

Exercise 4: Pipeline Job - End-to-End CI/CD for a React Application

1. Objective: Implement a CI/CD pipeline for a React web application.
2. Steps:
 - a. Create a Pipeline Job.
 - b. Write a Jenkinsfile to:
 - Clone the React project from GitHub.
 - Install dependencies (npm install).
 - Run tests (npm test).
 - Build the project (npm run build).
 - Deploy the application by copying the build folder to a deployment directory.
 - c. Add stages for:
 - Linting using ESLint.
 - Post-deployment testing using curl to verify the app is running.
2. Task: Run the pipeline and validate each stage's output.

Configurations

Pipeline :

Pipeline

Definition

Pipeline script from SCM

SCM ?

Git

Repositories ?

Repository URL ?

https://github.com/AdityaSharma2003/JE-2-Vite-Project.git

Credentials ?

- none -

+ Add

Advanced

Add Repository

Branches to build ?

Branch Specifier (blank for 'any') ?

*/main

Add Branch

Repository browser ?

(Auto)

Additional Behaviours

Add

Script Path ?

Jenkinsfile

Console Output :

Dashboard > JE-4 > #10

Status

Changes

Console Output

Edit Build Information

Delete build '#10'

Timings

Git Build Data

Pipeline Overview

Pipeline Console

Replay

Pipeline Steps

Workspaces

Previous Build

✓

Console Output

Download Copy View as plain text

Started by user aditya sharma

Obtained Jenkinsfile from git <https://github.com/AdityaSharma2003/JE-2-Vite-Project.git>

[Pipeline] Start of Pipeline

[Pipeline] node

Running on Jenkins in C:\AdityaPersonal\nexTurn\new_jenkins\workspace\JE-4

[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.exe rev-parse --resolve-git-dir C:\AdityaPersonal\nexTurn\new_jenkins\workspace\JE-4\.git # timeout=10

Fetching changes from the remote Git repository

> git.exe config remote.origin.url <https://github.com/AdityaSharma2003/JE-2-Vite-Project.git> # timeout=10

Fetching upstream changes from <https://github.com/AdityaSharma2003/JE-2-Vite-Project.git>

> git.exe --version # timeout=10

> git --version # 'git version 2.41.0.windows.3'

> git.exe fetch --tags --force --progress -- <https://github.com/AdityaSharma2003/JE-2-Vite-Project.git> +refs/heads/*:refs/remotes/origin/* # timeout=10

> git.exe rev-parse "refs/remotes/origin/main^{commit}" # timeout=10

Checking out Revision 1269af0813813a6c9d32b41cc6e25862d1e0cb80 (refs/remotes/origin/main)

> git.exe config core.sparsecheckout # timeout=10

> git.exe checkout -f 1269af0813813a6c9d32b41cc6e25862d1e0cb80 # timeout=10

Commit message: "corrected Jenkinsfile"

First time build. Skipping changelog.

[Pipeline] }

[Pipeline] // stage

[Pipeline] withEnv

[Pipeline] {

[Pipeline] withEnv

[Pipeline] {

[Pipeline] stage

[Pipeline] { (Changing Directory)

[Pipeline] script

[Pipeline] {

[Pipeline] echo

Changing Directory..

[Pipeline] dir

Running in C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\VM6_Jenkins_Assignments\Exercise_2\vite-project

[Pipeline] {

[Pipeline] bat

C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\VM6_Jenkins_Assignments\Exercise_2\vite-project>cd

C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\VM6_Jenkins_Assignments\Exercise_2\vite-project

[Pipeline] echo

Directory changed to C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\VM6_Jenkins_Assignments\Exercise_2\vite-project

[Pipeline] echo

Installing Dependencies..

```
C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\W6_Jenkins_Assignments\Exercise_2\vite-project>npm install

added 355 packages, and audited 356 packages in 5s

124 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities
[Pipeline] echo
Running Tests..
[Pipeline] bat

C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\W6_Jenkins_Assignments\Exercise_2\vite-project>npm test

> vite-project@0.0.0 test
> vitest

@17251
@1m@7m@36m RUN @39m@27m@22m @36mv3.0.0
@39m@90mC:/AdityaPersonal/nexTurn/AdityaSharma_NexTurn_Assignments/W6_Jenkins_Assignments/Exercise_2/vite-project@39m

@32m@39m src/App.test.jsx @2m@22m@2m1 test@22m@2m@22m@90m 84@22m@39m

@2m Test Files @22m @1m@32m1 passed@39m@22m@90m (1)@39m
@2m Tests @22m @1m@32m1 passed@39m@22m@90m (1)@39m
@2m Start at @22m 18:53:16
@2m Duration @22m 1.34s@2m (transform 45ms, setup 0ms, collect 391ms, tests 84ms, environment 504ms, prepare 119ms)@22m

@1725h
[Pipeline] echo
Building the project..
[Pipeline] bat

C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\W6_Jenkins_Assignments\Exercise_2\vite-project>npm run build

> vite-project@0.0.0 build
> vite build

@36mvite v6.0.7 @32mbuilding for production...@36m@39m
transforming...
@32m@39m 30 modules transformed.
rendering chunks...
computing gzip size...
@2mdist/@22m@32mindex.html @39m@1m@2m 0.46 kB@22m@1m@22m@2m | gzip: 0.29 kB@22m
@2mdist/@22m@32massets/react-CHdo91hT.svg @39m@1m@2m 4.13 kB@22m@1m@22m@2m | gzip: 2.05 kB@22m
@2mdist/@22m@35massets/index-n_ryQ3BS.css @39m@1m@2m 1.39 kB@22m@1m@22m@2m | gzip: 0.71 kB@22m
@2mdist/@22m@36massets/index-Bh-hXAGN.js @39m@1m@2m143.87 kB@22m@1m@22m@2m | gzip: 46.34 kB@22m
@32m@ built in 645ms@39m
[Pipeline] echo
Building the project..
[Pipeline] bat

C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\W6_Jenkins_Assignments\Exercise_2\vite-project>npm run build

> vite-project@0.0.0 build
> vite build
```

```

@[36m vite v6.0.7 @ [32m building for production... @ [36m @ [39m
transforming...
@ [32m @ [39m 30 modules transformed.
rendering chunks...
computing gzip size...
@ [2mdist/@ [22m @ [32mindex.html @ [39m @ [1m @ [2m 0.46 kB @ [22m @ [1m @ [22m @ [2m | gzip: 0.29 kB @ [22m
@ [2mdist/@ [22m @ [32massets/react-CHdo91ht.svg @ [39m @ [1m @ [2m 4.13 kB @ [22m @ [1m @ [22m @ [2m | gzip: 2.05 kB @ [22m
@ [2mdist/@ [22m @ [32massets/index-n_ryQ3BS.css @ [39m @ [1m @ [2m 1.39 kB @ [22m @ [1m @ [22m @ [2m | gzip: 0.71 kB @ [22m
@ [2mdist/@ [22m @ [32massets/index-Bh-hXAGN.js @ [39m @ [1m @ [2m 143.87 kB @ [22m @ [1m @ [22m @ [2m | gzip: 46.34 kB @ [22m
@ [32m @ built in 640ms @ [39m
[Pipeline] echo
Deploying the application by copying the build folder to a deployment directory...
[Pipeline] bat

C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\V6_Jenkins_Assignments\Exercise_2\vite-project>copy
C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\V6_Jenkins_Assignments\Exercise_2\vite-project\dist
C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\V6_Jenkins_Assignments\Exercise_2\vite-project\deployment-directory /E /I /H /Y
C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\V6_Jenkins_Assignments\Exercise_2\vite-project\dist\index.html
C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\V6_Jenkins_Assignments\Exercise_2\vite-project\dist\vite.svg
C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\V6_Jenkins_Assignments\Exercise_2\vite-project\dist\assets\index-Bh-hXAGN.js
C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\V6_Jenkins_Assignments\Exercise_2\vite-project\dist\assets\index-n_ryQ3BS.css
C:\AdityaPersonal\nexTurn\AdityaSharma_NexTurn_Assignments\V6_Jenkins_Assignments\Exercise_2\vite-project\dist\assets\react-CHdo91ht.svg
5 file(s) copied
[Pipeline] }
[Pipeline] // dir
[Pipeline] }
[Pipeline] // script
[Pipeline] }
[Pipeline] }
[Pipeline] // stage
[Pipeline] stage
[Pipeline] { (Declarative: Post Actions)
[Pipeline] echo
This will always run after the pipeline finishes.
[Pipeline] echo
This will run if the pipeline succeeds.
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS

```