

Project Title: Deploy Angular Application in Docker Container

Note: This is a solution document on how the demonstration is performed on Docker 18.+ version.

Install Angular application on Ubuntu by running the commands mentioned below:

```
ng new myAng-app  
cd myAng-app
```

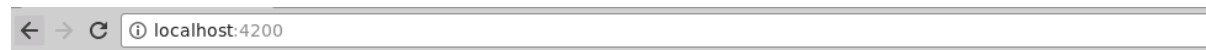
Run the application in the browser.

```
ng serve --open
```

A default browser should open automatically displaying you the Angular application. If you do not see the output, open any browser and add the url in the search bar of the browser:

<https://localhost:4200>

Your browser should load the output mentioned in the screenshot:



Welcome to myAngApp!



Here are some links to help you start:

- [Tour of Heroes](#)

Navigate inside the project, and create a Dockerfile.

```
touch Dockerfile
```

Now add the following content to it.

```
# base image
```

```
FROM node:9.6.1
```

```
# install chrome for protractor tests
```

```
RUN wget -q -O - https://dl-ssl.google.com/linux/linux_signing_key.pub | apt-key add -
```

```
RUN sh -c 'echo "deb [arch=amd64] http://dl.google.com/linux/chrome/deb/ stable main" >> /etc/apt/sources.list.d/google.list'
```

```
RUN apt-get update && apt-get install -yq google-chrome-stable
```

```
# set working directory
```

```
RUN mkdir /usr/src/app
```

```
WORKDIR /usr/src/app
```

```
# add `/usr/src/app/node_modules/.bin` to $PATH
```

```
ENV PATH /usr/src/app/node_modules/.bin:$PATH
```

```
# install and cache app dependencies
```

```
COPY package.json /usr/src/app/package.json
```

```
RUN npm install
```

```
RUN npm install -g @angular/cli@1.7.1
```

```
# add app
```

```
COPY . /usr/src/app
```

```
# start app
```

```
CMD ng serve --host 0.0.0.0
```

Create another “dockerignore” file.

```
touch .dockerignore
```

Write the following content in it:

```
node_modules
```

```
.git
```

Build and tag the docker image.

```
docker build -t myangularapp .
```

Then reload the container by executing the command mentioned below:

```
docker run -it -v ${PWD}:/usr/src/app -v /usr/src/app/node_modules -p 4200:4200 -rm myangularapp
```

Open the browser, and you should be able to run the application in the browser by navigating to the URL mentioned below.

<https://localhost:4200>

Exit the execution of application, and now run the Angular application in docker detach mode.

```
docker run -d -v ${PWD}:/usr/src/app -v /usr/src/app/node_modules -p 4200:4200 -rm myangularapp
```

Now, open the browser, and you should be able to run the application in the browser by navigating to the URL mentioned below.

<https://localhost:4200>

You will be able to load the Angular application page in your browser.

Now, check if the container is running.

```
docker images
```

Now tag the running container.

```
docker tag <ContainerID> <DockerHubUsername>/<ImageName>:<tagName>
```

Login to Docker Hub.

```
docker login -u username=yourdockerhubusername --email=registeredemail.
```

Enter the password when prompted.

Push the image to Docker Hub.

```
docker push <DockerHubUsername>/<ImageName>:<tagName>
```

Go to your Docker Hub account, and reload the page. You should be able to find the image available in the Docker Hub.