

Docker Compose

Virtualisation

Otago Polytechnic
Dunedin, New Zealand

THINK ABOUT WHAT WE DID LAST TIME

1. Build flaskapp image
2. Build nginx image
3. Create app network
4. Run a flaskapp container, attaching it to the app network
5. Run an nginx container, attaching it to the app network and mapping its port 80 to host port 8080

THIS SEEMS LIKE SOMETHING WE MIGHT DO MORE THAN ONCE

How do we deal with a situation like this?

1. Write a shell script.
2. Use (or create) a more general tool.

A more general tool exists: *Docker Compose*.

HOW WOULD WE REDO THE LAST LAB WITH DOCKER COMPOSE?

1. Create a project directory, called `lab4`.
2. Place the build contexts for our images inside this directory.
3. Create a file, `docker-compose.yml` in the directory with appropriate directives.

We can then build and run everything by executing the command `docker-compose up`.

OUR COMPOSE FILE

```
version: '3'
services:
  flaskapp:
    build: ./flaskapp
    image: flaskapp
    networks:
      - app
  nginx:
    build: ./nginx
    image: nginx
    ports:
      - 8080:80
    networks:
      - app
    depends_on:
      - flaskapp
networks:
  app:
```

WHEN IS DOCKER COMPOSE A GOOD TOOL

- ▶ Development environments
- ▶ Automated builds, tests
- ▶ Small deployments

However, if you're going to deploy services on a larger scale, you need more horsepower than is provided by Docker Compose.