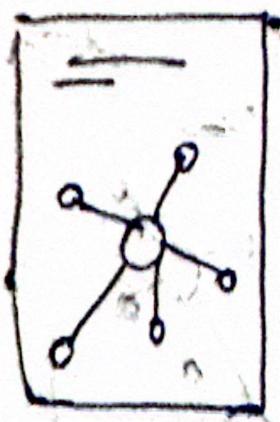
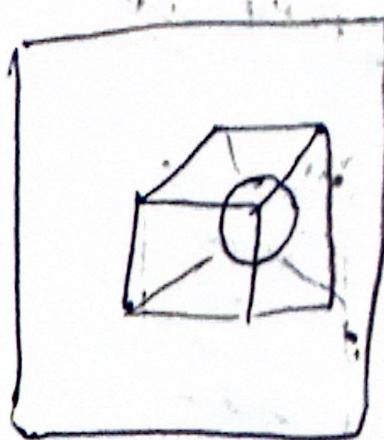


Docker is an Open platform for developing, shipping, and running applications. Docker enables you to separate your applications from your infrastructure so you can deliver software quickly.

Images and Containers



Docker Image



Docker Container

Define the contents

that are needed to run

a container

Run your
applications

Serve a Code

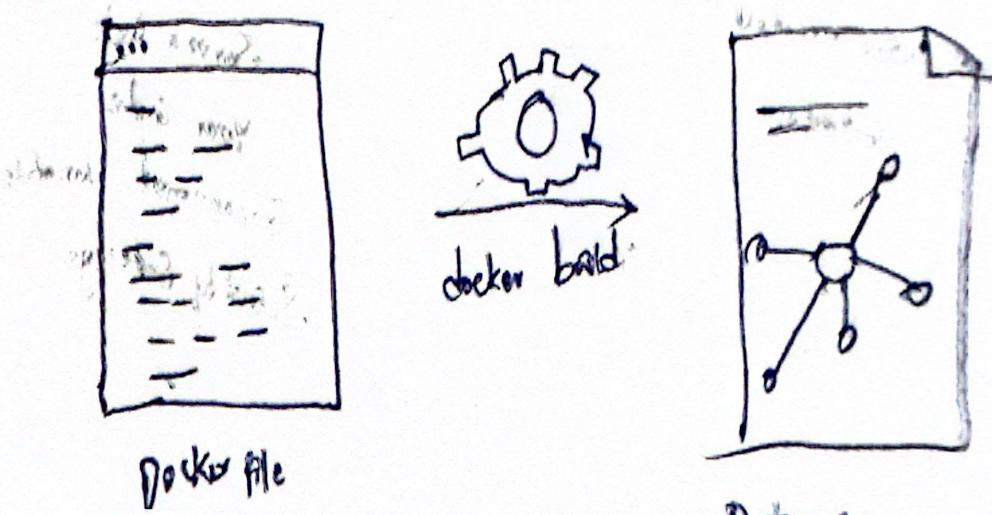
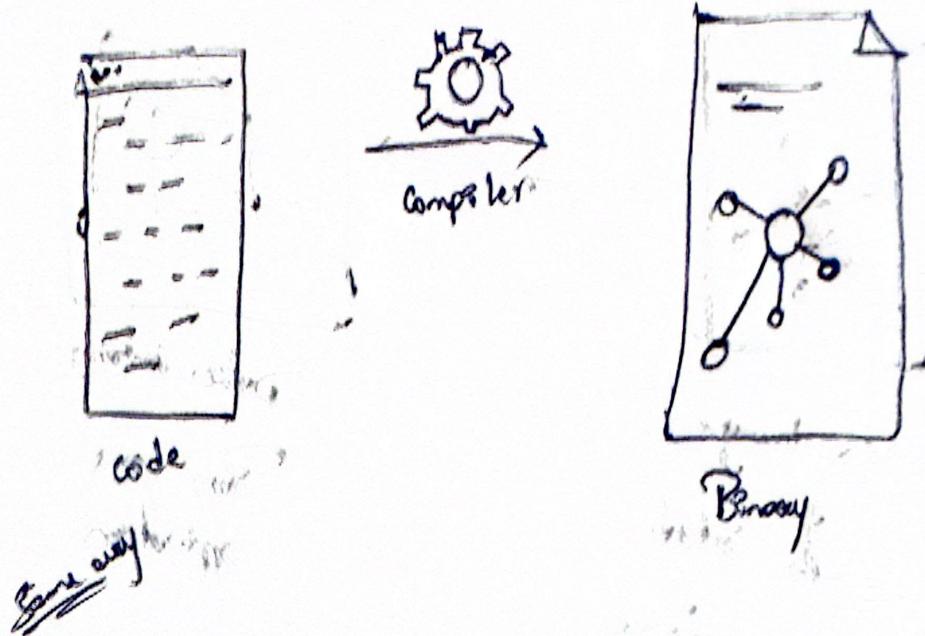
Your Code

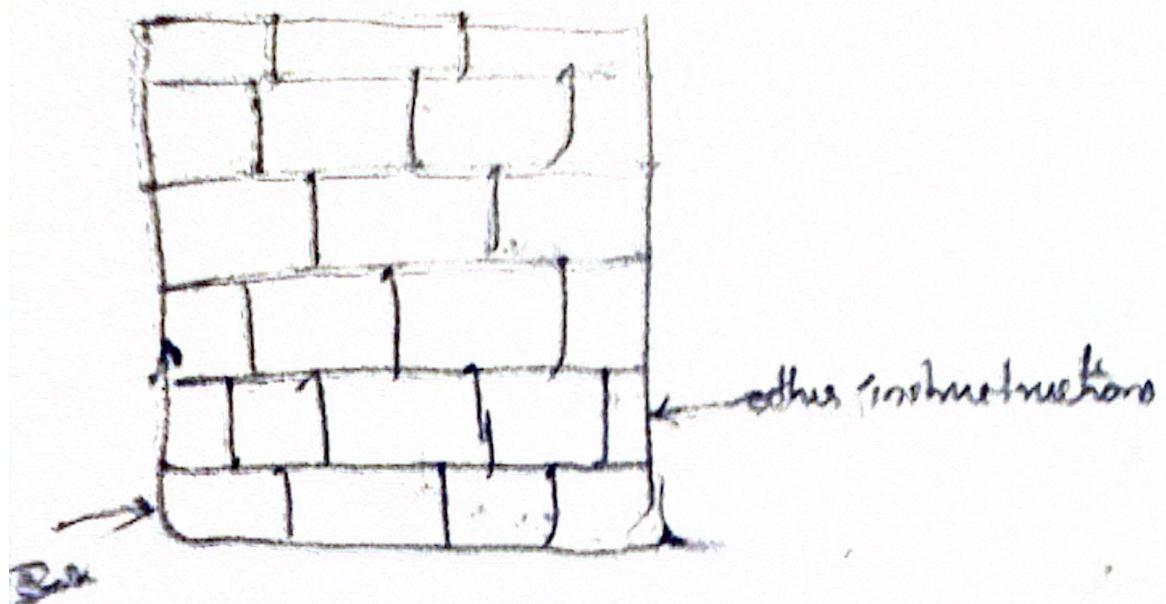
Environment Variables

A lot of

A Dockerfile is a text-based document that is used to create a container image. It provides instructions to the image builder in the form of commands to run, files to copy, startup command to run, files to copy, startup command, and others.

compiling Code





Dockerfile Instructions

Dockerfiles Contains Instructions that are used to

Create images.

They define image layers.

From: node:alpine.

LABEL author="Dan Wahlin"

ENV NODE_ENV=production

WORKDIR /var/www

COPY .

RUN npm install

Explain
Entry point
3000
{"rock",
"server.js"}
"server.js"

ENTROPY POINT

["short", "up", "down"]

\$popr

EXPOSE

(or)

REUN
socle down - face

waypoint = home - up

COPY

package * join

/var/www

LOGGED

* packaging

RUN

apk update - k - add - no - code

ANZ

DIR = m83

ANZ

PART = 3000

ANZ

NOTE = ANZ = 3000

ANZ

target = config

ANZ

target = config - D - lib

ANZ

target = config - lib

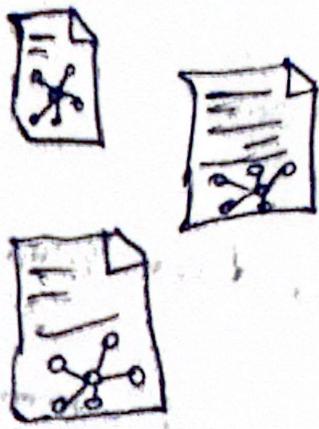
target = config - lib

docker build at command

Short for tag.

git docker build -t nodeapp

Docker Registries



Internal Registry

Docker Hub

Amazon ECR

Azure Container Registry

Google Container Registry

More

Once the Image

the Registry.

Created we push it to

→ Decker → lumber → log → timber → wood → paper

remove on same side \leftarrow darker $>$ new $>$ same

18. December damages → December damages

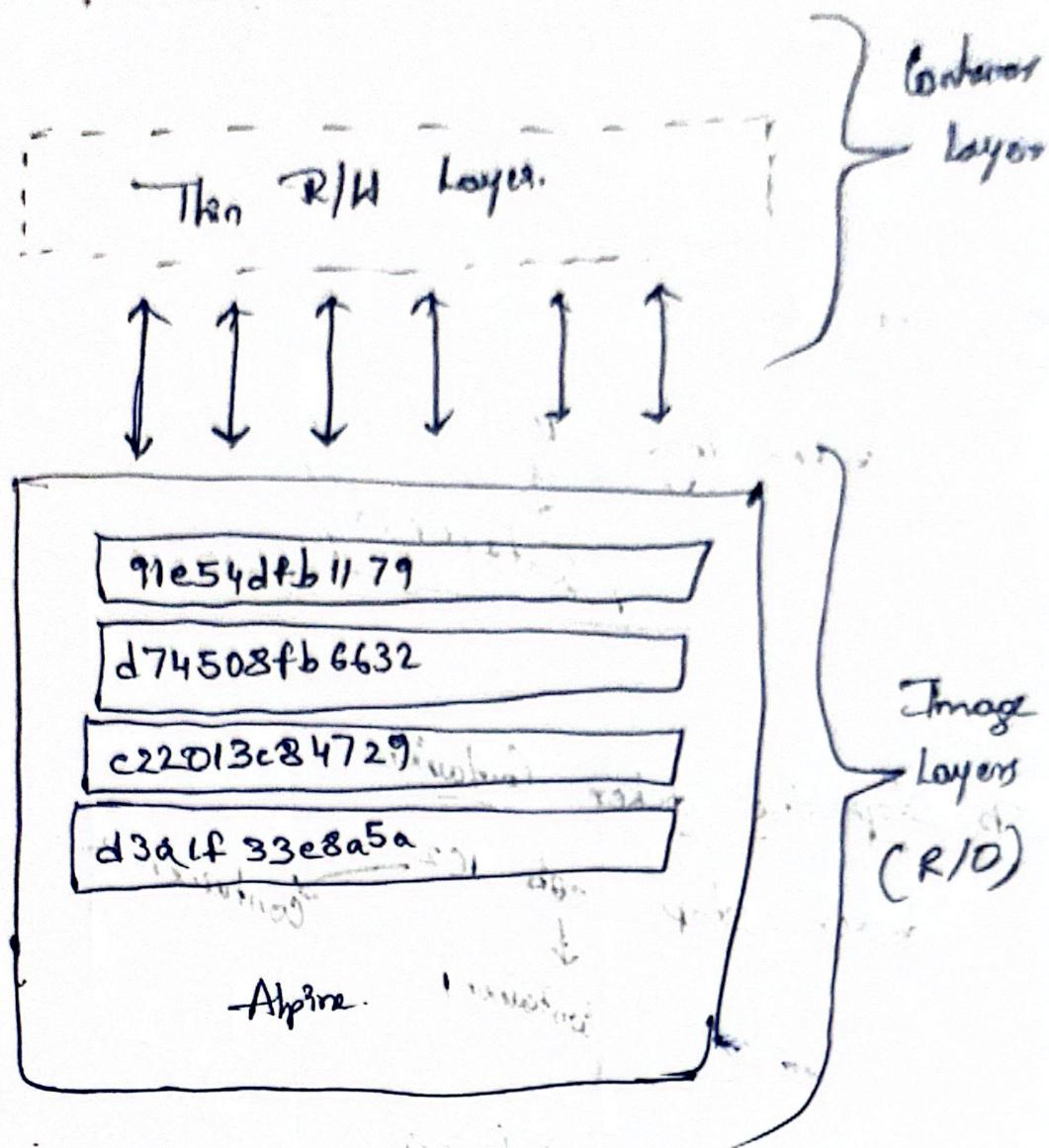
Delectus longus
longulus

Date: 10/09/2018

```

graph TD
    Process[Process] --> Function[Function]
    Process --> Logic[Logic]
    Function --> Logic
  
```

Images, Container, and File Layers



Pulling an image from a Registry.

docker pull <imageName>

Running a Container

docker run -p <externalPort>:<internalPort> <imageName>

If you don't want to search then command has to be
docker run -p 8000:80 and again, after

See the log

docker logs IC2
↓
Container id

To stop the docker Containers

docker stop cob IC2
↓
Container 2
:
Container 1

To see all the Containers

docker ps -a

It will show all the containers which are running

and stopped

Using Container Volumes

Yesterdays are persistent data stores for containers.

Key Volume Scenarios

i) Production Scenario

(Logs, database files, and more)

ii) Development Scenario

(Develop using containers)

Creating a Container Volumes

docker run -p3 <ports> -v /var/www/logs

<Image To Run>

Data in folder will
be stored on the container
host (Docker managed)

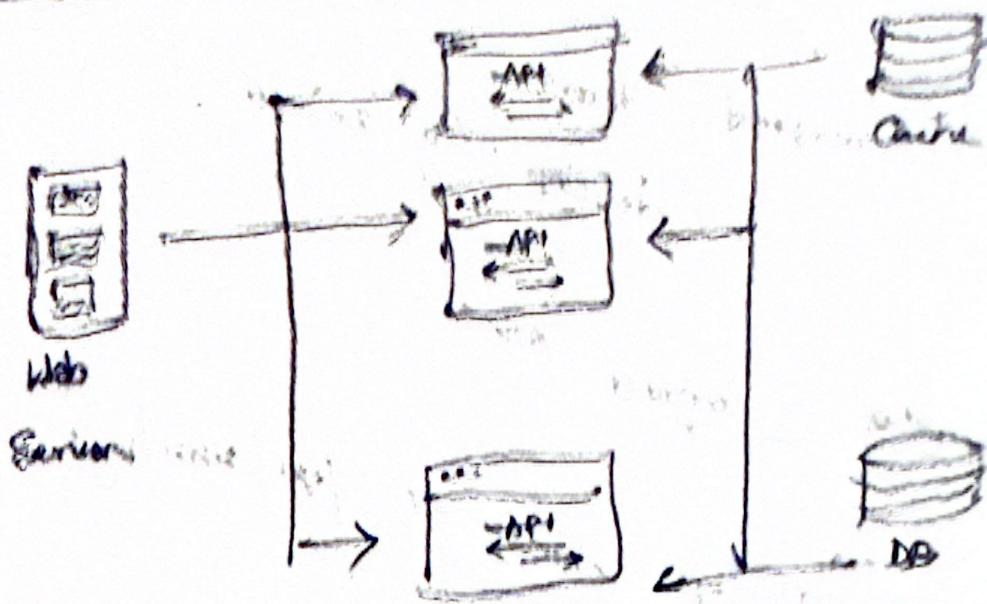
Defining a host location (Mac/Linux/Windows).

docker run -p3 <ports> -v \$(pwd):/var/www/logs

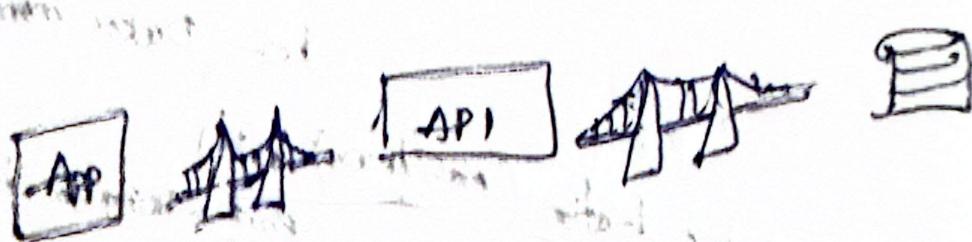
<Image to Run>

To change file with the file in our system
checkin run → build → \$ (root)/regression
/checkin/regression.html → regtest.html

Communication between Multiple Containers



Using a Bridge Network to Communicate

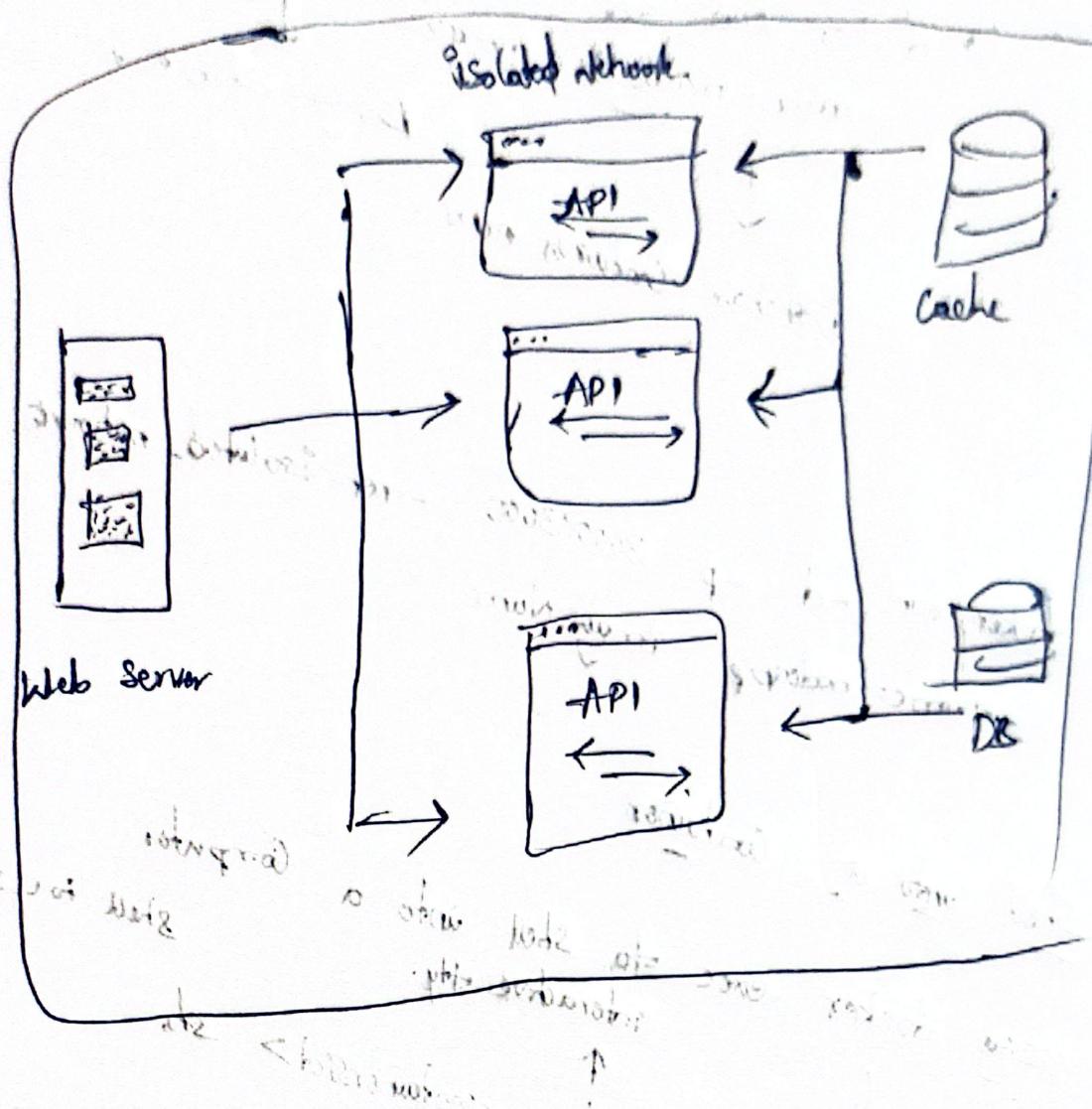


Docker network Create - docker bridge isolated

network ..

network none ..

Define driver to use



To List networks

`docker network ls`

Enter

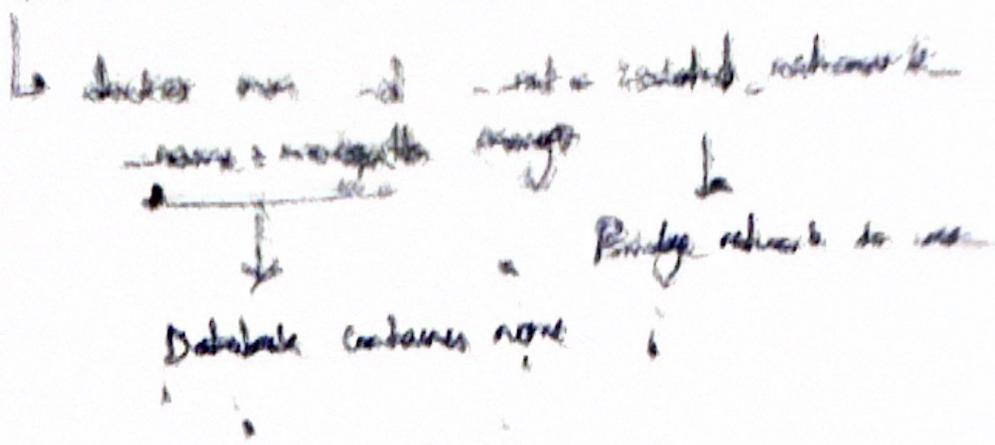
2012

To remove Network

`docker network rm [network]`

Running Lectures in a Workshop

Renting a Database Container in a Marketplace



chicken run - d - np 3000:3000 - net = isolated - neighbor
- names, numbers, image name

Shell into a container

using docker exec to shell into a container
interactive tty. shell to use

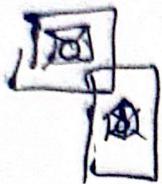
↓ docker exec -it <containerId> sh

↓
Container id & name

- **Brown** **Containers** can use a variety of shells such as
shells, bark, & others.

Windows containers normally use PowerShell.

Docker
Compose
Features



Define Services using a YAML configuration file.

Build one or more images

Start and stop services

View the status of running services

Stream the log output of running services

~~Docker Comp.~~

Key Docker Compose Commands

docker compose build → To build the images

docker compose up → To run the Container

docker compose down → To take everything down.