Application Development and Deployment Architecture

Digital Assignment – 5

Name : Brian E Shilo

Reg No. : 21MIC0131

Course code : CSI3025

DOCKER

→Make a folder
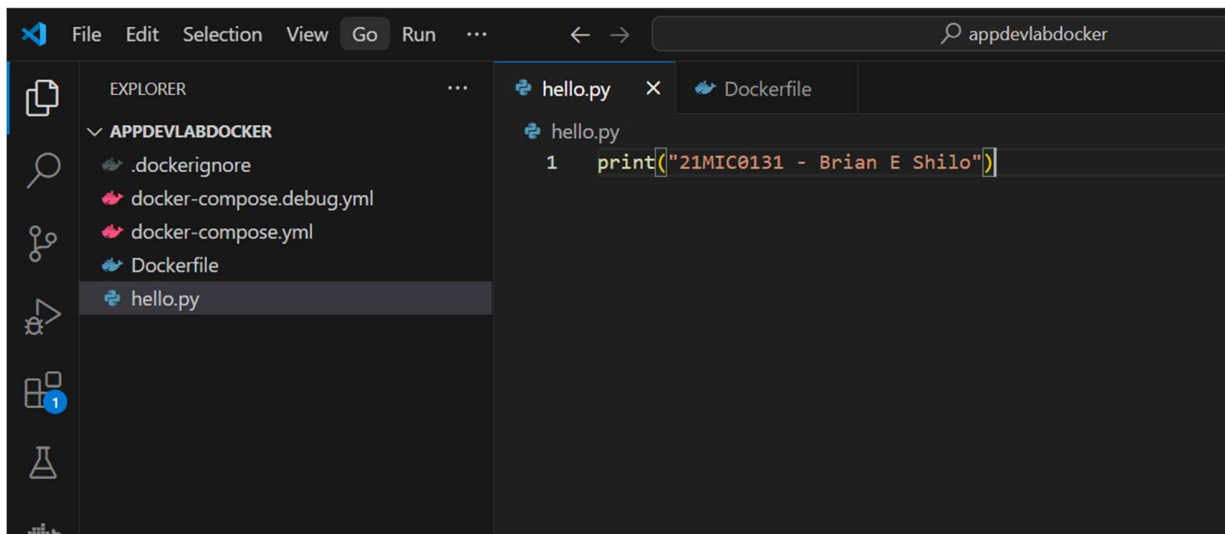


```
Command Prompt - docker b  ✕      +    ⌄

Microsoft Windows [Version 10.0.22631.3155]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Brian>cd Downloads

C:\Users\Brian\Downloads>mkdir appdevlabdocker

C:\Users\Brian\Downloads>cd appdevlabdocker
```
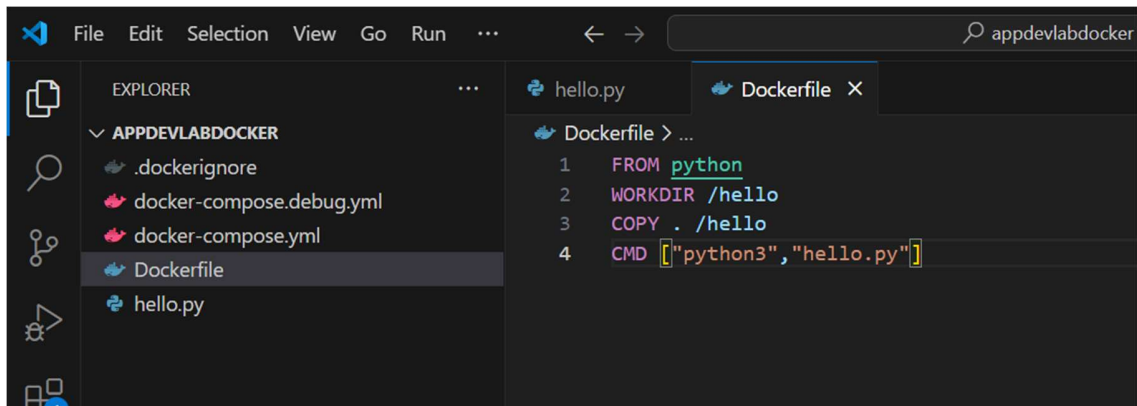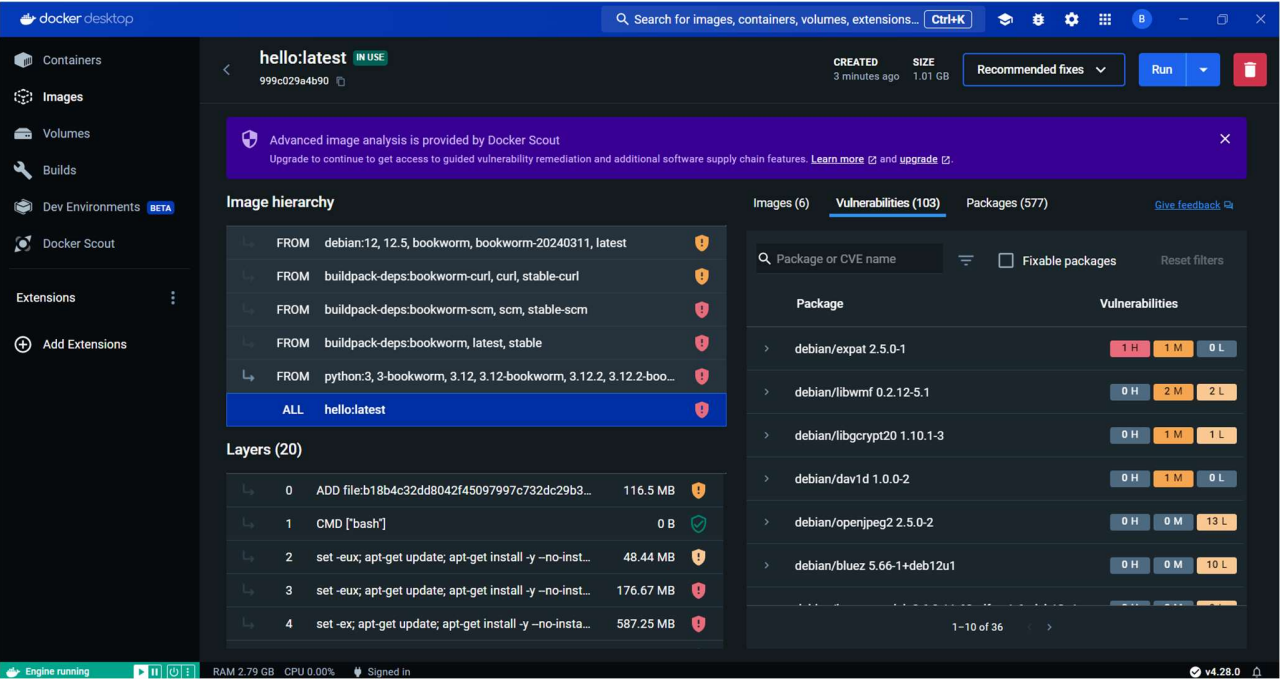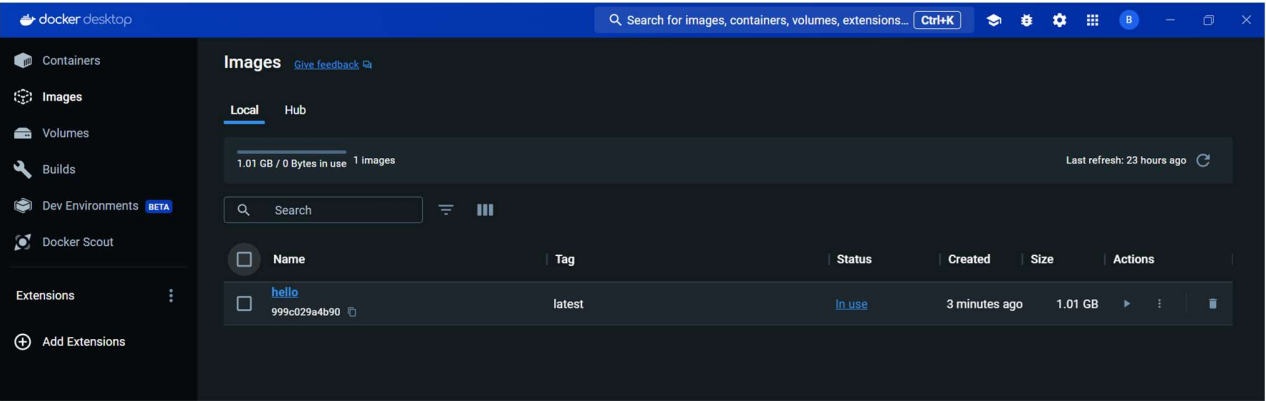
→Create hello.py

→Create docker file

→ Run command:

docker build -t hello .

Ensure docker desktop is running

Builds

Give feedback

Build container images and artifacts from source code. Learn more ↗

Selected builder
default

Builder settings

Build history   Active builds

Show only my builds

	ID	Name	Builder	Status	Duration	↓ Created	Author
	A66LCD	appdevlabdocker	desktop-linux	✓ Completed	10m 30s	13 minutes ago	N/A	🗑

Images

Give feedback

Local   Hub

1.01 GB / 0 Bytes in use   1 images

Last refresh: 23 hours ago

	Name	Tag	Status	Created	Size	Actions
	hello 999c029a4b90	latest	In use	3 minutes ago	1.01 GB	▶ ⋮ 🗑

< **hello:latest** IN USE
999c029a4b90

CREATED
3 minutes ago

SIZE
1.01 GB

Recommended fixes ▼   Run ▼ 🗑

🛡 Advanced image analysis is provided by Docker Scout
Upgrade to continue to get access to guided vulnerability remediation and additional software supply chain features. Learn more ↗ and upgrade ↗.   ✕

Image hierarchy

↳	FROM	debian:12, 12.5, bookworm, bookworm-20240311, latest	⚠
↳	FROM	buildpack-deps:bookworm-curl, curl, stable-curl	⚠
↳	FROM	buildpack-deps:bookworm-scm, scm, stable-scm	❗
↳	FROM	buildpack-deps:bookworm, latest, stable	❗
↳	FROM	python:3, 3-bookworm, 3.12, 3.12-bookworm, 3.12.2, 3.12.2-boo...	❗
	ALL	hello:latest	❗

Layers (20)

↳	0	ADD file:b18b4c32dd8042f45097997c732dc29b3...	116.5 MB	⚠
↳	1	CMD ["bash"]	0 B	✓
↳	2	set -eux; apt-get update; apt-get install -y --no-inst...	48.44 MB	⚠
↳	3	set -eux; apt-get update; apt-get install -y --no-inst...	176.67 MB	❗
↳	4	set -ex; apt-get update; apt-get install -y --no-insta...	587.25 MB	❗

Images (6)   **Vulnerabilities (103)**   Packages (577)   Give feedback

🔍 Package or CVE name   Fixable packages   Reset filters

Package	Vulnerabilities		
› debian/expat 2.5.0-1	1 H	1 M	0 L
› debian/libwmf 0.2.12-5.1	0 H	2 M	2 L
› debian/libgcrypt20 1.10.1-3	0 H	1 M	1 L
› debian/dav1d 1.0.0-2	0 H	1 M	0 L
› debian/openjpeg2 2.5.0-2	0 H	0 M	13 L
› debian/bluez 5.66-1+deb12u1	0 H	0 M	10 L

1–10 of 36   ›

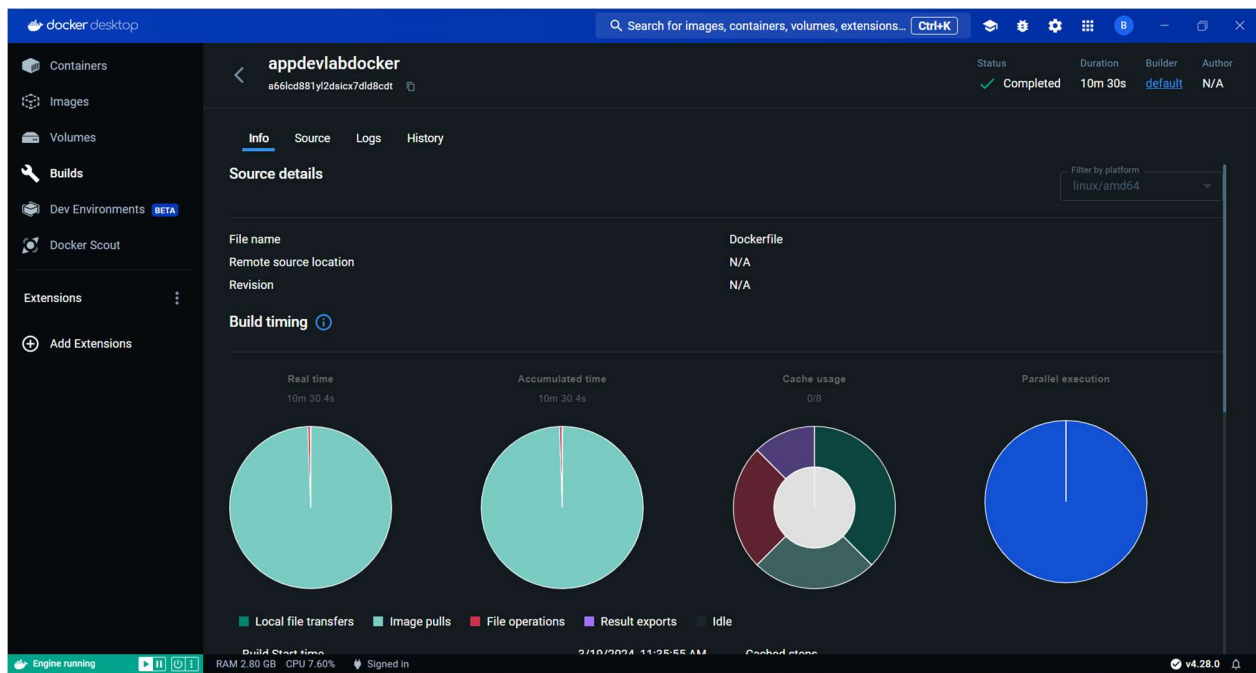Engine running ▶ ⏸ ⏻ ⋮   RAM 2.79 GB   CPU 0.00%   🔒 Signed in   ✓ v4.28.0 🔔

Run docker file

```
C:\Users\Brian\Downloads\appdevlabdocker>docker run hello
21MIC0131 - Brian E Shilo
```
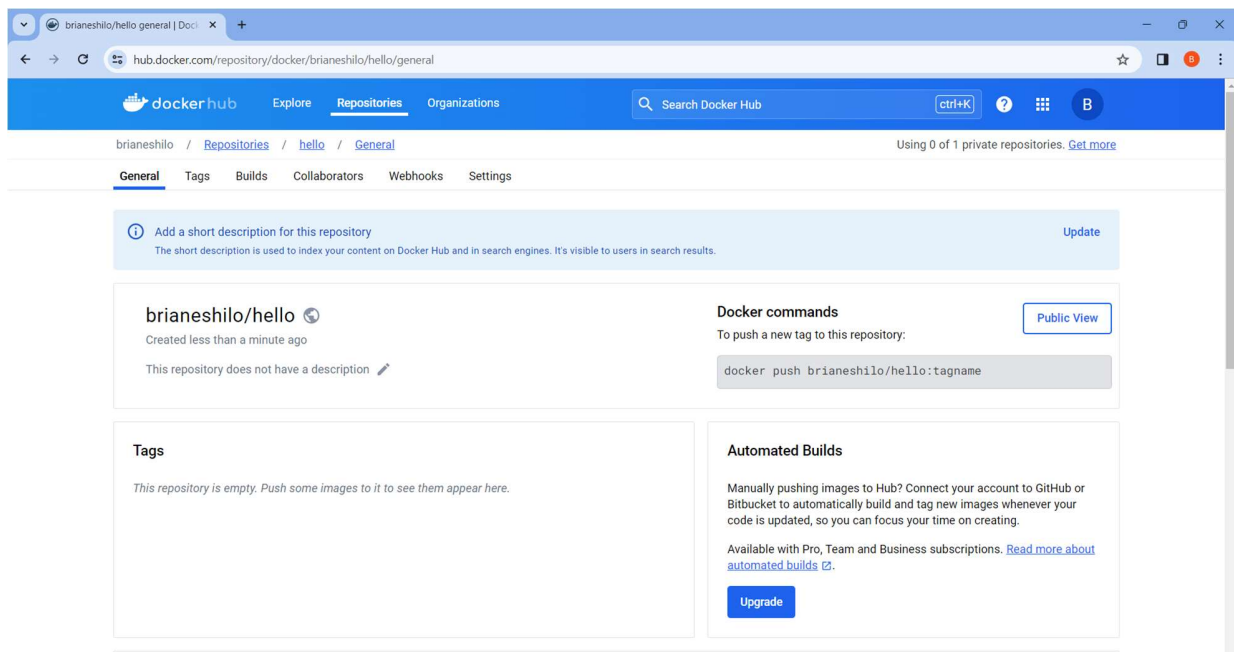
Container
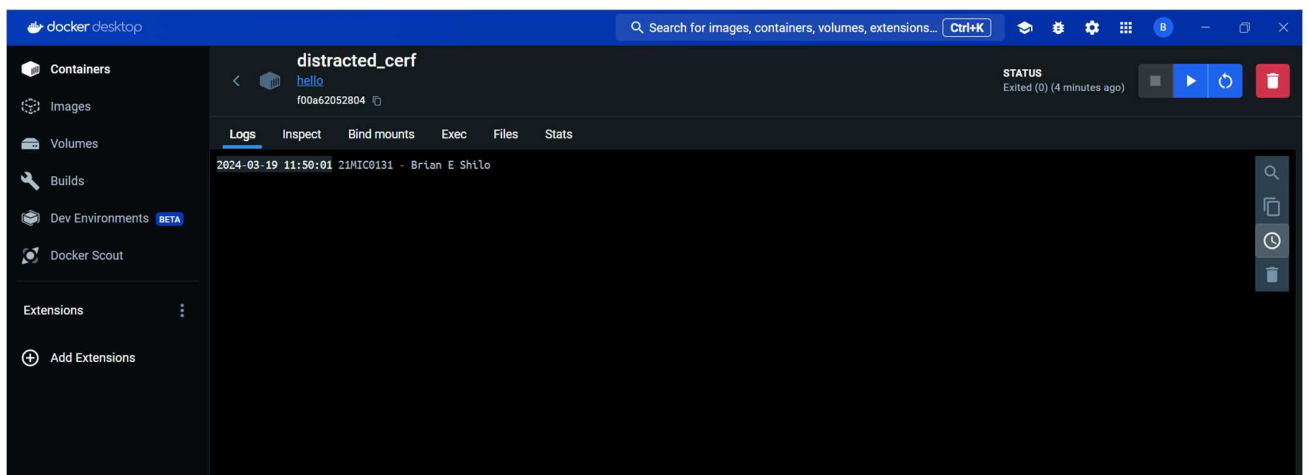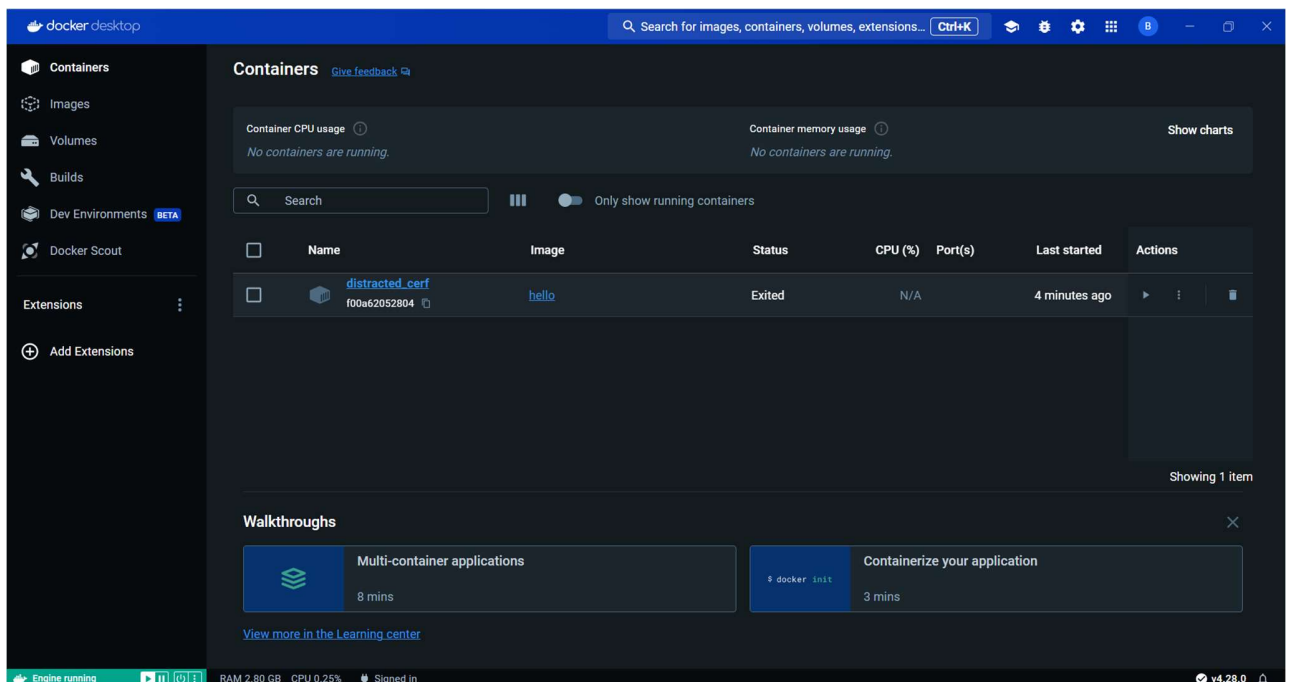
Builds

Create a repo on docker hub

Push image

```
C:\Users\Brian\Downloads\appdevlabdocker>docker push brianeshilo/hello:hello
The push refers to repository [docker.io/brianeshilo/hello]
tag does not exist: brianeshilo/hello:hello

C:\Users\Brian\Downloads\appdevlabdocker>docker tag hello brianeshilo/hello:hello

C:\Users\Brian\Downloads\appdevlabdocker>docker push brianeshilo/hello:hello
The push refers to repository [docker.io/brianeshilo/hello]
5e4fdf3dee4a: Pushed
7fb3aa8cb46b: Pushed
9adbc4b1428d: Pushed
f52093e4f67d: Pushed
1193f41e6b14: Pushing [========>                        ]  10.52MB/60.78MB
e077e19b6682: Pushing [==================>              ]  6.957MB/18.65MB
21e1c4948146: Pushing [>                                ]  3.224MB/587.3MB
68866beb2ed2: Pushing [>                                ]  2.224MB/176.7MB
e6e2ab10dba6: Waiting
0238a1790324: Preparing
```

```
C:\Users\Brian\Downloads\appdevlabdocker>docker push brianeshilo/hello:hello
The push refers to repository [docker.io/brianeshilo/hello]
5e4fdf3dee4a: Pushed
7fb3aa8cb46b: Pushed
9adbc4b1428d: Pushed
f52093e4f67d: Pushed
1193f41e6b14: Pushed
e077e19b6682: Pushed
21e1c4948146: Pushed
68866beb2ed2: Pushed
e6e2ab10dba6: Pushed
0238a1790324: Pushed
hello: digest: sha256:1439e9fced02caeb1d43eab8345e4e9533fd7481ed581b6ac86424cba40099e3 size: 2420

C:\Users\Brian\Downloads\appdevlabdocker>
```

Pull image

```
C:\Users\Brian\Downloads\appdevlabdocker>docker pull brianeshilo/hello:hello
hello: Pulling from brianeshilo/hello
Digest: sha256:1439e9fced02caeb1d43eab8345e4e9533fd7481ed581b6ac86424cba40099e3
Status: Image is up to date for brianeshilo/hello:hello
docker.io/brianeshilo/hello:hello

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview brianeshilo/hello:hello

C:\Users\Brian\Downloads\appdevlabdocker>
```

Checking for image and running it

```
C:\Users\Brian\Downloads\appdevlabdocker>docker run brianeshilo/hello:hello
21MIC0131 - Brian E Shilo

C:\Users\Brian\Downloads\appdevlabdocker>
```

****