

# Jenkins-class-3

## Jenkins setup through script:

- Jenkins server can be launched through direct commands and through script also.
- To run through commands directly provide the commands in linux server.
- To run commands through script create one file ending with **.sh** format (**file1.sh**) and open in vim editor.
- copy and paste below all the commands in **.sh** file and save.

```
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
```

```
amazon-linux-extras install java-openjdk11 -y
```

```
yum install jenkins -y
```

```
systemctl start jenkins
```

```
systemctl status jenkins
```

```
[ec2-user@ip-172-31-29-146 ~]$ sudo -i
[root@ip-172-31-29-146 ~]# vim file1.sh
[root@ip-172-31-29-146 ~]# cat file1.sh
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
amazon-linux-extras install java-openjdk11 -y
yum install jenkins -y
systemctl start jenkins
systemctl status jenkins
```

- Give executable permissions to the file by using **chmod +x filename** (**chmod +x file1.sh**) to run the script in server.

```
[root@ip-172-31-29-146 ~]# chmod +x file1.sh
[root@ip-172-31-29-146 ~]# ll
total 4
-rwxr-xr-x 1 root root 288 Oct 17 05:04 file1.sh
```

- To execute all commands in a file where we added all required commands to setup jenkins server use command **./filename** (**./file1.sh**). All the commands will execute one by one.
- Jenkins installed and server is running state as below picture.

```
Installed:
  jenkins.noarch 0:2.414.2-1.1

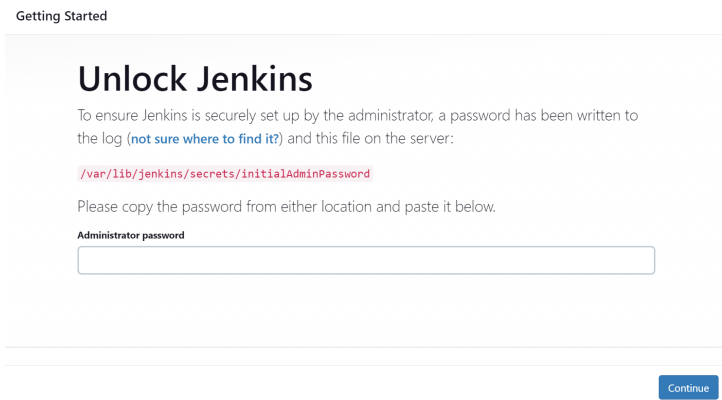
Complete!
● jenkins.service - Jenkins Continuous Integration Server
   Loaded: loaded (/usr/lib/systemd/system/jenkins.service; disabled; ve
   Active: active (running) since Tue 2023-10-17 05:16:27 UTC; 11ms ago
   Main PID: 4101 (java)
```

- copy the public IP address of the linux server and add in browser along with port number **8080**.



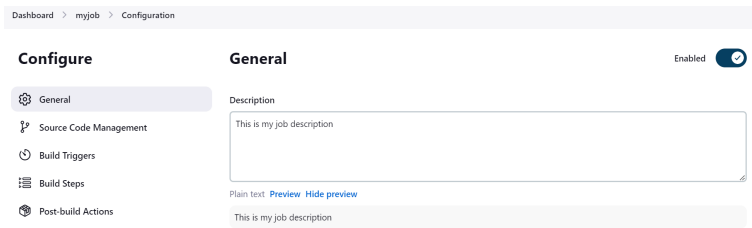
```
← → ↻ 🌐 3.80.42.154:8080
```

- Proceed to login after taking the password from mentioned path and continue.

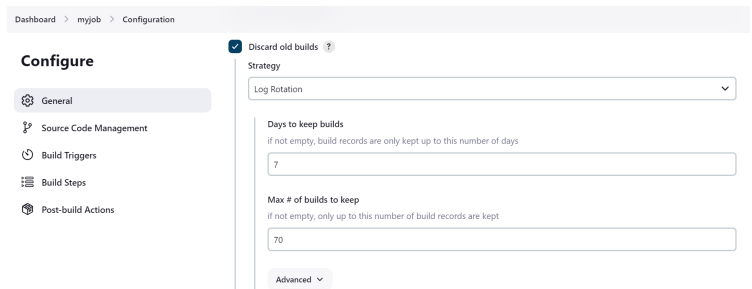


Analysis of available options in freestyle project:

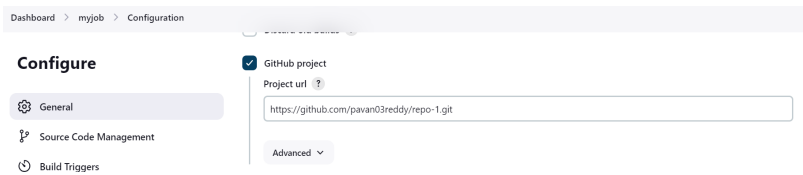
- **Description:** In description we can add text related to our job and it is optional. after entering text click on preview option to preview the description.



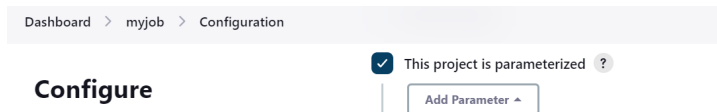
- **Discard old builds:** with this option we can configure how long to keep builds and latest maximum no of builds to store.
- All the remaining builds data will store in server and we can access in default path of jenkins /var/lib/jenkins.

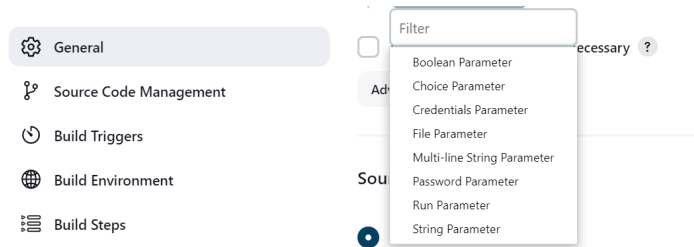


- **Github Project:** In this option we can add our github repository URL . This URL should be taken from github repository.

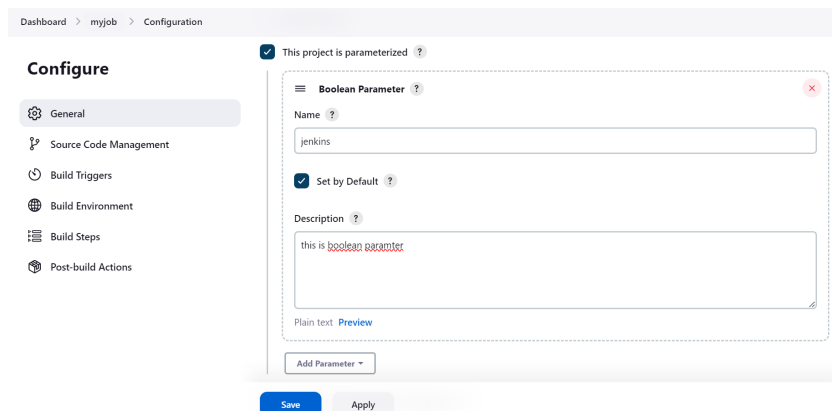


- **This project is parameterized:** under this option we have multiple parameter options as below.

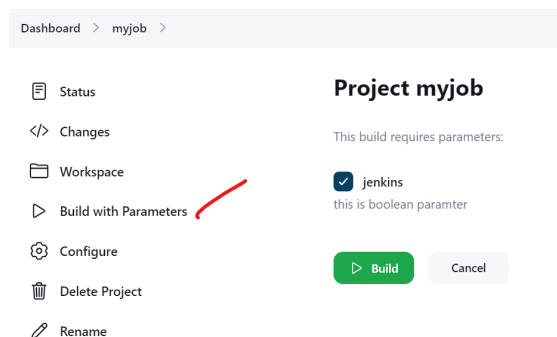




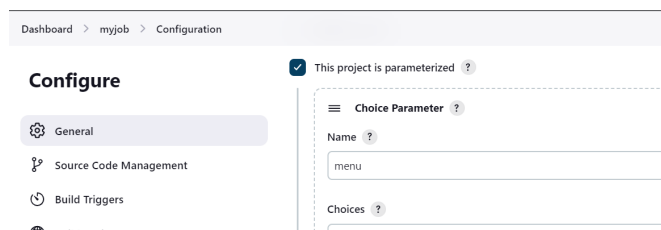
- **Boolean Parameter:** This parameter is used when we have two options like **yes or no** , **active or inactive**. Select the Boolean parameter from the dropdown and add name , select checkbox (Selected means true) and add description and then save.



- **NOTE:** If we have any build parameters for a job we will get option as build with parameters , otherwsie build now option will be there. this job can be build by selecting build option which is green colour.



- **Choice Parameter :** if we have multiple options for a job we will choose choice parameters. mention required choice parameters and save the configuration.
- In real time we want to build multiple branches like master, feature, devops. we can add all branches in choice parameters and easily can be build.



one  
two  
three  
four  
five

Description ?

Plain text [Preview](#)

[Save](#) [Apply](#)

- when click on build with parameters option all the choice parameters will come in dropdown and select required option and click on build now.

Jenkins

Dashboard > myjob >

Project myjob

This build requires parameters:

menu

one  
two  
three  
four  
five

- **Credential Parameters:** in this option we can add multiple credentials related different servers like jenkins, github, tomcat and nexus. and when click on build with parameters all the saved credentials will display and select required credentials and build the job.

Dashboard > myjob > Configuration

Configure

General

Source Code Management

Build Triggers

Build Environment

Build Steps

Post-build Actions

Credentials Parameter ?

Name ?

github-credentials

Credential type

Username with password

☐ Required ?

Default Value ?

none

Description ?

Plain text [Preview](#)

[Add Parameter](#)

[Save](#) [Apply](#)

- **File parameter:** this parameter is used to add files from our local machine to build a job. add the path of the file and save the configuration . when we select build with parameter option will be there and choose file and click on build now option.

Dashboard > myjob > Configuration

Configure

General

Source Code Management

Build Triggers

Build Environment

Build Steps

Post-build Actions

☒ This project is parameterized ?

File Parameter ?

File location ?

\\Users\\Pavan Reddy\\Downloads\*

Description ?

Plain text [Preview](#)

[Add Parameter](#)

☐ Execute concurrent builds if necessary ?

[Save](#) [Apply](#)

- **Execute Shell:** If we need to perform any linux commands in jenkins will use execute shell. this option will be available in build steps dropdown list. select option and add

the commands which are required and save and build.

Dashboard > myjob > Configuration

Configure

General

Source Code Management

Build Triggers

Build Environment

Build Steps

Post-build Actions

Build Steps

Execute shell ?

Command

See the list of available environment variables

Advanced ▾

Add build step ▾

Save

Apply

- **String Parameters:** String parameters is used to add values and to execute commands in execute shell.

Dashboard > myjob > Configuration

Configure

General

Source Code Management

Build Triggers

Build Environment

Build Steps

Post-build Actions

This project is parameterized ?

String Parameter ?

Name ?

file

Default Value ?

file

Description ?

to create files

Plain text Preview

☐ Trim the string ?

Save

Apply

Dashboard > myjob >

Status

Changes

Workspace

Build with Parameters

Configure

Delete Project

Rename

Project myjob

This build requires parameters:

file

to create files

Build

Cancel

Build History

trend ▾

- **Multiline-string parameter:** in this option we can select multiple options to perform commands.
- **Build triggers:** this option is used in build pipeline concept and when we have multiple jobs and those jobs should be execute one after another. we can enable this option to perform multiple jobs. mention the job sequence in projects to watch.

Dashboard > myjob > Configuration

Configure

General

Source Code Management

Build Triggers

Build Triggers

☐ Trigger builds remotely (e.g., from scripts) ?

☒ Build after other projects are built ?

Projects to watch

- if we want to see all the jobs in pipeline , we have to install plugin Build pipeline from plugin option.