

How to Setup Nginx on Docker with a Custom Page

What is Nginx

NGINX is a *lightweight, high-performance web server*.

It is commonly used as a **reverse proxy** and **load balancer** to handle many client requests efficiently.

◆ **Steps to Setup Nginx on Docker**

1 Create an EC2 Instance

- Launch an **Ubuntu EC2 instance** from AWS.
-

2 Connect to EC2 via SSH

- `ssh ubuntu@3.87.101.88`

✓ *Tip: Replace `3.87.101.88` with your EC2 public IP.*

3 Install Docker

```
- #!/bin/bash
- sudo apt update -y
- sudo apt install -y docker.io
- sudo systemctl enable docker
```

- `sudo systemctl start docker`
- `sudo usermod -aG docker ubuntu`
- `newgrp docker`

⚡ *Tip: You can now run Docker commands without `sudo`.*

4 Create Docker Compose File

File: `docker-compose.yml`

- `version: "3.9"`
-
- `services:`
- `nginx:`
- `image: nginx:latest`
- `ports:`
- `- "8080:80"`
- `volumes:`
- `- ./nginx.conf:/etc/nginx/nginx.conf`
- `restart: always`

♦ *Exposes Nginx on port `8080` and allows a custom Nginx config.*

5 Start Nginx

- `docker compose up -d`

✅ *Tip: `-d` runs Nginx in **detached mode**.*

6 Access the Container

```
- docker exec -it <nginx_container_id> bash
```

- Replace `<nginx_container_id>` with your container ID (check via `docker ps`).
-

7 Navigate to HTML Folder

```
- cd /usr/share/nginx/html/
```

- This folder serves the default webpage.
-

8 Add Your Custom HTML Page

File: `index.html`

```
- <!DOCTYPE html>
- <html lang="en">
- <head>
-     <meta charset="UTF-8" />
-     <meta name="viewport" content="width=device-width,
initial-scale=1.0" />
-     <title>Welcome to My Nginx Server</title>
-     <style>
-         body {
-             margin: 0;
-             font-family: Arial, sans-serif;
-             background: linear-gradient(135deg, #ff4e50,
#fc913a, #f9d423, #ede574, #e1f5c4);
```

```

-         background-size: 400% 400%;
-         animation: gradientBG 3s ease infinite;
-         height: 100vh;
-         color: #fff;
-         display: flex;
-         justify-content: center;
-         align-items: center;
-         text-align: center;
-     }
-     @keyframes gradientBG {
-         0% { background-position: 0% 50%; }
-         50% { background-position: 100% 50%; }
-         100% { background-position: 0% 50%; }
-     }
-     .box {
-         background: rgba(1, 0, 0, 0.4);
-         padding: 40px;
-         border-radius: 20px;
-         box-shadow: 0 0 30px rgba(0,0,0,0.3);
-     }
-     h1 { font-size: 50px; margin-bottom: 10px; }
-     p { font-size: 20px; margin-top: 0; }
- </style>
- </head>
- <body>
-     <div class="box">
-         <h1>👋 Hello from NGINX! 😊</h1>
-         <p>Your colorful webpage is working perfectly
🥳</p>
-     </div>
- </body>
- </html>

```

Run command

`Sudo nginx -t`

`Sudo systemctl reload nginx`

9 Open Nginx in Browser

`http://3.87.101.88:8080`

🎨 Your **custom colorful webpage** should now be live!

◆ **Diagram: Docker → Nginx → Custom Page**

