

CI/CD using Dockerfile and Jenkins pipeline

Create a docker-file and pushed to git:

FROM maven:3.8.2-openjdk-8 AS builder

WORKDIR /build

COPY . .

RUN mvn clean package

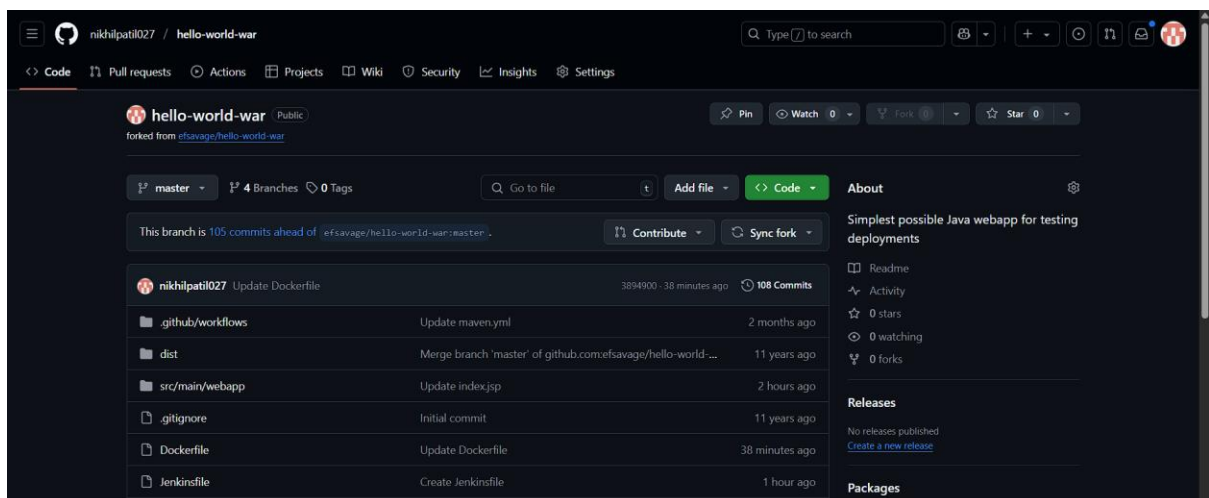
RUN ls target/

FROM tomcat:jre8-temurin-focal

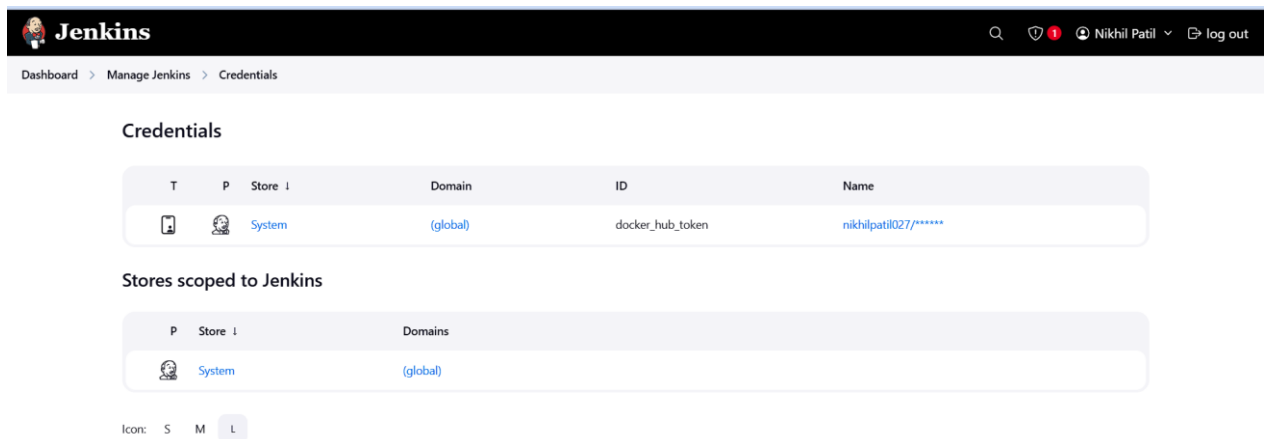
COPY --from=builder /build/target/hello-world-war*.war /usr/local/tomcat/webapps

Install Jenkins and docker on same server

Writing a jenkins file and Docker file inside a Git repo



Set up credentials in Jenkins



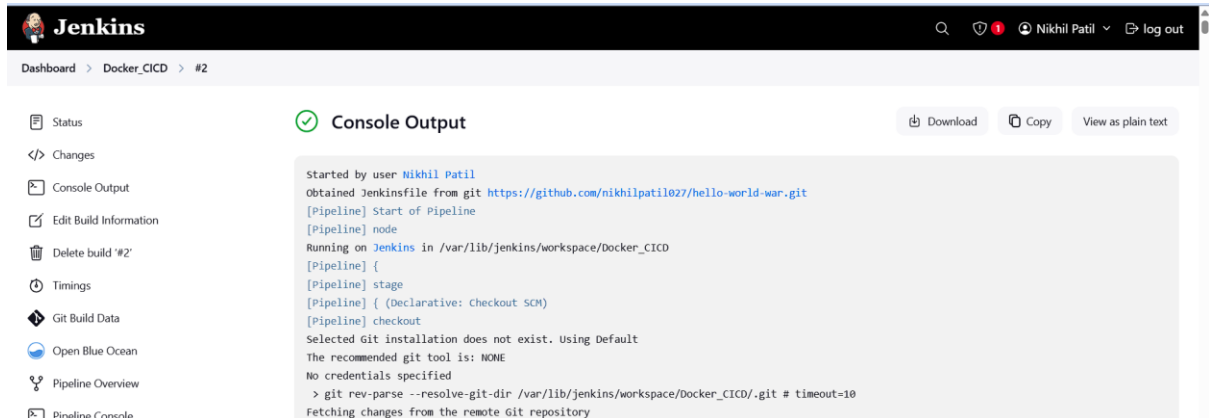
The screenshot shows the Jenkins web interface. At the top, the Jenkins logo is on the left, and search, notifications, user profile (Nikhil Patil), and a log out button are on the right. Below the header, a breadcrumb trail reads 'Dashboard > Manage Jenkins > Credentials'. The main section is titled 'Credentials' and contains a table with columns: 'T' (type), 'P' (provider), 'Store' (storage), 'Domain', 'ID', and 'Name'. One credential is listed: a 'SecretText' type, 'System' provider, 'global' domain, with ID 'docker_hub_token' and name 'nikhilpatil027/*****'. Below the table, a section 'Stores scoped to Jenkins' shows a table with 'System' provider and 'global' domain. At the bottom, there are tabs for 'Icon', 'S', 'M', and 'L'.

T	P	Store	Domain	ID	Name
	System	System	(global)	docker_hub_token	nikhilpatil027/*****

P	Store	Domains
System	System	(global)

Icon: S M L

Create a jenkins pipeline and Running it



The screenshot shows the Jenkins web interface for a specific build. The breadcrumb trail is 'Dashboard > Docker_CICD > #2'. On the left, a sidebar lists various build options: Status, Changes, Console Output (selected), Edit Build Information, Delete build '#2', Timings, Git Build Data, Open Blue Ocean, Pipeline Overview, and Pipeline Console. The main area is titled 'Console Output' with a green checkmark icon. It includes buttons for 'Download', 'Copy', and 'View as plain text'. The console output text shows the build process: 'Started by user Nikhil Patil', 'Obtained Jenkinsfile from git https://github.com/nikhilpatil027/hello-world-war.git', '[Pipeline] Start of Pipeline', '[Pipeline] node', 'Running on Jenkins in /var/lib/jenkins/workspace/Docker_CICD', '[Pipeline] {', '[Pipeline] stage', '[Pipeline] { (Declarative: Checkout SCM)', '[Pipeline] checkout', 'Selected Git installation does not exist. Using Default', 'The recommended git tool is: NONE', 'No credentials specified', '> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Docker_CICD/.git # timeout=10', and 'Fetching changes from the remote Git repository'.

Started by user Nikhil Patil
Obtained Jenkinsfile from git <https://github.com/nikhilpatil027/hello-world-war.git>
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/lib/jenkins/workspace/Docker_CICD
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
Selected Git installation does not exist. Using Default
The recommended git tool is: NONE
No credentials specified
> git rev-parse --resolve-git-dir /var/lib/jenkins/workspace/Docker_CICD/.git # timeout=10
Fetching changes from the remote Git repository

Dashboard > Docker_CICD > #2

```
[Pipeline] { (Run Docker Container)
[Pipeline] echo
Running Docker container...
[Pipeline] sh
+ docker run -d --name hello-world-container -p 8090:8080 nikhilpatil027/tomcat_cicd:latest
e6acdf44df99e7115907babe0f812cd4b194b26293827defae0871d7ca658edd
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] echo
Pipeline completed!
[Pipeline] echo
Container running at http://localhost:8090
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

✓ Docker_CICD < 2

PipelineChangesTestsArtifacts

Branch: — 57s No changes

Commit: — 16 minutes ago Started by user Nikhil Pabli

Start

Checkout

Find Dockerfile

Build Docker Image

Login to Docker Hub

Push Docker Image

Remove Existing Container

Run Docker Container

End

Run Docker Container - <1s

✓ > Running Docker container... — Print Message <1s

✓ > docker run -d --name hello-world-container -p 8090:8080 nikhilpatil027/tomcat_cicd:latest — Shell Script <1s

✓ > Pipeline completed! — Print Message <1s

✓ > Container running at http://localhost:8090 — Print Message <1s

Pushed the image to docker HUB through Jenkins job

dockerhubExploreMy Hub

Search Docker Hub

Ctrl+K

?


🔔

🔄

⌵

N

Explore / nikhilpatil027/tomcat_cicd



nikhilpatil027/tomcat_cicd

By nikhilpatil027 · Updated 5 minutes ago

IMAGE

☆0 ⬇0

Manage Repository

Overview

Tags

Sort by Newest Filter tags

TAG

latest

Last pushed 10 minutes by nikhilpatil027

Digest

OS/ARCH

Last pull

Compressed size

bd72117a7a92

linux/amd64

less than 1 day

95.19 MB

docker pull nikhilpatil027/tomcat_cicd:latestCopy

Out Put :

