


Experiment 4 Docker Build and Push using GitHub Actions

Objective: Setup a GitHub Actions workflow to automatically build a docker image from a docker file in your GitHub repository and push it to a container registry (e.g., Docker hub)


1. Create a Maven Project and Push the Project to GitHub Repository.

 ghanshree2311	Update MyCalss.java	✓ 8b36850 on Sep 26	🕒 13 commits
📁 .github/workflows	Update cicd.yml		3 months ago
📁 .settings	GitHub Actions		3 months ago
📁 src/main/java/devops/b3/cicd/lab3	Update MyCalss.java		3 months ago
📄 .classpath	GitHub Actions		3 months ago
📄 .gitignore	GitHub Actions		3 months ago
📄 .project	GitHub Actions		3 months ago
📄 Dockerfile	Update Dockerfile		3 months ago
📄 pom.xml	GitHub Actions		3 months ago


2. Create a docker file to build an image which contains the jar file of the maven build.

 ghanshree2311	Update Dockerfile
Code	Blame
2 lines (2 loc) · 106 Bytes	
🚀 Code 55% faster with GitHub Copilot	
1	FROM openjdk:18
2	COPY target/devops.b3.cicd.lab3-0.0.1-SNAPSHOT.jar devops.b3.cicd.lab3-0.0.1-SNAPSHOT.jar

3. Create Docker hub registry.

 ghanshree2311 / cicdlab4

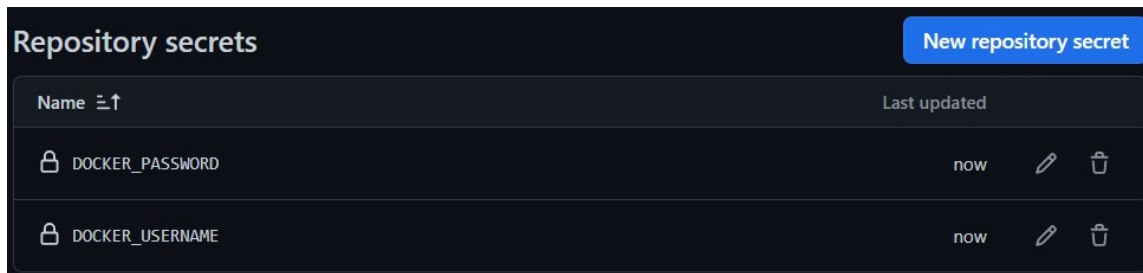
Description

This repository does not have a description 

🕒 Last pushed: a few seconds ago

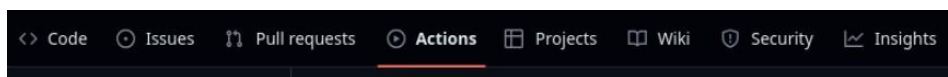
4. In GitHub Repository, setup the docker username and passwords as secrets.

-> set up username and password using GitHub secrets.

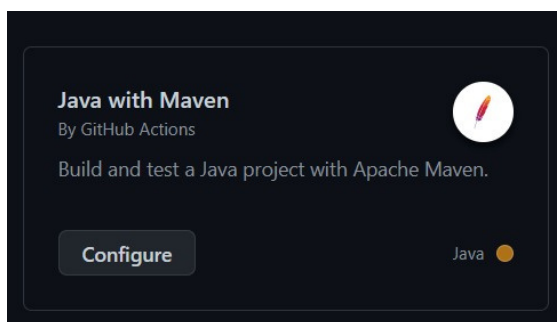


5. Set up GitHub Actions:

(a) Click on Actions tab



(b) Click on Java with Maven



6. Configure maven.yml file and commit changes.

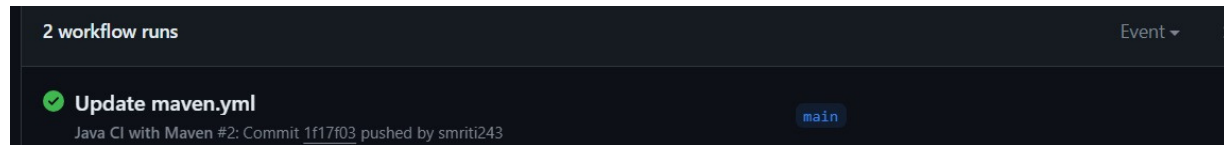
Note: we will be using mr-smithers-excellent docker image that allows us to push our docker images from GitHub actions to docker hub repository.

```

22     steps:
23       - uses: actions/checkout@v3
24       - name: Set up JDK 17
25         uses: actions/setup-java@v3
26         with:
27           java-version: '17'
28           distribution: 'temurin'
29           cache: maven
30       - name: Build with Maven
31         run: mvn -B package --file pom.xml
32       - name: Docker Build and Push
33         uses: mr-smithers-excellent/docker-build-push@v6
34         with:
35           image: smriti243/cicdlab4
36           registry: docker.io
37           username: ${{ secrets.DOCKER_USERNAME }}
38           password: ${{ secrets.DOCKER_PASSWORD }}

```

7. This will trigger an automated build.



8. Now, the docker image is pushed to the docker hub registry.

Tags

This repository contains 2 tag(s).

Tag	OS	Type	Pulled	Pushed
 main-5be83b8		Image	---	in 5 hours
 main-96db201		Image	---	in 5 hours

[See all](#)

[Go to Advanced Image Management](#)