HANDS ON WITH JENKINS COMPONENTS

Devops Tools
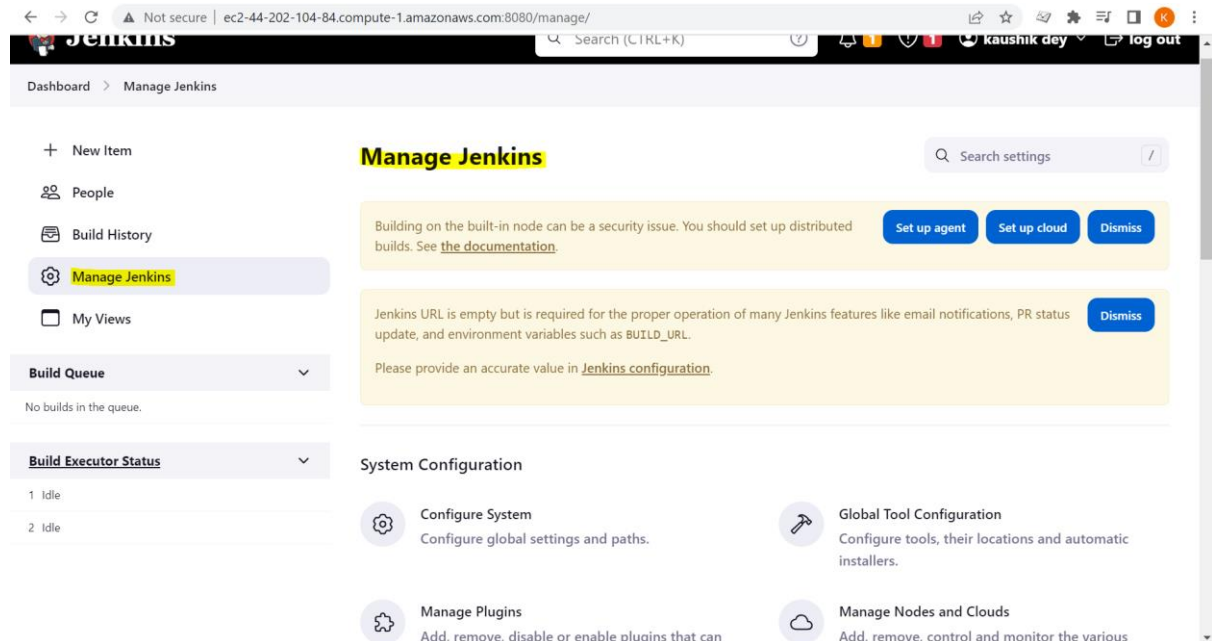
Kaushik Dey

More Hands on with Jenkins Fundamental Jobs

First, we just copy the Jenkins URL :

http://ec2-54-166-207-152.compute-1.amazonaws.com:8080/view/all/newJob

Step 1 : click on Manage Jenkins . its very important place where we can do our administration work over Jenkins , the screenshot is given below.
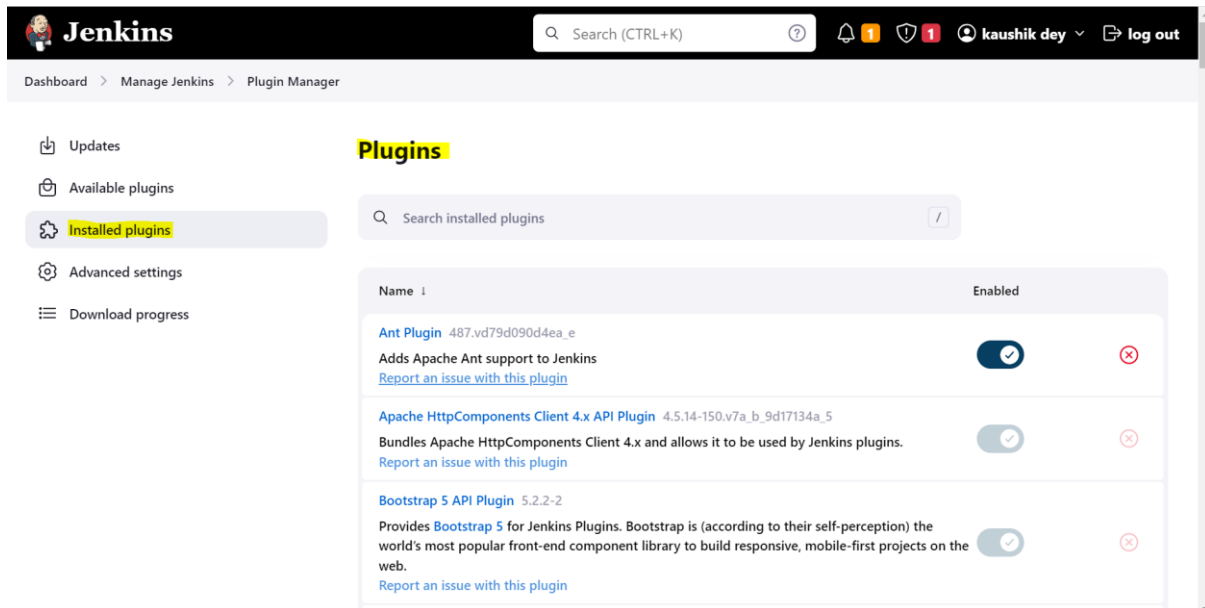

Step 2: very import under manage Jenkins is **System Configuration**

Step 3 : we have installed , available plugins , the screenshot is given below.

Step 4 : now we have to see the **user management** under managed plugins, the screenshot is given below. (this user creation is not recommended , but it is one of the way that we can create our users here)
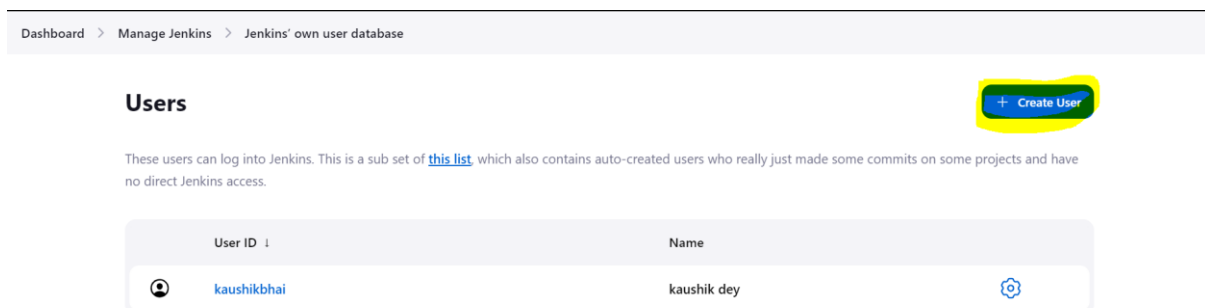

Now we can create user , the following screenshot is given below.

Users

These users can log into Jenkins. This is a sub set of this list, which also contains auto-created users who really just made some commits on some projects and have no direct Jenkins access.

User ID ↓	Name		
kaushikbhai	kaushik dey	⚙	
kd1	kaushikbhai3	⚙	🗑

Step 5 : next another important concept is that configuare system. The screen shot is given below.

Dashboard   >   Manage Jenkins   >   Configure System   >

Configure System

Home directory ?

By default, Jenkins stores all of its data in this directory on the file system

/var/lib/jenkins

System Message

This message will be displayed at the top of the Jenkins main page. This can be useful for posting notifications to your users

[Plain text] Preview

# of executors

Save   Apply

Note : Important concept is that number of executors : here we set 5 executors , the screenshot is given below.

Dashboard   >   Manage Jenkins   >   Configure System   >

System Message

This message will be displayed at the top of the Jenkins main page. This can be useful for posting notifications to your users

[Plain text] Preview

# of executors

5

So, when we create the job that time also we can see the 5 build executor status. The screenshot is given below.

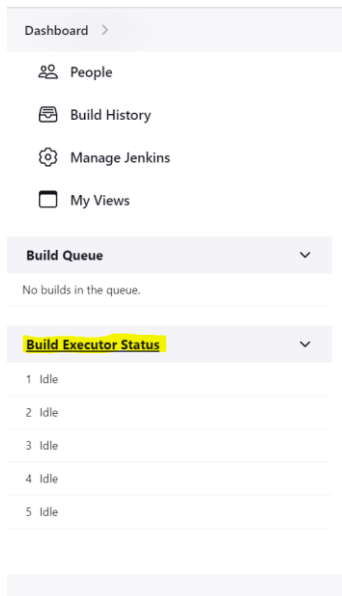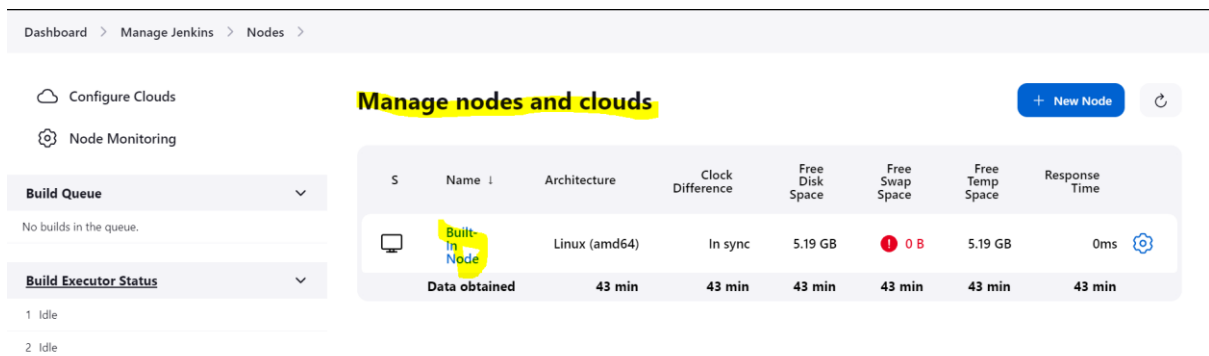Step 7 : we have manage nodes and clouds option, the screenshot is given below.
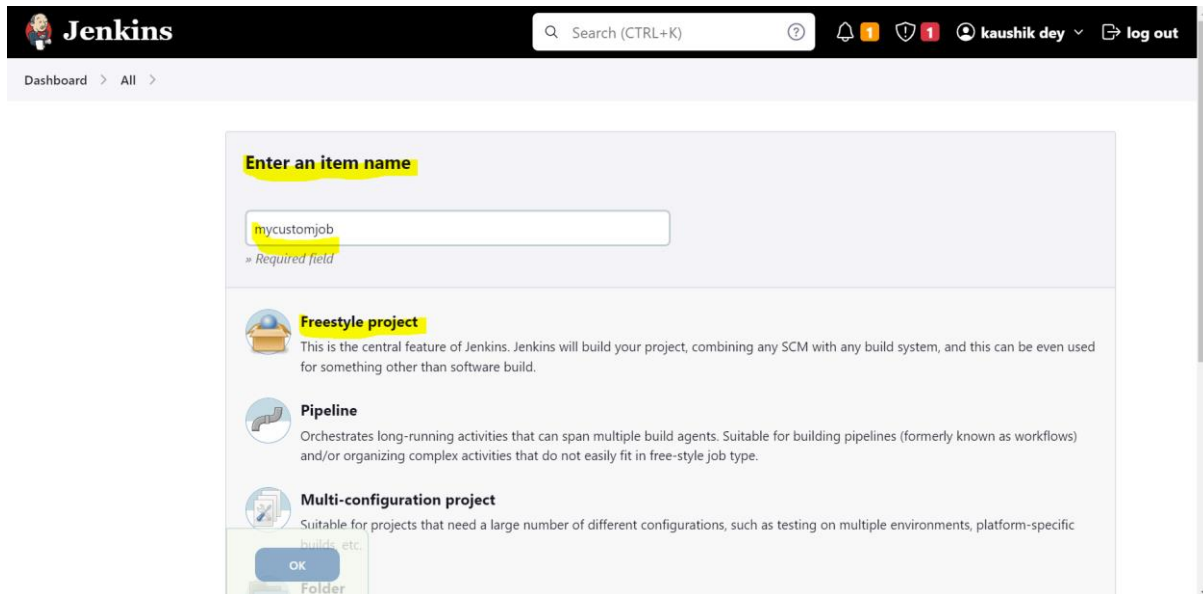
More Hands on with Jenkins Fundamental Jobs

Step 8: now we have created our own free style project by clicking the new Item. The screenshot is given below. (create jenkins jobs)
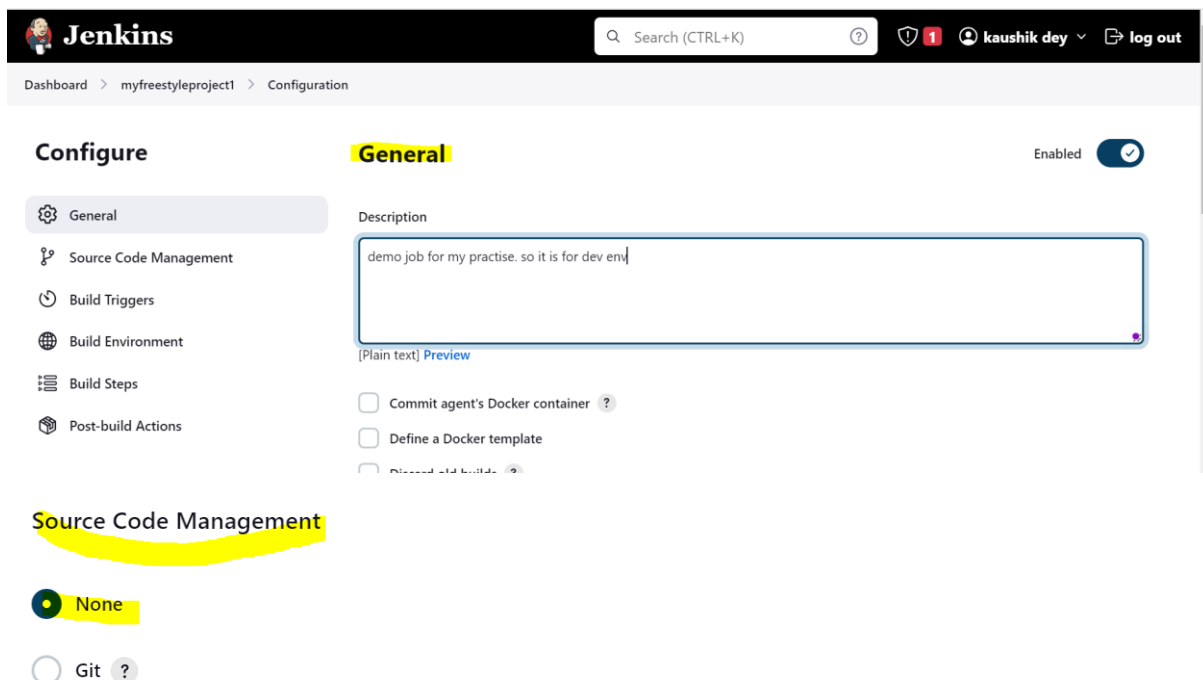
Freestyle project means we have to manually configure the components.

Pipeline projects .

In real time we can know that pipeline project is recommended.

Now we must configure the build steps. (Important steps)

Build Steps
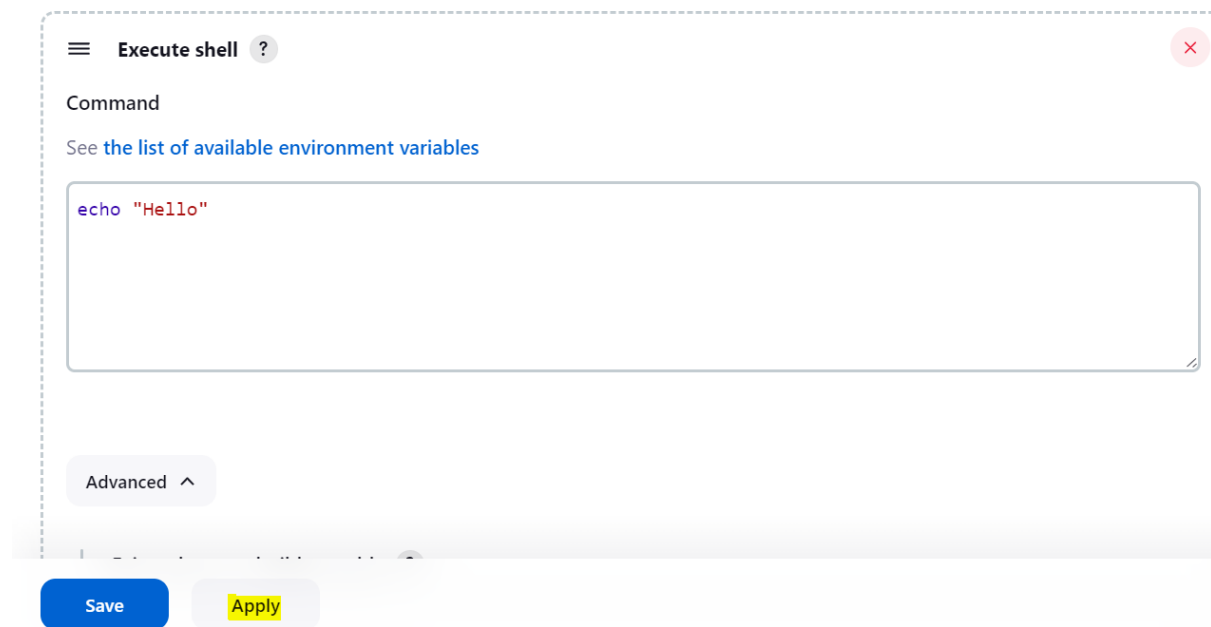
The execute Shell command with code is given below.

- Open execute shell command and write simple echo command and click on Apply button.
- Now go to the job board and see the effects.
- Now we can see the console output and the jenkins workspace details.

Build Steps

More Hands on with Jenkins Fundamental Jobs

Now we can run this jobs, the screenshot is given below. Click in the Build Now option.
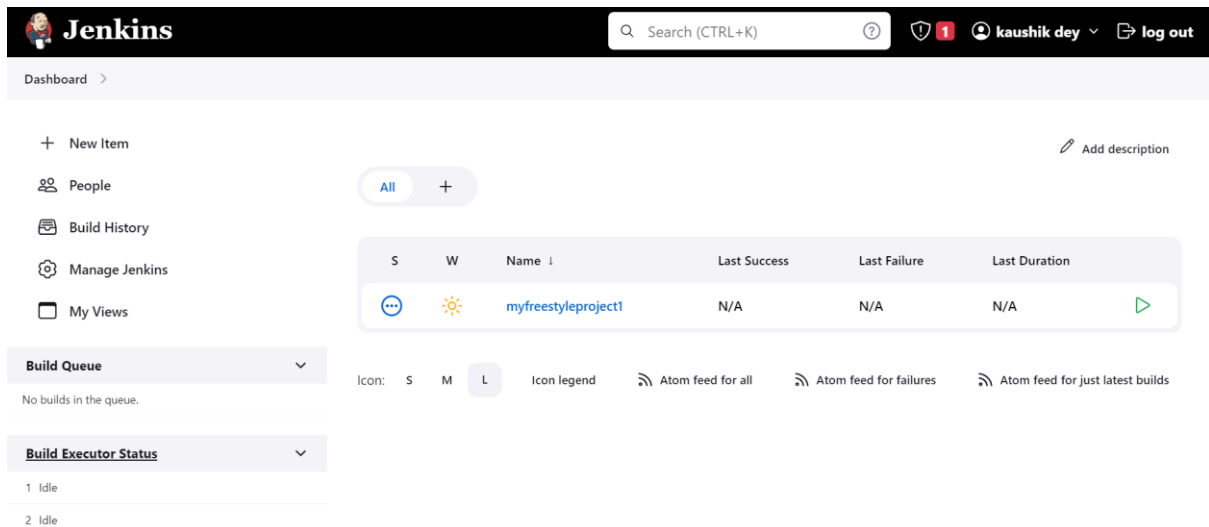
More Hands on with Jenkins Fundamental Jobs

Now we can see from the workspace details where jenkins are installed.

Written the normal script. (build script for shell)

echo "Hello"

echo "hello team" >> file1.txt

echo "jenkins-${JOB_NAME}-${BUILD_NUMBER}"

echo "user defined var- ${envi}"

Step 9 : Now we have concentrated on variables, **(Environment variable and user defined variable)**

The link is : http://ec2-54-166-207-152.compute-1.amazonaws.com:8080/env-vars.html/
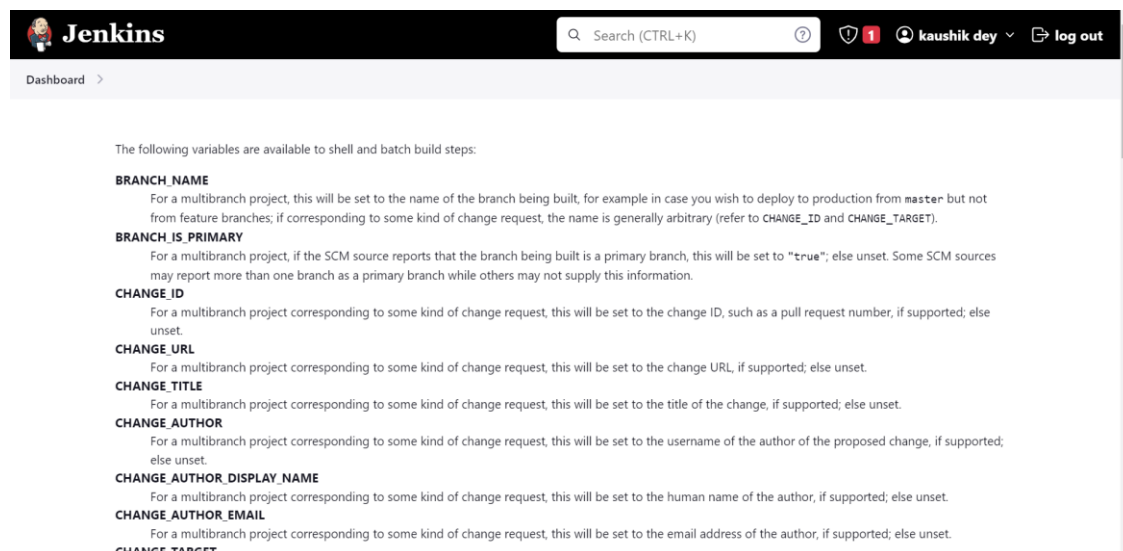
Step 10 : now we can again modify our existing job again. The screenshot is given below.

Step 11 : Now we can go with user defined variable.

Please check on This project is parameterized.

Description

demo job for my practise. so it is for dev env

[Plain text] Preview

☐ Commit agent's Docker container ?

☐ Define a Docker template

☐ Discard old builds ?

☐ GitHub project

☐ This project is parameterized ?

☐ Throttle builds ?

☐ Execute concurrent builds if necessary ?

Advanced ∨

[Plain| Filter

| Boolean Parameter
☐ | | iner ?
| Choice Parameter
| Credentials Parameter
☐ | | File Parameter
| Multi-line String Parameter
☐ | | Password Parameter
| Run Parameter
☑ | String Parameter | ?

Add Parameter ▲

☐ Throttle builds ?

☐ Execute concurrent builds if necessary ?

Advanced ∨
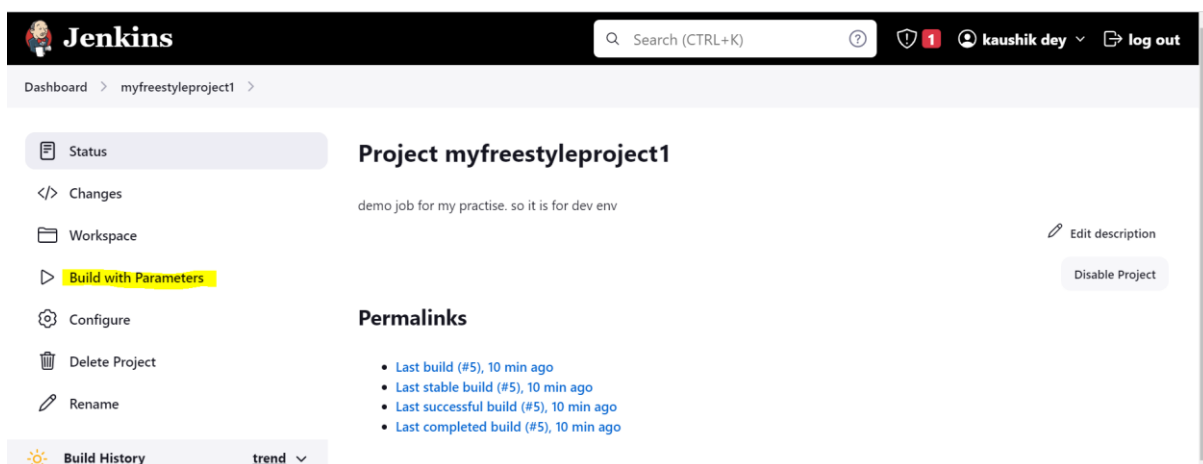
In this case we are taking three parameter (Name, Default Value and Description).

☰   **String Parameter** ?   ✕

<mark>Name</mark> ?

envi

<mark>Default Value</mark> ?

QA

<mark>Description</mark> ?

enter the valid env name

[Plain text] Preview

Please note : After saving this job (with parameterized build) we can see that build option now change to build with paramenter, the screenshot is given below.

Project myfreestyleproject1

This build requires parameters:

envi

<mark>enter the valid env name</mark>

QA

Build

More Hands on with Jenkins Fundamental Jobs

In my case I have changed the value , QA to UAT (in the runtime) , the screenshot is given below.

For this demo the following commands line are provided, the list is given below.

```
1  sudo apt-get update -y
  2   sudo apt install openjdk-11-jre -y
  3   curl -fsSL https://pkg.jenkins.io/debian-stable/jenkins.io-
2023.key | sudo tee   /usr/share/keyrings/jenkins-keyring.asc >
/dev/null
  4   echo deb [signed-by=/usr/share/keyrings/jenkins-keyring.asc]
https://pkg.jenkins.io/debian-stable binary/ | sudo tee
/etc/apt/sources.list.d/jenkins.list > /dev/null
  5   apt-get update
  6   java --version
  7   apt-get install jenkins
  8   jenkins --version
  9   cd /var/lib/jenkins
 10   ls
 11   cd secrets
 12   ls
 13   cat initialAdminPassword
 14   cd
 15   cd /var/lib/jenkins/
 16   ls
 17   cd plugins
 18   ls
 19   history
 20   ls
 21   cd ..
 22   ls
 23   cd users
```

```
24  ls
25  cd kaushikbhai_12703125140721037793
26  ls
27  ls -ltr
28  cat config.xml
29  clear
30  cd
31  cd /var/lib/jenkins/
32  ls
33  ls -ltr
34  cd workspace
35  clear
36  ls -ltr
37  cd myfreestyleproject1
38  ls
39  cat file1.txt
40  ls
41  cd ..
42  ls
43  cd ..
44  ls -ltr
45  cd jobs
46  ls
47  cd myfreestyleproject1
48  ls
49  cd builds
50  ls -ltr
51  history
```