

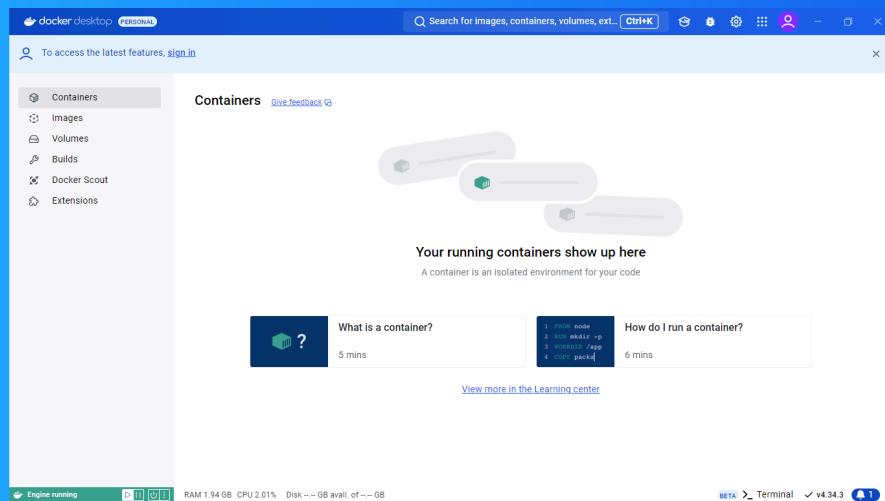


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Containers on Elastic Beanstalk



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Introducing Today's Project!

What is Docker?

Docker is a tool for creating and managing something known as containers ; containers contain application code and dependencies needed for applications to run on different platforms

One thing I didn't expect...

I didn't expect to doing anything concerning s3 buckets but i realised Elastic Beanstalk creates a one which has a policy ; but its palpable that Elastic beanstalk should be given the necessary permissions to access other services in your account

This project took me...

Roughly about 2 hours since before this project i had no idea what docker was and what it was used for



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Understanding Containers and Docker

Containers

Containers are standard units of software that packages up code and all its dependencies so the application runs quickly and reliably from one computing environment to another. They are useful because ; they allow apps to run on different platforms.

A container image is a template that is used to create containers ; it contains the application code, dependencies and others needed to run the application

Docker

Docker is the tool that is used to create and manage containers . Docker Desktop is a program that makes it easy to work with docker with a gui

The docker daemon is the engine that actually does the thing when you run Docker commands eg creating a container



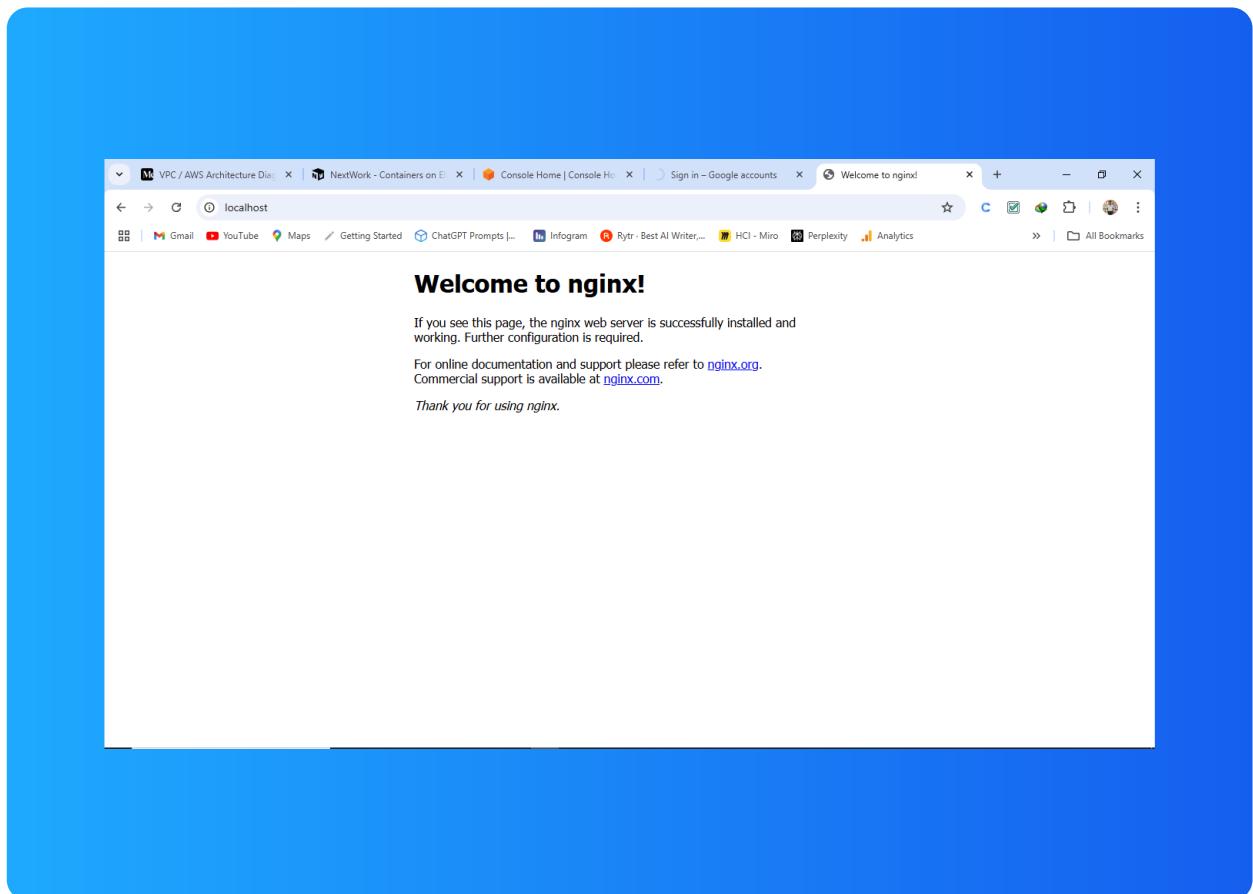
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Running an Nginx Image

Nginx is a web server that serves webpages to other people on the internet ; it is pronounced as (Engine X)

The command I ran to start a new container is ; docker run -d -p 80:80 nginx





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Creating a Custom Image

A Dockerfile is a document with all the instructions for building your Docker image

My Dockerfile tells Docker three things; starts a copy of the latest nginx image, replace the default html file with my own custom index.html file, and to receive web traffic on port 80 which represents the http port

The command I used to build a custom image with my Dockerfile was 'docker build -t my-web-app .' , The '.' at the end of the command means docker should look through the current directory for the docker file

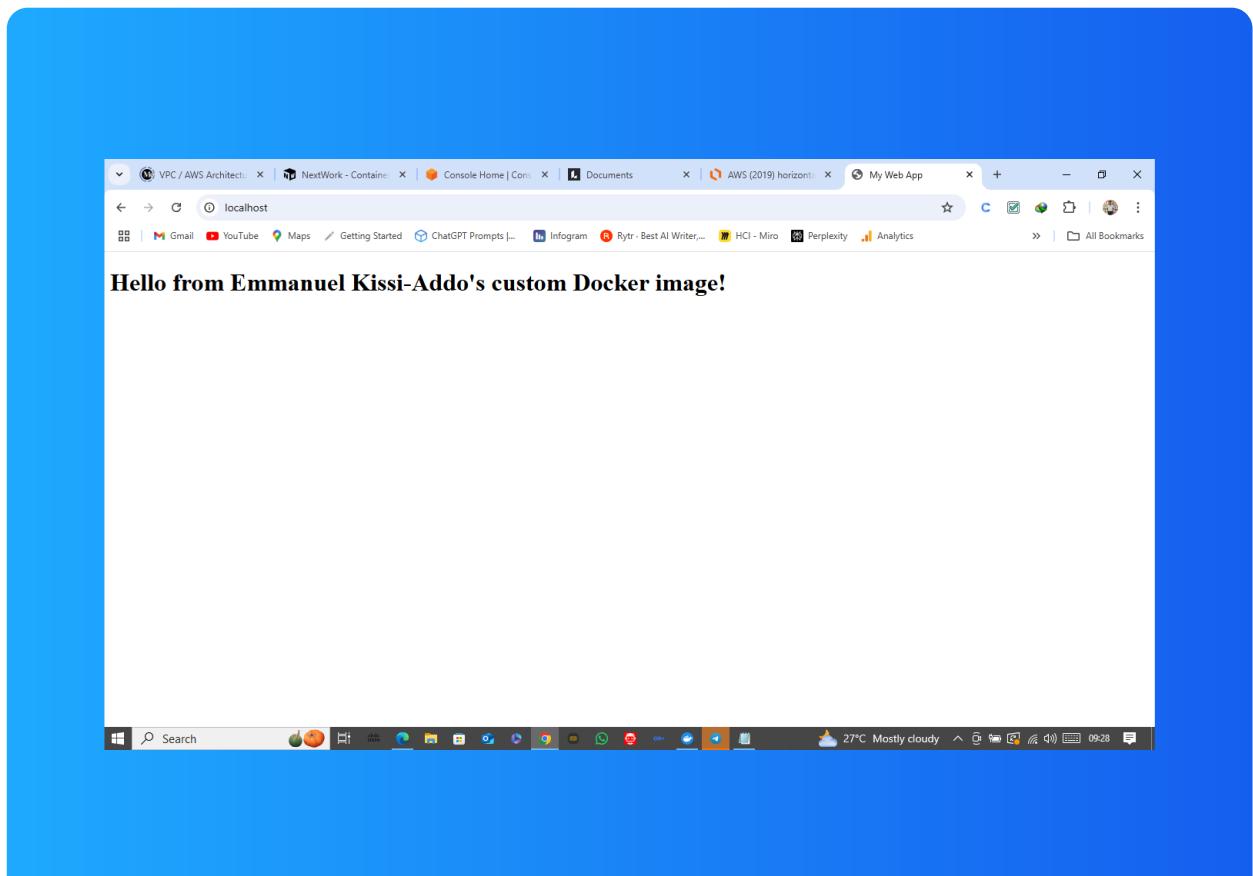
```
Dockerfile - Notepad
File Edit Format View Help
File New Open Save All
COPY index.html /var/share/nginx/html/
EXPOSE 80
```



Running My Custom Image

There was an error when I ran my custom image because there was another container running on the port i specified that is port 80 I resolved this by stopping that container which was currently running on port 80 and restarted my custom image

In this example , the container image is blueprint that tells docker dependencies , libraries etc that should go into a container. The container is the software that's created from this image and running the web server displaying the index.html





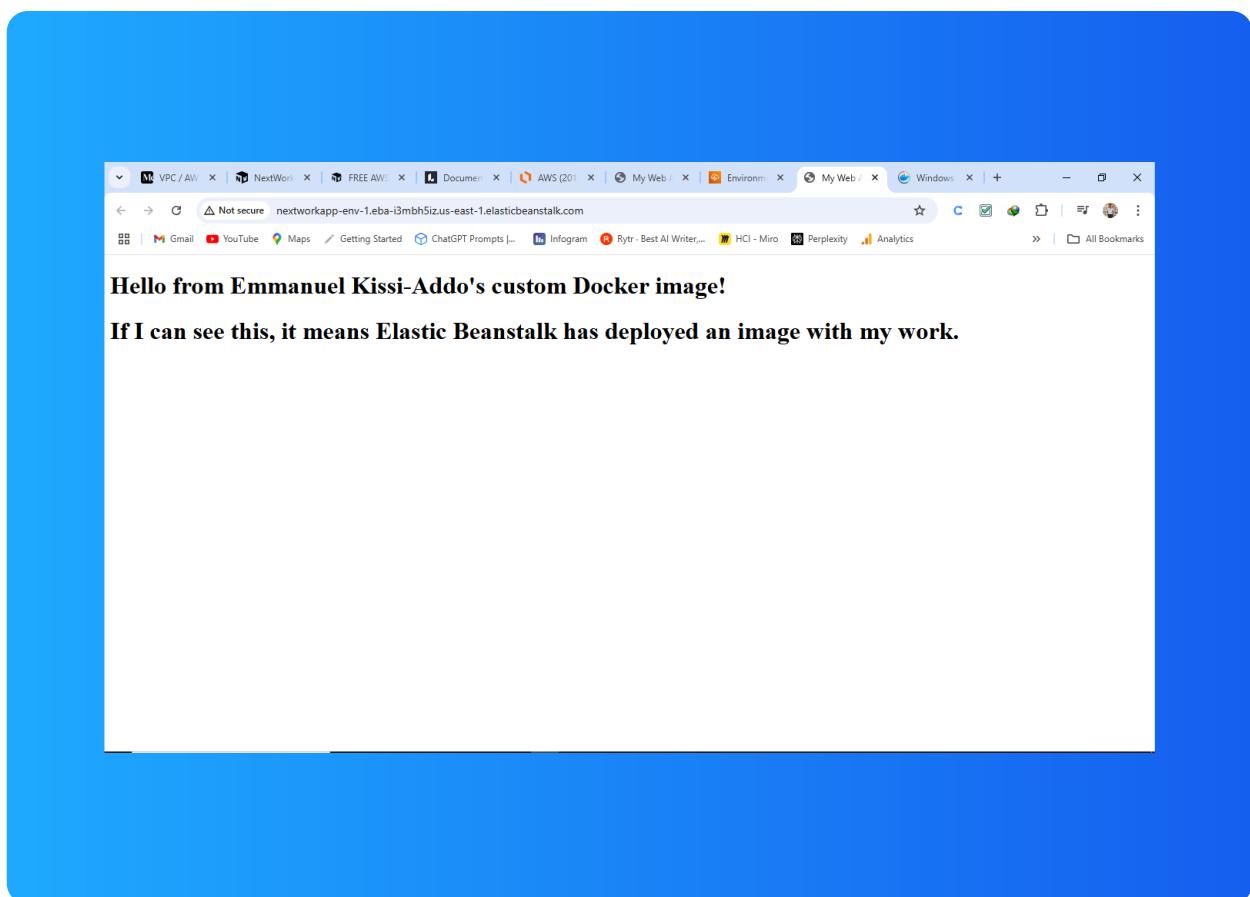
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Elastic Beanstalk

Elastic Beanstalk is an application or a service on AWS that allows you to deploy your applications in the cloud without having to worry about the underlying infrastructure , compute capacity etc

Deploying my custom image with Elastic Beanstalk took me roughly about an hour since i was abresting myself with what and how Elastic Beanstalk works ; overall it was a fun experience





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