

# **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.

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### ◆ **Steps to Setup Nginx on Docker**

#### **1 Create an EC2 Instance**

- Launch an *Ubuntu EC2 instance* from AWS.
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#### **2 Connect to EC2 via SSH**

- `ssh ubuntu@3.87.101.88`

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

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#### **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`.

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## 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.
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## 5 Start Nginx

- `docker compose up -d`

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

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## 6 Access the Container

- `docker exec -it <nginx_container_id> bash`
    - Replace `<nginx_container_id>` with your container ID (check via `docker ps`).
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## 7 Navigate to HTML Folder

- `cd /usr/share/nginx/html/`
    - This folder serves the default webpage.
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## 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*

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## 9 Open Nginx in Browser

*http://3.87.101.88:8080*



*Your custom colorful webpage should now be live!*

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

