

# Playing around with Docker

This repo is me learning docker and testing it out. The test docker image is hosted on docker.

Things I learnt during this exercise:

- What is Docker
  - How it works
  - What are containers
  - What are images
  - How to pull images
  - How to build custom images using **Dockerfile**
  - What is docker-compose
  - How to orchestrate multiple container dependencies using **docker compose up**
  - What are volumes
  - How docker networking works
    - Bridge network
    - Host network
    - Custom networks
    - Pinging containers with name or IP
  - Mounting volumes for non-volatile storage and sharing of data
  - Port mappings (not required for host network)
  - Docker Desktop
  - Dockerhub
  - How to push images to dockerhub
  - Layering of dockerfile
  - Caching of layers
  - Optimizing layers for caching
  - Multi-stage builds
    - Splitting image into multiple stages
    - Build stage and runner stage
    - COPY --from=build
    - WORKDIR
  - Buildx from BuildKit
    - correct dependency resolution of multi-stage
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## Run it

Run it using two steps

```
docker pull sayang2001/docker-node:latest
docker run -it -p 8000:8000 sayang2001/docker-node:latest
```