Making a Container Publicly Available

- How to make an app that is running inside a container accesible from outside the Docker host machine.
- How to share data with containers running on your machine

Start up a container and open a specific netowrk port so that you can view the container web server in a web browser on your local machine. Pick an arbitrary TCP port number on your host machine to expose our container's network port on.

```
docker run  - -name our_nginx -d -p 8080:80 nginx
```

- `-p 8080:80` means open up TCP port 8080 on the docker host machine and redirect traffict to and from it, to TCP port 80 inside the container.
- `outside:inside`
- check with docker ps
- output in PORTS column 0.0.0.0:8080 -> 80/tcp

- La direccion IP 0.0.0.0 es conocida como direccion no especifica. El nombre tecnico original es "source asddress for this host on this network" *direccion de origen para este host en esta red*

- La IP 0.0.0.0 significa que todas las direcciones IPv4 se encuentran en el equipo local.

8. curl http://localhost:8080

- If docker hostm achine is remote, and you want to connect it from another system over the network, you will need the ip address of your docker host machine

- If you are accessing the docker host via SSH from your laptop you will need to determinate the IP address of the docker host system. on linux systems run `ip a`

you can get the logs running `docker logs container_name`

making webpages

```
mkdir webpages
cd webpages
echo 'hi from inside the container! > index.html
cd ..
```

```
docker run -p 8080:80 –name another_nginx -v
${PWD}/webpages:/usr/share/nginx/html:ro -d nginx
```

- -v option creates a volume for sharing files.
- -v followd by the path on the host machine followed by a : and where you want that data to be accessed in the container. after second semicolon can add options as `ro` wich mounts the volume in read only mode inside the container. This means that files can be changed from the docker host machine, but the container cannot alter the files.

Exercise: Making a container publicly available

```
# Start a container using Apache HTTP Server Image
# Image for apache http server is httpd
docker run –name apache_welcome -d -p 9900:80 httpd:latest
docker ps
curl http://localhosts:9900
```