

CONTINUOUS DEPLOYMENT OF A NODE.JS APPLICATION WITH GITLAB CI AND DOCKER AUTOMATION.

Check Branch Protection Rules in GitLab:

- Go to your project in GitLab.
- Navigate to **Settings > Repository**.
- Under **Protected Branches**, you should see the main branch listed. GitLab typically restricts direct pushes and force pushes to protected branches.
- You can either:
 - **Modify the protection settings** to allow force pushes, or

1. Check Existing Remotes:

```
git remote -v
```

2. Remove Existing Remote origin:

```
git remote remove origin
```

3. Re-add the Remote origin:

```
git remote add origin https://gitlab.com/divyam4111748/demo.git
```

4. Rename Current Branch to main:

```
git branch -M main
```

5. Push the Local Changes to main on GitLab:

```
git push -uf origin main
```

```
C:\Windows\System32\cmd.e  x  +  v

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C:\Users\ibmtr\Desktop\VTU DevOps\Week 10\NodeJS App_DevOps>git remote -v
origin  https://gitlab.com/divyam4111748/demo.git (fetch)
origin  https://gitlab.com/divyam4111748/demo.git (push)

C:\Users\ibmtr\Desktop\VTU DevOps\Week 10\NodeJS App_DevOps>git remote remove origin
warning: more than one branch.main.remote
warning: branch.main.remote has multiple values
warning: branch.main.merge has multiple values

C:\Users\ibmtr\Desktop\VTU DevOps\Week 10\NodeJS App_DevOps>git remote add origin https://gitlab.com/divyam4111748/demo.git

C:\Users\ibmtr\Desktop\VTU DevOps\Week 10\NodeJS App_DevOps>git branch -M main

C:\Users\ibmtr\Desktop\VTU DevOps\Week 10\NodeJS App_DevOps>git push -uf origin main
Enumerating objects: 61, done.
Counting objects: 100% (61/61), done.
Delta compression using up to 12 threads
Compressing objects: 100% (33/33), done.
Writing objects: 100% (61/61), 33.09 KiB | 11.03 MiB/s, done.
Total 61 (delta 25), reused 53 (delta 22), pack-reused 0
To https://gitlab.com/divyam4111748/demo.git
+ 01da493...729c079 main -> main (forced update)
warning: branch.main.remote has multiple values
warning: branch.main.merge has multiple values
branch 'main' set up to track 'origin/main'.

C:\Users\ibmtr\Desktop\VTU DevOps\Week 10\NodeJS App_DevOps>
```

Dockerfile:

FROM node:latest

WORKDIR /usr/src/app

COPY package.json ./

RUN npm install

COPY . .

EXPOSE 4000

CMD ["node", "index.js"]

.gitlab-ci.yml file:

image: docker:latest

services:

- docker:dind

stages:

- build

- test

- release

- deploy

variables:

CONTAINER_TEST_IMAGE: \$CI_REGISTRY_IMAGE:\$CI_COMMIT_REF_SLUG

CONTAINER_RELEASE_IMAGE: \$CI_REGISTRY_IMAGE:latest

DOCKER_HOST: tcp://docker:2375 *# Ensure Docker service is reachable*

before_script:

- docker info *# Ensure Docker is running before proceeding*

- docker login -u \$CI_REGISTRY_USER -p \$CI_REGISTRY_PASSWORD
\$CI_REGISTRY

build:

stage: build

script:

- docker build -t \$CONTAINER_TEST_IMAGE .

- docker push \$CONTAINER_TEST_IMAGE

- docker images *# Debug: List images to verify that the image was built successfully*

after_script:

- echo "Build stage completed!" *# Ensure the build step was executed*

test:

stage: test

script:

- docker info *# Ensure Docker is working before running the test*

- docker pull \$CONTAINER_TEST_IMAGE

- docker run \$CONTAINER_TEST_IMAGE npm test

- echo "Test completed!" *# Debug message*

after_script:

- echo "Test stage completed!" *# Ensure the test step was executed*

release-image:

stage: release

script:

- docker info *# Ensure Docker is working before releasing*
- docker pull \$CONTAINER_TEST_IMAGE
- docker tag \$CONTAINER_TEST_IMAGE \$CONTAINER_RELEASE_IMAGE
- docker push \$CONTAINER_RELEASE_IMAGE
- echo "Release image completed!" *# Debug message*

after_script:

- echo "Release stage completed!" *# Ensure the release step was executed*

deploy:

stage: deploy

tags:

- local_docker

script:


- docker info *# Ensure Docker is working before deploying*
- docker pull \$CONTAINER_RELEASE_IMAGE
- docker run -d -p 3000:3000 \$CONTAINER_RELEASE_IMAGE
- docker ps *# Debug: Check running containers*
- echo "Deploy completed!" *# Debug message*



after_script:



- echo "Deploy stage completed!" *# Ensure the deploy step was executed*

main demo / +

History Find file Edit Code

**Update file .gitlab-ci.yml**
Divya Murugan authored 2 minutes ago

 cea1b414 

Name	Last commit	Last update
test	Initial commit	18 minutes ago
.dockerignore	Initial commit	18 minutes ago
 .gitlab-ci.yml	Update file .gitlab-ci.yml	2 minutes ago
README.md	Initial commit	22 minutes ago
 dockerfile	Update file dockerfile	4 minutes ago
index.js	Initial commit	18 minutes ago
package-lock.json	Initial commit	18 minutes ago
package.json	Initial commit	18 minutes ago

Update file .gitlab-ci.yml

 **Running** Divya Murugan created pipeline for commit cea1b414  just now

For main

latest 4 jobs In progress, queued for 1 seconds

Pipeline Jobs 4 Tests 0

