

Day-22 : Getting Started with Jenkins 😊

What is Jenkins?

- Jenkins is an open source continuous integration-continuous delivery and deployment (CI/CD) automation software DevOps tool written in the Java programming language. It is used to implement CI/CD workflows, called pipelines.
- 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. It works or runs on java as it is written in java. By using Jenkins we can make a continuous integration of projects(jobs) or end-to-endpoint automation.
- Jenkins achieves Continuous Integration with the help of plugins. Plugins allow the integration of Various DevOps stages. If you want to integrate a particular tool, you need to install the plugins for that tool. For example Git, Maven 2 project, Amazon EC2, HTML publisher etc.

Tasks:

1. What you understood in Jenkin, write a small article in your own words.

Jenkins is an open-source automation server that provides tools for Continuous Integration (CI) and Continuous Deployment (CD) of software projects. It helps developers automate and streamline the build, test, and deployment process, allowing for faster and more reliable releases. Jenkins is written in Java and is highly configurable and extensible through plugins, making it a popular choice for organizations of all sizes.

2. Create a freestyle pipeline to print "Hello World!!"


To create a freestyle pipeline in Jenkins to print "Hello World!!", follow these steps:


- Install jenkins on AWS EC2 instance.
- For jenkins used port 8080, browse instance-public-IP/8080 it will open jenkins dashboard.
- Click on "New Item" and give your pipeline a name
- Select "Freestyle project" and click "OK"


Enter an item name


my_pipeline

» 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.

OK [Choose Pipeline](#)

- On the configuration page, scroll down to the "Build" section and add a "Execute shell" build step.

Configure

- General
- Source Code Management
- Build Triggers
- Build Environment**
- Build Steps
- Post-build Actions

- ☐ Delete workspace before build starts
- ☐ Use secret text(s) or file(s) ?
- ☐ Add timestamps to the Console Output
- ☐ Inspect build log for published build scans
- ☐ Terminate a build if it's stuck
- ☐ With Ant ?

Build Steps

Add build step ▲

Filter

- Execute Windows batch command
- Execute shell**
- Invoke Ant
- Invoke Gradle script
- Invoke top-level Maven targets
- Run with timeout
- Set build status to "pending" on GitHub commit

- In the Command text area, add the following script:

☐ With Ant ?

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](#)

```
echo "Hello World!!"
```

Advanced...

Add build step ▾

Post-build Actions


Save

Apply

- Save the changes
- Click on "Build Now" to run the pipeline.

**Jenkins** Status

</> Changes


 Workspace **Build Now** Configure Delete Project Rename

Project my_pipeline

Permalinks

**Build History**trend ▾

- You should see the output "Hello World!!" in the console output of the build.

 **Jenkins**

Search (CTRL+K) ? 1 Nihal Apretwar

Dashboard > my_pipeline > #1

Status

</> Changes

Console Output

View as plain text

Edit Build Information

Delete build '#1'

✓ Console Output

Started by user [Nihal Apretwar](#)

Running as SYSTEM

Building in workspace /var/lib/jenkins/workspace/my_pipeline

[my_pipeline] \$ /bin/sh -xe /tmp/jenkins10232870614076794802.sh

+ echo Hello World!!

Hello World!!

Finished: SUCCESS

Thank you for reading!

