# Docker

Simple docker app.

## Pre-requisites:

* Docker
* Clone this repo: <https://github.com/ardydedase/devops>

## Install Docker

* [Install Docker on Windows](https://runnable.com/docker/install-docker-on-windows-10)
* [Install Docker on Mac](https://runnable.com/docker/install-docker-on-macos)
* [Install Docker on Linux](https://runnable.com/docker/install-docker-on-linux)

## Build the Docker Images

This image will be using [this Dockerfile](hello-world-node/Dockerfile).

1. Make sure you are in the docker/hello-world-node folder.

* cd hello-world-node

1. Build the image.

* # v1 tag  
  docker build -t myapp:v1 .

1. Uncomment npm install winston and COPY ./ecs-compose.yml ./ from Dockerfile before running.

* # latest tag  
  docker build -t myapp:latest .

1. List the available images. This will display the images IDs and names. docker images
2. Compare the file sizes between the tagged images that you see in the list. Observe which image has a bigger file size.
3. Remove the image. Use the image ID and name shown after running docker images. Command: docker rmi <image name or image ID>

* # Remove a tagged image  
  docker rmi myapp:v1  
    
  # Remove an image including all its tags  
  docker rmi myapp

## Run the Docker Containers

These containers will be using the images built from [this Dockerfile](hello-world-node/Dockerfile).

Make sure that you have followed the instructions in the [Docker Images](#docker-images) section.

1. Run the containers.

* # Run app0 in port 8080  
  docker run -d -p 8080:5000 --name app0 myapp:latest  
    
  # Run app1 in port 8081  
  docker run -d -p 8081:5000 --name app1 myapp:latest

1. Display the running containers and take note of their IDs or names.

* docker ps -a

1. Delete the containers. Command: docker rm -f <container name or ID>. The parameter -f is used to force remove the container without stopping it.

* docker rm -f app0  
  docker rm -f app1

## Run the container with docker compose

1. Run the containers using docker compose.

* docker-compose up

1. Attempt to run multiple containers exposed through different ports e.g. ports 5000, 5001 and 5002.

## Credits

* https://github.com/nburgess/react-express-example