

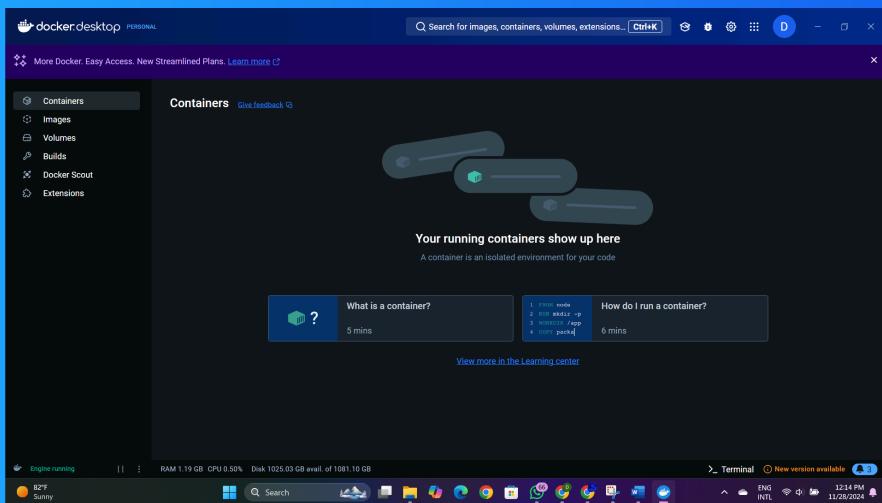


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Containers on Elastic Beanstalk



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DI

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Introducing Today's Project!

What is Docker?

In this project, We used Docker to create containers based on container images and set up our own container image.

One thing I didn't expect...

One thing I didn't expect was to see how quick it is to deploy an application using Elastic Beanstalk

This project took me...

This project took us 3 hours, including all the domain time.

Understanding Containers and Docker

Containers

Containers are lightweight and portable units of software that ensure that applications consistently run in any environment. They are useful because they help software development and release more efficiently.

A container image is a blueprint for containers that give docker instructions on what to include in a container.

Docker

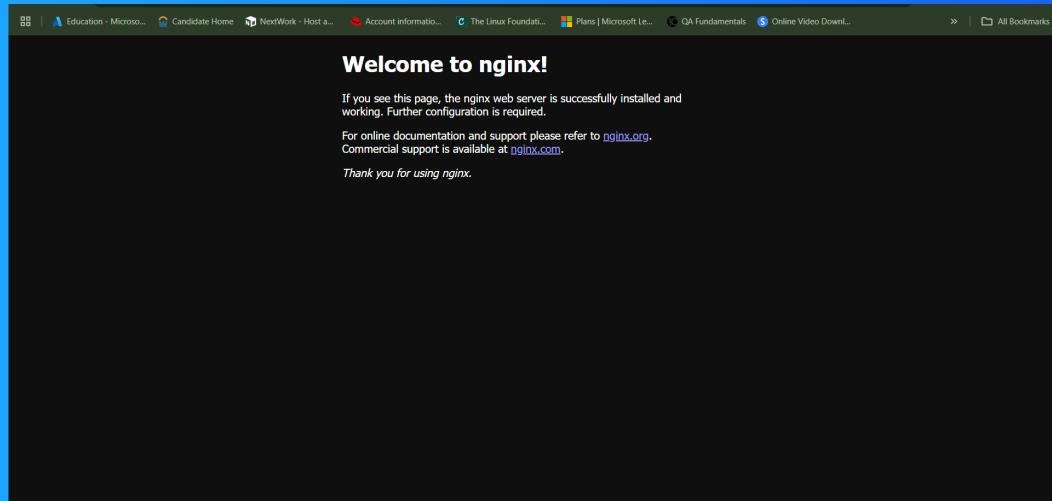
Docker is the tool for creating, managing, and deploying containers efficiently. Docker Desktop is a program that makes it easy to work with Docker.

The Docker daemon is a background service that manages Docker objects like images, containers, networks, and volumes.

Running an Nginx Image

Nginx is a web server, which means it serves web pages on the internet and handles lots of web traffic smoothly and efficiently.

The command I ran to start a new container was docker run.

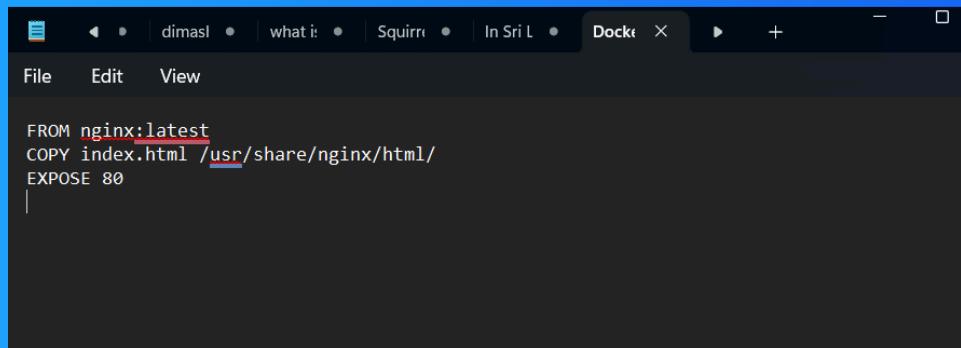


Creating a Custom Image

The Dockerfile is a set of instructions that tells Docker how to build your custom container image.

My Dockerfile tells Docker three things. First, my custom container image uses the latest version of the Nginx container image at its base. Then I'm modifying this base by replacing the default Nginx welcome page with my custom index.html.

The command I used to build a custom image with my Dockerfile was 'docker build.' The '.' at the end of the command means that Docker can find the Dockerfile



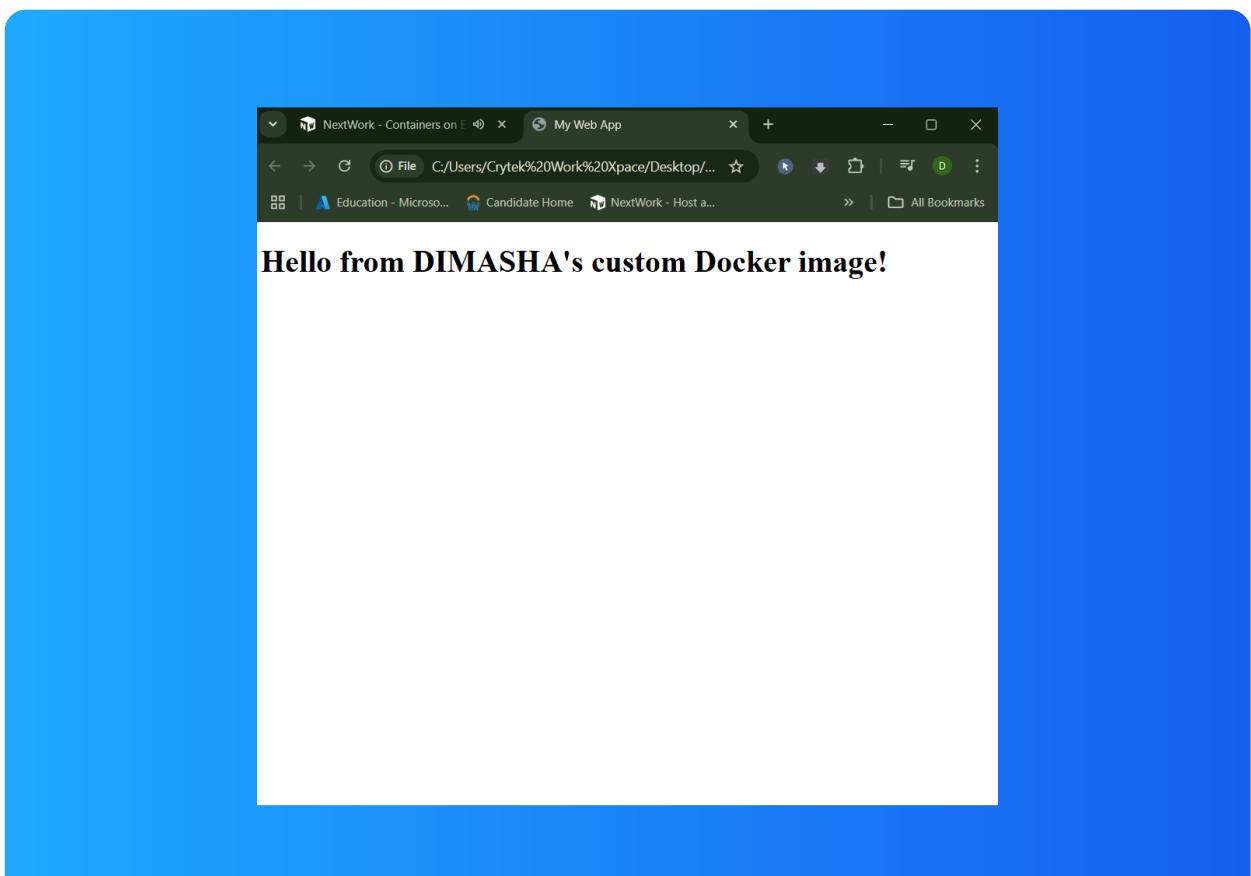
A screenshot of a terminal window with a blue header bar. The title bar shows several icons and the word "Docker". The menu bar includes "File", "Edit", and "View". The main terminal area displays a Dockerfile with the following content:

```
FROM nginx:latest
COPY index.html /usr/share/nginx/html/
EXPOSE 80
```

Running My Custom Image

There was an error when I ran my custom image because I tried to map our port 80 with the new container's port 80, but a running container was already using port 80. I resolved this by stopping the running container so that we can start my new one.

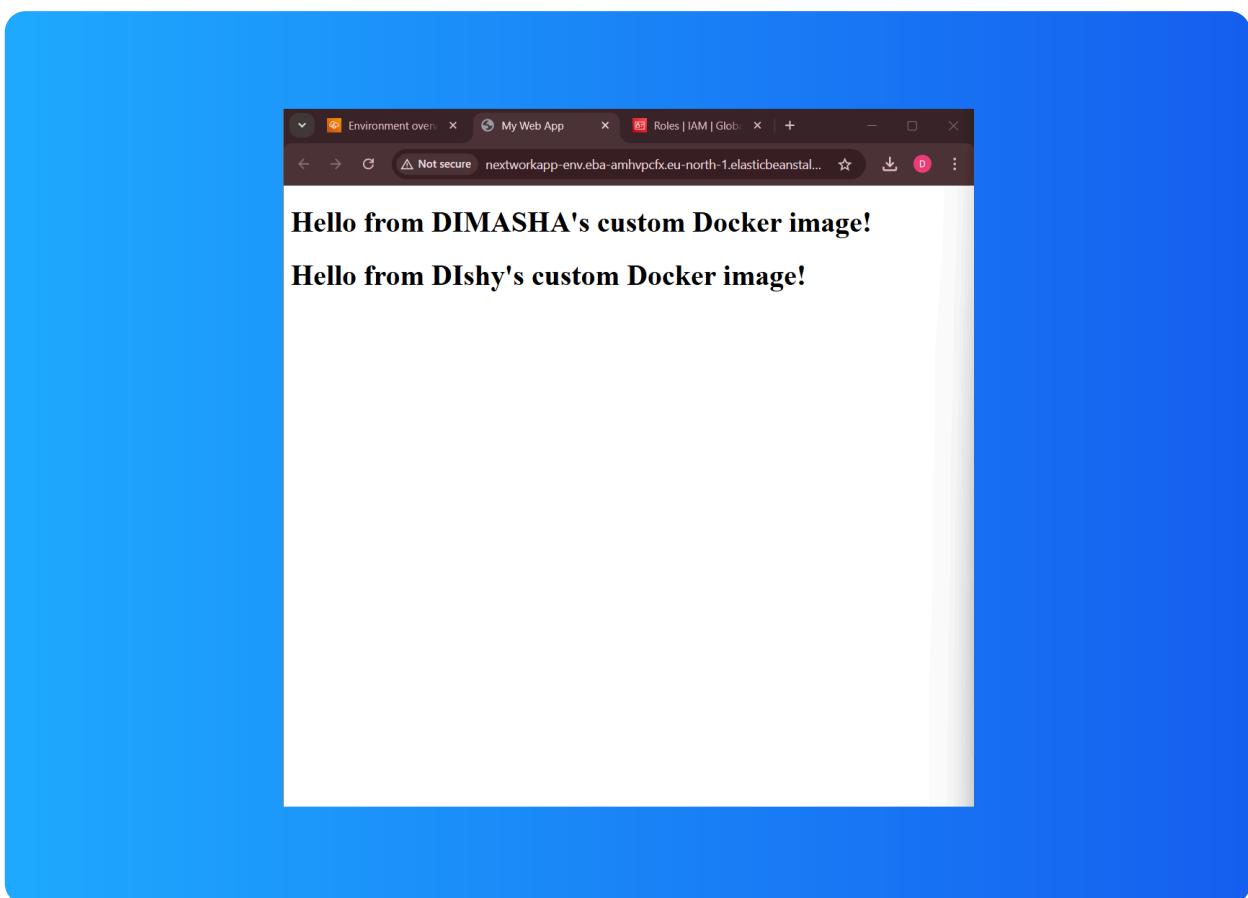
In this example, the container image is the template for creating a new container running in Nginx servers in my custom index.html file. The container is the actual software that's running an Nginx web server with those customizations.



Elastic Beanstalk

Elastic Beanstalk is an AWS service that helps with deploying applications in the cloud. It abstracts away a lot of the work with setting up cloud infrastructure when deploying applications.

Deploying my custom image with Elastic Beanstalk took me 10 minutes. This includes the time it took to launch the Elastic Beanstalk application.





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