

Dockerfile and Circleci

Team: Team 6

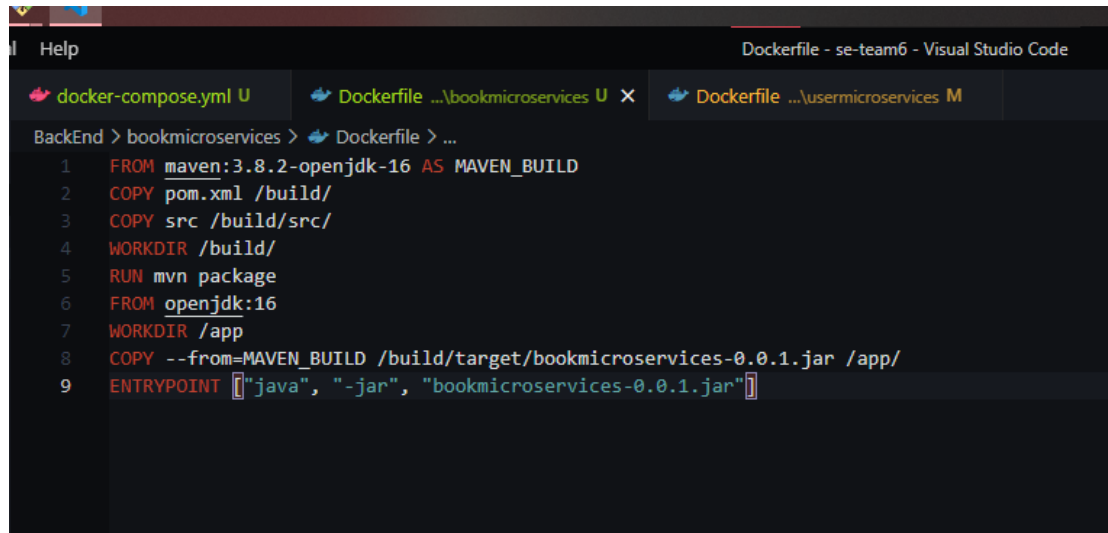
Team Member: Huanan Lin (s3691176)
Hin Yap Lee (s3801049)
Nguyen Hoang Hai (s3822918)
Quoc Pham (s3783358)

Scrum Master: Huanan Lin

Product Owner: Dipto Pratyaksa

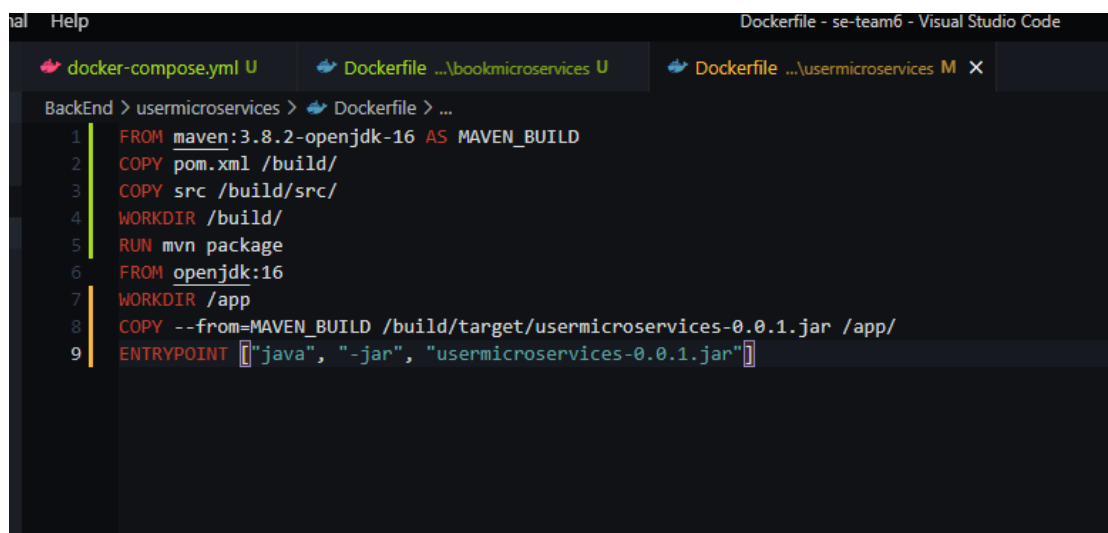
Development team: Hin Yap Lee
Nguyen Hoang Hai
Quoc Pham

Running dockerfile and docker-compose.yml file



This screenshot shows the Visual Studio Code editor with the Dockerfile for the 'bookmicroservices' project open. The file explorer at the top shows three tabs: 'docker-compose.yml U', 'Dockerfile ...\bookmicroservices U X', and 'Dockerfile ...\usermicroservices M'. The active tab is 'Dockerfile ...\bookmicroservices U X'. The editor content shows the following Dockerfile instructions:

```
BackEnd > bookmicroservices > Dockerfile > ...
1 FROM maven:3.8.2-openjdk-16 AS MAVEN_BUILD
2 COPY pom.xml /build/
3 COPY src /build/src/
4 WORKDIR /build/
5 RUN mvn package
6 FROM openjdk:16
7 WORKDIR /app
8 COPY --from=MAVEN_BUILD /build/target/bookmicroservices-0.0.1.jar /app/
9 ENTRYPOINT ["java", "-jar", "bookmicroservices-0.0.1.jar"]
```



This screenshot shows the Visual Studio Code editor with the Dockerfile for the 'usermicroservices' project open. The file explorer at the top shows three tabs: 'docker-compose.yml U', 'Dockerfile ...\bookmicroservices U', and 'Dockerfile ...\usermicroservices M X'. The active tab is 'Dockerfile ...\usermicroservices M X'. The editor content shows the following Dockerfile instructions:

```
BackEnd > usermicroservices > Dockerfile > ...
1 FROM maven:3.8.2-openjdk-16 AS MAVEN_BUILD
2 COPY pom.xml /build/
3 COPY src /build/src/
4 WORKDIR /build/
5 RUN mvn package
6 FROM openjdk:16
7 WORKDIR /app
8 COPY --from=MAVEN_BUILD /build/target/usermicroservices-0.0.1.jar /app/
9 ENTRYPOINT ["java", "-jar", "usermicroservices-0.0.1.jar"]
```

```
inal  Help

docker-compose.yml U X  Dockerfile ...\bookmicroservices U

docker-compose.yml
1  version: '3'
2  services:
3    usermicroservices:
4      build: ./Backend/usermicroservices
5      ports:
6        - "8080:8080"
7      volumes:
8        - ./code
9    bookmicroservices:
10     build: ./Backend/bookmicroservices
11     ports:
12       - "8081:8081"
13     volumes:
14       - ./code
```

```

PS C:\Users\nguyenhh\Desktop\se-team6\se-team6>
PS C:\Users\nguyenhh\Desktop\se-team6\se-team6> docker-compose up
Building usermicroservices
[+] Building 2.5s (16/16) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 32B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/openjdk:16
=> [internal] load metadata for docker.io/library/maven:3.8.2-openjdk-16
=> [auth] library/maven:pull token for registry-1.docker.io
=> [auth] library/openjdk:pull token for registry-1.docker.io
=> [maven_build 1/5] FROM docker.io/library/maven:3.8.2-openjdk-16@sha256:213c13c5faaf23c69120b0b414147433b516e090fdefc2a1daa2
=> [stage-1 1/3] FROM docker.io/library/openjdk:16@sha256:64fcb4a5440f62b368f30ce7982ad5cd7e18ddfa51cdfd1eb40d66ec99ceb000
=> [internal] load build context
=> => transferring context: 7.13kB
=> CACHED [stage-1 2/3] WORKDIR /app
=> CACHED [maven_build 2/5] COPY pom.xml /build/
=> CACHED [maven_build 3/5] COPY src /build/src/
=> CACHED [maven_build 4/5] WORKDIR /build/
=> CACHED [maven_build 5/5] RUN mvn package
=> CACHED [stage-1 3/3] COPY --from=MAVEN_BUILD /build/target/usermicroservices-0.0.1.jar /app/
=> exporting to image
=> => exporting layers
=> => writing image sha256:0e4dea1d41b9e160bb2e32d2593574267668895cd662325a5afb1075a2b875ba
=> => naming to docker.io/library/se-team6_usermicroservices

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
WARNING: Image for service usermicroservices was built because it did not already exist. To rebuild this image you must use `do
Building bookmicroservices
[+] Building 271.2s (14/14) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 32B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/openjdk:16
=> [internal] load metadata for docker.io/library/maven:3.8.2-openjdk-16
=> [stage-1 1/3] FROM docker.io/library/openjdk:16@sha256:64fcb4a5440f62b368f30ce7982ad5cd7e18ddfa51cdfd1eb40d66ec99ceb000
=> CACHED [maven_build 1/5] FROM docker.io/library/maven:3.8.2-openjdk-16@sha256:213c13c5faaf23c69120b0b414147433b516e090fdefc
=> [internal] load build context
=> => transferring context: 4.48kB
=> CACHED [stage-1 2/3] WORKDIR /app
=> [maven_build 2/5] COPY pom.xml /build/
=> [maven_build 3/5] COPY src /build/src/
=> [maven_build 4/5] WORKDIR /build/
=> [maven_build 5/5] RUN mvn package
=> [stage-1 3/3] COPY --from=MAVEN_BUILD /build/target/bookmicroservices-0.0.1.jar /app/
=> exporting to image
=> => exporting layers
=> => writing image sha256:b1086af64c5d1ce176e417d03e3276f7530d517c9a6b0a9faec155e8f5919476
=> => naming to docker.io/library/se-team6_bookmicroservices

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
WARNING: Image for service bookmicroservices was built because it did not already exist. To rebuild this image you must use `do
Creating se-team6_bookmicroservices_1 ... done
Creating se-team6_usermicroservices_1 ... done

```


Running Circleci testing:

nhai1605

Nguyen Hoang Hai (...

Dashboard

Projects

Insights

Organization Settings

Plan STORAGE

Notifications

Status OPERATIONS

Help

build-docker-compose

Running

Duration

4m 57s

Queued

5s

Executor / Resource Class

Docker / Medium

Branch

circleci-editor/hai

Commit

9174e1e

Author & Message

Add circleci/config.yml

STEPS

TESTS

ARTIFACTS

Parallel runs

1 / 1 parallel

6

00:19

Use parallelism to run faster tests

Parallelism speeds up tests by splitting them across multiple executors.

Go to Docs

X

Spin up environment

14s

Preparing environment variables

0s

Checkout code

1s

Setup a remote Docker engine

3s

docker-compose up

4m 38s

Your output is too large to display in the browser.

Only the last 400000 characters are displayed.

Download the full output as a file

```

0099.  cd /tmp/project_bookmicroservices_1 ...
0100.  Creating project_bookmicroservices_1 ...
0101.  Attaching to project_bookmicroservices_1, project_bookmicroservices_1
0102.  bookmicroservices_1 |
0103.  bookmicroservices_1 |
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```

[illegible]

Failure cases because we didn't write the docker-compose file correctly:

e-team6 16	<div><div>Canceled</div><div>build</div></div>
Jobs	<div><div>build-docker-compose 16</div></div>
e-team6 15	<div><div>Canceled</div><div>build</div></div>
Jobs	<div><div>build-docker-compose 15</div></div>
e-team6 14	<div><div>Error calling workflow: 'build'Cannot find a definition for job named build--docker-compose</div><div><div>Failed</div><div>Build Error</div></div></div>
Jobs	<div><div>Build Error 14</div></div>
e-team6 13	<div><div>Error calling workflow: 'build'Cannot find a definition for job named build--docker-compose</div><div><div>Failed</div><div>Build Error</div></div></div>
Jobs	<div><div>Build Error 13</div></div>
e-team6 12	<div><div>Failed</div><div>build</div></div>
Jobs	<div><div>build-docker-compose 12</div></div>
e-team6 11	<div><div>Error calling workflow: 'build'Cannot find a definition for job named build--docker-compose</div><div><div>Failed</div><div>Build Error</div></div></div>
Jobs	<div><div>Build Error 11</div></div>
e-team6 10	<div><div>Error calling workflow: 'build'Cannot find a definition for job named build--docker-compose</div><div><div>Failed</div><div>Build Error</div></div></div>
Jobs	<div><div>Build Error 10</div></div>

Successfully Pass circleci testing and build:

The screenshot shows the CircleCI web interface for a build named 'build-docker-compose'. The build is in a 'Success' state, indicated by a green checkmark and the word 'Success' in a green box. The build is part of a workflow named 'build' and is running on a 'Medium' executor. The build duration is 1m 57s, and it was finished 2m ago. The build is triggered by a commit from the 'circleci-editor/hai' branch, committed by 'effee1f' with the message 'Updated config.yml'.

The build steps are listed below the build information:

- Spin up environment
- Preparing environment variables
- Checkout code
- Setup a remote Docker engine
- docker-compose up --no-start
- Persisting to workspace

The build is also shown as a 'Parallel runs' section, indicating that the build is split into multiple parallel jobs to run faster.

The screenshot shows the GitHub repository page for 'nhhai1605/se-team6'. The repository is a private repository with 1 star and 0 forks. The repository is currently on the 'main' branch, which has 2 branches and 0 tags. The repository is currently on the 'main' branch, which has 2 branches and 0 tags.

The repository contains the following files and folders:

- .circleci
- .vs
- BackEnd
- FrontEnd/myfirstapp
- Wireframe
- .gitignore
- README.md
- docker-compose.yml

The repository also has a 'README.md' file, which is currently being edited. The repository is currently on the 'main' branch, which has 2 branches and 0 tags.

The repository is currently on the 'main' branch, which has 2 branches and 0 tags.