**CI/CD Pipeline Automation**

name: CI/CD Pipeline

on:

push:

branches:

- main

pull\_request:

branches:

- main

jobs:

build:

runs-on: ubuntu-latest

steps:

- name: Checkout code

uses: actions/checkout@v2

- name: Set up Node.js

uses: actions/setup-node@v2

with:

node-version: '14'

- name: Install dependencies

run: npm install

- name: Run tests

run: npm test

deploy:

needs: build

runs-on: ubuntu-latest

if: github.ref == 'refs/heads/main'

steps:

- name: Checkout code

uses: actions/checkout@v2

- name: Deploy to Production

run: |

echo "Deploying application to production..."

# Insert your deployment script here

# Example: Deploy using AWS CLI or Kubernetes

ssh user@production-server 'bash -s' < ./deploy.sh

**Expected Output:**

**Automated Testing Output**: The npm test command runs automated tests, which will output the test results. Example output:

> npm test

> my-app@1.0.0 test /home/runner/work/my-app/my-app

> jest

PASS src/app.test.js

✓ renders correctly (50 ms)

Test Suites: 1 passed, 1 total

Tests: 1 passed, 1 total

Snapshots: 0 total

Time: 2.542 s