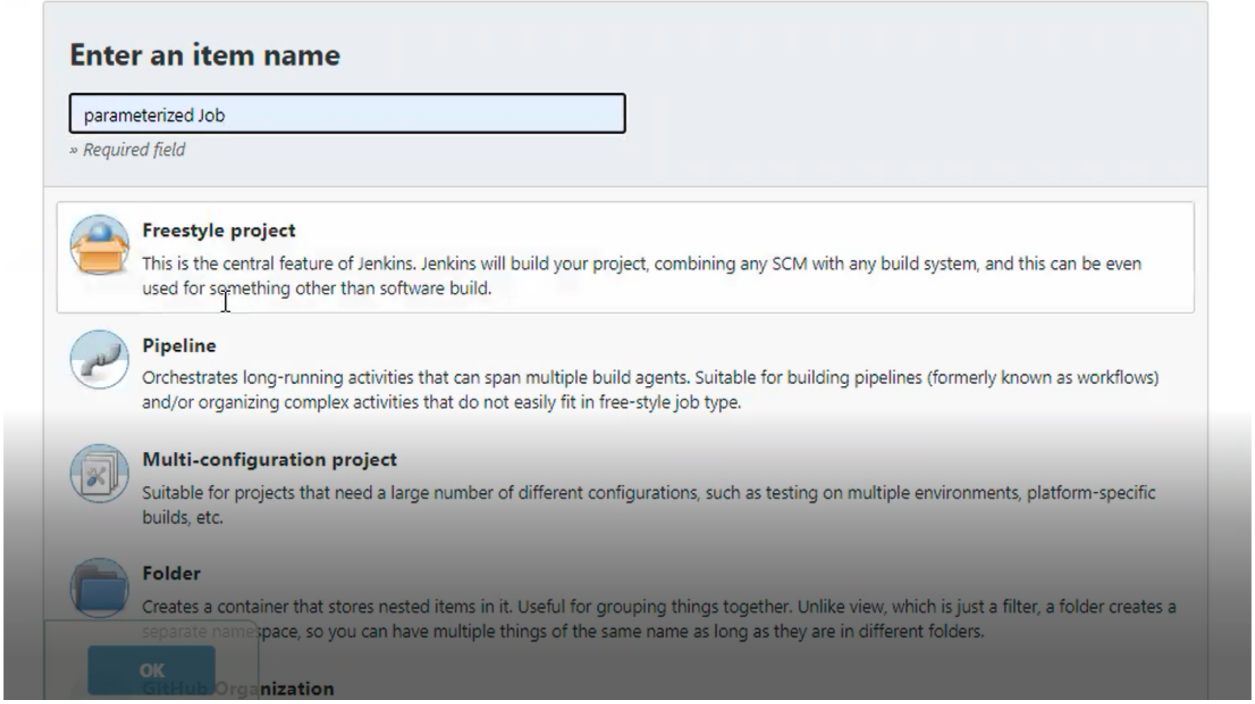
Parameterized Jobs in Jenkins

This document covers the instructions regarding how to create a parameterized job in Jenkins. We will take a sample code of a calculator script to create parameterized jobs. So, login to your Ubuntu instance and start Jenkins. After that, follow all the steps mentioned next.

1. Go to your **Jenkins Dashboard** and create a new **freestyle project** as shown in the figure below. Give a name to your project and click **OK**.



Enter an item name

parameterized Job

» Required field

Freestyle project
This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.

Pipeline
Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.

Multi-configuration project
Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

Folder
Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.

2. Then, in the General section, select the '**This project is parameterized**' option.

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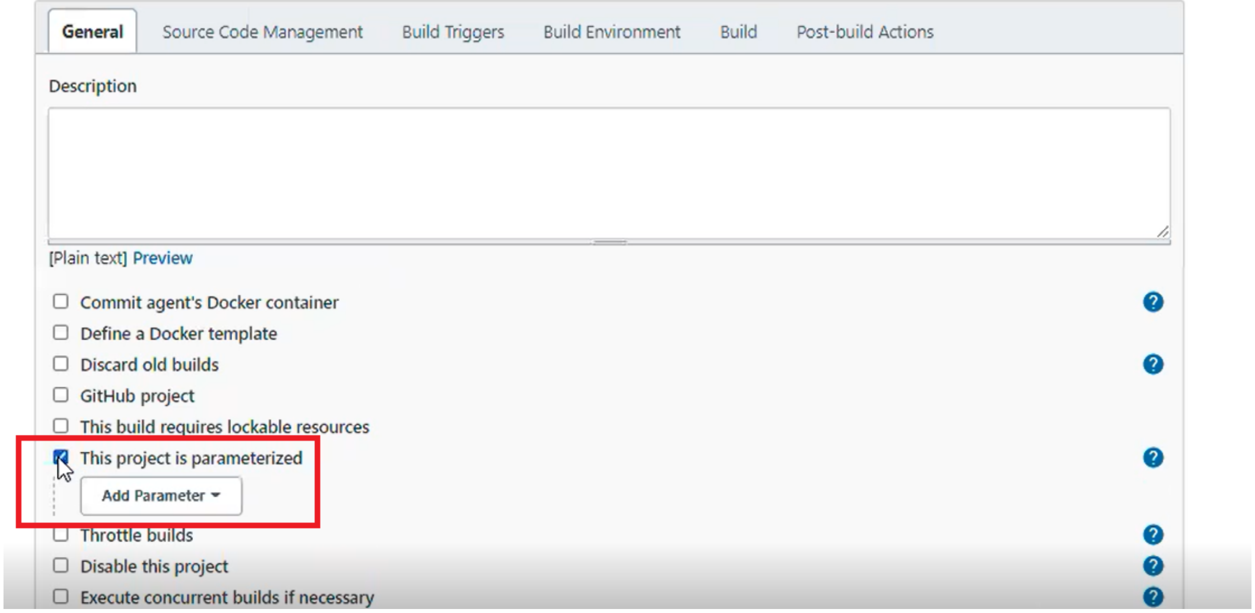


General | Source Code Management | Build Triggers | Build Environment | Build | Post-build Actions

Description

[Plain text] Preview

☐ Commit agent's Docker container

☐ Define a Docker template

☐ Discard old builds

☐ GitHub project

☐ This build requires lockable resources

☑ This project is parameterized

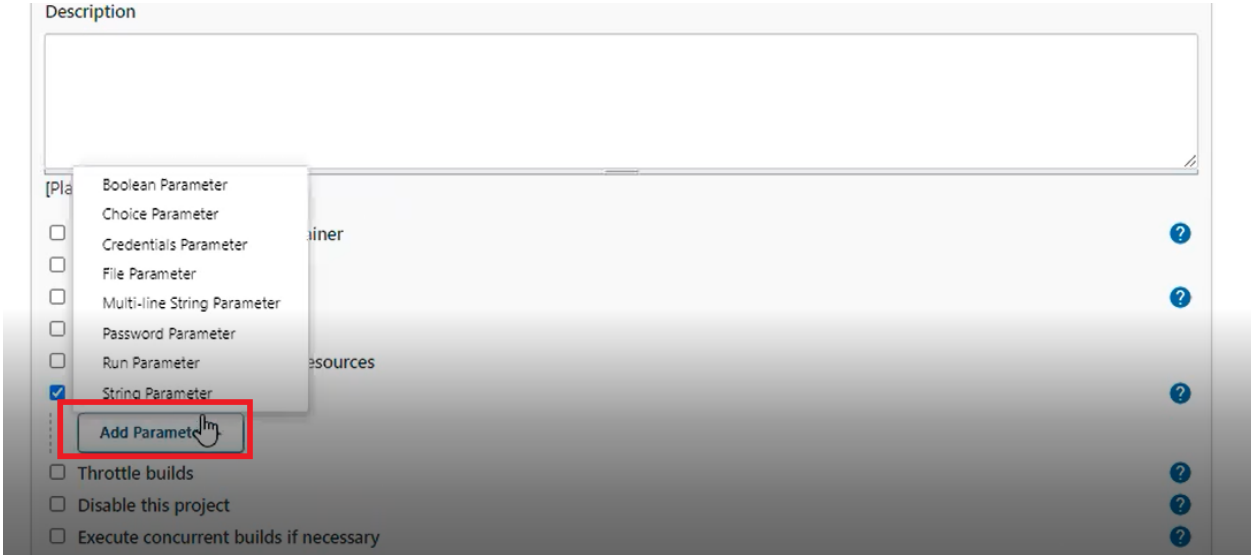
Add Parameter ▾

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

3. After that, click on the **Add Parameter** option as shown in the image below.



Description

[Pla

- Boolean Parameter
- Choice Parameter
- Credentials Parameter
- File Parameter
- Multi-line String Parameter
- Password Parameter
- Run Parameter
- String Parameter

☐ iiner

☐ esources

☑ Add Paramete

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

4. Choose the type of parameter that you want to add. Here, the **String Parameter** has been selected.

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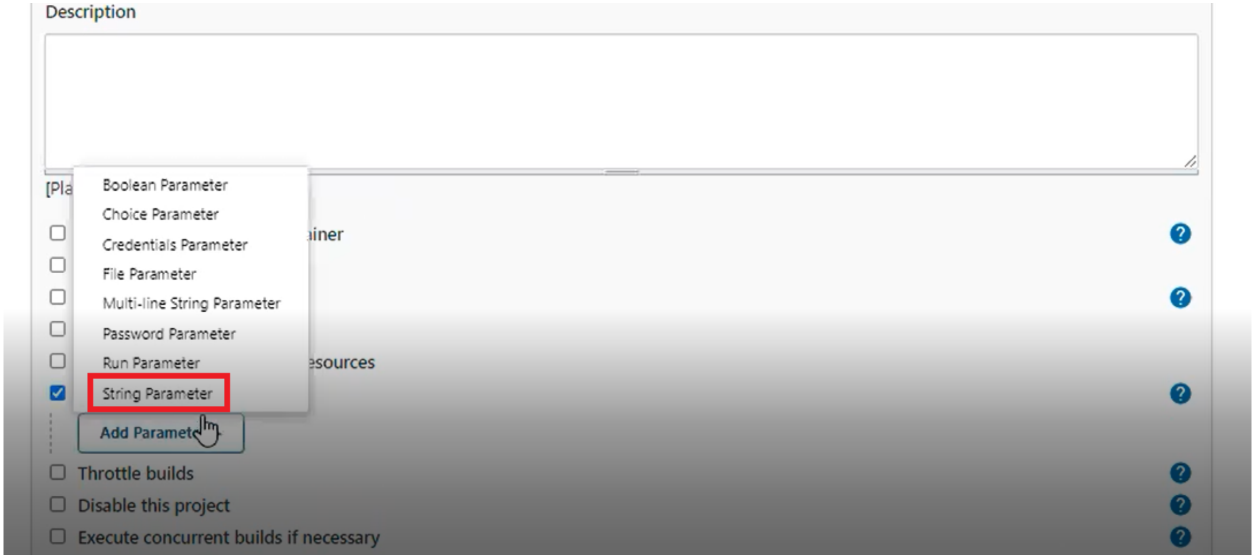
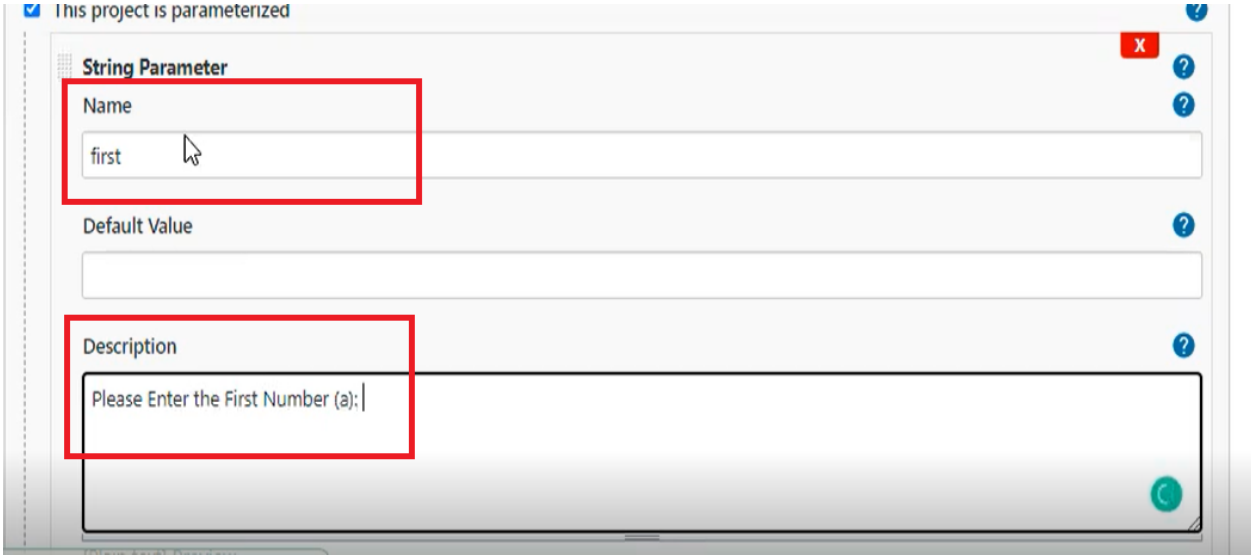


□ ...iner
□
□
□
□ ...esources
☑
□ Throttle builds
□ Disable this project
□ Execute concurrent builds if necessary

5. Next, provide the details for the Parameter.
6. Here, the **Name** and **Description** are given for the parameter. You can also provide a **Default value**, but the default value is not used.



☑ This project is parameterized

String Parameter

Name: first

Default Value:

Description: Please Enter the First Number (a):

7. Similarly, we are adding another **String Parameter** as shown below.

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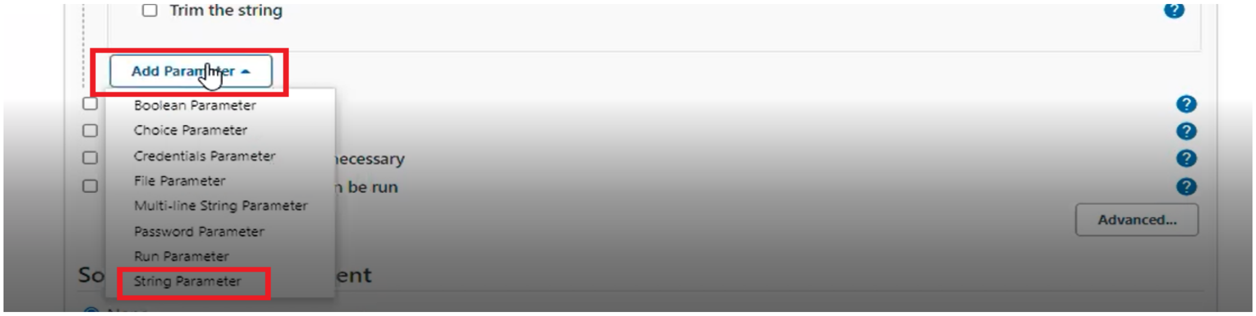
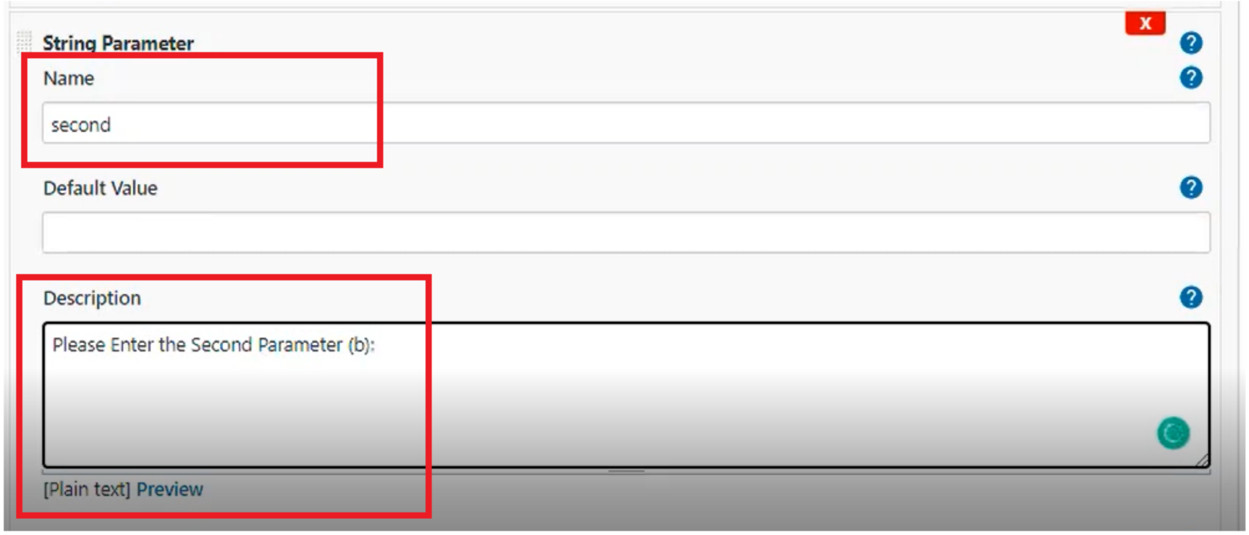


8. Then, provide the details for this parameter also as shown below.



String Parameter

Name

second

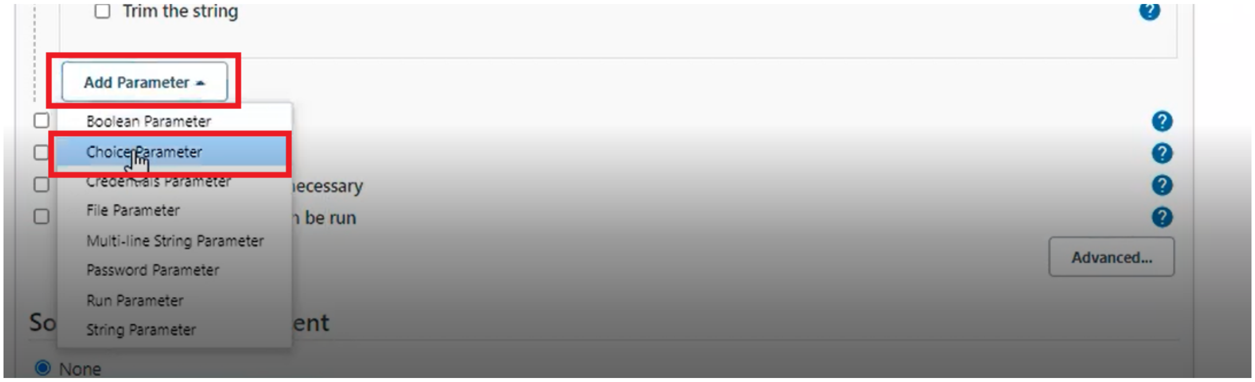
Default Value

Description

Please Enter the Second Parameter (b):

[Plain text] Preview

9. Similarly, we add one more parameter, i.e., **Choice Parameter**, this time.



10. Now, the details for this parameter are also required. So, provide the **Name**, **Choices** and **Description** as shown here.

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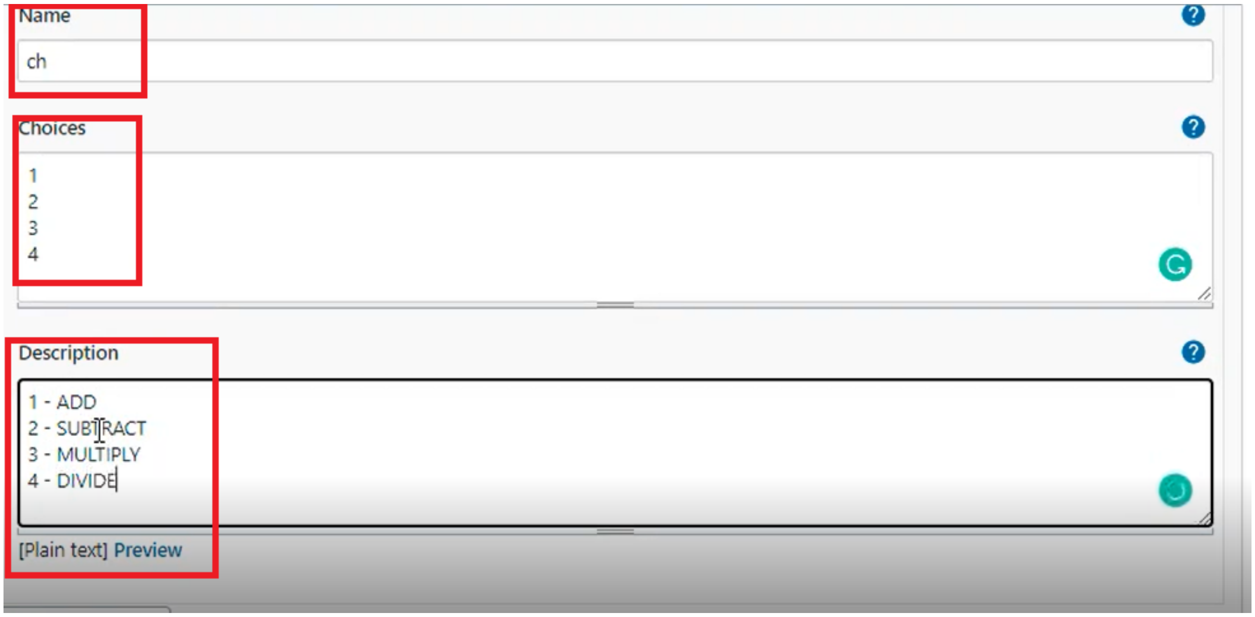


Name

ch

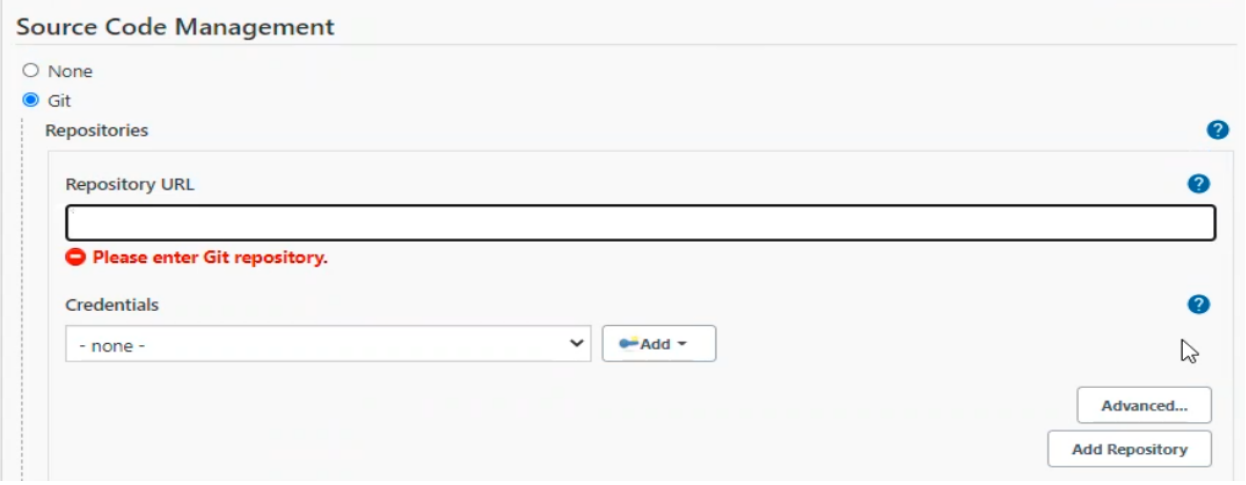
Choices

1
2
3
4

Description

1 - ADD
2 - SUBTRACT
3 - MULTIPLY
4 - DIVIDE

11. Now, scroll down and, in the **Source Code Management**, select **Git** as shown here.



Source Code Management

○ None
● Git

Repositories

Repository URL

Please enter Git repository.

Credentials

- none -

12. Go to your GitHub account and copy the repository URL, where your program resides currently.

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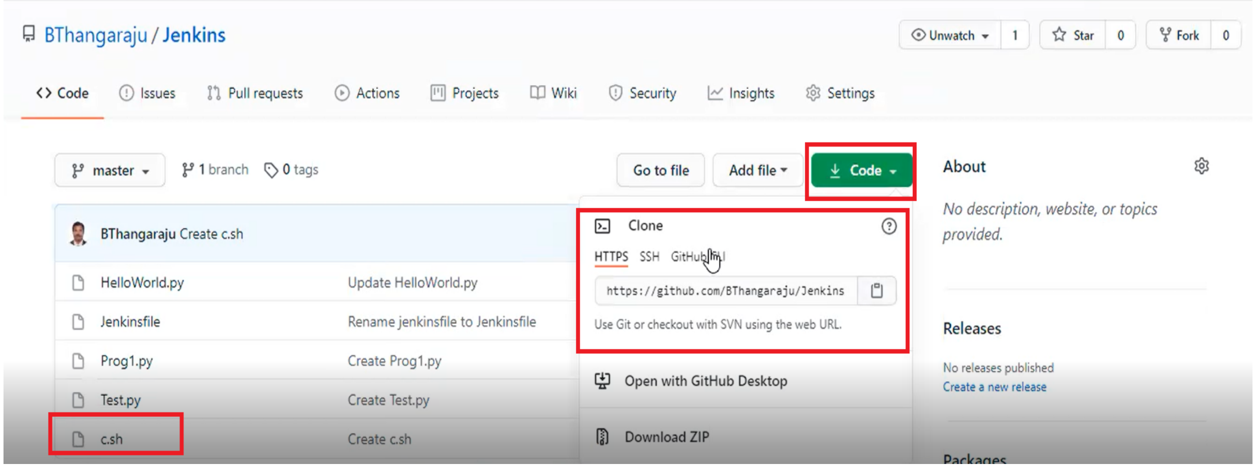


BThangaraju / Jenkins

Unwatch 1 | Star 0 | Fork 0

Code | Issues | Pull requests | Actions | Projects | Wiki | Security | Insights | Settings

master | 1 branch | 0 tags | Go to file | Add file | Code

BThangaraju Create c.sh	
HelloWorld.py	Update HelloWorld.py
Jenkinsfile	Rename jenkinsfile to Jenkinsfile
Prog1.py	Create Prog1.py
Test.py	Create Test.py
c.sh	Create c.sh

Clone

HTTPS SSH GitHub CLI

https://github.com/BThangaraju/Jenkins

Use Git or checkout with SVN using the web URL.

Open with GitHub Desktop

Download ZIP

About

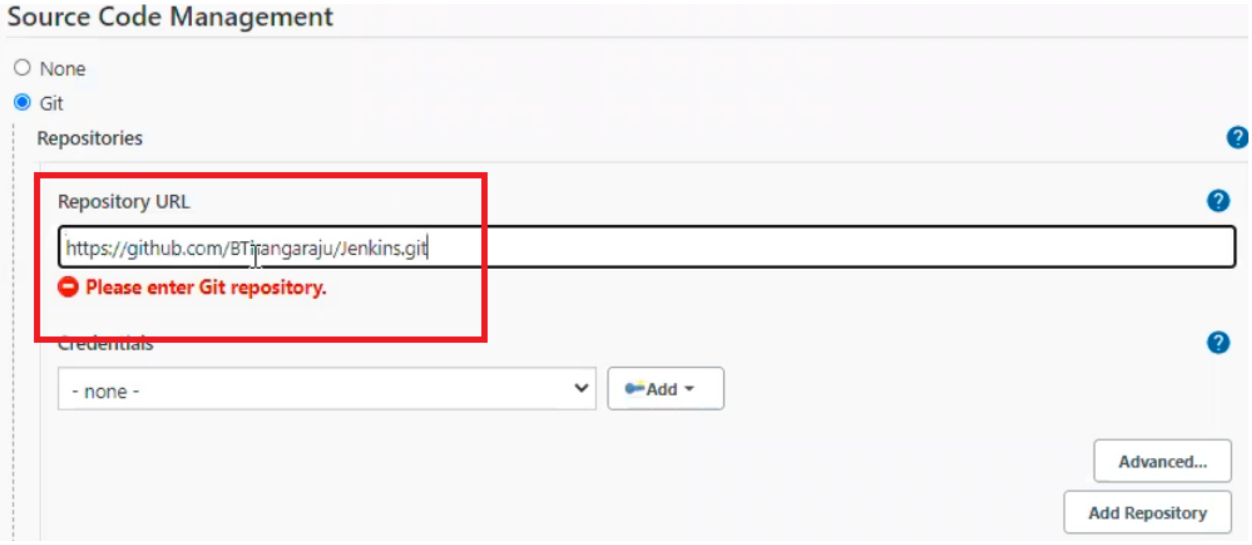
No description, website, or topics provided.

Releases

No releases published
Create a new release

Packages

13. Now, paste the copied URL in the **Repository URL** as shown in the figure below.



Source Code Management

○ None
● Git

Repositories

Repository URL

https://github.com/BThangaraju/Jenkins.git

Please enter Git repository.

Credentials

- none -

Add

Advanced...

Add Repository

14. Then, scroll down to the **Build**; select **Execute shell** and write the commands.

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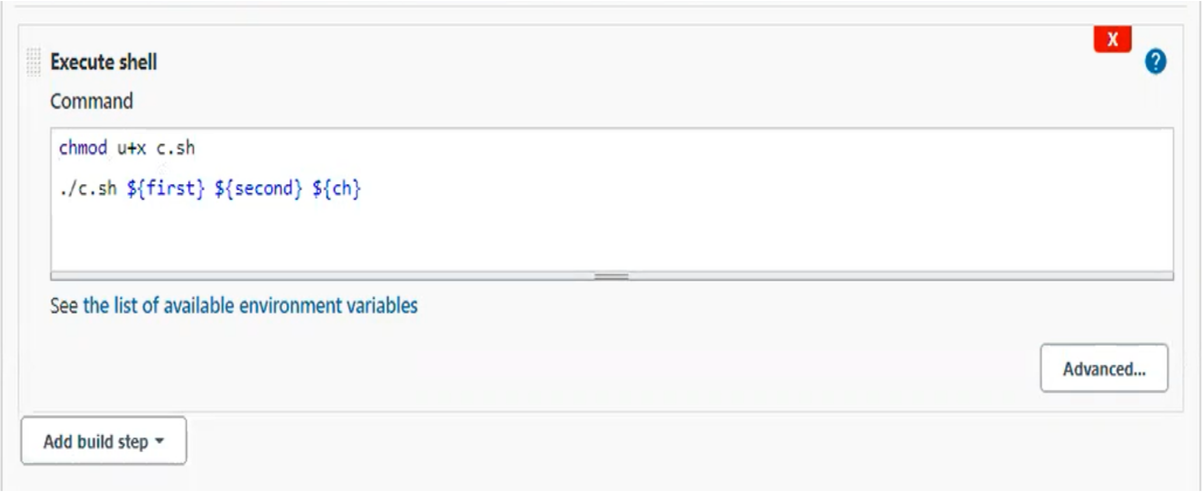
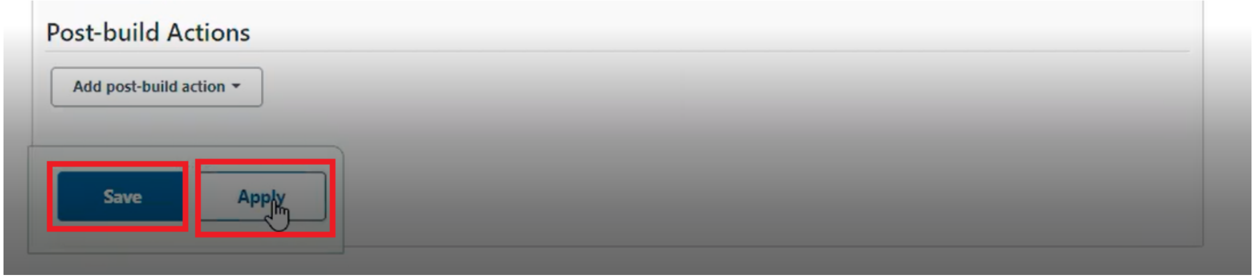
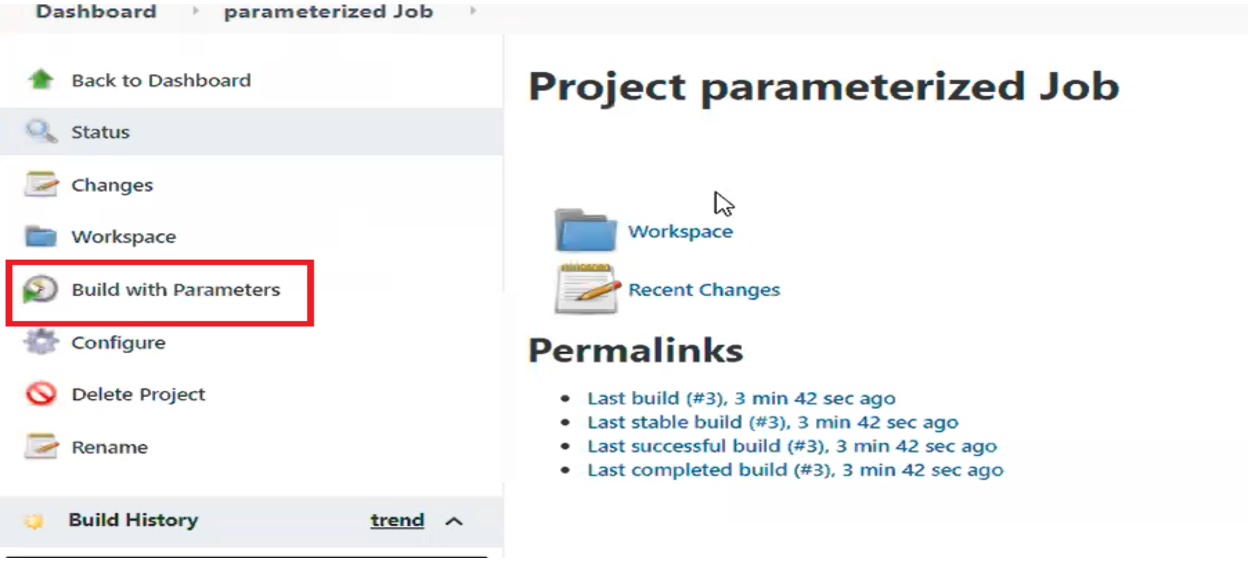


```
chmod u+x c.sh
./c.sh ${first} ${second} ${ch}
```

15. Next, scroll down and click on **Apply** and then **Save**.



16. Now, click on the **Build with Parameters** option as shown in the figure below.



- Last build (#3), 3 min 42 sec ago
- Last stable build (#3), 3 min 42 sec ago
- Last successful build (#3), 3 min 42 sec ago
- Last completed build (#3), 3 min 42 sec ago

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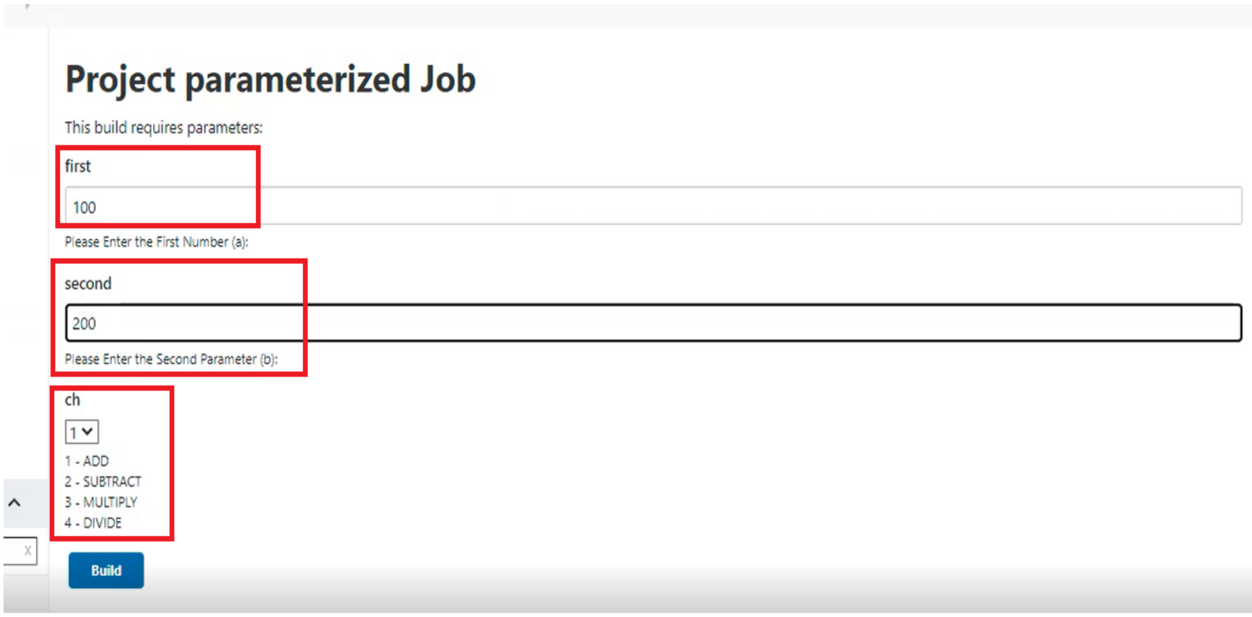
17. Then, you will be prompted to enter the values of the parameters as shown in the figure below. So, provide the values for each of the parameters and then click Build as shown here.



Project parameterized Job

This build requires parameters:

first

100

Please Enter the First Number (a):

second

200

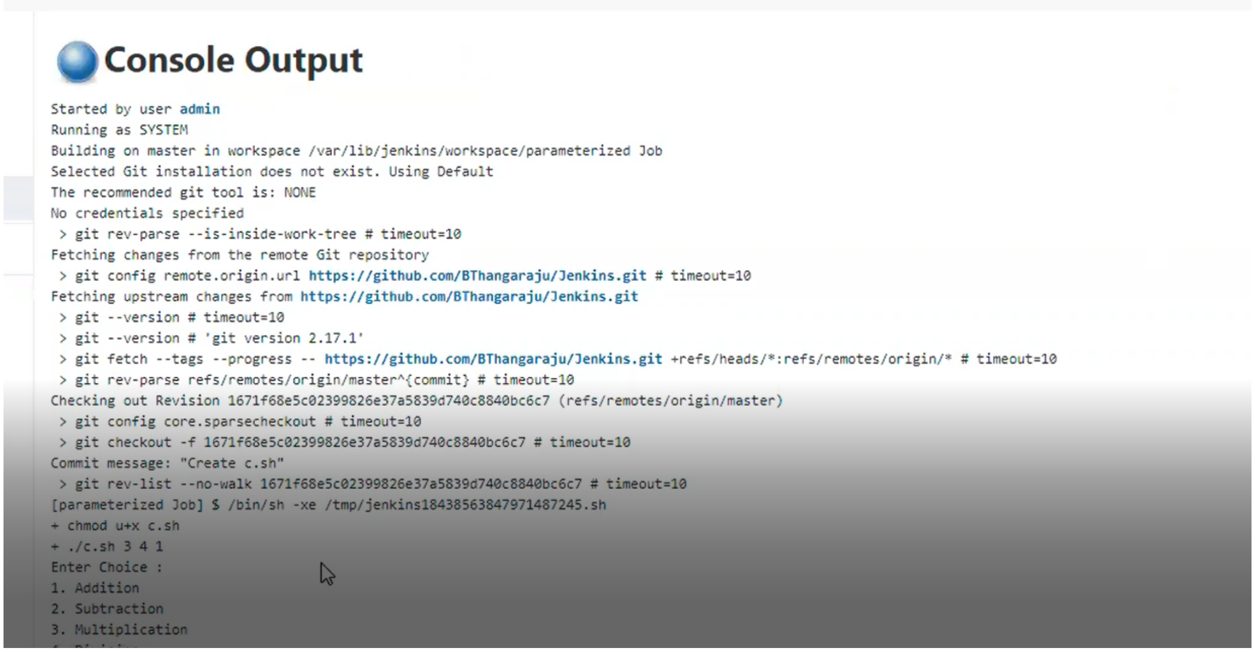
Please Enter the Second Parameter (b):

ch

1

1 - ADD
2 - SUBTRACT
3 - MULTIPLY
4 - DIVIDE

18. Once your project is successfully built, you must check the **Console Output** by clicking on the build number.



Console Output

```
Started by user admin
Running as SYSTEM
Building on master in workspace /var/lib/jenkins/workspace/parameterized Job
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
 > git rev-parse --is-inside-work-tree # timeout=10
Fetching changes from the remote Git repository
 > git config remote.origin.url https://github.com/BThangaraju/Jenkins.git # timeout=10
Fetching upstream changes from https://github.com/BThangaraju/Jenkins.git
 > git --version # timeout=10
 > git --version # 'git version 2.17.1'
 > git fetch --tags --progress -- https://github.com/BThangaraju/Jenkins.git +refs/heads/*:refs/remotes/origin/* # timeout=10
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision 1671f68e5c02399826e37a5839d740c8840bc6c7 (refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 1671f68e5c02399826e37a5839d740c8840bc6c7 # timeout=10
Commit message: "Create c.sh"
 > git rev-list --no-walk 1671f68e5c02399826e37a5839d740c8840bc6c7 # timeout=10
[parameterized Job] $ /bin/sh -xe /tmp/jenkins18438563847971487245.sh
+ chmod u+x c.sh
+ ./c.sh 3 4 1
Enter Choice :
1. Addition
2. Subtraction
3. Multiplication
```

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