# Setting Up an Nginx Web Server in Docker

## Introduction

This document provides a step-by-step guide to creating and running an Nginx web server inside a Docker container. It includes building a Docker image, configuring Nginx, and troubleshooting common issues.

## Prerequisites

Ensure that Docker is installed on your system. You can verify the installation with: docker --version If Docker is not installed, refer to the official installation guide: https://docs.docker.com/get-docker/

## 1 Create a Project Directory

Create a directory to store project files: mkdir nginx-docker cd nginx-docker

## 2 Create an HTML File

Create a new file index.html inside the project directory: nano index.html Paste the following content:

# Welcome to Docker Nginx! 🚀

This is a simple webpage served using an Nginx container.

Save and exit (CTRL + X, then Y, then Enter).

## 3 Create a Dockerfile

Create a Dockerfile in the same directory: nano Dockerfile Paste the following:

## Use the official Nginx image

FROM nginx:latest

## Copy the HTML file into Nginx's default directory

COPY index.html /usr/share/nginx/html/index.html

## Expose port 80

EXPOSE 80

## Start Nginx

CMD ["nginx", "-g", "daemon off;"] Save and exit.

## 4 Build the Docker Image

Run the following command to build the image: docker build -t my-nginx .

## 5 Run the Docker Container

Run a container using the built image: docker run -d -p 8080:80 --name nginx-container my-nginx

- -d → Runs in detached mode.
- -p 8080:80 → Maps port 8080 on the system to port 80 in the container.
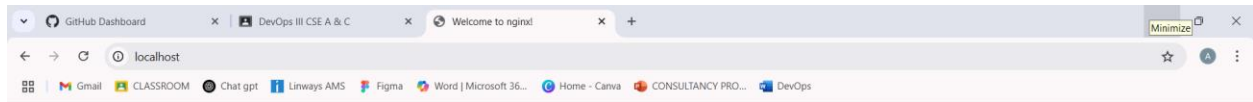- --name nginx-container → Assigns a name to the container.

## 6 Access the Web Page

Open a browser and go to: http://localhost:8080

You should see the message: "Welcome to Docker Nginx! 🚀 "

## 7 Stop and Remove the Container (Optional)

To stop the container: docker stop nginx-container To remove the container: docker rm nginx-container To remove the image: docker rmi my-nginx
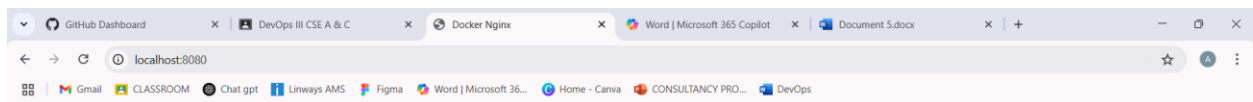
# Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

*Thank you for using nginx.*

---

# Welcome to Docker Nginx! 🚀

This is a simple webpage served using an Nginx container.