

Create a pipeline job

Create high config jenkins server machine






Dashboard > All > New Item

New Item

Enter an item name

Docker

Select an item type

-  **Freestyle project**
Classic, general-purpose job type that checks out from up to one SCM, executes build steps serially, followed by post-build steps like archiving artifacts and sending email notifications.
-  **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.
-  **Multibranch Pipeline**
Creates a set of Pipeline projects according to detected branches in one SCM repository.

Display a menu

OK

Install webhooks.

We will use code of following

<https://github.com/Gopi1892/SampleRegistratonForm/blob/master/Dockerfile>

Go to Manage Jenkins and add Docker credentials

Dashboard > Manage Jenkins

Manage Jenkins

My Views

Open Blue Ocean

Build Queue

No builds in the queue.

Build Executor Status

(0 of 2 executors busy)

Building on the built-in node can be a security issue. You should set up distributed builds. See [the documentation](#).

Set up agentSet up cloudDismiss

Java 17 end of life in Jenkins

More InfoIgnore

You are running Jenkins on Java 17, support for which will end on or after Mar 31, 2026. Refer to [the documentation](#) for more details.

System Configuration

System

Configure global settings and paths.

Tools

Configure tools, their locations and automatic installers.

Plugins

Add, remove, disable or enable plugins that can extend the functionality of Jenkins.

Nodes

Add, remove, control and monitor the various nodes that Jenkins runs jobs on.

Clouds

Add, remove, and configure cloud instances to provision agents on-demand.

Appearance

Configure the look and feel of Jenkins

Security

Security

Secure Jenkins; define who is allowed to access/use the system.

Credentials

Configure credentials

Credential Providers

Configure the credential providers and types

Users

Create/delete/modify users that can log in to this Jenkins.


Display a menu

Dashboard > Manage Jenkins > Credentials

Credentials

T	P	Store ↓	Domain	ID	Name
---	---	---------	--------	----	------

Stores scoped to Jenkins

P	Store ↓	Domains
	System	(global)

Icon: S M L

Display a menu

REST API Jenkins 2.492.3

Click on Global Credentials. Add credentials

Dashboard > Manage Jenkins > Credentials > System > Global credentials (unrestricted) >

Kind

Username with password

Scope ?

Global (Jenkins, nodes, items, all child items, etc)

Username ?

☒ Treat username as secret ?

Password ?

.....

ID ?

Docker

Description ?

Create

Display a menu

REST API

Jenkins 2.492.3

Add username and password for docker

Dashboard > Manage Jenkins > Credentials > System > Global credentials (unrestricted) >

Global credentials (unrestricted)

+ Add Credentials

Credentials that should be available irrespective of domain specification to requirements matching.

ID	Name	Kind	Description
Docker	Docker	Username with password	

Icon: S M L

REST API

Jenkins 2.492.3

Link to CI-CD Docker Pipeline

https://github.com/Gopi1892/Devops-Learning-Material/blob/main/Jenkins/CI-CD_Docker

Install maven and docker on server

```
ubuntu@ip-172-31-86-142:~$ sudo apt-get install docker.io -y
```

```
ubuntu@ip-172-31-86-142:~$ sudo apt install maven -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libaopalliance-java libapache-pom-java libatinject-jsr330-api-java libcdi-api-java libcommons-cli-java libcommons-io-java libcommons-lang3-java libcommons-parent-java liberror-prone-java
  libgeronimo-annotation-1.3-spec-java libgeronimo-interceptor-3.0-spec-java libguava-java libguice-java libjansi-java libjsr305-java libmaven-parent-java libmaven-resolver-java
  libmaven-shared-utils-java libmaven3-core-java libplexus-cipher-java libplexus-classworlds-java libplexus-component-annotations-java libplexus-interpolation-java libplexus-sec-dispatcher-java
  libplexus-utils2-java libsisu-inject-java libsisu-plexus-java libslf4j-java libwagon-file-java libwagon-http-shaded-java libwagon-provider-api-java
Suggested packages:
  libatinject-jsr330-api-java-doc libel-api-java libcommons-io-java-doc libasm-java libcglib-java libjsr305-java-doc libmaven-shared-utils-java-doc liblogback-java libplexus-utils2-java-doc junit4
  testing libcommons-logging-java liblog4j1.2-java
The following NEW packages will be installed:
  libaopalliance-java libapache-pom-java libatinject-jsr330-api-java libcdi-api-java libcommons-cli-java libcommons-io-java libcommons-lang3-java libcommons-parent-java liberror-prone-java
  libgeronimo-annotation-1.3-spec-java libgeronimo-interceptor-3.0-spec-java libguava-java libguice-java libjansi-java libjsr305-java libmaven-parent-java libmaven-resolver-java
  libmaven-shared-utils-java libmaven3-core-java libplexus-cipher-java libplexus-classworlds-java libplexus-component-annotations-java libplexus-interpolation-java libplexus-sec-dispatcher-java
  libplexus-utils2-java libsisu-inject-java libsisu-plexus-java libslf4j-java libwagon-file-java libwagon-http-shaded-java libwagon-provider-api-java maven
0 upgraded, 32 newly installed, 0 to remove and 59 not upgraded.
Need to get 10.1 MB of archives.
After this operation, 13.1 MB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 libapache-pom-java all 29-2 [5284 B]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 libatinject-jsr330-api-java all 1.0-4ds1-5 [5348 B]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 libgeronimo-interceptor-3.0-spec-java all 1.0.1-4fakesync [8616 B]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 libcdi-api-java all 1.2-3 [54.3 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe amd64 libcommons-cli-java all 1.6.0-1 [59.9 kB]
```

Run this on jenkins server

```
ubuntu@ip-172-31-28-136:~$ sudo usermod -aG docker jenkins
```

Restart Jenkins Server

```
ubuntu@ip-172-31-28-136:~$ sudo usermod -aG docker jenkins
```

```
ubuntu@ip-172-31-28-136:~$ sudo systemctl restart jenkins
```

Verify after restart

```
ubuntu@ip-172-31-28-136:~$ sudo -u jenkins docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
--------------	-------	---------	---------	--------	-------	-------

```
ubuntu@ip-172-31-28-136:~$
```

If it gives error permission issue is not resolved

The build is successful

Dashboard > pipeline >

Status

Changes

Build Now

Configure

Delete Pipeline

Full Stage View

Stages

Rename

Pipeline Syntax

✖ pipeline

Add description

Stage View

#6

01:23

No Changes

Average stage times:
(full run time: ~7s)

Checkout	Build WAR	Prepare WAR	Build Docker Image	Push to Docker Hub	Declarative: Post Actions
608ms	3s	352ms	1s	751ms	102ms
273ms	2s	340ms	348ms	3s	116ms

Go to dockerhub and verify

dockerhub Explore My Hub Search Docker Hub

gkdocker1892
Docker Personal

Repositories

Settings

Default privacy

Notifications

Billing

Usage

Pulls

Storage

Repositories

All repositories within the gkdocker1892 namespace.

Search by repository name

All content

Create a repository

Name	Last Pushed	Contains	Visibility	Scout
gkdocker1892/sample-registration-form	1 minute ago	IMAGE	Public	Inactive

1-1 of 1