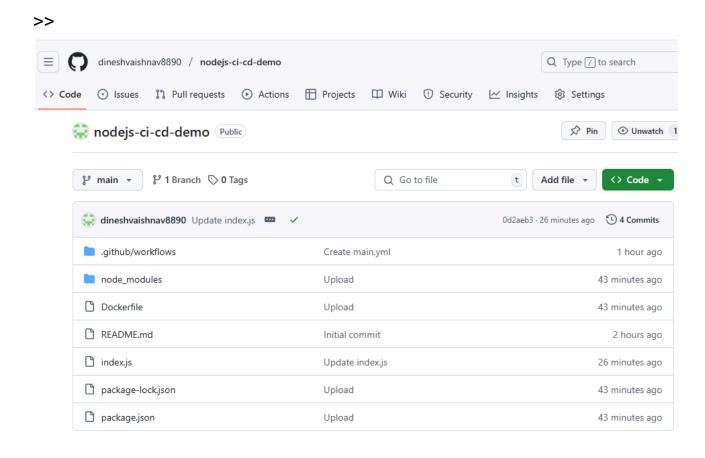
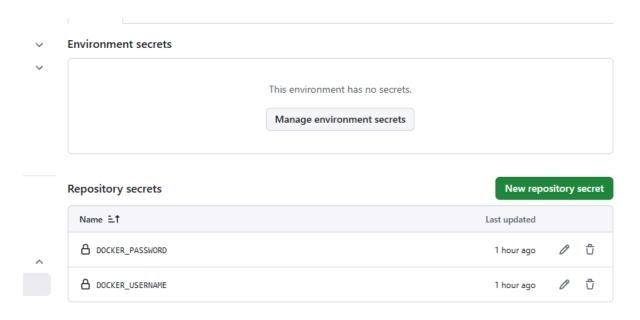
TASK 1: Automate Code Deployment Using CI/CD Pipeline (GitHub Actions)

1. Step 1: Create a GitHub Repository

- > Create a new repository on Github.com
- > Clone it to your local system or directly work on GitHub, https://github.com/dineshvaishnav8890/nodejs-ci-cd-demo.git



>>> Add secrets in our git Hub Repo .



>> Install Node js,

Download and install nvm:

curl -o-

https://raw.githubusercontent.com/nvm-sh/nvm/v0.40.3/install.sh | bash

in lieu of restarting the shell
\. "\$HOME/.nvm/<u>nvm.sh</u>"

Download and install <u>Node.js</u>: nvm install 22

Verify the Node.js version: node -v

>> Install Docker
apt install -y docker.io

>> Create a file index.js

```
const express = require('express');
const app = express();
const port = 3000;
app.get('/', (req, res) => res.send('Hello,This is my First Task For Elevate Labs'));
app.listen(port, () => console.log(`App listening at <a href="http://localhost:${port}'));</a>;
>>> Create package.json
 "name": "nodejs-ci-cd-demo",
 "version": "1.0.0",
 "main": "index.js",
 "scripts": {
  "start": "node index.js",
  "test": "echo \"Running tests...\" && exit 0"
 "dependencies": {
  "express": "^4.18.2"
>>> Create a Dockerfile
# Use Node.js official image
FROM node:18
# Set working directory inside the container
WORKDIR /app
# Copy package files and install dependencies
COPY package*.json ./
RUN npm install
# Copy the rest of the code
COPY..
# Expose port and define startup command
EXPOSE 3000
CMD ["npm", "start"]
```

Send our all Files on Git Hub.

sudo chown -R ubuntu:ubuntu /home/ubuntu/nodejs-ci-cd-demo git config --global --add safe.directory /home/ubuntu/nodejs-ci-cd-demo git add .
git commit -m "Upload"
git push origin main

Enter Here <Git hub User name > For password > Git Hub PAT <

Step: Set Up GitHub Actions Workflow

```
name: CI/CD
Pipeline

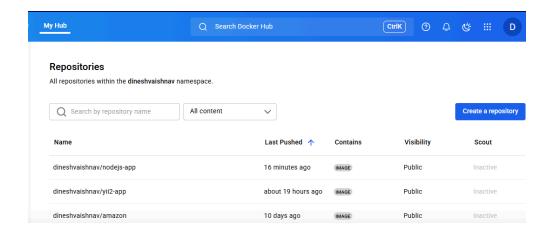
on:
    push:
    branches: [ main ]

jobs:
    build:
    runs-on: ubuntu-latest
```

```
steps:
  - name: Checkout code
    uses: actions/checkout@v3
  - name: Set up Node.js
    uses: actions/setup-node@v3
    with:
      node-version: '18'
  - name: Install dependencies
    run: npm install
  - name: Run tests
    run: npm test
  - name: Build Docker image
    run: docker build -t ${{ secrets.DOCKER USERNAME }}/nodejs-app .
  - name: Login to DockerHub
    run: echo ${{ secrets.DOCKER_PASSWORD }} | docker login -u ${{
secrets.DOCKER_USERNAME }} --password-stdin
  - name: Push Docker image
    run: docker push ${{ secrets.DOCKER_USERNAME }}/nodejs-app
```

Login Our Docker Hub Account

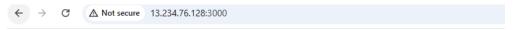
Show Here Our Push Images.



Pull Docker images on Our Ec2

docker pull dineshvaishnav/nodejs-app

docker run -d -p 3000:3000 dineshvaishnav/nodejs-app:latest



Hello, This is my First Task For Elevate Labs