

CICD EXPERIMENT – 1

Installation of Jenkins and execution of a basic job on Jenkins.

Jenkins is a powerful tool that aids the process of Continuous Integration and Deployment.
Note: For running Jenkins, JDK/JRE 8 to JDK/JRE 11 is required.

Installation of Jenkins requires following steps:

1. Go to the website <https://www.jenkins.io/download/> and download the Generic Java Package for Jenkins.

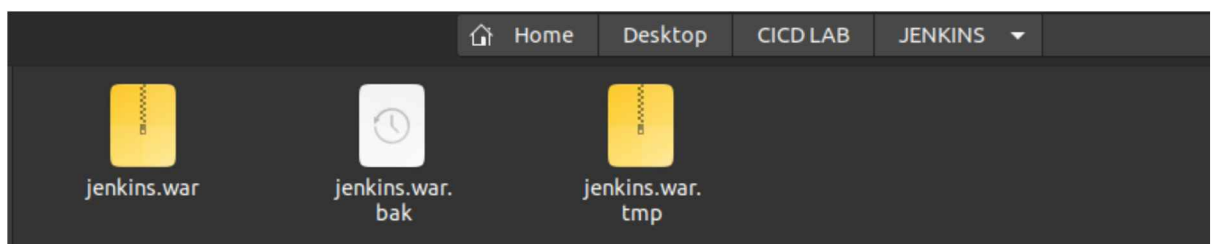
Download Jenkins 2.249.2 LTS for:

Generic Java package (.war) SHA-256: 1bb06cc42cef730e6326faba146f6c40e77df381ec4b281287f6993423f9a522
Docker
Ubuntu/Debian
CentOS/Fedora/Red Hat
Windows

Download Jenkins 2.262 for:

Generic Java package (.war) SHA-256: d39fe50afb8643616e5f814f512e550b6a9acd17ae029d7d571463d30bc68ee7
Docker
Ubuntu/Debian
CentOS/Fedora/Red Hat
Windows

2. The above step will download a war file. Place the downloaded file at a desired location on the PC.



3. Open the command prompt and move to the directory where the file is stored and run the following command: `java -jar jenkins.war`

```
imakshat@Akshat-Ubuntu:~/Desktop$ java -jar jenkins.war
Running from: /home/imakshat/Desktop/jenkins.war
webroot: $user.home/.jenkins
2020-10-16 06:40:55.899+0000 [id=1] INFO org.eclipse.jetty.util.log.Log#initialized: Logging initialized @817ms to
2020-10-16 06:40:55.997+0000 [id=1] INFO winstone.Logger#logInternal: Beginning extraction from war file
```

4. After the successful execution of the above command, you will get a message as below:

```

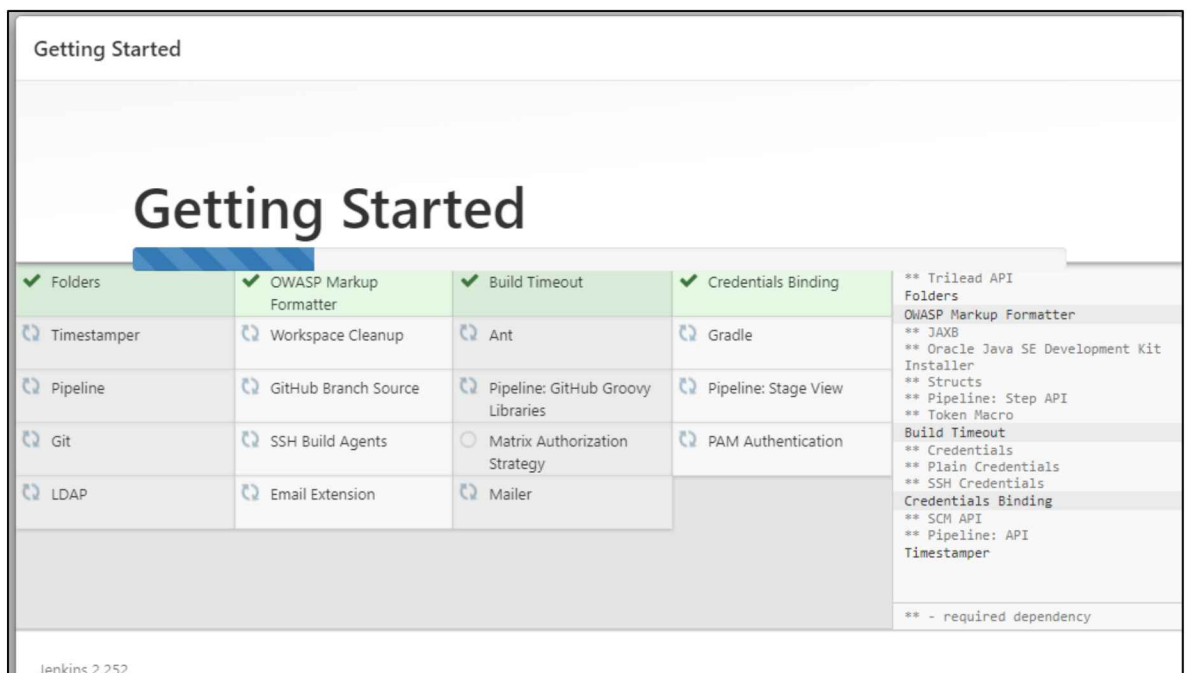
2020-10-16 06:41:14.969+0000 [id=30] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
2020-10-16 06:41:15.460+0000 [id=23] INFO hudson.WebAppMain$3#run: Jenkins is fully up and running

```

- Now open localhost:8080 in your browser and you will get the following page:



- Go to the file path mentioned above and get the password (the path may be different in your case). Now you will be asked to download the suggested plugins.



- Now you are ready to get started with Jenkins. Provide your username and password and then sign in to the console.



Welcome to Jenkins!

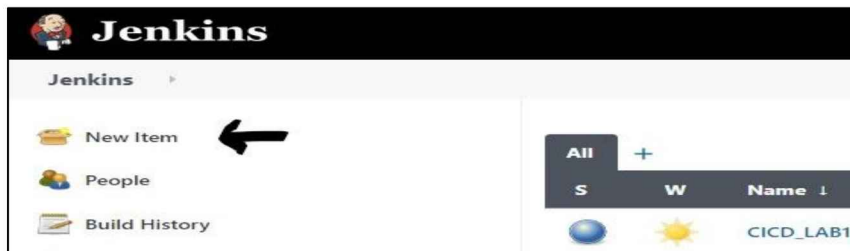
imakshat

Sign in

☐ Keep me signed in

Simple job execution on Jenkins:

1. After logging in to Jenkins, select “New Item” to create a project.




2. Write a name for the item and create a simple “Freestyle project”


Enter an item name

Simple_Jenkins_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.

**Maven project**

Build a maven project. Jenkins takes advantage of your POM files and drastically reduces the configuration.

**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.

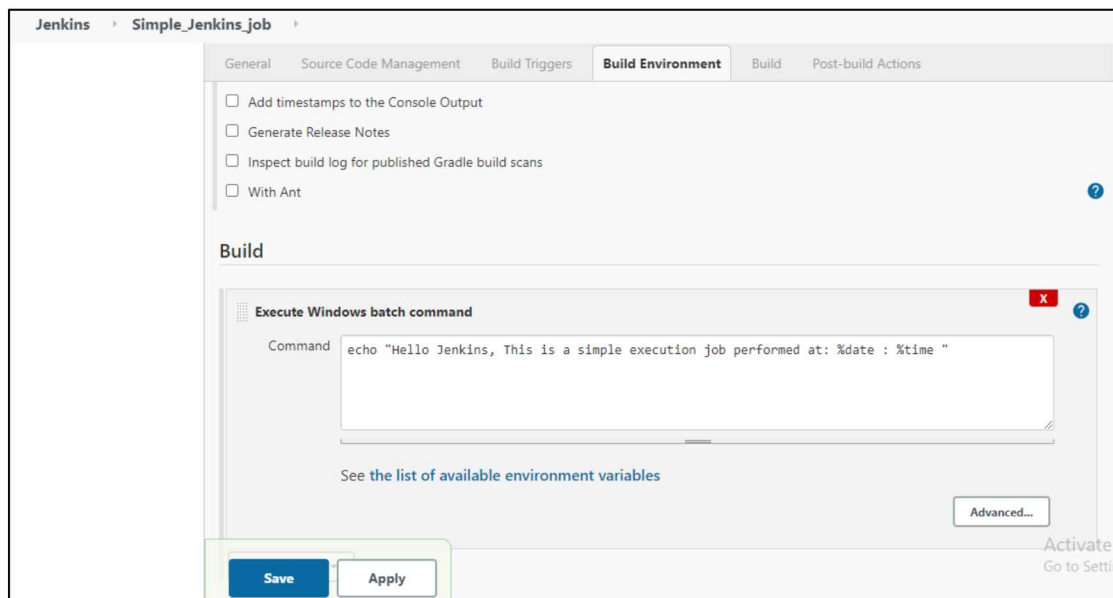
**Multi-configuration project**

Build projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.

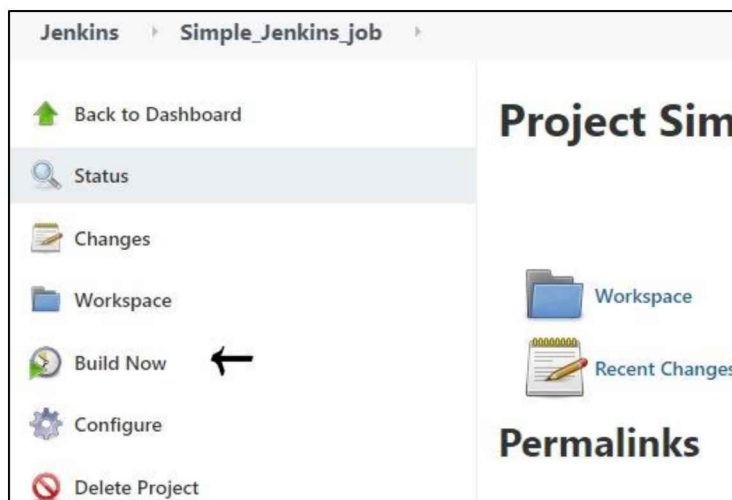
OK

Activate V
Go to Setting

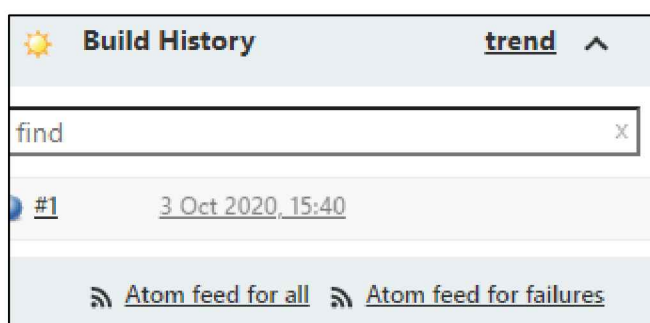
3. Write a description of the project(optional) and go to build section and select “Execute Windows Batch Command”. Write the command in the section and hit save button.




4. Now select “build now” option to build the project



5. A build will be performed and a build history would be generated.



6. Now click on the build history and go to Console output to view the output.

 [Back to Project](#) [Status](#) [Changes](#) [Console Output](#)

Console Output

Started by user [Akshat Kaushik](#)
Obtained JenkinsFile from git https://github.com/akash2237778/CICD_2020.git
Running in Durability level: MAX_SURVIVABILITY
[Pipeline] Start of Pipeline
[Pipeline] node
Running on [Jenkins](#) in /home/imakshat/.jenkins/workspace/imakshat