Docker

- We will now pack our gRPC server in a container and run it locally using Docker Desktop and Docker Compose.

- DS_Examples/grpc/Dockerfile

Docker

1. Build image
2. List all images
3. Build and start container
   - Port mappings
4. List all containers
5. Test container
6. Shut down container

Exercise: Docker

1. Define a Dockerfile for the web service DS_Examples/misc/webserver.py that runs the server on port 7777.

2. Create a container image

3. Run the container

4. Test the container using a web browser

Hint: Be careful on which IP address the server is starting (Python file)

Docker compose

- Tool for deploying multi-container applications
- DS_Examples/grpc/example_server_redis.py
- DS_Examples/grpc/docker-compose.yml
- Multi-container deployment with gRPC service and Redis cache
- Run Redis server
  - docker run –p 6379:6379 redis:alpine
- DS_Examples/grpc/docker-compose.yml