

Here they follow a few instructions on how to make a Docker image with a simple Web service

1. Make your Web service a stand alone .jar, with all dependencies included
2. Write a Dockerfile as it follows

```
FROM openjdk:8
COPY ./SOAP-WebService-1.0-SNAPSHOT.jar /usr/app/
WORKDIR /usr/app
EXPOSE 8080
ENTRYPOINT ["java", "-cp", "SOAP-WebService-1.0-SNAPSHOT.jar",
"it.sapienza.softeng.soapws.Server"]
```

3. After starting Docker engine in your specific OS, and in the same folder where the Dockerfile and the .jar are placed, build the image

*% docker build .*

4. After a while (depending on the network bandwidth, computing performance, etc.) the process should be completed, you can check the new image with

*% docker images*

And you will see something like

| REPOSITORY     | TAG    | IMAGE ID     | CREATED       | SIZE  |
|----------------|--------|--------------|---------------|-------|
| <none>         | <none> | f01d5e1a6e65 | 9 seconds ago | 523MB |
| rmohr/activemq | latest | 7c58d2d8d6af | 2 years ago   | 569MB |

5. Then you need to tag the newly created image and push on the repository.  
Here is presented how the professor did with its own repository on Docker Hub (the student can modify if willing to publish on another repository)

*% docker login*

Authenticating with existing credentials...

Login Succeeded

*% docker image tag f01d5e1a6e65 mecellone/course-softengineering:soapws*

*% docker image ls*

| REPOSITORY     | TAG    | IMAGE ID     | CREATED     | SIZE  |
|----------------|--------|--------------|-------------|-------|
| soapws         | latest | f01d5e1a6e65 | 2 hours ago | 523MB |
| rmohr/activemq | latest | 7c58d2d8d6af | 2 years ago | 569MB |

*% docker image push mecellone/course-softengineering:soapws*

The push refers to repository [docker.io/mecellone/course-softengineering]

5f70bf18a086: Pushed

45b8f2c4d3b3: Pushed

05b4da1d24c6: Pushed

30b0cc543ee7: Pushed  
26863b4714ee: Pushed  
5d5962699bd5: Pushed  
a42439ce9650: Pushed  
26270c5e25fa: Pushed  
e2c6ff462357: Pushed  
soapws: digest:  
sha256:8d2d1e9d3cd932ba213cccd18784f3e28f9f037797ee516cdef68cb96ebd7aec  
size: 2211