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Containers on Elastic Beanstalk

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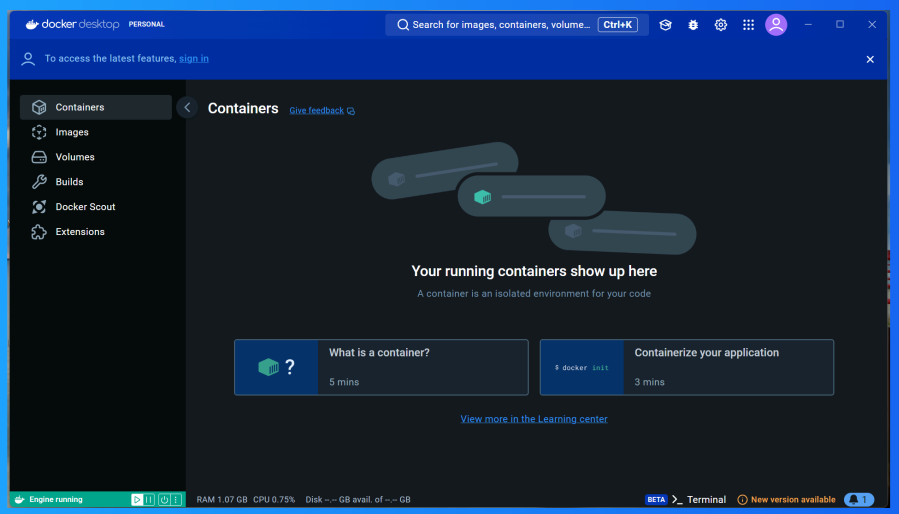

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Introducing Today's Project!

What is Docker?

Docker is a platform for deploying applications in portable containers. In today's project, I used Docker to create a custom image of my application, simplifying its deployment and execution.

One thing I didn't expect...

One thing I didn't expect in this project was how quickly the deployment process completed, allowing for rapid testing and iteration of the application.

This project took me...

This project took me about 3 hours to complete.

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Understanding Containers and Docker

Containers

Containers are lightweight, portable units that package an application and its dependencies together. They are useful because they ensure consistent performance across different environments and simplify deployment.

A container image is a lightweight, standalone package that includes all the necessary files, libraries, and dependencies required to run a specific application in a container.

Docker

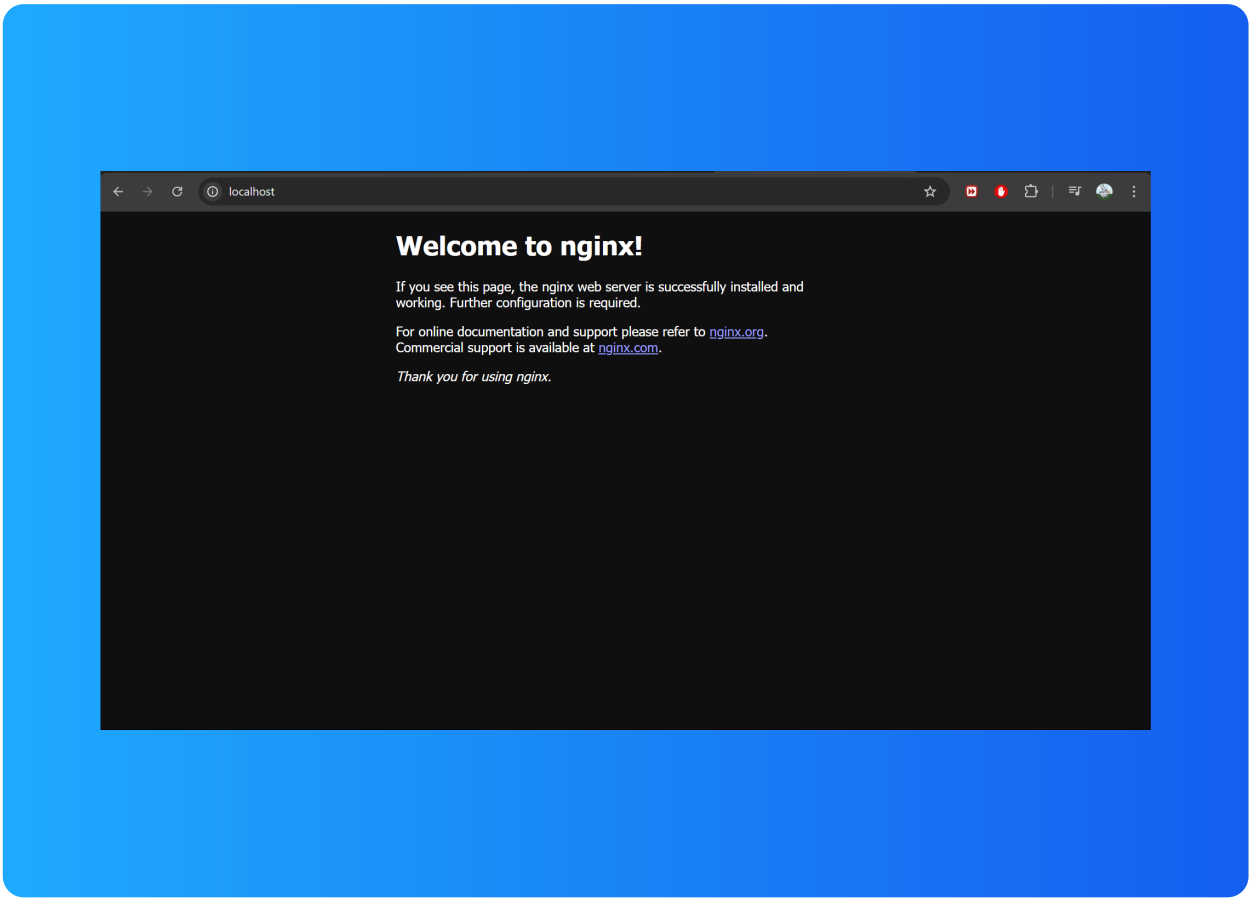
Docker is a platform for creating and managing lightweight, portable containers for applications. Docker Desktop is a tool for easily running and managing Docker containers on your local machine.

The Docker daemon is a background service that manages Docker containers, images, networks, and volumes, enabling users to interact with Docker through the command line or API.

Running an Nginx Image

Nginx is a high-performance web server and reverse proxy server that handles HTTP and other protocols efficiently, often used to serve static content and manage load balancing.

The command I ran to start a new container was `docker run -d -p 80:80 my-image-name`.

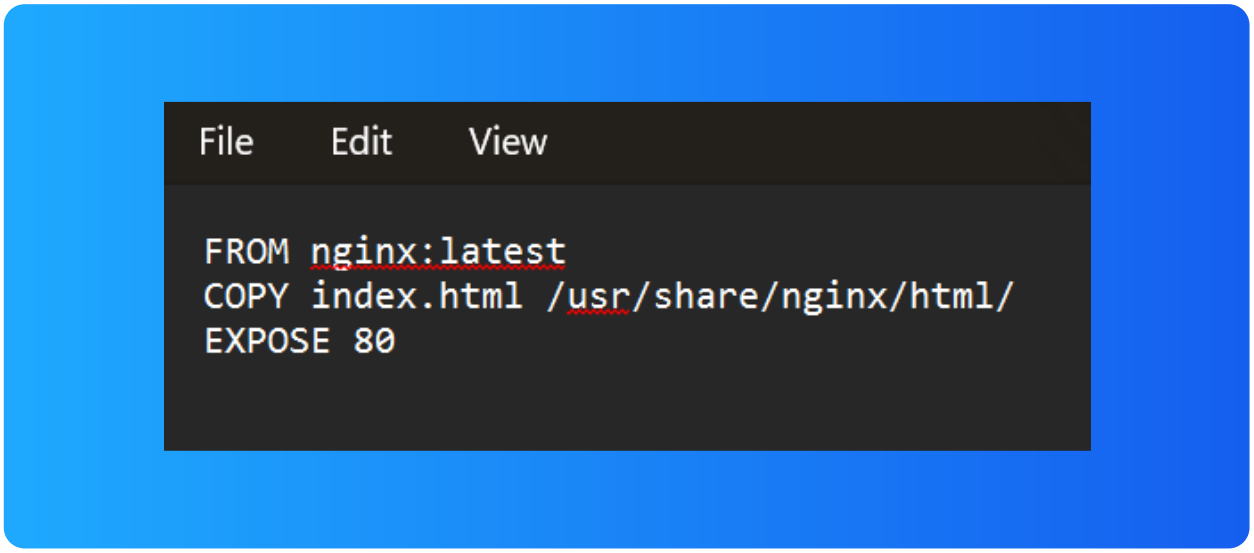


Creating a Custom Image

The Dockerfile is a text file that contains instructions for building a Docker image, specifying the base image, application code, dependencies, and configuration settings.

My Dockerfile tells Docker three things: the base image to use, the application code to copy into the image, and the command to run when the container starts.

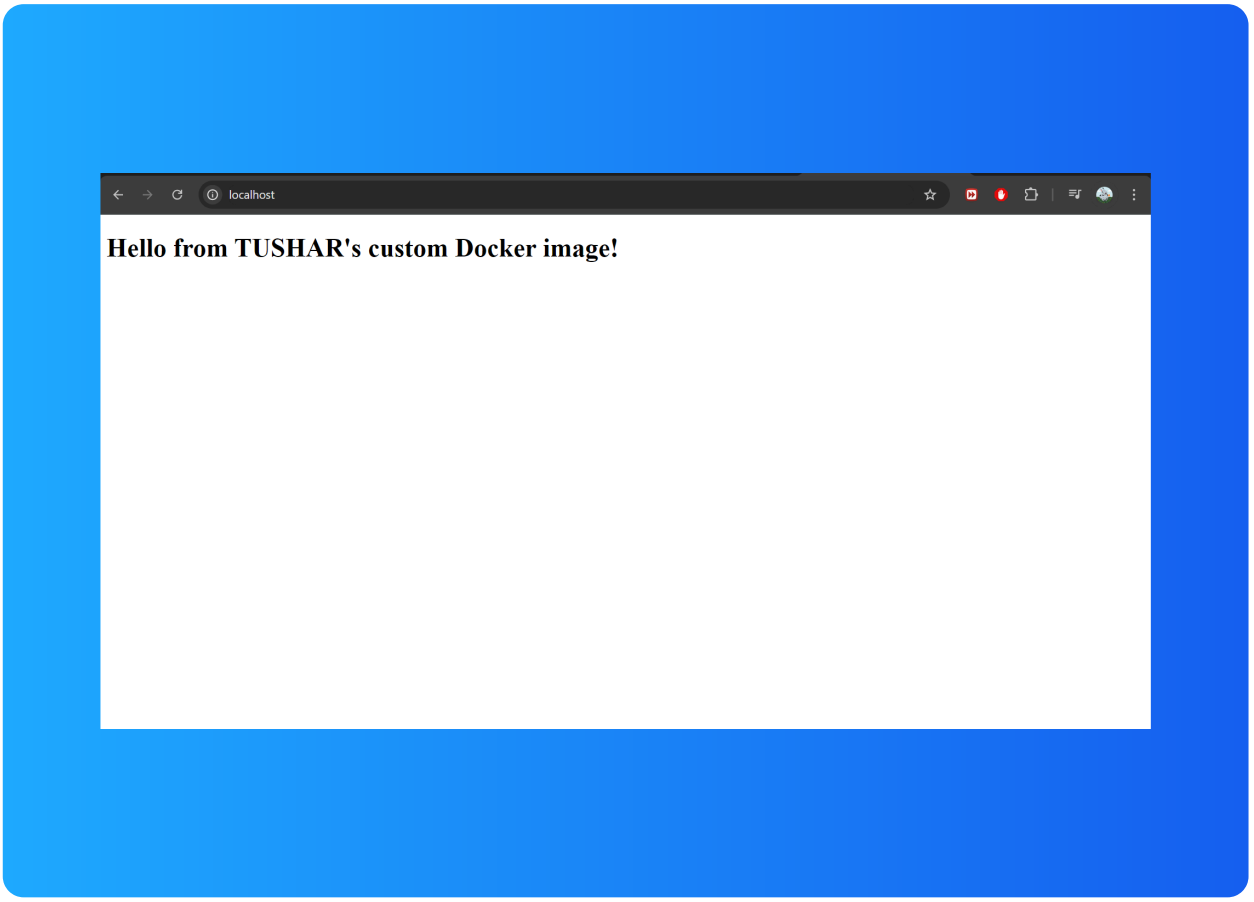
The command I used to build a custom image with my Dockerfile was `docker build -t my-image-name .` The '.' at the end of the command means that the build context is the current directory, where the Dockerfile is located.



Running My Custom Image

There was an error when I ran my custom image because the required dependencies were missing. I resolved this by updating the Dockerfile to include the necessary packages.

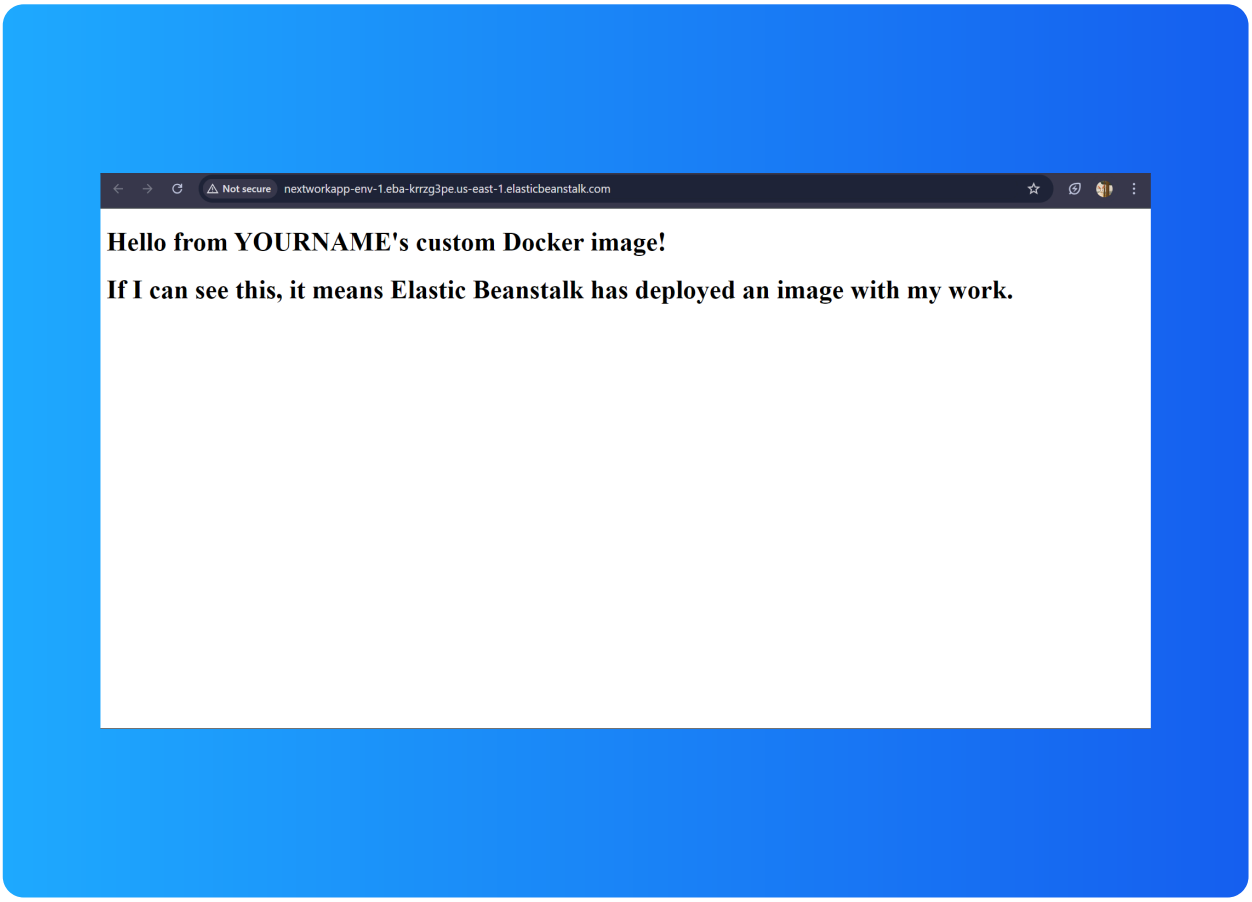
In this example, the container image is the packaged application, while the container is the running instance of that image.



Elastic Beanstalk

Elastic Beanstalk is a cloud service from AWS that simplifies deploying and managing applications by automatically handling infrastructure provisioning, load balancing, and scaling.

Deploying my custom image with Elastic Beanstalk took me about 30 minutes.



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