

Lab 7

BTI525 NCC

Fall 2025

INSTRUCTOR: ROBIN HUANG

Title: *Adding Docker to CI*

Course: Web Programming for the Cloud

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Github Link: https://github.com/minhazabedin53/bti525_lab7

Docker Hub Link: <https://hub.docker.com/r/abedin53/fragments>

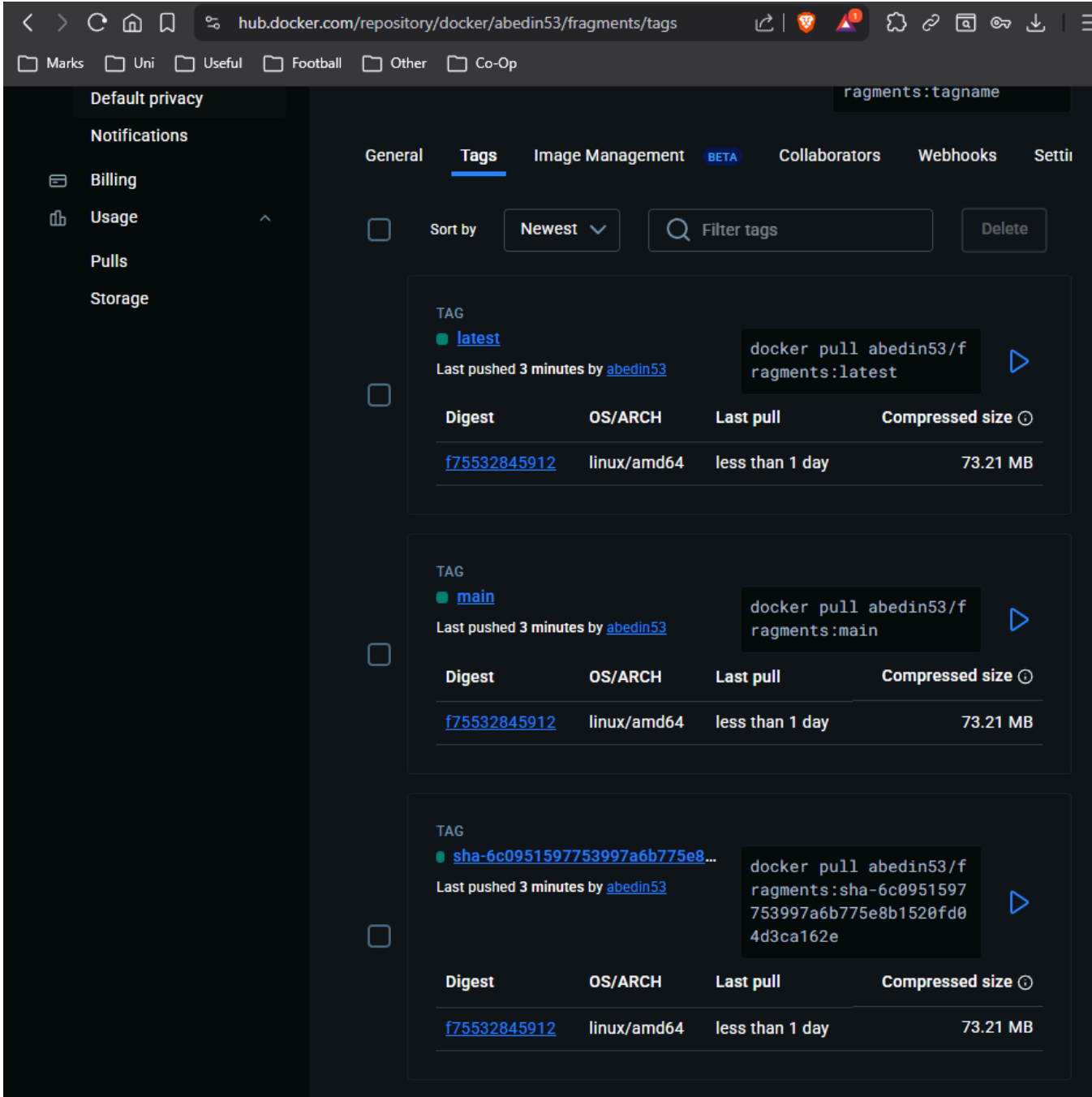
Screenshot of the first time I ran Hadolint on your Dockerfile, showing any warnings or errors I had to correct:

The screenshot shows a GitHub Actions CI workflow run for the job "chore: format files with Prettier #3". The workflow is in a failed state, indicated by a red 'X' icon. The left sidebar shows the job status: "ESLint + Prettier Lint" is successful (green checkmark), "Dockerfile Lint" is failed (red X), "Run Unit Tests" is successful (green checkmark), and "Build and Push to Docker Hub" is pending (clock icon). The main panel displays the "Dockerfile Lint" step, which failed 13 minutes ago in 15s. The step log shows the command used to run Hadolint and the resulting error message: "Error: Dockerfile:31 DL3018 warning: Pin versions in apk add. Instead of 'apk add <package>' use 'apk add <package>=<version>'". The log also shows the Hadolint output saved to /dev/stdout.

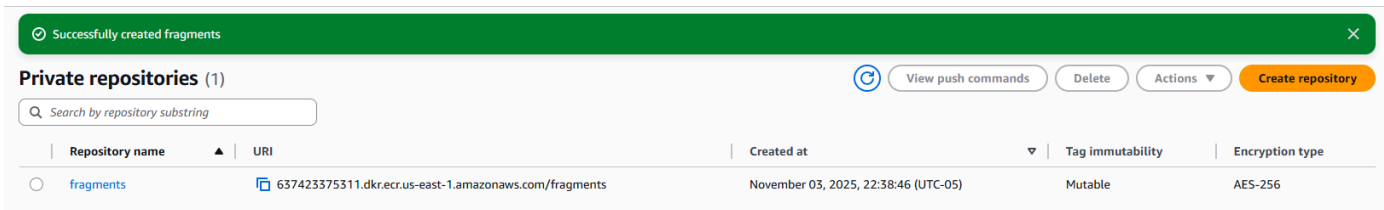
Screenshot of a successful CI workflow, showing your new Dockerfile Lint and Docker Hub jobs succeeding.

The screenshot shows a GitHub Actions CI workflow run for the job "Merge branch 'main' of https://github.com/minhazabedin53/bti525_lab6 #5". The workflow is in a successful state, indicated by a green checkmark icon. The left sidebar shows the job status: "ESLint + Prettier Lint" is successful (green checkmark), "Dockerfile Lint" is successful (green checkmark), "Run Unit Tests" is successful (green checkmark), and "Build and Push to Docker Hub" is successful (green checkmark). The main panel displays the "Dockerfile Lint" step, which succeeded 1 minute ago in 9s. The step log shows the command used to run Hadolint and the resulting output, which is the same as the previous screenshot.







Screenshot of your main and latest Tags in Docker Hub, created by your GitHub Actions ci.yml workflow.



making ecr fragments repo



repo secrets done

Repository secrets			New repository secret
Name ↕		Last updated	
 AWS_ACCESS_KEY_ID		21 minutes ago	 
 AWS_REGION		19 minutes ago	 
 AWS_SECRET_ACCESS_KEY		20 minutes ago	 
 AWS_SESSION_TOKEN		20 minutes ago	 
 DOCKERHUB_TOKEN		4 hours ago	 
 DOCKERHUB_USERNAME		4 hours ago	 

Screenshot of a successful CD workflow, showing your AWS login, build and push jobs succeeding.

cloud-comp

Blackboard

Release x

Minhaz Abe

BTI525 Lab 7

Launch AWS

Elastic Cont

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github.com/minhazabedin53/bti525_lab6/actions/runs/19057125965/job...

Marks Uni Useful Football Other Co-Op

minhazabedin53 / bti525_lab6

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<> Code

⌚ Issues

🔗 Pull requests

⌚ Actions

📁 Projects

🛡 Security

📊 Insights

⚙ Settings

← cd

✓ Release v0.7.0 #1

Re-run all jobs

⋮

Summary

Jobs

✓ Build & Push to Amazon ECR

Run details

Usage

Workflow file

Build & Push to Amazon ECR

succeeded 8 minutes ago in 45s

Search logs

🔄

⚙

> ✓ Set up job

3s

> ✓ Check out code

3s

> ✓ Set up Docker Buildx

10s

> ✓ Configure AWS Credentials

0s

> ✓ Login to Amazon ECR

1s

> ✓ Build and push to Amazon ECR

21s

> ✓ Post Build and push to Amazon ECR

2s

> ✓ Post Login to Amazon ECR

0s

> ✓ Post Configure AWS Credentials

0s

> ✓ Post Set up Docker Buildx

2s

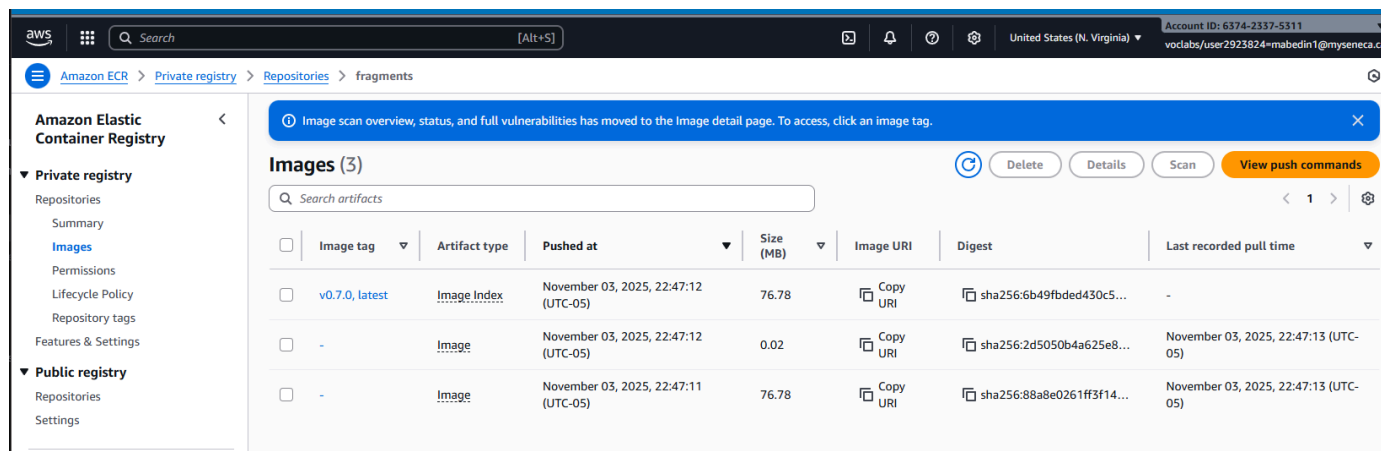
> ✓ Post Check out code

0s

> ✓ Complete job

0s

Screenshot of my Amazon Elastic Container Registry showing my fragments image and tags (v0.7.0, latest), built and pushed via GitHub Actions CD workflow



Screenshot of Docker Hub image (:main) running locally and responding to check.

```
PS C:\Users\minha\Downloads\BTI\bti525_lab6> docker pull abedin53/fragments:main
main: Pulling from abedin53/fragments
1cdf5a93b96: Pull complete
bb87725ac545: Pull complete
85b237fcf654: Pull complete
8e48a0e23d52: Pull complete
7d3dcf32738b: Pull complete
Digest: sha256:c262fe5c098f41d4c2f7b80afe650511a584e9820606e3a828f12c2c18cdf064
Status: Downloaded newer image for abedin53/fragments:main
docker.io/abedin53/fragments:main
PS C:\Users\minha\Downloads\BTI\bti525_lab6> docker run -d -p 8080:8080 abedin53/fragments:main
cfc3099736a21c231f587f45a0b904ed36e4d8f7f30afdd9f8919e6ec577dac6
```

```
● PS C:\Users\minha\Downloads\BTI\bti525_lab6> docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS
PORTS         NAMES
cfc3099736a2   abedin53/fragments:main            "docker-entrypoint.s..." 3 minutes ago  Up 3 minutes (healthy)
0.0.0.0:8080->8080/tcp, [::]:8080->8080/tcp  focused_dhawan
PS C:\Users\minha\Downloads\BTI\bti525_lab6>
● PS C:\Users\minha\Downloads\BTI\bti525_lab6> curl.exe http://localhost:8080/
{"status":"ok","author":"Minhaz Abedin mabedin1@myseneca.ca","githubUrl":"https://github.com/minhazabedin53/fragments-service","version":"0.7.0"}
○ PS C:\Users\minha\Downloads\BTI\bti525_lab6> [
```

setting up EC2 ECR

```
[ec2-user@ip-172-31-29-218 ~]$ docker login -u AWS -p $(aws ecr get-login-password --region us-east-1) 637423375311.dkr.ecr.us-east-1.amazonaws.com
WARNING! Using --password via the CLI is insecure. Use --password-stdin.
WARNING! Your password will be stored unencrypted in /home/ec2-user/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
[ec2-user@ip-172-31-29-218 ~]$ docker pull 637423375311.dkr.ecr.us-east-1.amazonaws.com/fragments:v0.7.0
v0.7.0: Pulling from fragments
2d35ebdb57d9: Already exists
9682177f5dda: Already exists
e910c7b62cc7: Already exists
eb9e06b66aae: Already exists
7897658e7a6c: Pull complete
a0839a77c9de: Pull complete
bafa007ff489: Pull complete
aadbf38f1f97: Pull complete
ee71f35a55f3: Pull complete
Digest: sha256:6b49fbded430c50e260219f49612426494e62da9f48e179764d7fba5eec2ec57
Status: Downloaded newer image for 637423375311.dkr.ecr.us-east-1.amazonaws.com/fragments:v0.7.0
637423375311.dkr.ecr.us-east-1.amazonaws.com/fragments:v0.7.0
```

EC2 running ECR image :v0.7.0 and passing health check.

```
[ec2-user@ip-172-31-29-218 ~]$ docker run -d --name fragments \
-e AUTH_STRATEGY=basic \
-e BASIC_AUTH_REALM=Fragments \
-e BASIC_AUTH_HTTPASSWD=/app/tests/.htpasswd \
-e LOG_LEVEL=info \
-p 8080:8080 \
637423375311.dkr.ecr.us-east-1.amazonaws.com/fragments:v0.7.0
9fdcf2206bb8aa4dce555823d7718e4ec9ebdfbac12b4ecb693bbc2ce3619dfb
[ec2-user@ip-172-31-29-218 ~]$ curl http://localhost:8080/
{"status":"ok","author":"Minhaz Abedin mabedin1@myseneca.ca","githubUrl":"https://github.com/minhazabec
docker run -d --name fragments -e AUTH_STRATEGY=basic -e BASIC_AUTH_REALM=Fragments -e BASIC_AUTH
_HTTPASSWD=/app/tests/.htpasswd -e LOGun -d --name fragments -e AUTH_STRATEGY=basic -e BASIC_AUTH_
REALM=Fragments -e BASIC_AUTH
[ec2-user@ip-172-31-29-218 ~]$
```

protected route works

```
-user@ip-172-31-29-218 ~]$ curl -u user:pass123 -H "Content-Type: text/markdown" --data "# Hello from EC2" http://localh
ost:8080/v1/fragments
[ec2-user@ip-172-31-29-218 ~]$
[ec2-user@ip-172-31-29-218 ~]$ curl -u user:pass123 -H "Content-Type: text/markdown" \
--data "# Hello from EC2" \
http://localhost:8080/v1/fragments
{"status":"ok","fragment":{"id":"ee42ac47-cd4b-4665-919e-91a74703e017","ownerId":"04f8996da763b7a969b1028ee3007569eaf3a635486ddab2
11d512c85b9df8fb","created":"2025-11-04T04:33:54.714Z","updated":"2025-11-04T04:33:54.714Z","type":"text/markdown","size":16}}[ec2
-user@ip-172-31-29-218 ~]$ curlcurl -u user:pass123 http://localhost:8080/v1/fragments?expand=1
{"status":"ok","fragments":[{"id":"f74c3752-5d56-4374-9b32-e1a84347f117","ownerId":"04f8996da763b7a969b1028ee3007569eaf3a635486dda
```