Lab 1: CI/CD Pipeline

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Github Repository : git@github.com:RomNeedBoba/pichphyrom-rin-lab1.git

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Reflection: 200–300 words describing:

1. Challenges faced
2. How you debugged workflow failures
3. Key learning about CI/CD and GitHub Actions
4. Ideas for improvement (optional)

I Challenges Face

During my execution, i faces few problem on application version, for e.g some front-end using different version such as react@18 and react@19 with different plug in, packages as few of them are not able to catch up to newer react version so i have to review detail each packages and plug in. for example for react@16.x (it may not related to my challenges but on figure 1 shows react@16.x because as i knew during my internship the version is no longer available)

II How do you debugged workflow failures

I debugged by very simple step based on my working style called " Understand because of read " so normally when each failures came out with each problem or error, so i just simple read the error log and try to understand what is going wrong for e.g

So i simply trying to understand on version of artifact with my own project version of react@19 as artifact v4 is capable with each other.

III Key learning about CI/CD and GitHub Actions

The key learning i learned from this lab is

CI = check code, CD = send code live, GitHub Actions = automate it all.

CI (Continuous Integration): Merge code often → auto build & test → catch errors early.

CD (Continuous Delivery/Deployment): Auto prepare or deploy → faster, safer releases.

GitHub Actions:

Workflow: Automated process

Job: Group of steps

Step: Single task

Runner: Environment for jobs

Action: Reusable script/task

IV Ideas for improvement

As i wanna be Dev-ops engineer, Based on my point of view on current tech, i felts likes they have everything perfect on automation flow and easier to use even for normal developer.

Evidence of CI/CD Figures:

```
rom@RomTheWebDeveloper:~/DevOps/pichphyrom-rin-lab1$ yarn coverage
yarn run v1.22.22
$ nyc --reporter=lcov --reporter=text yarn test
$ mocha


  GET /
    ✓ should return Hello! Kon Papa!


  1 passing (12ms)

-----------|----------|----------|----------|----------|-------------------
File       | % Stmts  | % Branch | % Funcs  | % Lines  | Uncovered Line #s
-----------|----------|----------|----------|----------|-------------------
All files  |     100  |      100 |      100 |      100 |
 app.js    |     100  |      100 |      100 |      100 |
-----------|----------|----------|----------|----------|-------------------
```

```
rom@RomTheWebDeveloper:~/DevOps/pichphyrom-rin-lab1$ yarn lint
yarn run v1.22.22
$ eslint . --ext .js
Done in 0.20s.
rom@RomTheWebDeveloper:~/DevOps/pichphyrom-rin-lab1$ yarn test
yarn run v1.22.22
$ mocha --exit


  GET /
    ✓ should return Hello! Kon Papa!


  1 passing (15ms)

Done in 0.18s
```

← Node.js CI (Yarn)

✓ **fix test** #6

[Re-run all jobs] [⋯]

🏠 Summary

Jobs

✓ build-and-test (20.x)

Run details

🕐 Usage

⚙ Workflow file

build-and-test (20.x)
succeeded 1 minute ago in 13s

[🔍 Search logs] ⟳ ⚙

> ✓ Set up job   1s
> ✓ Checkout code   0s
> ✓ Setup Node.js   4s
> ✓ Install dependencies   3s
> ✓ Lint code   1s
> ✓ Run tests   0s
> ✓ Post Setup Node.js   1s
> ✓ Post Checkout code   0s
> ✓ Complete job   0s

Actions   [New workflow]

All workflows

Node.js CI (Yarn)

Management

📇 Caches

✓ Attestations ↗

☰ Runners

◎ Usage metrics ↗

◉ Performance metrics ↗

Node.js CI (Yarn)

ci.yml

[🔍 Filter workflow runs] [⋯]

▶ **Help us improve GitHub Actions**
Tell us how to make GitHub Actions work better for you with three quick questions.

[Give feedback] ✕

6 workflow runs   Event ▾   Status ▾   Branch ▾   Actor ▾

✓ **fix test**
Node.js CI (Yarn) #6: Commit f8a4cd9 pushed by RomNeedBoba   `main`   📅 2 minutes ago   ⏱ 22s   ⋯

✕ **content changed**
Node.js CI (Yarn) #5: Commit f2e2e18 pushed by RomNeedBoba   `main`   📅 4 minutes ago   ⏱ 14s   ⋯

✓ **fix node version**
Node.js CI (Yarn) #4: Commit cc9f0fc pushed by RomNeedBoba   `main`   📅 6 minutes ago   ⏱ 14s   ⋯

✕ **fix node version**
Node.js CI (Yarn) #3: Commit 2eff066 pushed by RomNeedBoba   `main`   📅 7 minutes ago   ⏱ 17s   ⋯

✕ **Add yarn.lock for CI**
Node.js CI (Yarn) #2: Commit fbebe8f pushed by RomNeedBoba   `main`   📅 12 minutes ago   ⏱ 26s   ⋯

✕ **Add github action CI workflow by Yarn**
Node.js CI (Yarn) #1: Commit 863f54a pushed by RomNeedBoba   `main`   📅 17 minutes ago   ⏱ 14s   ⋯

All files app.js

100% Statements 5/5   100% Branches 0/0   100% Functions 1/1   100% Lines 4/4

Press *n* or *j* to go to the next uncovered block, *b*, *p* or *k* for the previous block.

```
1 1x  const express = require('express');
2 1x  const app = express();
3 1x  app.get('/', (req, res) => {res.send('Hello! Kon Papa!');
4     });
5 1x  module.exports = app;
```

← → C   ○ 🔒 pichphyrom-rin-lab1.vercel.app

Hello! Kon Papa!