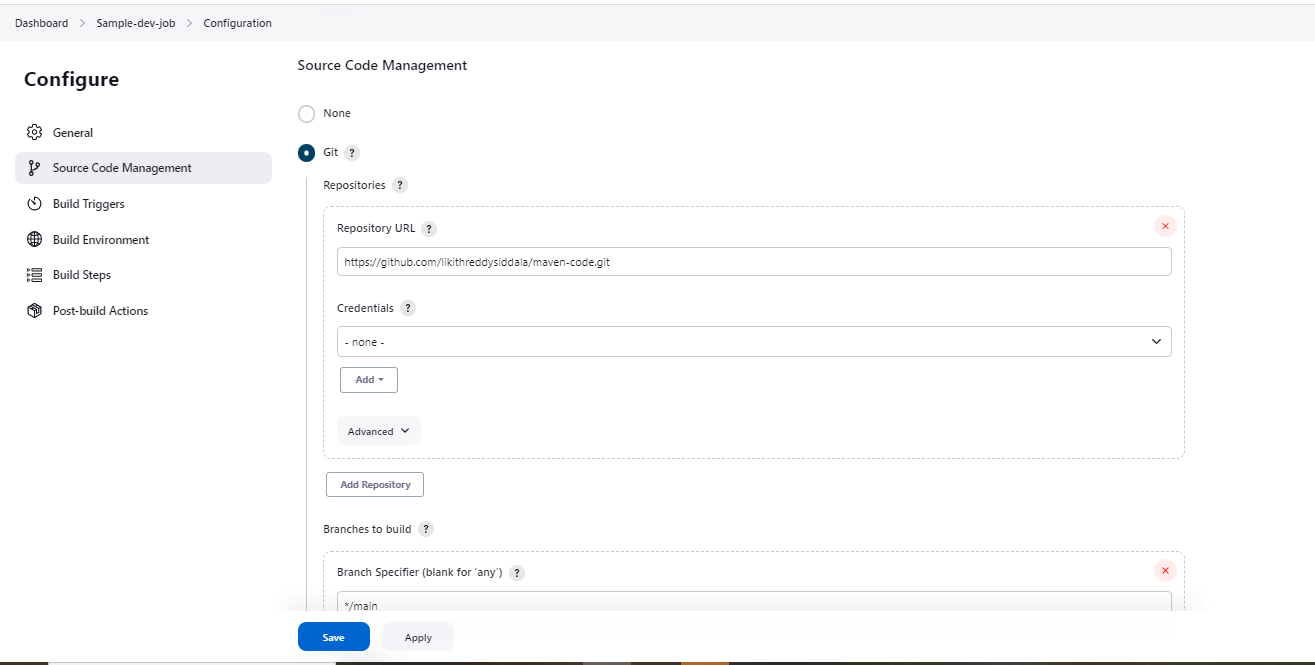
**Manage Jenkins🡪Manage plugins 🡪 install required plugins (maven, ssh agent,s3 plugins)**

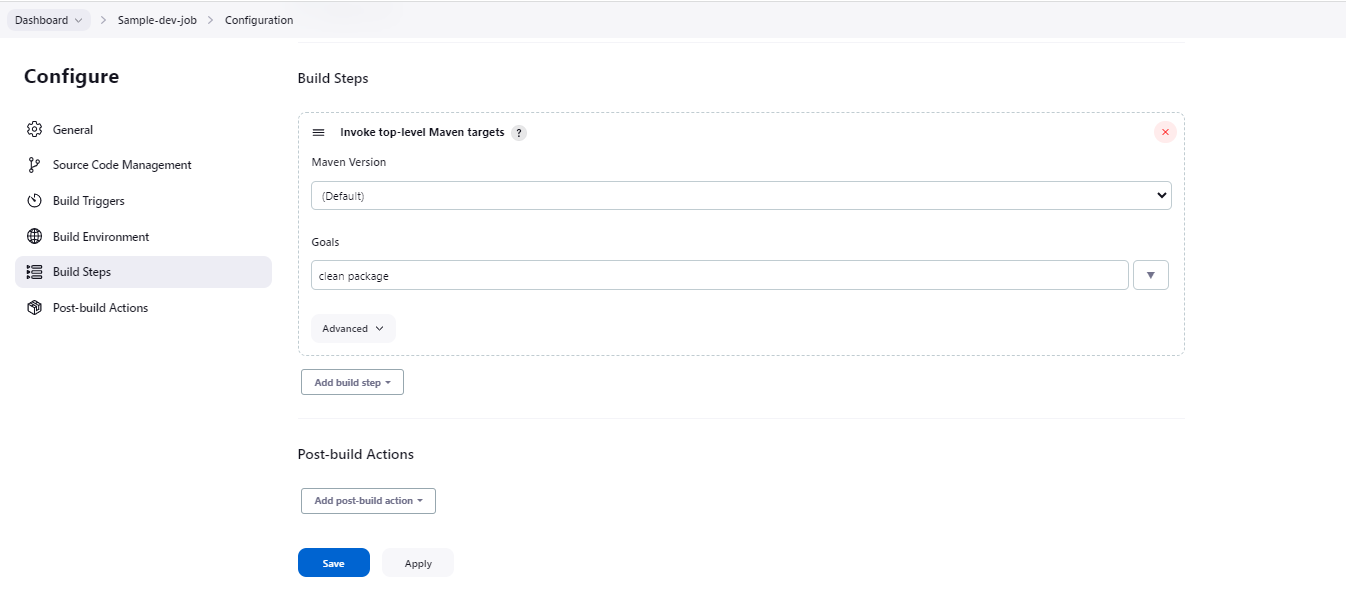
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**Install & without restart.**

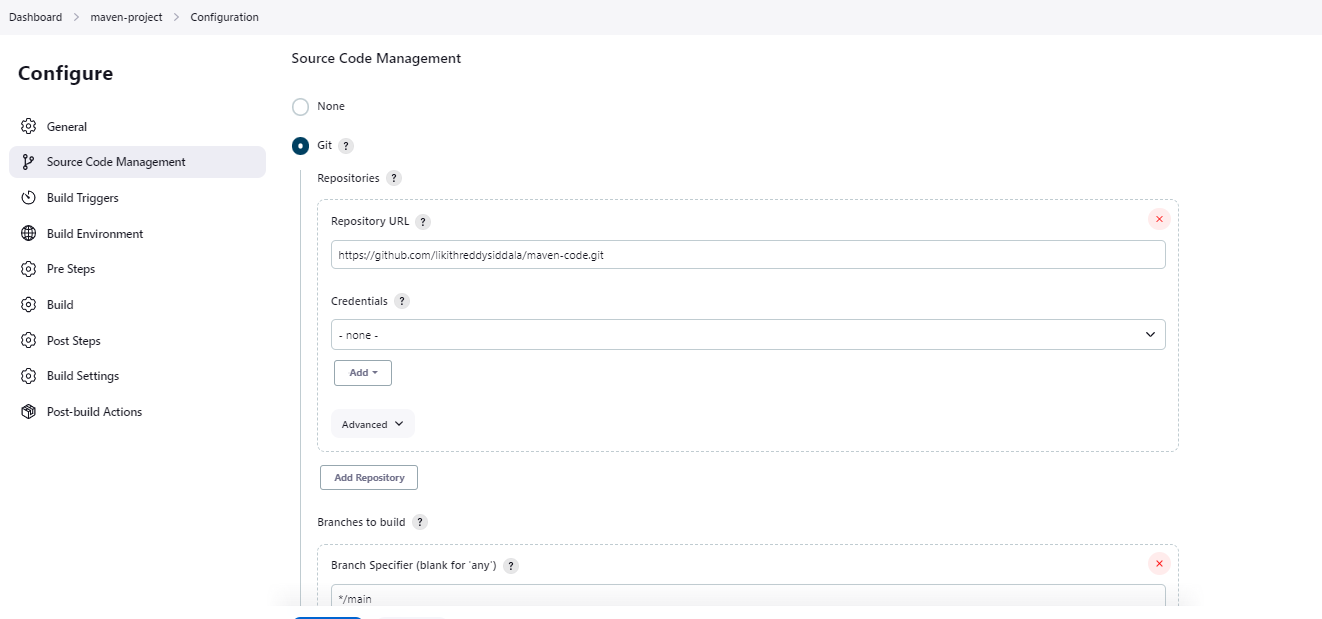
* **Manage Jenkins🡪 tools🡪 configure maven path (M2\_Home)**

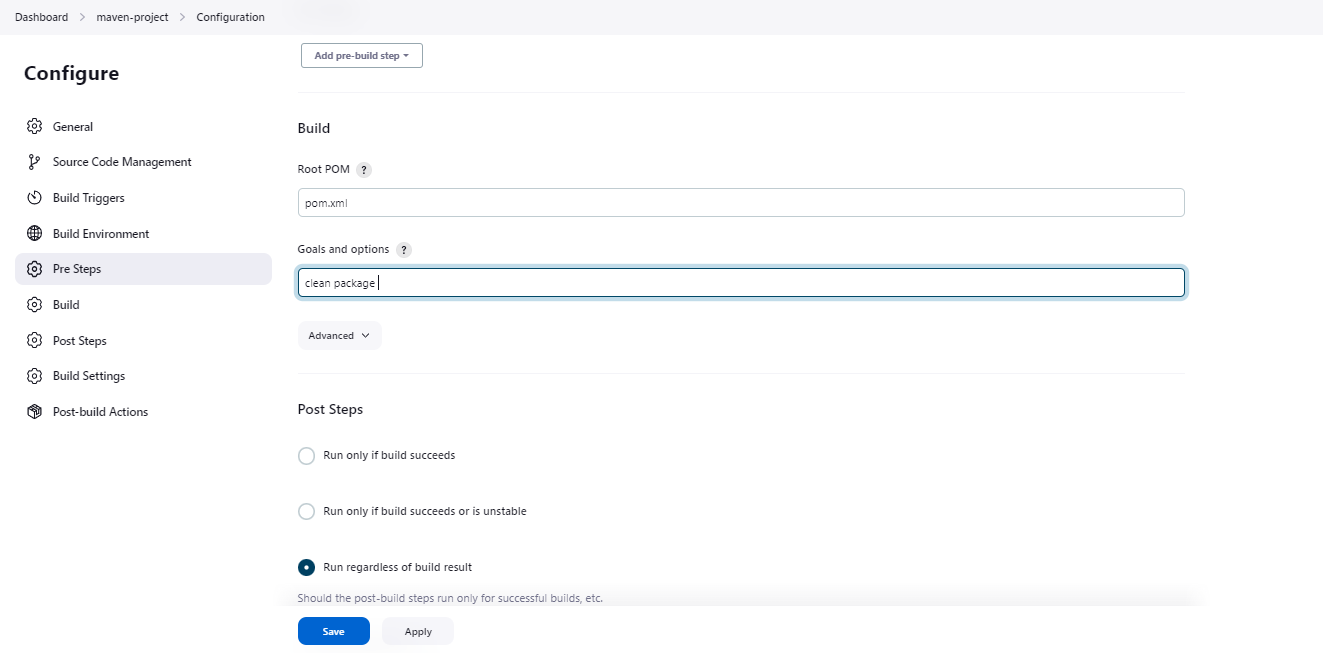
**Creating free style job :**

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**Maven Job:**

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**War file location in server:**

**# cd /var/lib/jenkins/workspace/jobname/target**

**Master & Slave Creation**

1. **Create one Ec2 instance for slave and install git, java**

**# sudo yum install git –y**

**# sudo dnf install java-11-amazon-corretto -y**

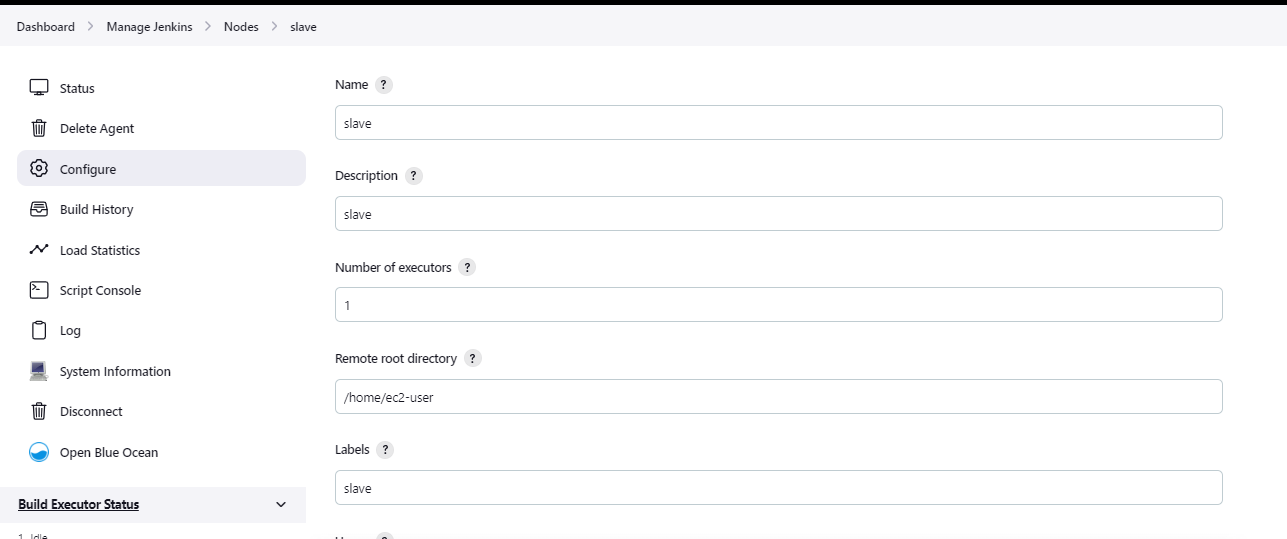
* **Install SSH Agent & SSH plug-in,**
* **configure system 🡪ssh section provide slave server details**

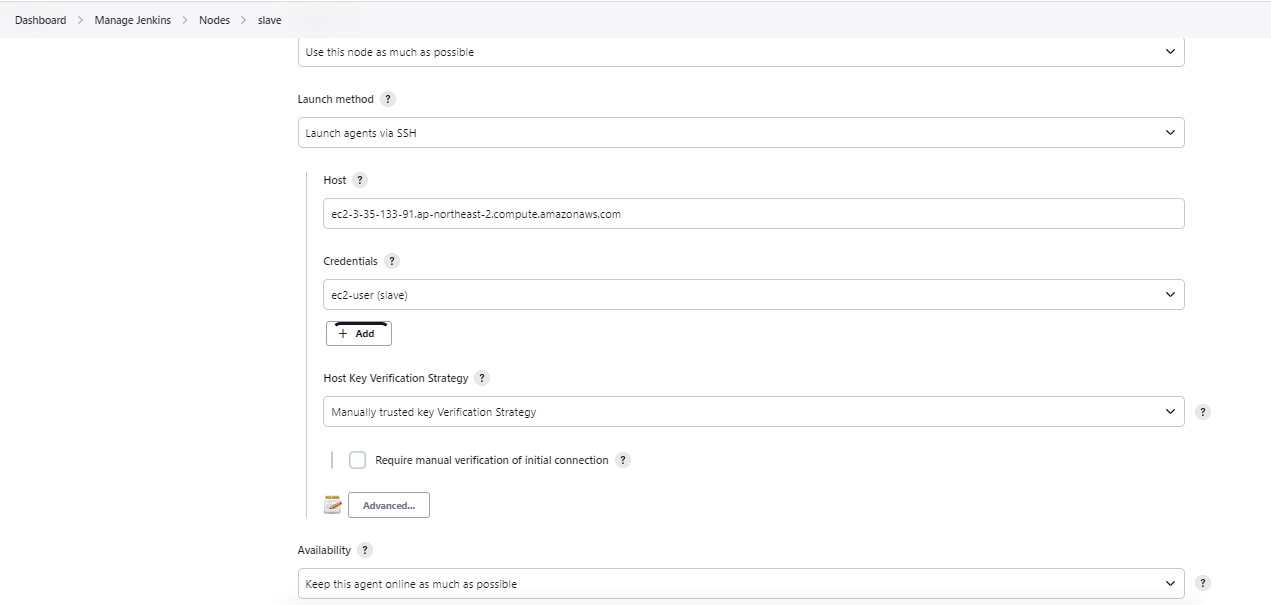
**(Or ) Jenkins credentials🡪configure slave server details**

**Configure node server credentials in Jenkins credentials**

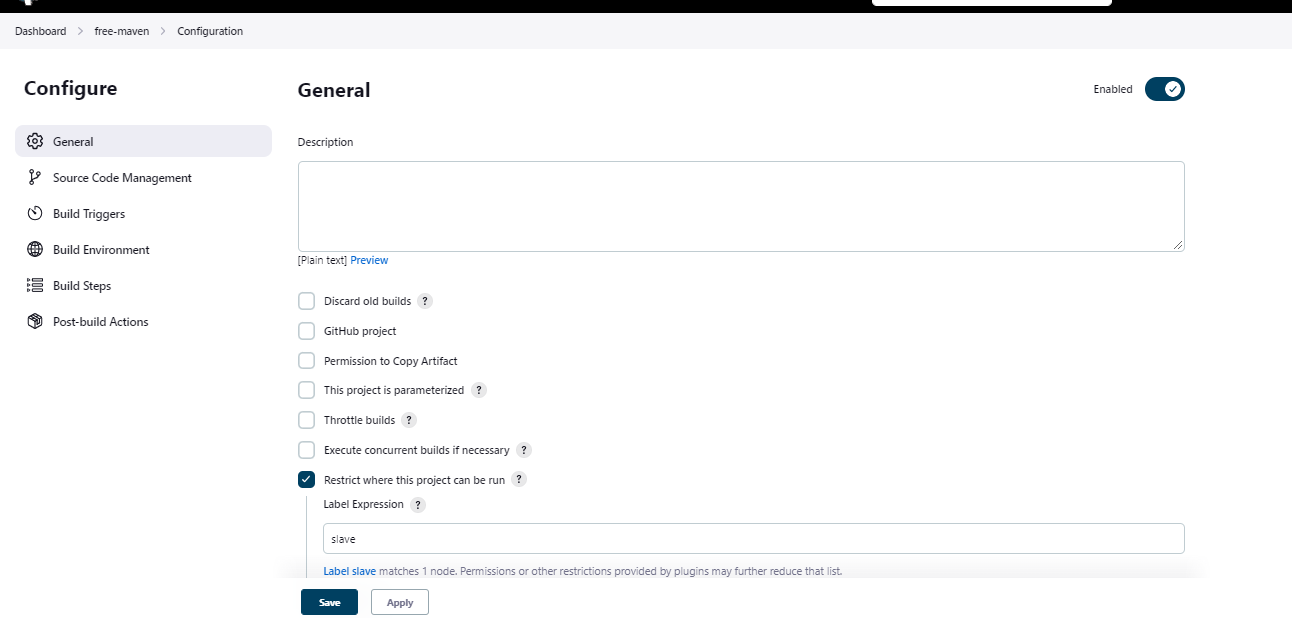
1. **Open Manage Jenkins🡪manage nodes and clouds**

**New node**

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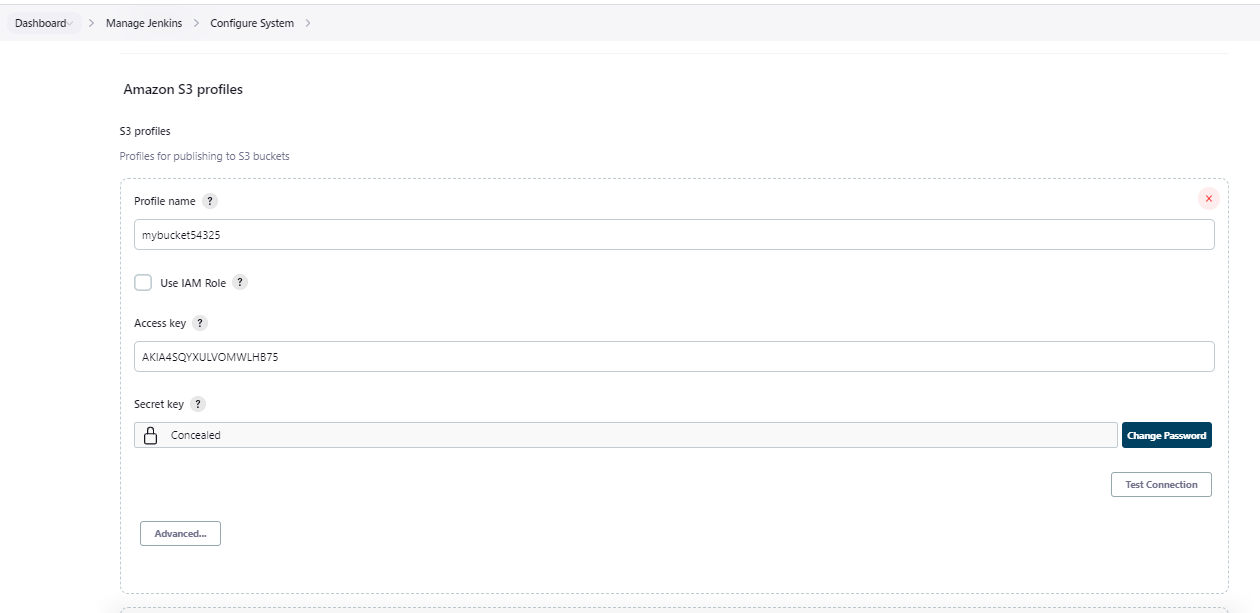
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**Attach slave to job :**

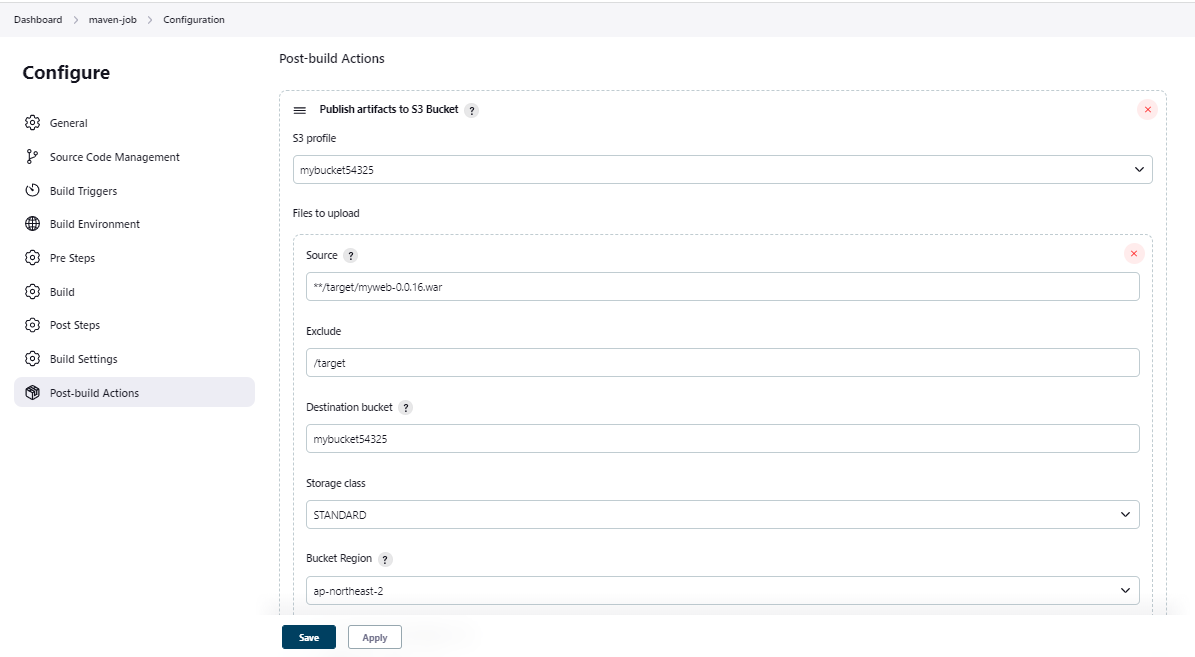
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**S3 Bucket :**

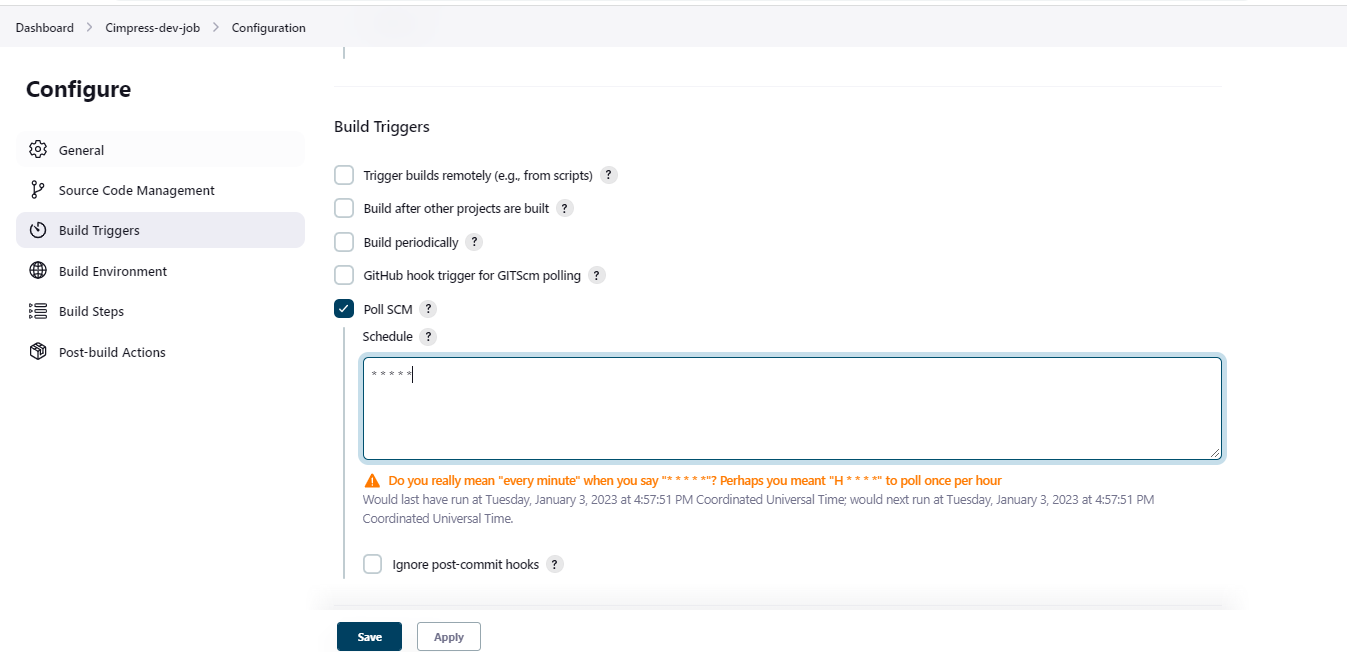
1. **create Ec2 instance and attach S3 full access IAM Role**
2. **generate secret key and access key**
3. **# aws configure**
4. **# aws s3 ls**
5. **Install S3 related plugins**
6. **Configure system**

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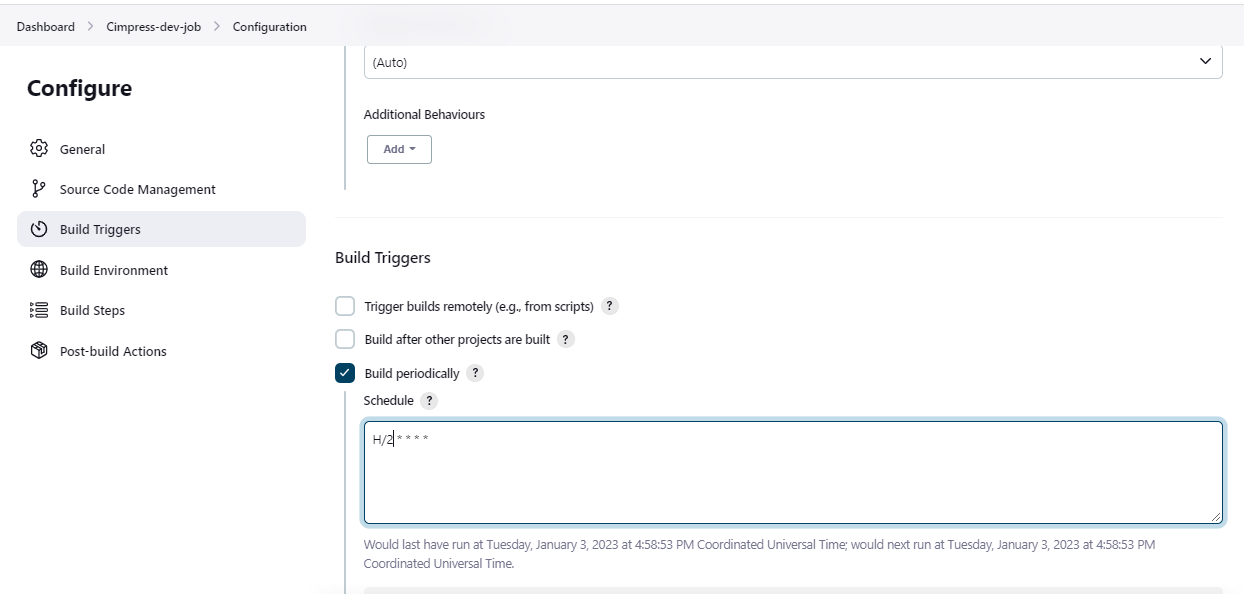
**Inside Job:**

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**Pollscm:**



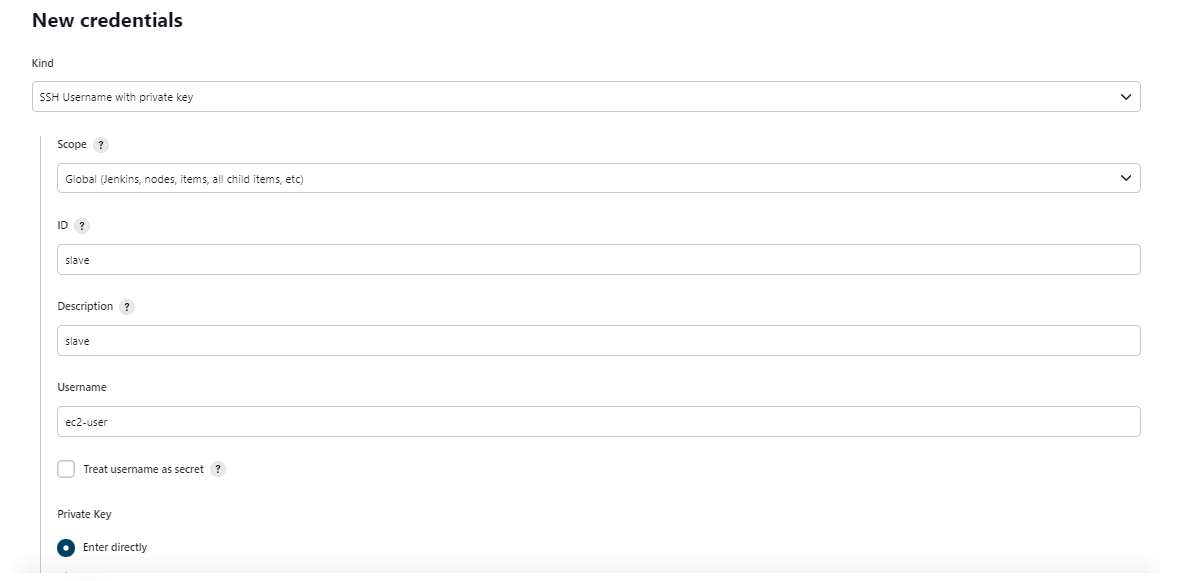
**Build periodically:**



**Jenkins Credentials :**

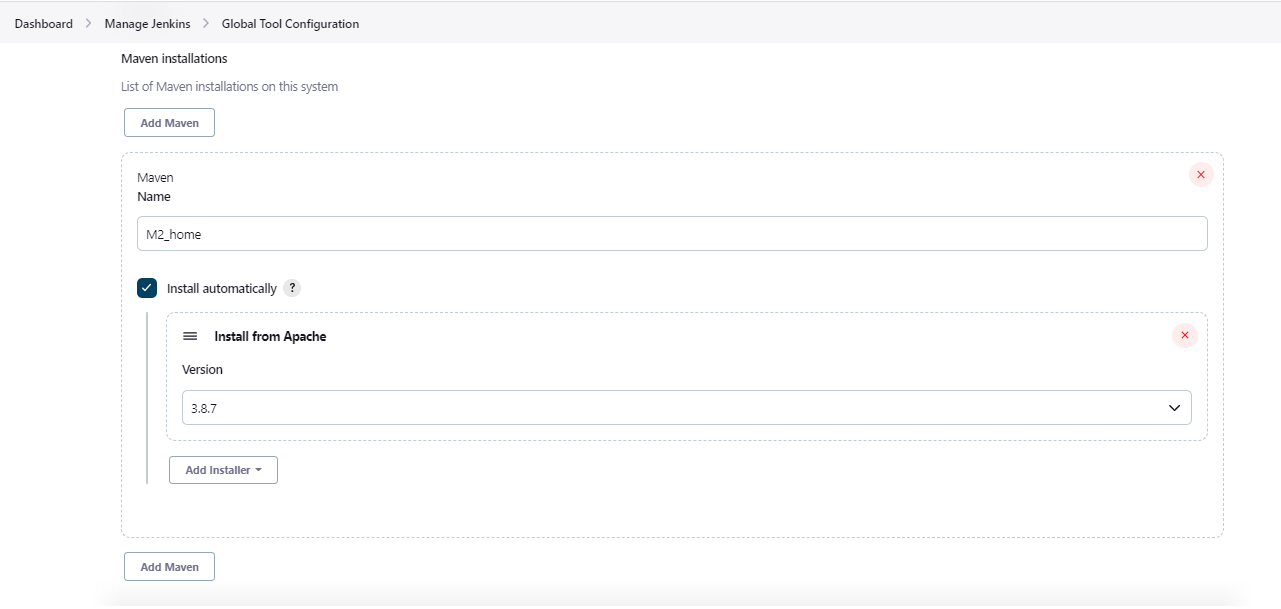
1. Manage Jenkins🡪manage credentials🡪 global

Add credentials 🡪

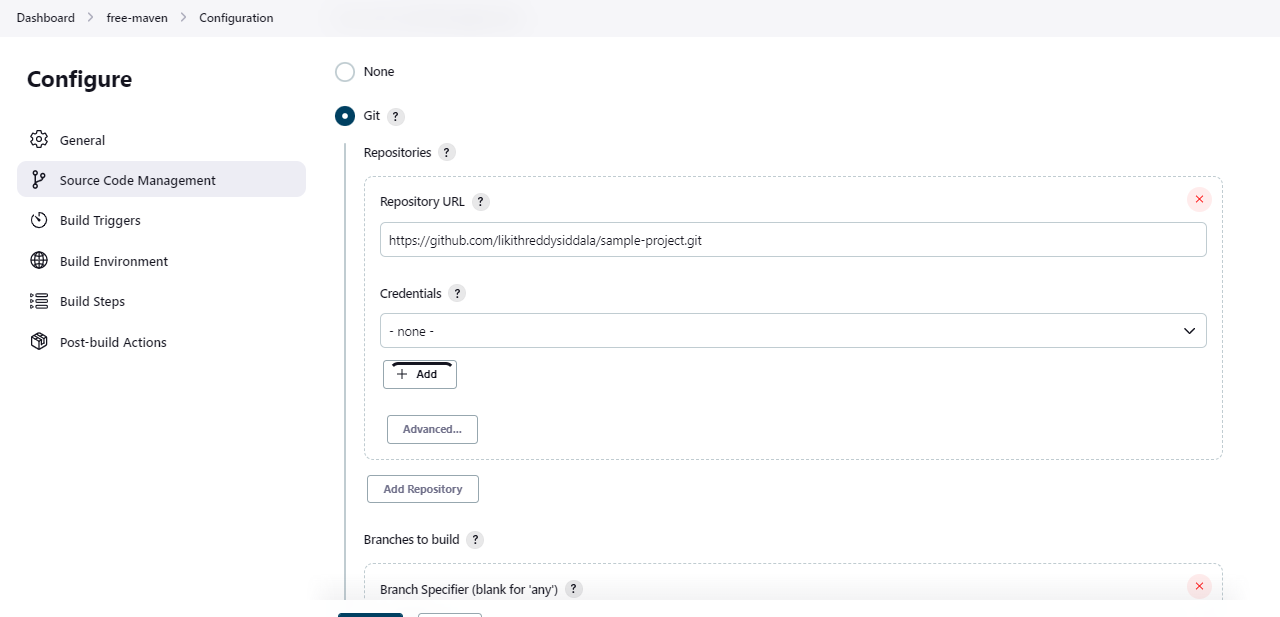


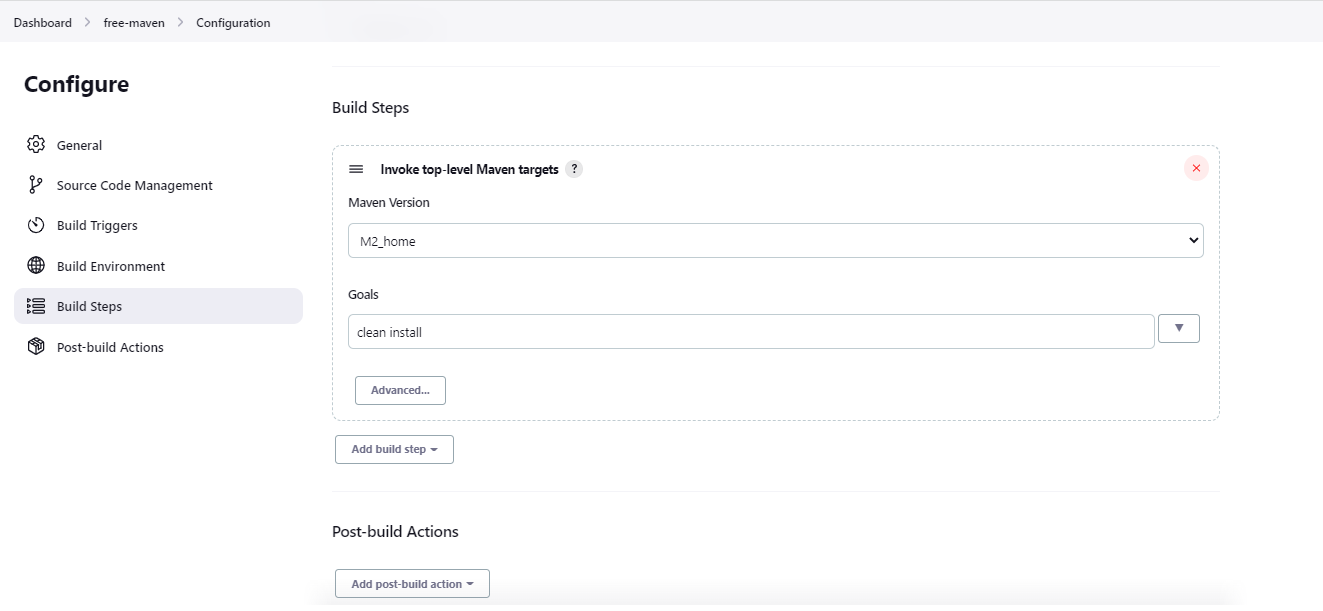
**Free style Job:**

* Global tool configuration🡪



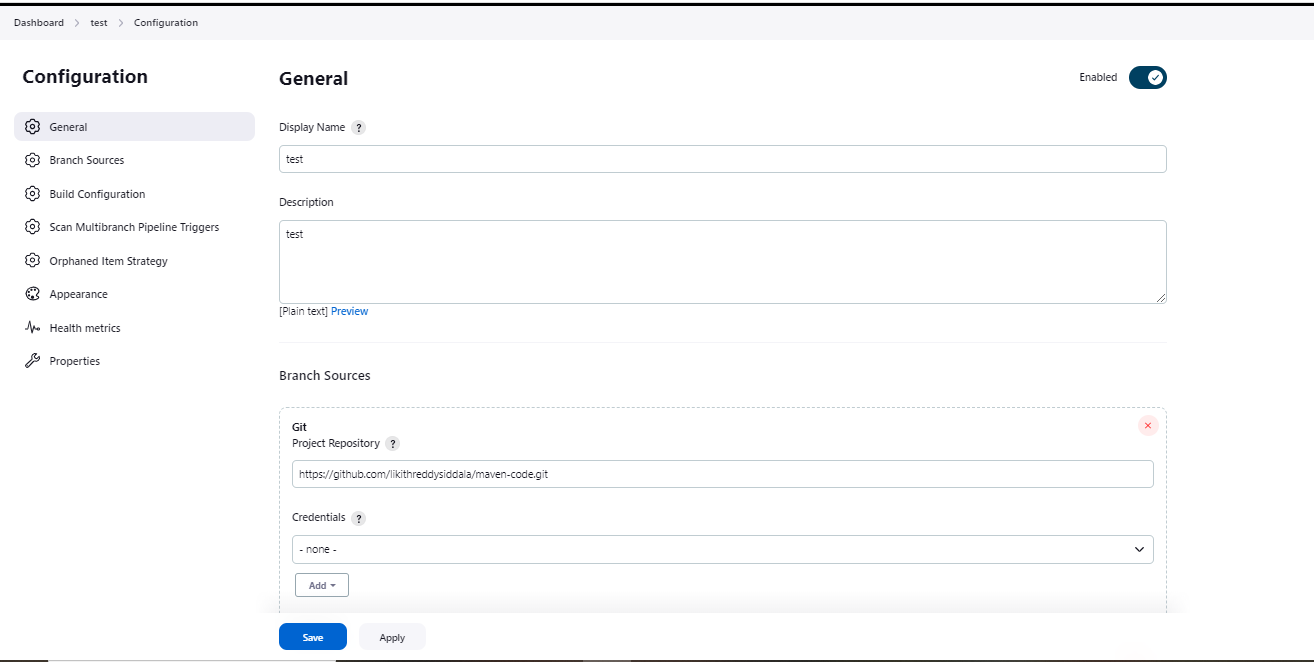
🡪New item🡪freestyle job

1. 



**MUTI-BRANCH-PIPELINE-JOB:**

1. **Install pipeline plug-in, after we can see option multibranch pipeline option in Jenkins dashboard.**
2. **Create on test job and copy github url (mandatory to have Jenkins file in all branches, without Jenkins file it’ won’t create job for that branch)**

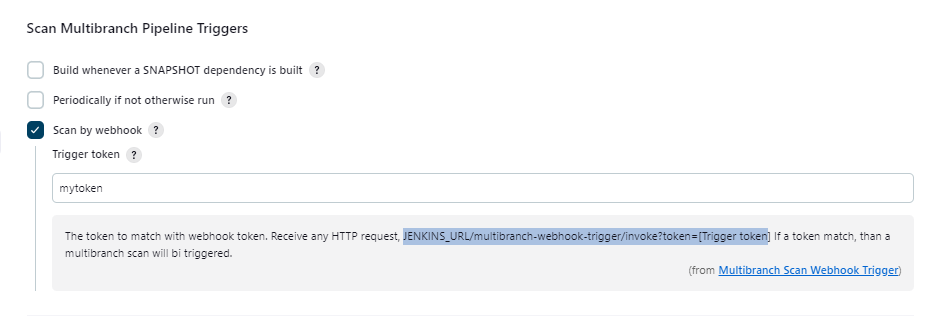
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**Apply & save.**

**Automate the web hook process :**

Any changes into repository or new code into repo the build will trigger.

1. **Install Multibranch webhook plugin**
2. **Provide name into trigger token**

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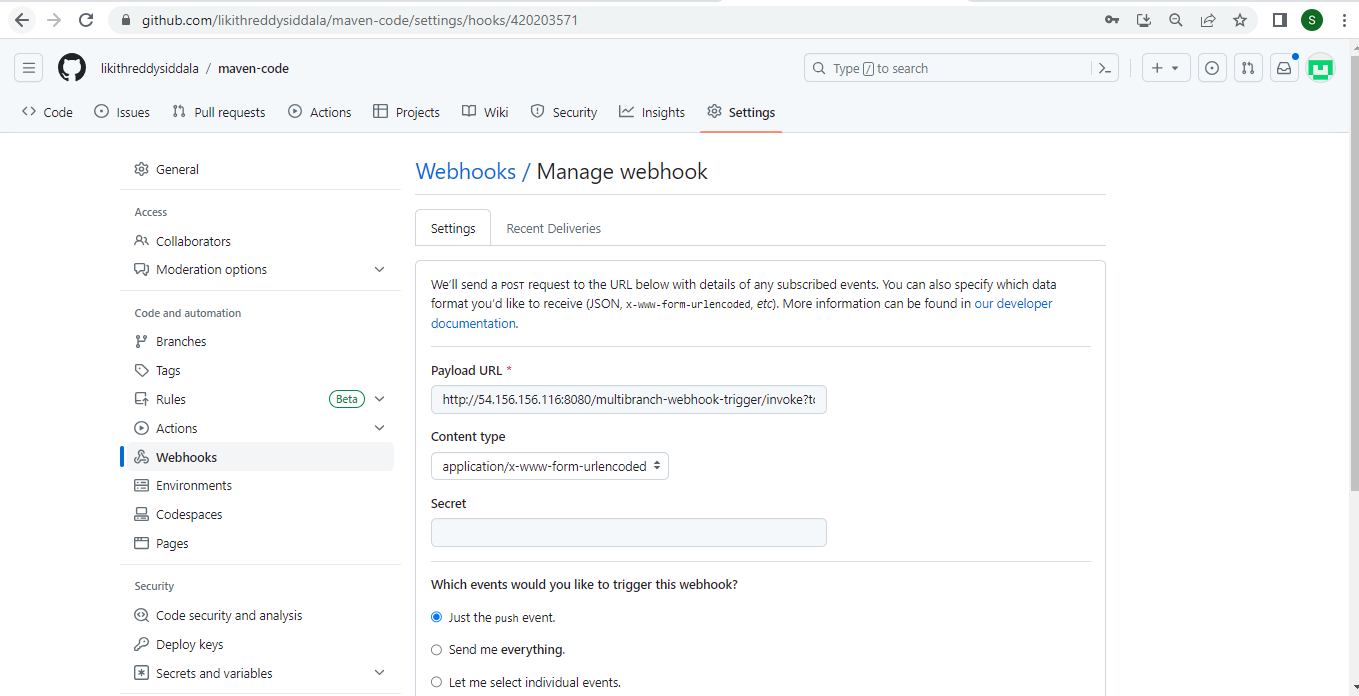
1. **Open github repo**

**🡪 repository—settings—add webhooks—copy that token**

JENKINS\_URL/multibranch-webhook-trigger/invoke?token=[Trigger token]

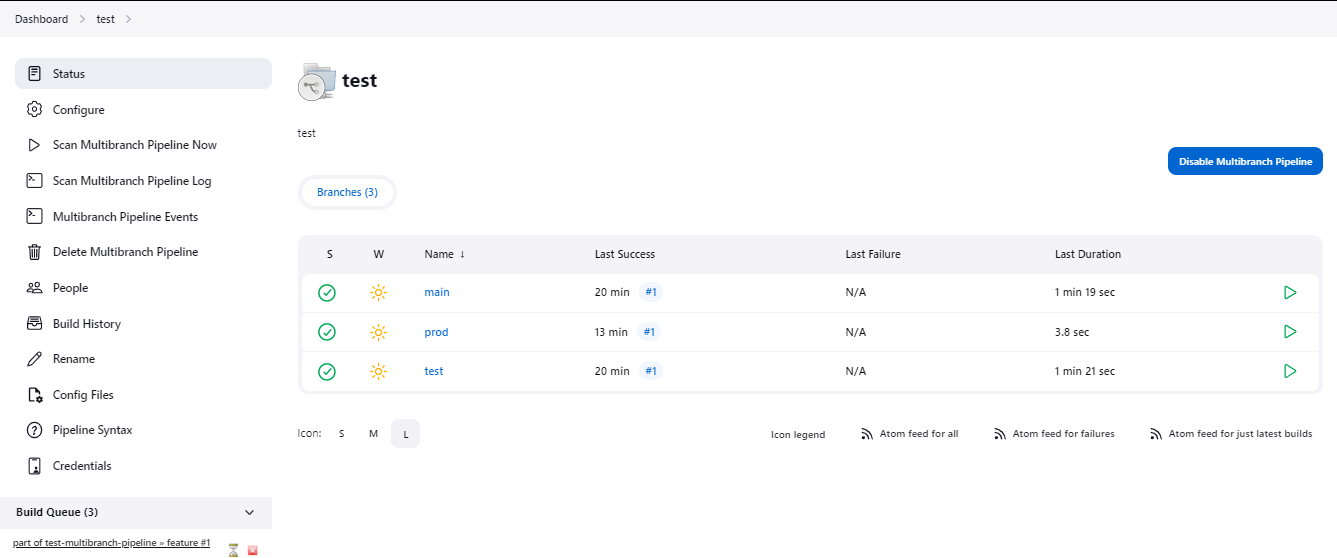
**Example:**

<http://54.156.156.116:8080//multibranch-webhook-trigger/invoke?token=mytoken>



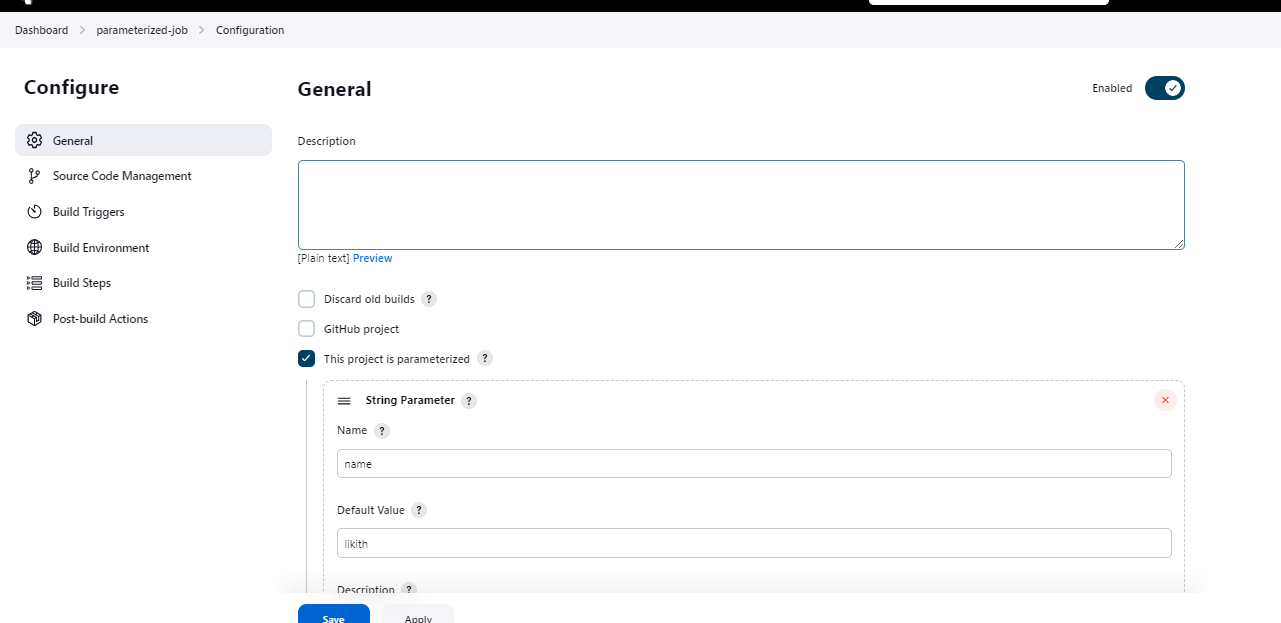
apply & save.

OUTPUT:

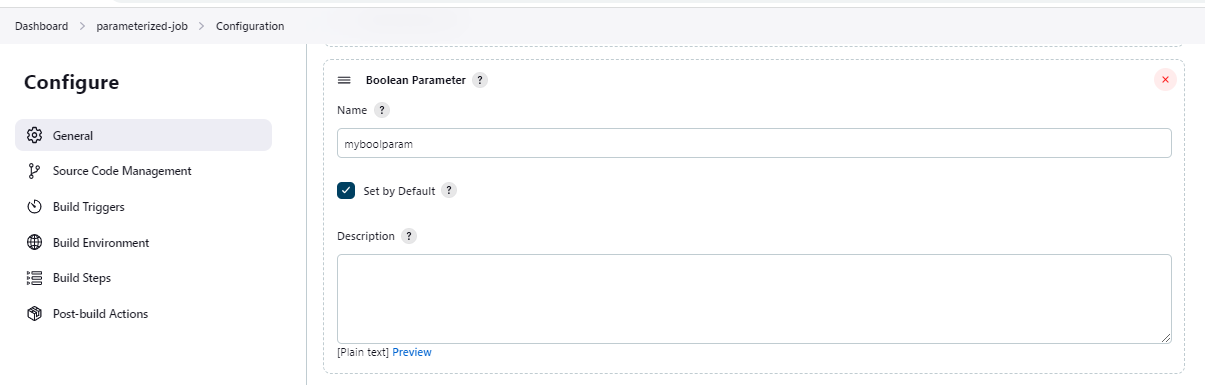
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**Parameterized Job:**

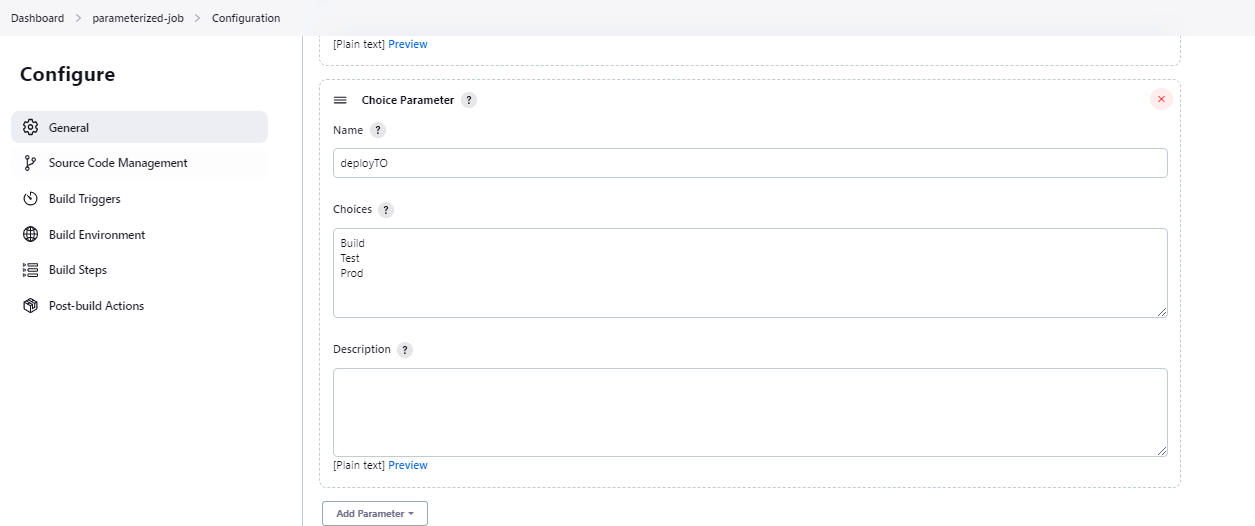
**String parameter**

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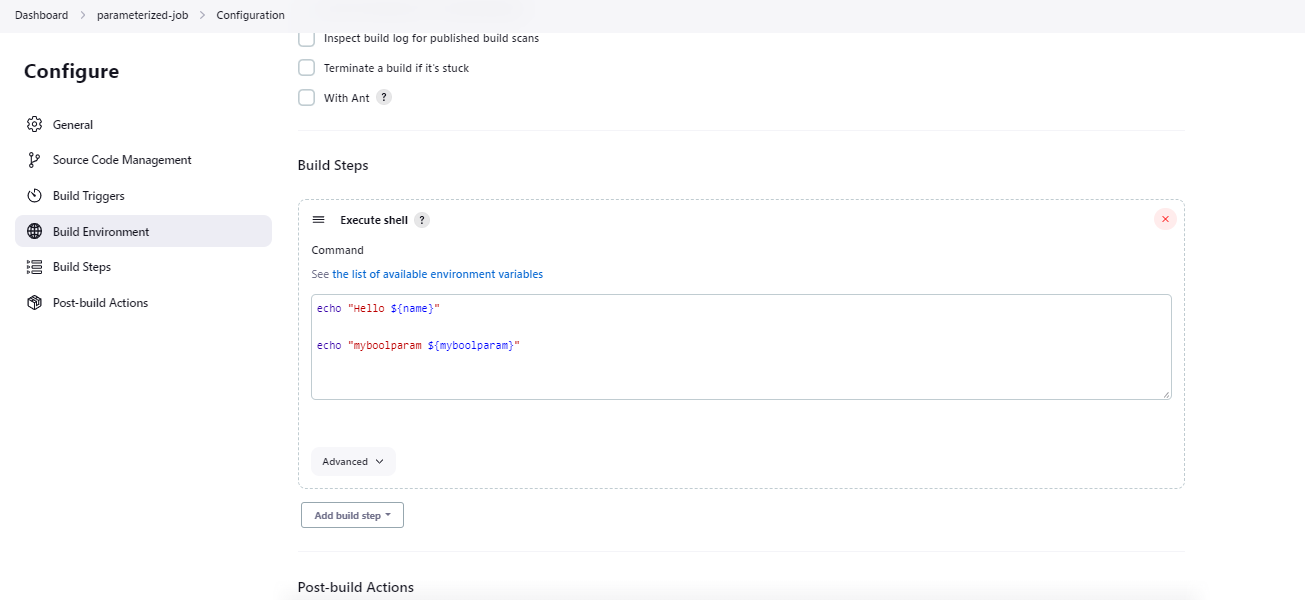
**Boolean job**

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**Choice parameter:**

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**Shell commands:**

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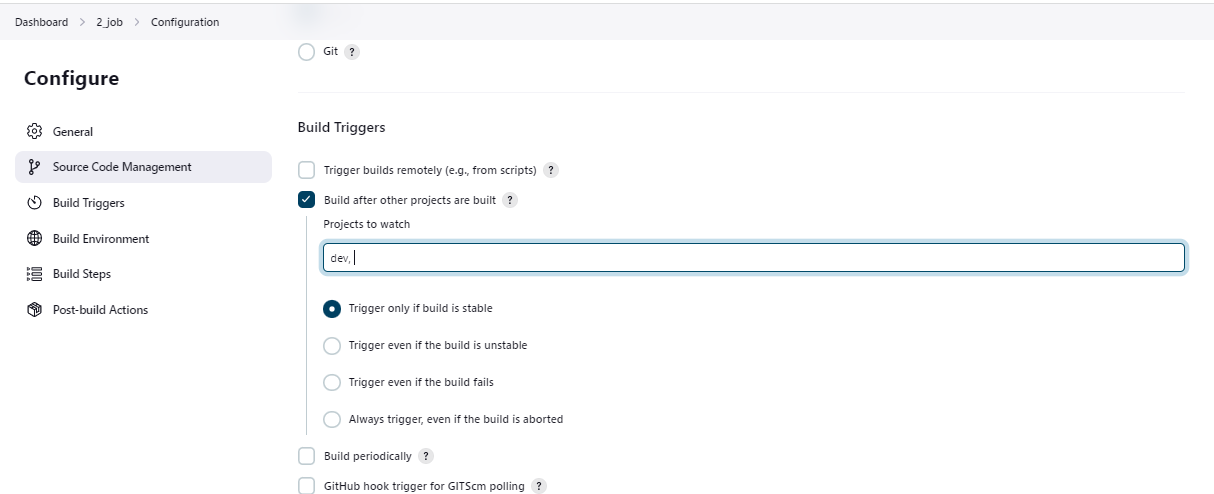
**DownStream & Up stream Jobs:**

1. **Install Build pipeline, parameterized trigger plugin**
2. **Configure 3 jobs named it as dev,test,prod**

**Dev job only command**

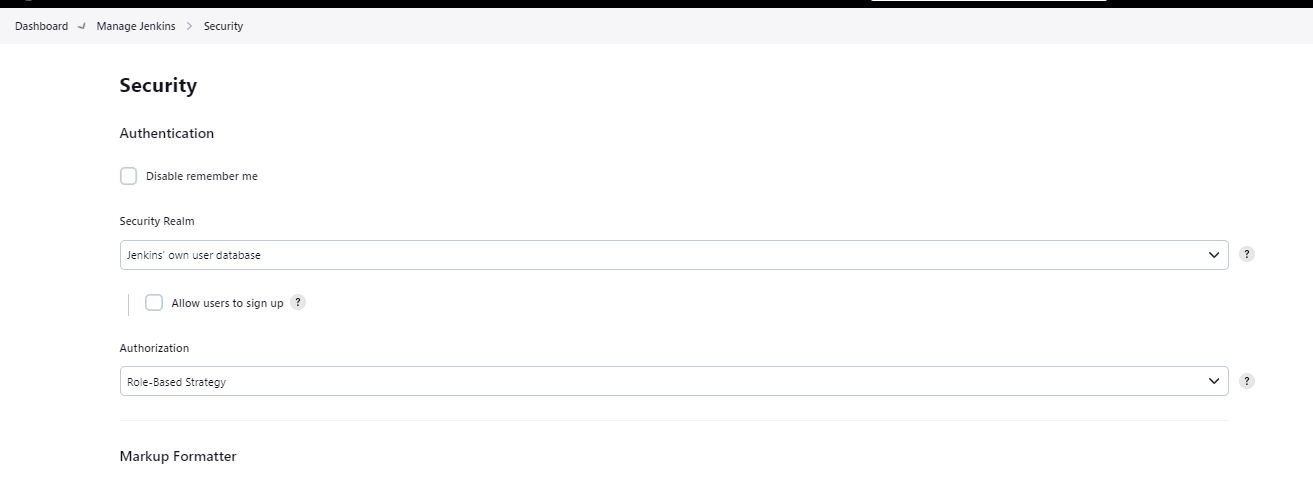
**Test job 🡪 build triggers🡪build after other projects are built🡪dev job**

**Prod job 🡪 build triggers🡪build after other projects are built🡪test job**

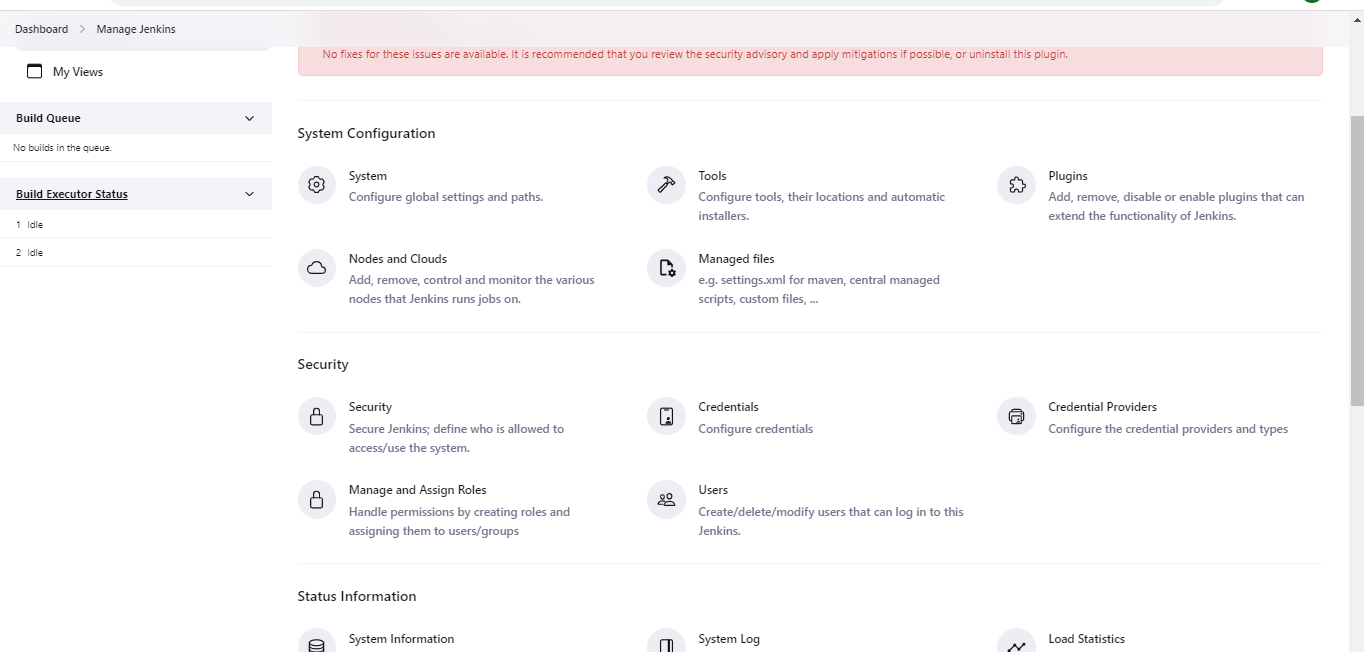
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**User creation Jenkins:**

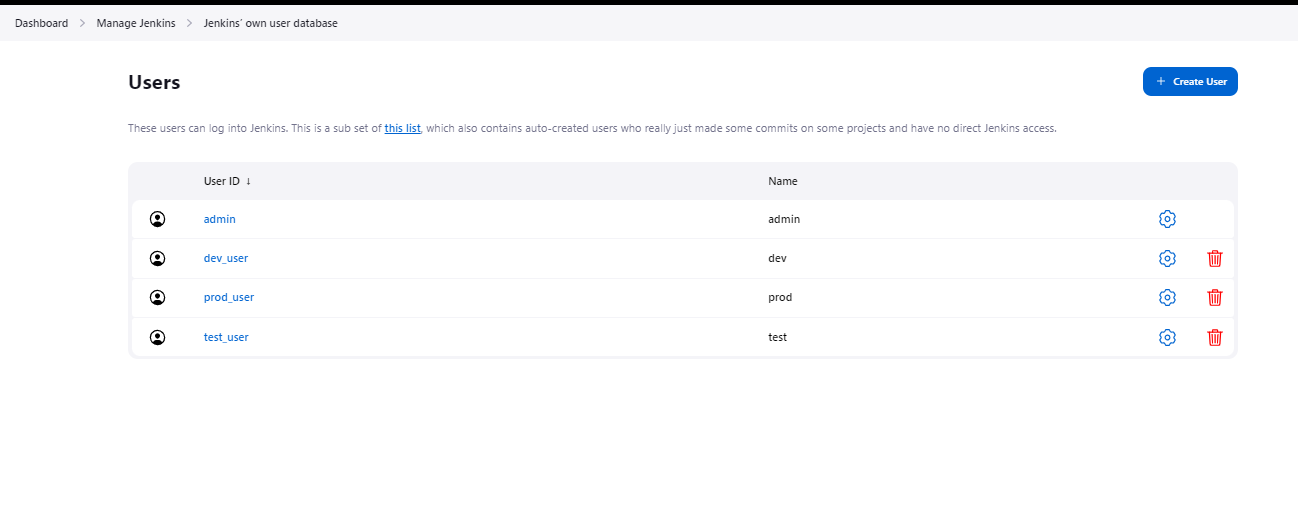
1. **Install role based authorization plugin.**
2. **Manager Jenkins🡪security🡪autherization🡪role based strategy**

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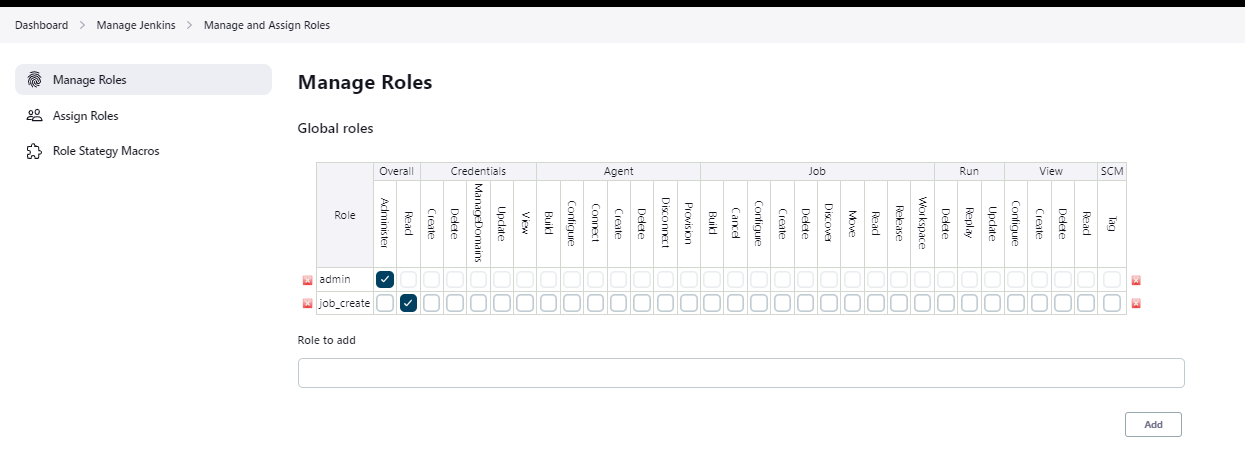
**After only you will find manage and assign roles option**

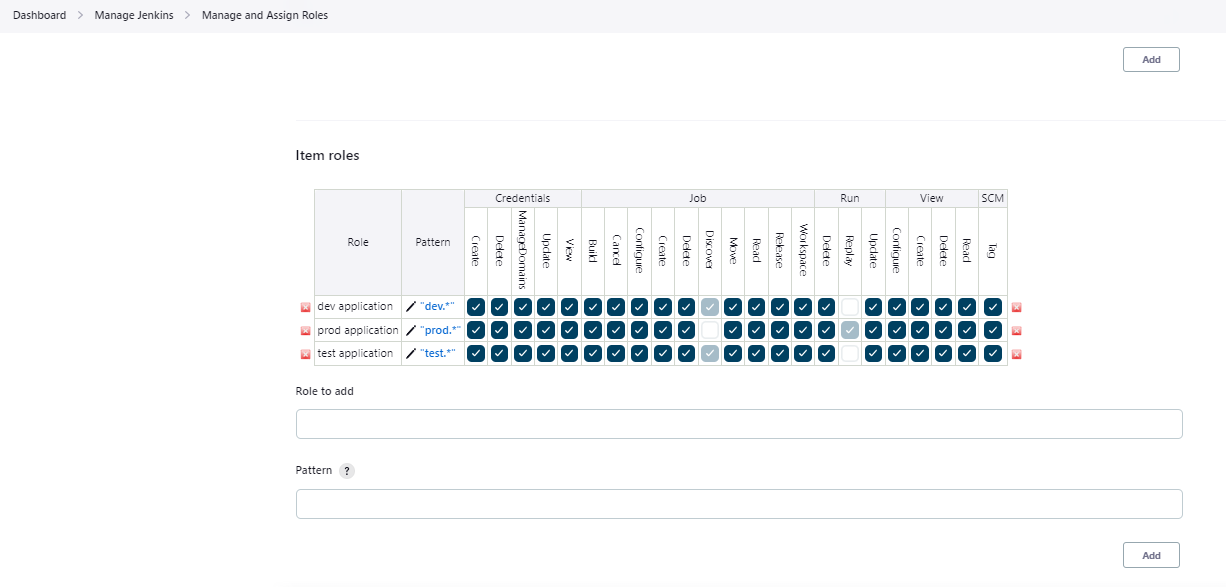
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**Create 3 users dev,test,prod**

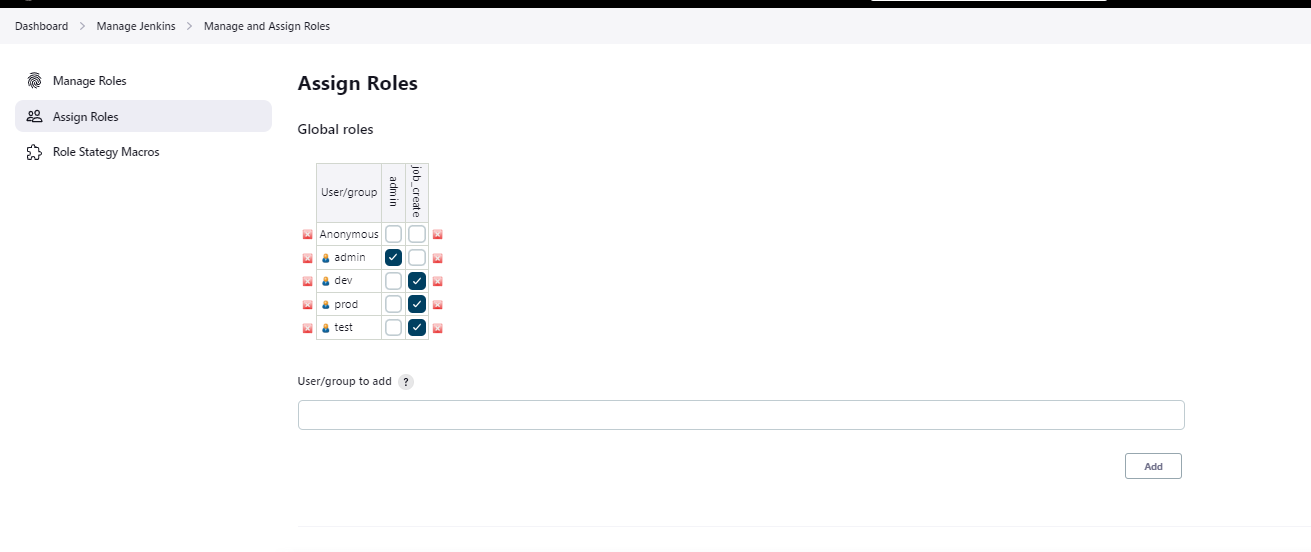
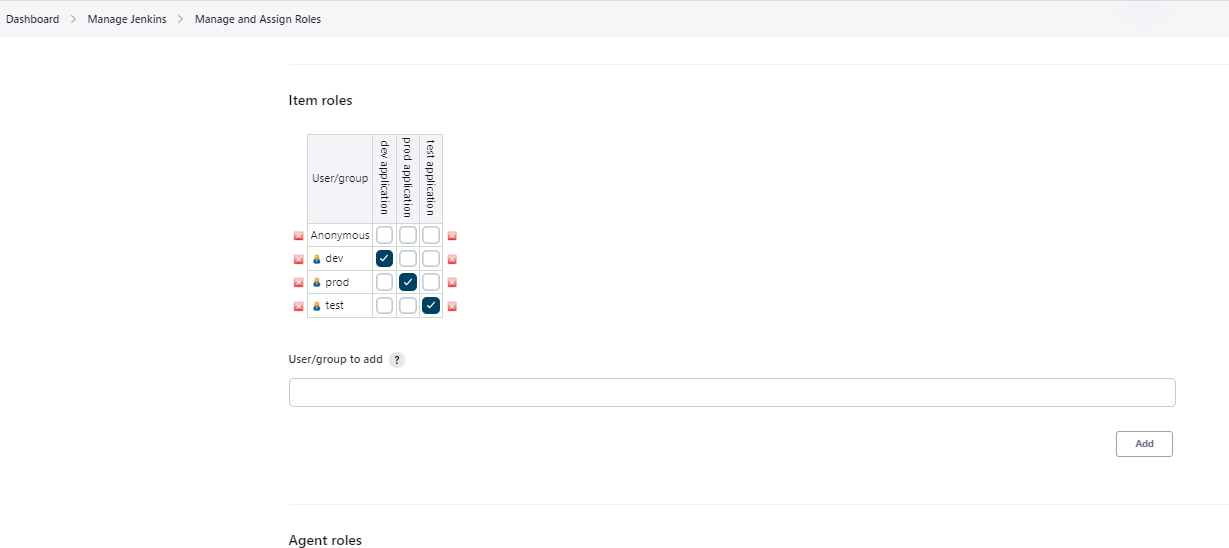
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**Manage roles and assign roles**

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**Assign roles**

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**Create Three jobs with admin user like dev-job,test-job,prod-job**

**Login with dev user you will see dev job only**

**Test user will see test job only**

**Prod user will see prod job only**