**Docker tutorial:** Dockerizing a simple react application.

*Follow the given steps to* [*install*](https://docs.docker.com/get-docker/) *docker relative to your O.S.*

*If you are not familiar with what is docker, read about it* [*here*](https://www.docker.com/)*.*

**Creating a simple react app:**

C:\users\user> mkdir REACT\_DOCKERAPP

Find the source code of the app on github [here](https://github.com/aditya-sridhar/simple-reactjs-app) and clone it to your local folder.

C:\users\user> REACT\_DOCKERAPP> npm install -g create-react-app (install create-react-app package)

C:\users\user> REACT\_DOCKERAPP\simple-reactjs-app>npm i (install npm packages in the cloned folder)

C:\users\user> REACT\_DOCKERAPP\simple-reactjs-app>npm start (to check if app is running successfully)

**Dockerizing the react application:**

*Make sure docker daemon is running and that you are signed in to your docker account.*

C:\users\user> REACT\_DOCKERAPP\simple-reactjs-app> echo Test>Dockerfile (Create your docker file, note that Dockerfile capital D with no extension, Test is chosen randomly and will be deleted next)

C:\users\user> REACT\_DOCKERAPP\simple-reactjs-app>notepad Dockerfile

*Paste the Dockerfile code given in the tutorial folder.*

C:\users\user> REACT\_DOCKERAPP\simple-reactjs-app>docker build . –t simplereactapp (creating your docker image, note that build . –t are all separated by space)

C:\users\user> REACT\_DOCKERAPP\simple-reactjs-app>docker images (this command shows all your images, in our case it should show the newly created simplereactapp image)

C:\users\user> REACT\_DOCKERAPP\simple-reactjs-app>docker run –rm –it –p 3000:3000 simplereactapp (running your container, go to localhost:3000/ and the app should be running)

C:\users\user>docker ps –a (in another terminal) (this command shows your running containers, you should see the newly created container)

C:\users\user> REACT\_DOCKERAPP\simple-reactjs-app>ctrl C (to stop container)

C:\users\user> REACT\_DOCKERAPP>docker tag simplereactapp:latest DockerUsername/simplereactapp (giving a tag to the image we want to push to Dockerhub)

C:\users\user> REACT\_DOCKERAPP>docker push DockerUsername/simplereactapp (this command pushes the image to Dockerhub, go to dockerhub->sign in-> repositories, you should find the image)

Your image is now on Dockerhub and is accessible by everyone, to open your container on your/any other machine:

C:\users\user>docker pull DockerUsername/simplereactapp (you can copy the command from dockerhub after searching the name of the image)

**Assignment 8:**

Create a Docker container for the Python-Django application created in Assignment 7.