

Jenkins Installation with Docker

Step 1: Pull the Jenkins LTS Docker image:

`docker pull jenkins/jenkins:lts`

```
PS C:\Users\balas> docker pull jenkins/jenkins:lts
lts: Pulling from jenkins/jenkins
9e6f96481dc6: Download complete
0867b45f78b4: Download complete
768595d27f0b: Download complete
66714a60a07a: Download complete
e37c8a6a1d29: Download complete
d0238388e632: Download complete
8d5cd706e369: Download complete
1944ded7dbca: Download complete
e1d3077f0c0c: Download complete
2902ddfaf8af: Download complete
37b0412849e4: Download complete
b2b31b28ee3c: Download complete
Digest: sha256:e728082cd6a2710840ef7d9fdcdc93408eb488aa05d10bc92f4454254e22cc4e
Status: Downloaded newer image for jenkins/jenkins:lts
docker.io/jenkins/jenkins:lts
```

Step 2: Run Jenkins in a Docker container:

`docker run -d -p 8080:8080 -p 50000:50000 --name jenkins -v jenkins_home:/var/jenkins_home -v /var/run/docker.sock:/var/run/docker.sock jenkins/jenkins:lts`

```
PS C:\Users\balas> docker run -d -p 8080:8080 -p 50000:50000 --name jenkins -v jenkins_home:/var/jenkins_home -v /var/run/docker.sock:/var/run/docker.sock jenkins/jenkins:lts
586642ee08234e9098bd592cb2774cc22df23c18ce760c4a4bc234cb45018dfa
```

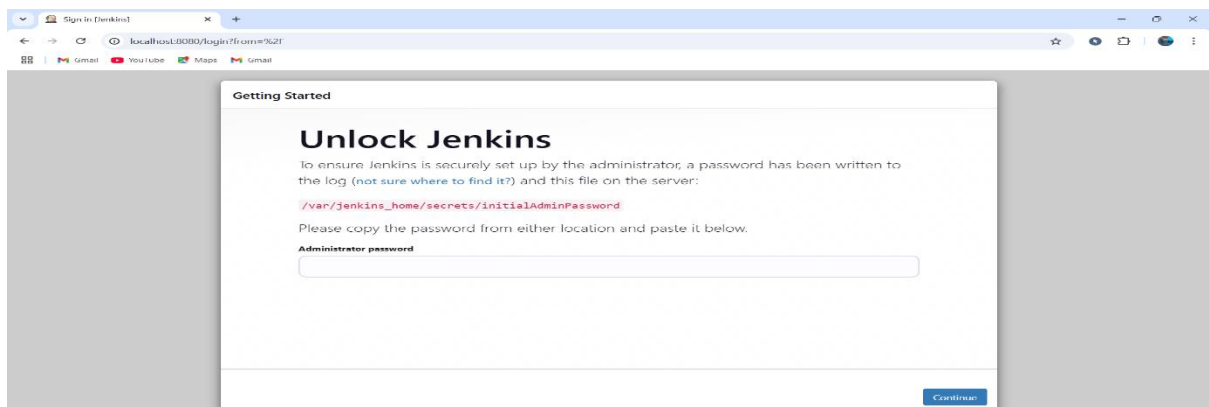
Step 2.1 Check if the Jenkins container is running:

`docker ps`

```
PS C:\Users\balas> docker ps
CONTAINER ID   IMAGE          NAMES               COMMAND                  CREATED        STATUS        PORTS
586642ee0823   jenkins/jenkins:lts   "/usr/bin/tini -- /u..." 31 seconds ago   Up 30 seconds   0.0.0.0:8080->8080/tcp, 0
0.0.0.0:50000->50000/tcp   jenkins
6a763925987f   2bcabc23b454         "/docker-entrypoint..." 18 minutes ago   Up 18 minutes
k8s_nginx_nginx-deployment-74676ff58f-c5rjq_default_867bbf01-f49b-44cd-aaff-dc4cbf9ae7b0_0
633b1603f892   2bcabc23b454         "/docker-entrypoint..." 18 minutes ago   Up 18 minutes
k8s_nginx_nginx-deployment-74676ff58f-6zs4w_default_95ab1e9d-74f8-4b7e-9315-74f9f0a6a02c_0
```

Step 3 Access Jenkins:

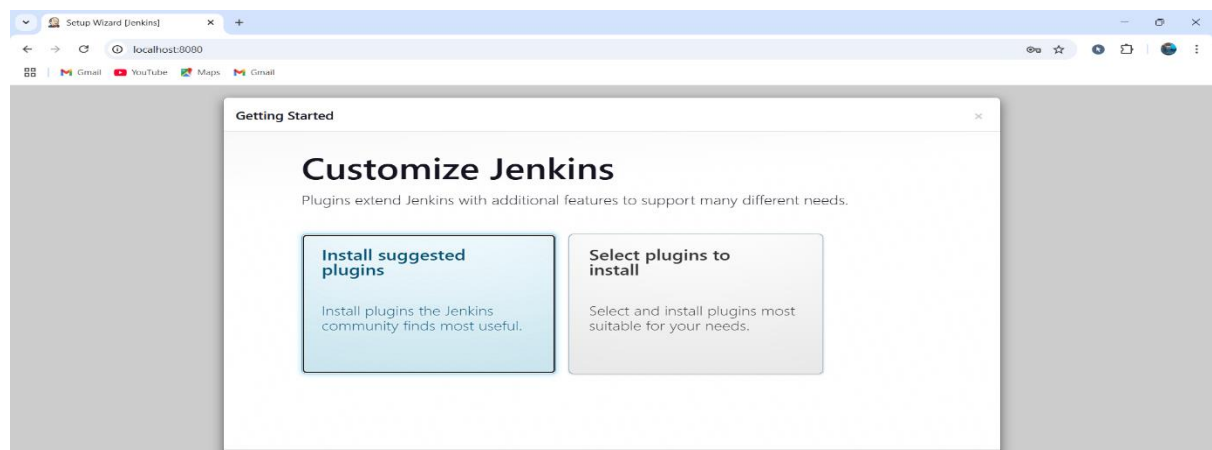
- Open a browser and go to <http://localhost:8080>.
- Follow the on-screen instructions to unlock Jenkins.



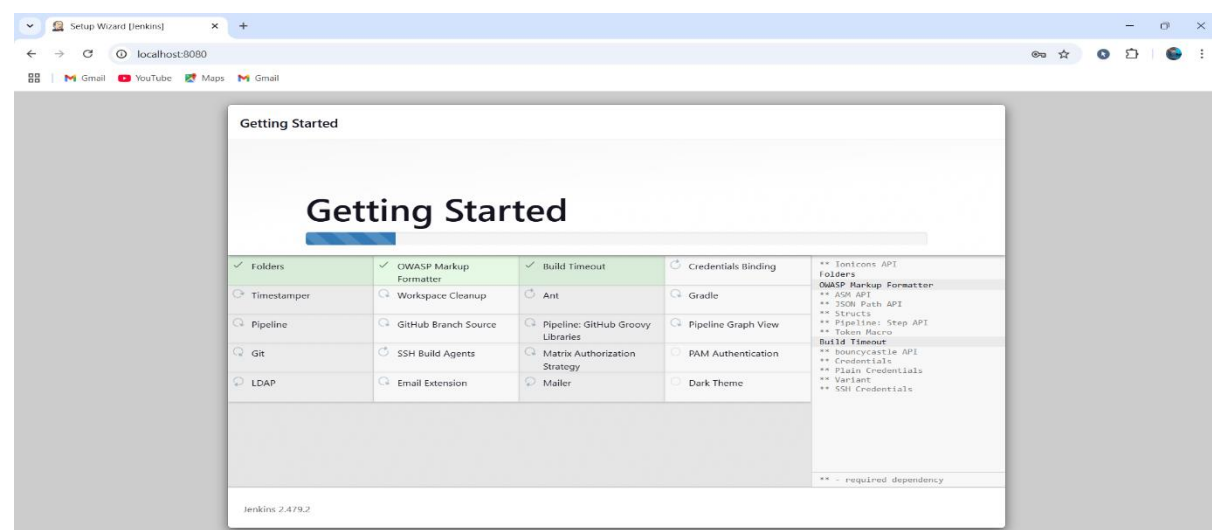
The initial password can be found in the container logs: docker logs jenkins

```
x-deployment-74676ff58f-6zsw_default_95able9d-74f8-4b7e-9315-74f9f0a6a02c_0
PS C:\Users\balas> docker logs jenkins
Running From: /usr/share/jenkins/jenkins.war
webroot: /var/jenkins_home/war
2024-12-20 07:46:18.964+0000 [id=1] INFO winstone.Logger#logInternal: Beginning extraction from war file
2024-12-20 07:46:19.632+0000 [id=1] WARNING o.e.j.ee9.nested.ContextHandler#setContextPath: Empty contextPath
2024-12-20 07:46:19.678+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: jetty-12.0.13, built: 2024-09-03T03:04:05.240Z; git: 816018a420329c1cac
d4116799cda8c8c60a57cd; jvm 17.0.13+11
2024-12-20 07:46:20.036+0000 [id=1] INFO o.e.j.e.w.StandardDescriptorProcessor#visitServlet: NO JSP Support for /, did not find org.eclipse.jetty.ee9.jsp
.JettyJspServlet
2024-12-20 07:46:20.072+0000 [id=1] INFO o.e.j.s.DefaultSessionIdManager#doStart: Session workerName=node0
2024-12-20 07:46:20.517+0000 [id=1] INFO hudson.WebAppMain#contextInitialized: Jenkins home directory: /var/jenkins_home found at: EnvVars.masterEnvVars.
get("JENKINS_HOME")
2024-12-20 07:46:20.613+0000 [id=1] INFO o.e.j.s.handler.ContextHandler#doStart: Started oeje9n.ContextHandler$CoreContextHandler@53ed09e8{Jenkins v2.479
.2/,b=file:///var/jenkins_home/war/,a=AVAILABLE,h=oeje9n.ContextHandler$CoreContextHandler$CoreToNestedHandler@60859f5a{STARTED}}
2024-12-20 07:46:20.625+0000 [id=1] INFO o.e.j.server.AbstractConnector#doStart: Started ServerConnector@242a209e{HTTP/1.1, (http/1.1)}{0.0.0.0:8080}
2024-12-20 07:46:20.639+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: Started oejs.Server@726e80b5{STARTING}[12.0.13,sto=0] @2209ms
2024-12-20 07:46:20.639+0000 [id=26] INFO winstone.Logger#logInternal: Winstone Servlet Engine running: controlPort=disabled
2024-12-20 07:46:20.838+0000 [id=34] INFO jenkins.InitReactorRunner$1#onAttained: Started initialization
2024-12-20 07:46:20.864+0000 [id=35] INFO jenkins.InitReactorRunner$1#onAttained: Listed all plugins
2024-12-20 07:46:21.503+0000 [id=41] INFO jenkins.InitReactorRunner$1#onAttained: Prepared all plugins
2024-12-20 07:46:21.506+0000 [id=41] INFO jenkins.InitReactorRunner$1#onAttained: Started all plugins
2024-12-20 07:46:21.508+0000 [id=50] INFO jenkins.InitReactorRunner$1#onAttained: Augmented all extensions
2024-12-20 07:46:21.672+0000 [id=37] INFO jenkins.InitReactorRunner$1#onAttained: System config loaded
2024-12-20 07:46:21.672+0000 [id=38] INFO jenkins.InitReactorRunner$1#onAttained: System config adapted
2024-12-20 07:46:21.673+0000 [id=52] INFO jenkins.InitReactorRunner$1#onAttained: Loaded all jobs
2024-12-20 07:46:21.674+0000 [id=52] INFO jenkins.InitReactorRunner$1#onAttained: Configuration for all jobs updated
2024-12-20 07:46:21.704+0000 [id=68] INFO hudson.util.Retrier#start: Attempt #1 to do the action check updates server
2024-12-20 07:46:22.006+0000 [id=49] INFO jenkins.install.SetupWizard#init:

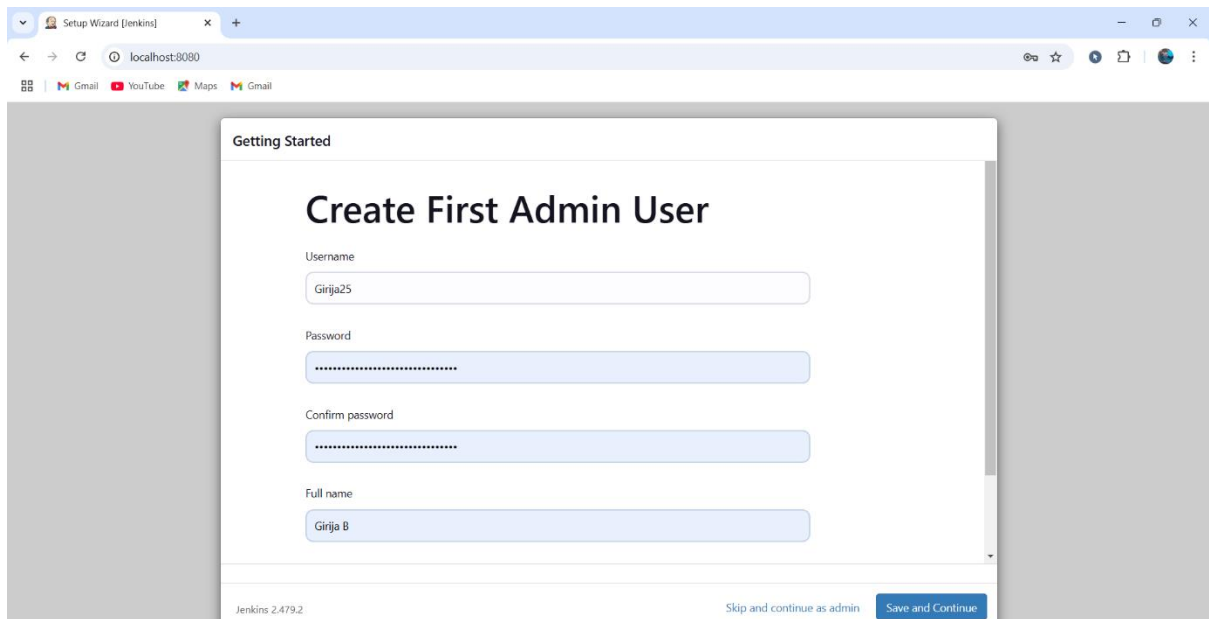
*****
*****
*****
Jenkins initial setup is required. An admin user has been created and a password generated.
Please use the following password to proceed to installation:
a7e870927d9f40b1891ab9e0f12343e2
This may also be found at: /var/jenkins_home/secrets/initialAdminPassword
```



Step 4: Give this password in it and click continue and install it.

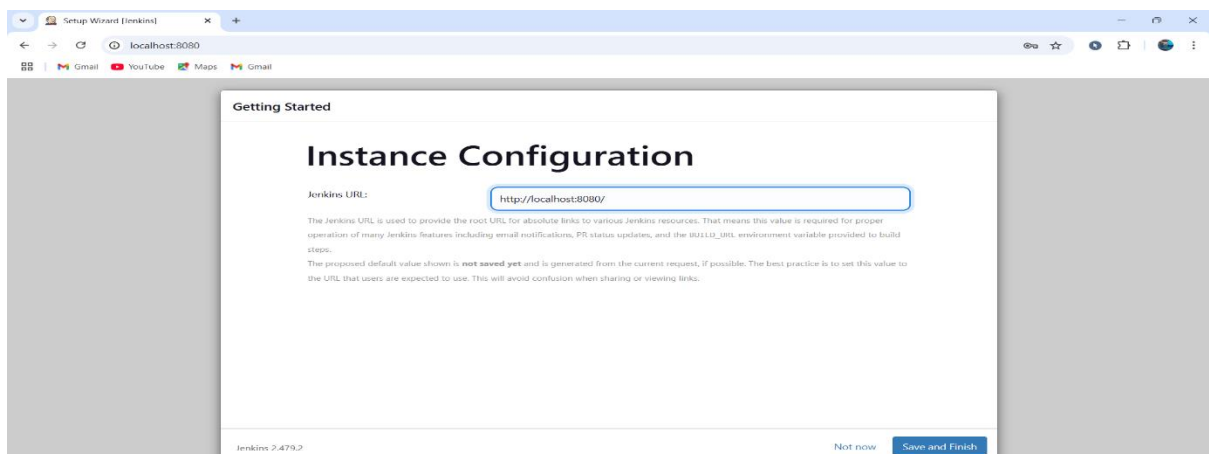


Step 5: After completing the installation process give admin user details and click save and continue



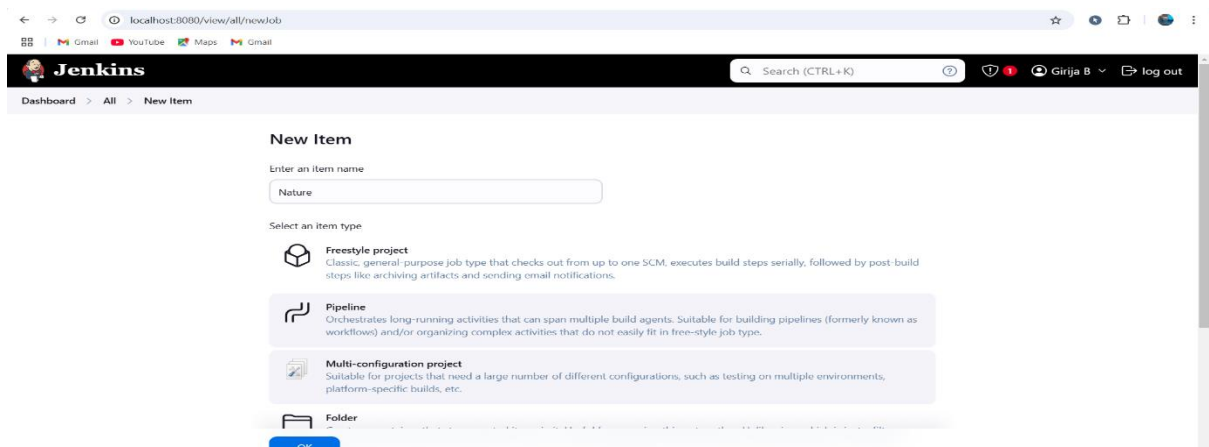
The screenshot shows the 'Getting Started' section of the Jenkins Setup Wizard. The title is 'Create First Admin User'. There are four input fields: 'Username' with the value 'Girja25', 'Password' with masked characters, 'Confirm password' with masked characters, and 'Full name' with the value 'Girja B'. At the bottom, there is a 'Skip and continue as admin' link and a 'Save and Continue' button. The Jenkins version 'Jenkins 2.479.2' is displayed in the bottom left corner.

Step 6 : Click save and finish.



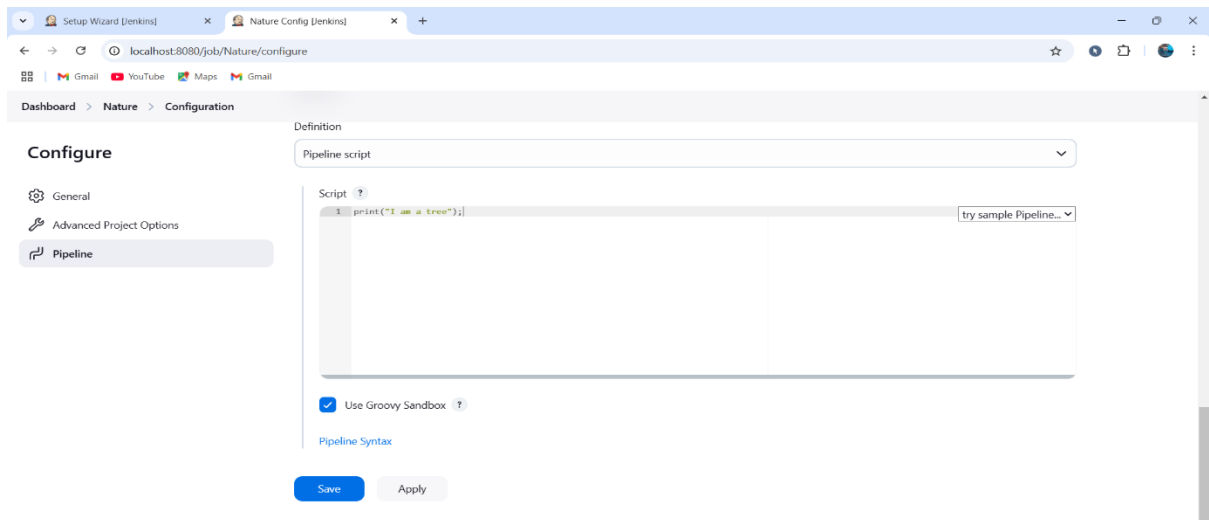
The screenshot shows the 'Getting Started' section of the Jenkins Setup Wizard. The title is 'Instance Configuration'. There is one input field 'Jenkins URL:' with the value 'http://localhost:8080/'. Below the input field, there is a paragraph of text explaining the Jenkins URL. At the bottom, there is a 'Not now' link and a 'Save and Finish' button. The Jenkins version 'Jenkins 2.479.2' is displayed in the bottom left corner.

Step 7 : Click on new item

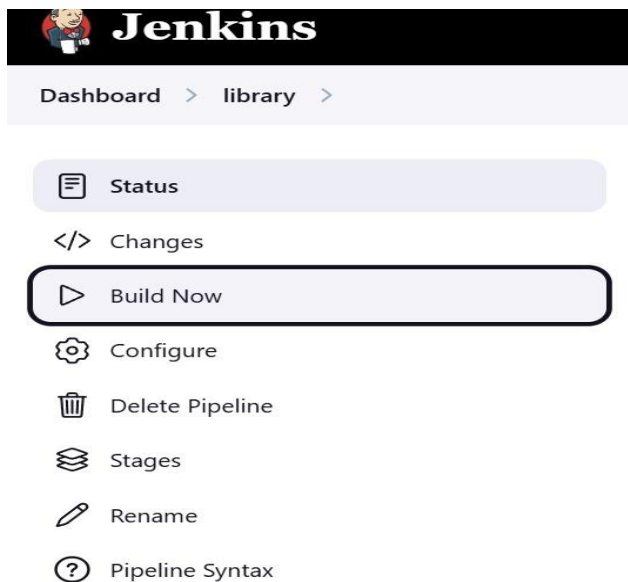


The screenshot shows the Jenkins 'New Item' screen. The title is 'New Item'. There is an input field 'Enter an item name' with the value 'Nature'. Below the input field, there is a section 'Select an item type' with four options: 'Freestyle project', 'Pipeline', 'Multi-configuration project', and 'Folder'. Each option has a brief description. At the bottom, there is an 'OK' button. The Jenkins version 'Jenkins 2.479.2' is displayed in the bottom left corner.

Step 8 : You can give any python code in it.



Step 9 : Click on build now:



Step 10 : You will get the output.

