

Day-22: Getting Started with Jenkins

Tasks:

1. What you understood in Jenkin, write a small article in your own words (Don't copy from Internet Directly)

Jenkins is a tool that is used for automation, and it is an open-source server that allows all the developers to build, test and deploy software. The Jenkins is written in java, that is the reason, when you want to run Jenkins. Then first you install java on your system.

By Using Jenkins, we can make an end-to-end automation (CI/CD). There are over a thousand plugins that you can use to extend Jenkins' capabilities and make it more user-specific. All of these plugins and extensions are developed in Java.

Advantages of Jenkins:

- 1] It is an open-source tool.
- 2] It is free of cost.
- 3] easy to install
- 4] It supports 1000 or more plugins to ease your work. If a plugin does not exist, you can write the script for it and share with community.
- 5] It is platform independent. It is available for all platforms and different operating systems. Like OS X, Windows or Linux.
- 6] Jenkins also supports cloud-based architecture so that we can deploy Jenkins in cloud-based platforms.

You want to install Jenkins on ubuntu? Please refer below official page to install Jenkins.

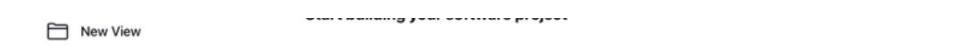
<https://www.digitalocean.com/community/tutorials/how-to-install-jenkins-on-ubuntu-22-04>

2. Create a freestyle pipeline to print "Hello Your Name"

Jenkins freestyle projects allow users to automate simple jobs, such as running tests, creating and packaging applications, producing reports, or executing commands.

How to Set up a Build Job in Jenkins

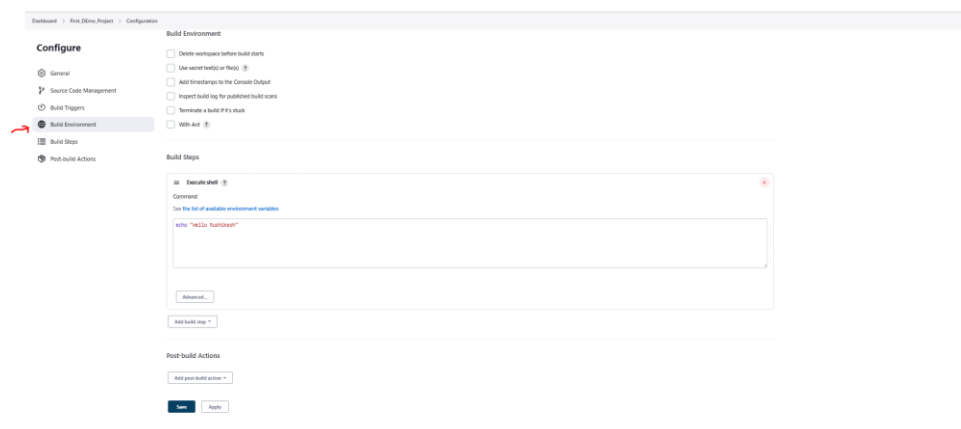
- 1] Login to the AWS EC2 Ubuntu Instance and install java, Jenkins.
- 2] On AWS EC2 instance, allow 8080 port(inside security group) because Jenkins Uses default port 8080.
- 3] Go to Jenkins Dashboard and click on New item



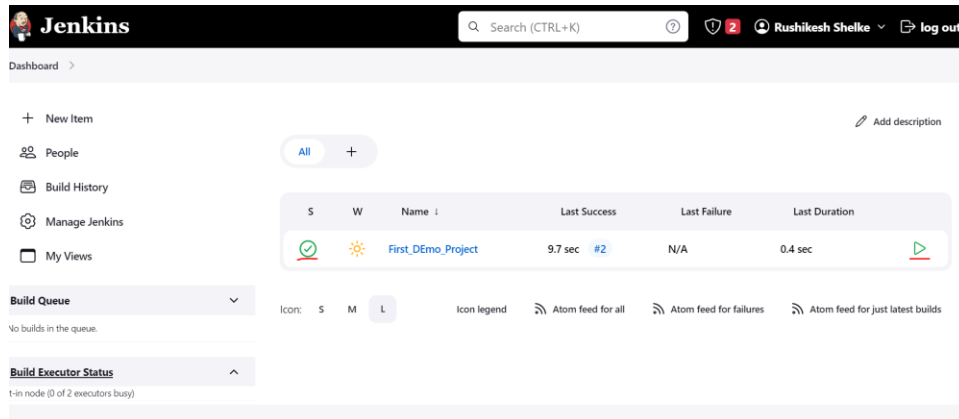
- 4] Give your Project Name and select **Freestyle Project** as the Project Type.



- 5] In the Configuration section, scroll down to the “Build” section and add an “Execute shell” build step



- 6] After this step, click on Save button.
- 7]go to Dashboard and click on “Build now symbol”.

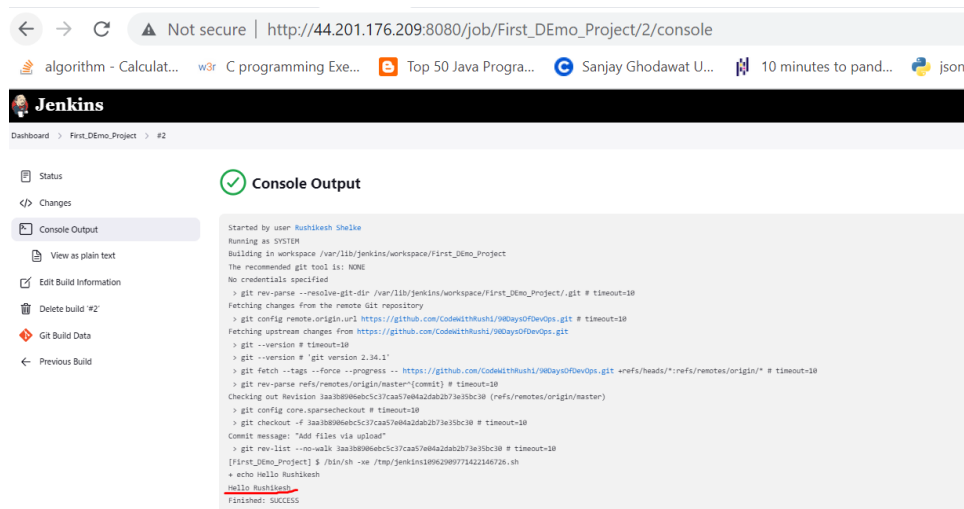


The Jenkins Dashboard shows the following components:

- Header:** Jenkins logo, search bar (Search (CTRL+K)), user profile (Rushikesh Shelke), and log out button.
- Left Sidebar:**
 - + New Item
 - People
 - Build History
 - Manage Jenkins
 - My Views
- Main Content Area:**
 - Build Queue:** Shows "No builds in the queue."
 - Build Executor Status:** Shows "1 in node (0 of 2 executors busy)".
 - Build History Table:**

S	W	Name	Last Success	Last Failure	Last Duration
		First_Demo_Project	9.7 sec #2	N/A	0.4 sec

8] Check the console output for “Hello Rushikesh” message.



The Jenkins Console Output for the build shows the following steps and output:

```

Started by user Rushikesh Shelke
Running as SYSTEM
Building in workspace /var/lib/jenkins/workspace/First_Demo_Project
The recommended git tool is: NONE
No credentials specified
> git rev-parse --revs-to-git-dir /var/lib/jenkins/workspace/First_Demo_Project/.git # timeout=10
Fetching changes from the remote git repository
> git config remote.origin.url https://github.com/CodeWithRush/90DaysOfDevOps.git # timeout=10
Fetching upstream changes from https://github.com/CodeWithRush/90DaysOfDevOps.git
> git --version # timeout=10
> git --version # 'git version 2.34.1'
> git fetch --tags --force --progress -- https://github.com/CodeWithRush/90DaysOfDevOps.git +refs/heads/*:refs/remotes/origin/* # timeout=10
> git rev-parse refs/remotes/origin/master^{commit} # timeout=10
> git rev-parse refs/remotes/origin/master (refs/remotes/origin/master)
Checking out Revision 3aa3b808ebc5c37ca57e842dab2b73e35bc30 (refs/remotes/origin/master)
> git config core.sparsecheckout # timeout=10
> git checkout -f 3aa3b808ebc5c37ca57e842dab2b73e35bc30 # timeout=10
Commit message: 'Add Files via upload'
> git rev-list --no-walk 3aa3b808ebc5c37ca57e842dab2b73e35bc30 # timeout=10
[First_Demo_Project] $ /bin/sh -xe /tmp/jenkins18962989771422166726.sh
+ echo Hello Rushikesh
Hello Rushikesh
Finished: SUCCESS
  
```

-----Happy Learning 😊-----