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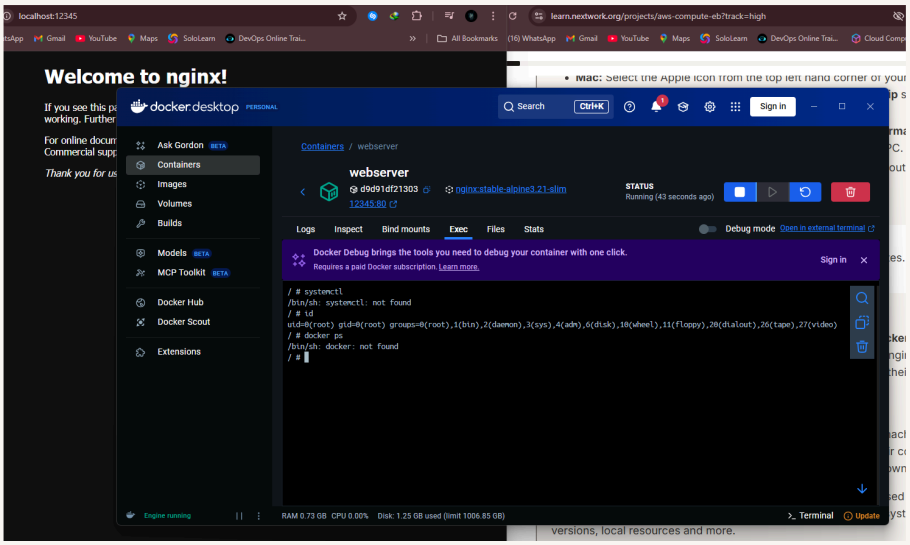
Deploy an App with Docker

Kiprono Yegon



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Introducing Today's Project!

What is Docker?

Docker is an open-source platform that lets you build, package, and run applications inside containers that contains everything an app needs: code, runtime, libraries, and dependencies. We used Docker to package everything our application needed.

One thing I didn't expect...

The project is quite simple when youu have a look at it at the end, but a small mistake a long the way can cost you your time trying to trouble shoot it

This project took me...

I took quite a long while completing the project because of the errors I encounterd and some unavoidable circumstances (we are just but human). However I managed it in the end :)

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Understanding Containers and Docker

Containers

containers are packages which dependencies of a given software are packaged. They are useful because they package all the necessities of a software needs

A container image is a template for containers that tell Docker what to include in a container such as application code , libraries and dependencies.

Docker

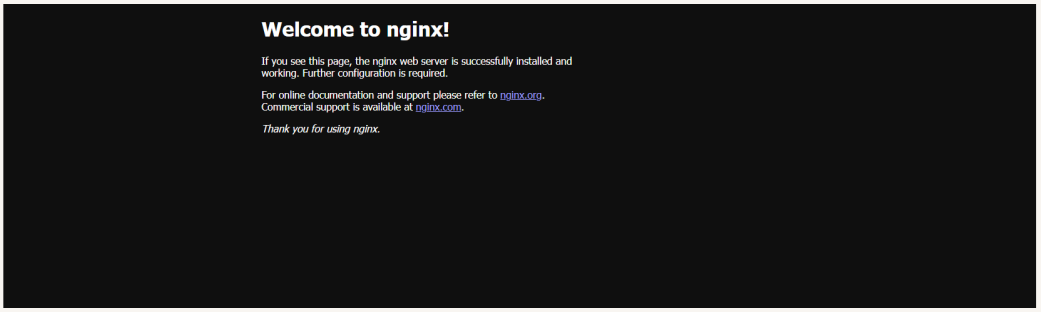
DOcker is a too for container management.Docker Desktop is an app that makes using docker more interactive and efficient.

The docker daemon is a background process that manages the Docker containers on your computer

Running an Nginx Image

Nginx is a web server which handles web traffic smoothly and efficiently. It is also a 'proxy server' which means it forwards requests from the internet to other servers.

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

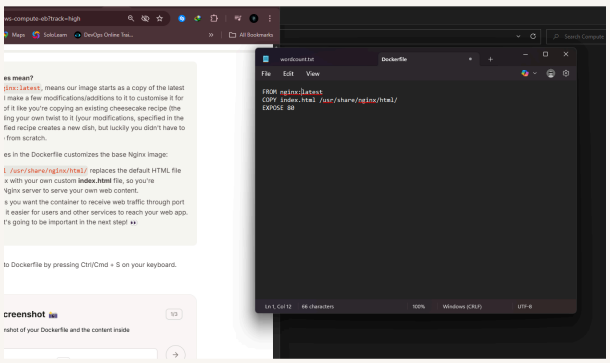


Creating a Custom Image

The Dockerfile is a document with instructions for building your image.

My Dockerfile tells docker three things: that it has to cpy the latest nginx image and also replaces the default HTML file with the provided html file and lastly to enable traffic through port 80

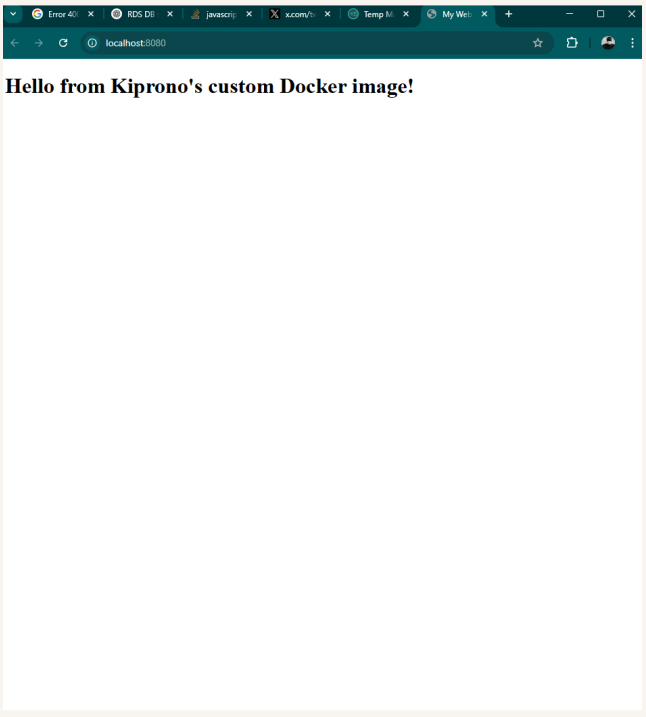
The command I used to build a custom image with my Dockerfile was docker build -t my-web-app . The '.' at the end of the command means that the Dockerfile is in the directory we are in "Compute"



Running My Custom Image

There was an error when I ran mycustom imagge because there was another container running using the port 80. I resolved this by stopping the running container and rerun my container and voila, it works.

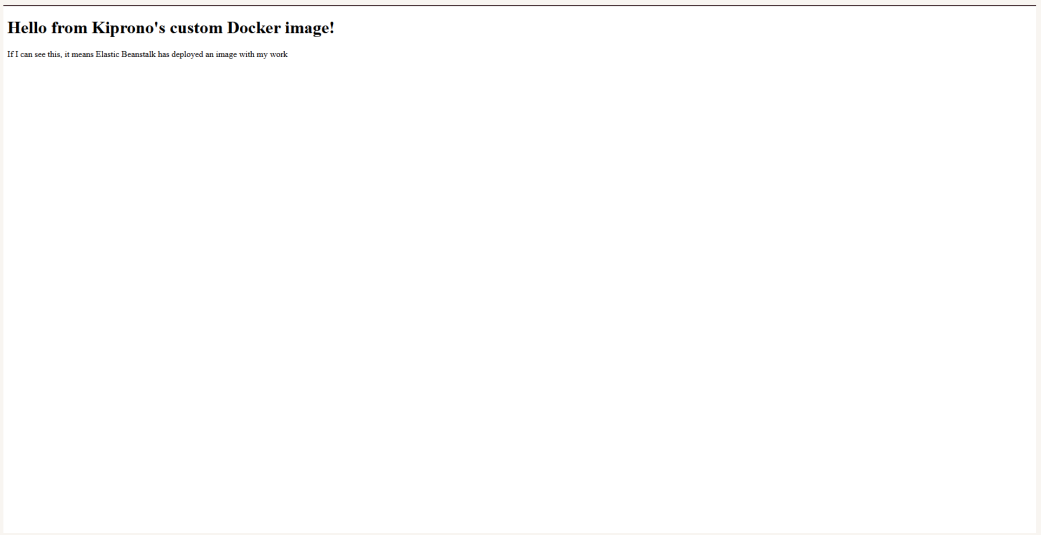
In this example, the container image is the one that directs the Docker of what should get into the container i.e the application code, dependencies, libraries etc . The container is the actual software that is created from the image



Elastic Beanstalk

Elastic Beanstalk is a cloud service that is fully managed and it enables you to deploy cloud applications without worrying of the underlying infrastructure you just upload you code and it handles setting servers and autoscaling

Deploying my custom image with Elastic Beanstalk took me aa while because of the error I encountered. I had to consult in communities and other peers who were helpful and insightful on how to come around the issues I faced.



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