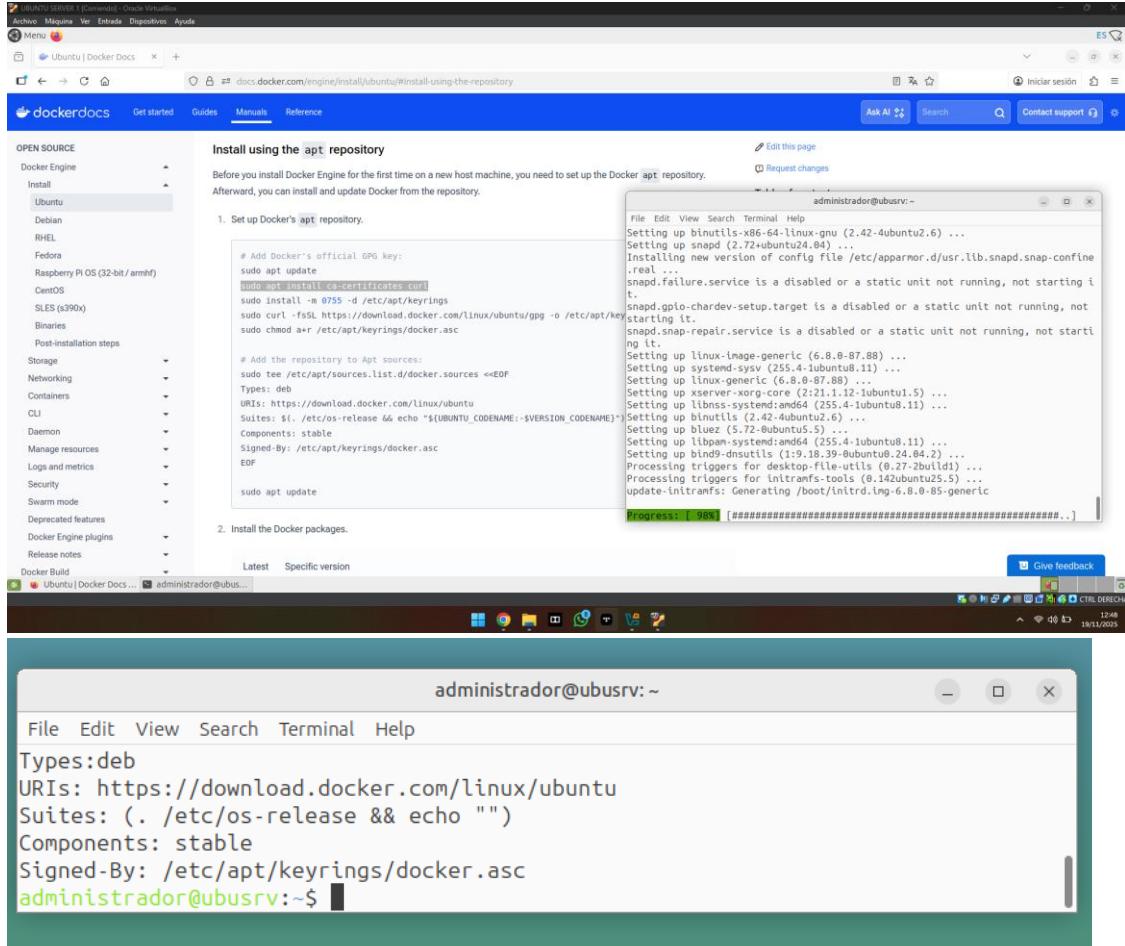


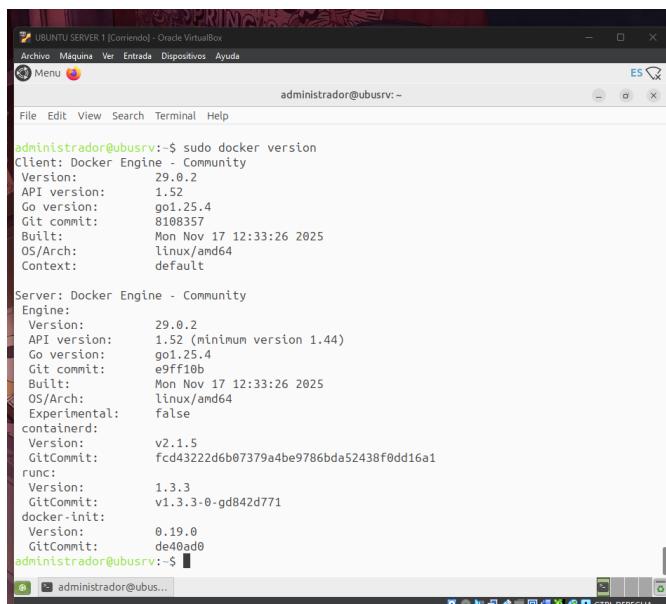
## Despliegue de una Página Web con Docker

### Requisitos previos

#### 1. Instalar docker y crear un repositorio



#### 1.1 Foto de Docker instalado:

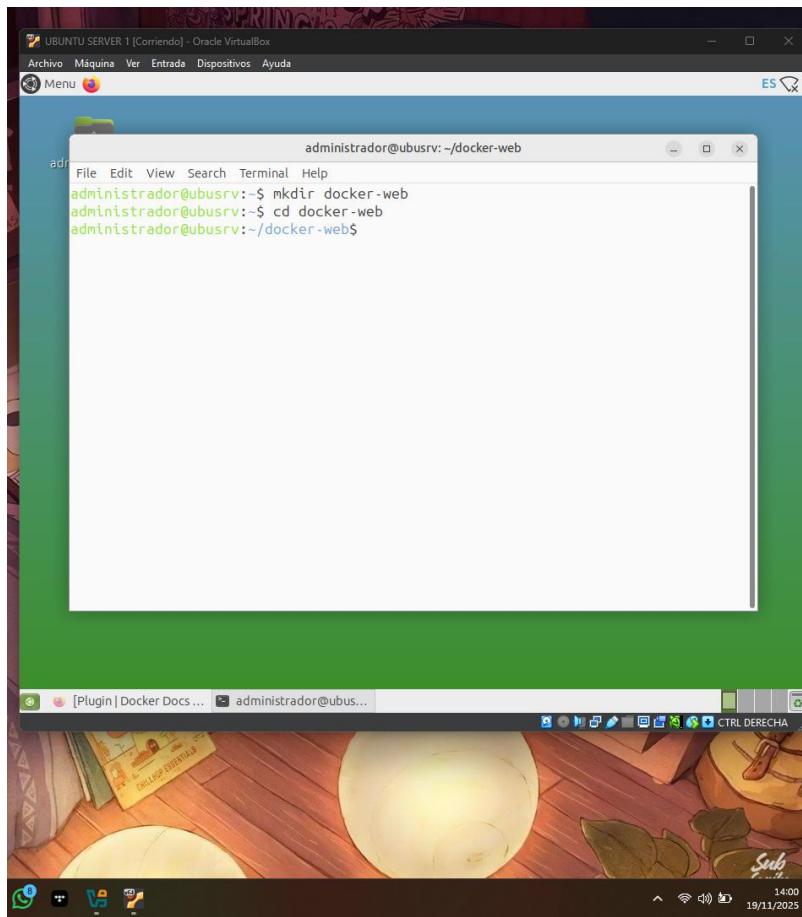


## 2. Docker compose instalado:

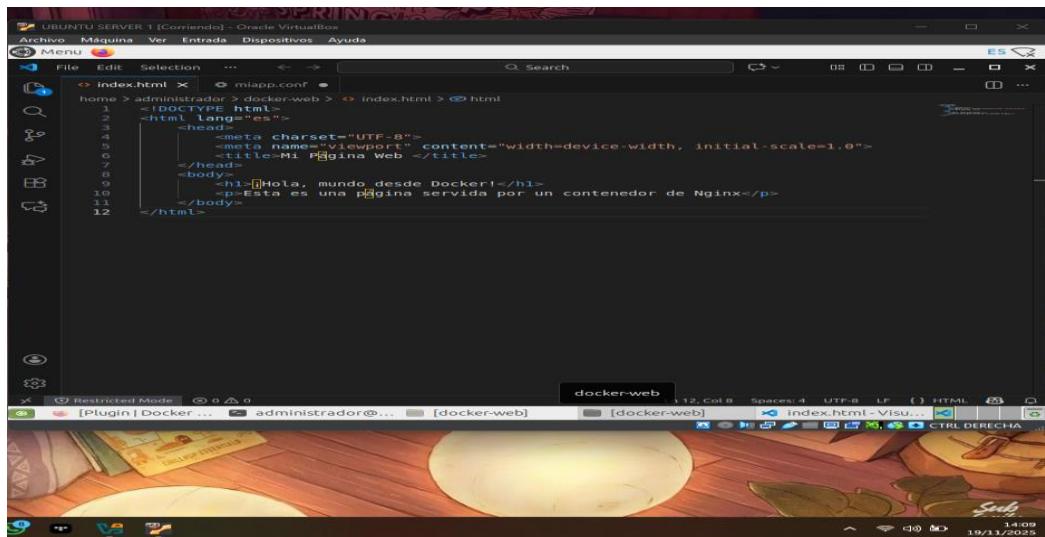
The screenshot shows a web browser displaying the Docker Compose plugin documentation at [docs.docker.com/compose/install/linux/](https://docs.docker.com/compose/install/linux/). The page provides instructions for installing Docker Compose, including steps for Ubuntu/Debian and RPM-based distributions. To the right, a terminal window titled 'administrador@ubusrv:' shows the command \$ sudo apt-get install docker-compose-plugin being run, followed by the output of the command, which indicates that docker-compose-plugin is already the newest version (2.40.3-1-ubuntu.24.04-nobabel).

### Parte 1: Configuración del entorno

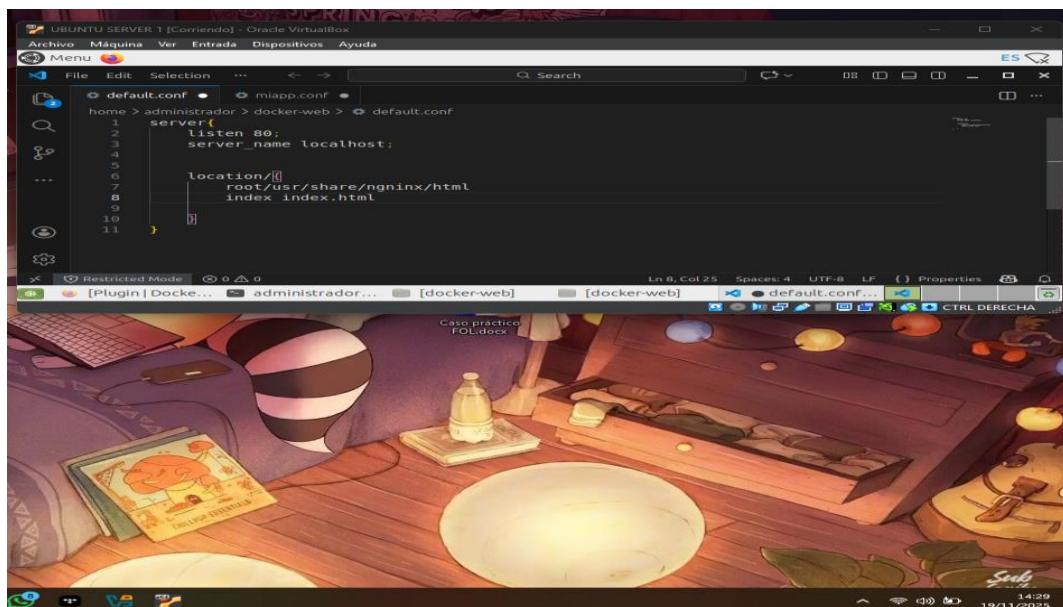
#### 1. Crear un directorio para el proyecto



## 2. Crear una página web personalizada

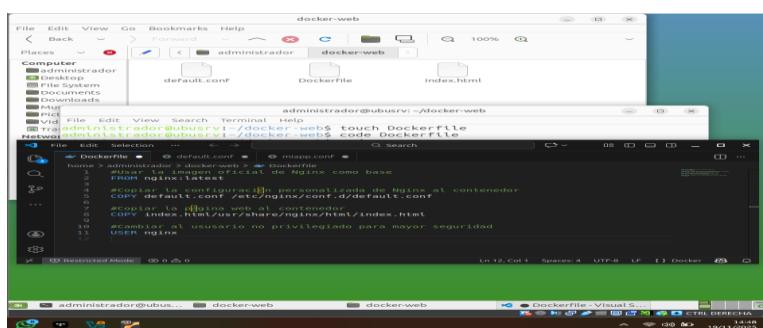


## 3. Crear un archivo de configuración para Nginx



## Parte 2: Construcción del contenedor

### 1. Crear un archivo Dockerfile



```

administrador@ubusrv:~/docker-web$ code Dockerfile
administrador@ubusrv:~/docker-web$ cat Dockerfile
File Edit Selection ... < > Q Search
Dockerfile miapp.conf
home > administrador > docker-web > Dockerfile
1 #Usar la imagen oficial de Nginx como base
2 FROM nginx:latest
3
4 #Copiar la configuración personalizada de Nginx al contenedor
5 COPY default.conf /etc/nginx/conf.d/default.conf
6
7 #Copiar la página web al contenedor
8 COPY index.html /usr/share/nginx/html/index.html
9
10 #Cambiar al usuario no privilegiado para mayor seguridad
11

```

Ln 10, Col 57 Spaces: 4 UTF-8 LF () Docker

No le he cambiado los permisos al usuario (última línea) porque si no, no me dejaba ejecutar el contenedor.

## 2. Construir la imagen personalizada

```

administrador@ubusrv:~/docker-web$ sudo docker build -t mi-nginx .
[+] Building 32.2s (8/8) FINISHED
   docker:default
--> [internal] load build definition from Dockerfile
     0.0s
--> => transferring dockerfile: 370B
     0.0s
--> [internal] load metadata for docker.io/library/nginx:latest
     1.8s
--> [internal] load .dockerignore
     0.1s
--> => transferring context: 2B
     0.0s
--> [1/3] FROM docker.io/library/nginx:latest@sha256:553f64aecdc31b5bf94
     28.6s
--> => resolve docker.io/library/nginx:latest@sha256:553f64aecdc31b5bf944
     0.1s
--> => sha256:de57a609c9d5148f10b38f5c920d276e9e38b2856fe 1.40kB / 1.40kB 0.3s
--> => sha256:192e2451f8751fb74549c932e26a9bcfd7b669fe2f5 1.21kB / 1.21kB 0.5s
--> => sha256:77fa2eb0631772679b0e48eca04f4906fba5fe94377e016 404B / 404B 0.5s
--> => sha256:53d743880af45adf9f141eec1fe3a413087e528075a5d88 954B / 954B 0.6s
--> => sha256:108ab82928207dabd9abfddbc960dd842364037563fc560 628B / 628B 0.4s
--> => sha256:b5feb73171bf1bcf29fdd1ba642c3d30cdf4c632 29.97MB / 29.97MB 24.4s
--> => sha256:0e4bc2bd6656e6e004e3c749af70e5650bac2258 29.78MB / 29.78MB 23.9s
--> => extracting sha256:0e4bc2bd6656e6e004e3c749af70e5650bac2258243eb094 2.0s
--> => extracting sha256:b5feb73171bf1bcf29fdd1ba642c3d30cdf4c6329b19d89b 1.3s
--> => extracting sha256:108ab82928207dabd9abfddbc960dd842364037563fc560b 0.0s
--> => extracting sha256:53d743880af45adf9f141eec1fe3a413087e528075a5d888 0.0s
--> => extracting sha256:77fa2eb0631772679b0e48eca04f4906fba5fe94377e0161 0.1s
--> => extracting sha256:192e2451f8751fb74549c932e26a9bcfd7b669fe2f5bd838 0.0s
--> => extracting sha256:de57a609c9d5148f10b38f5c920d276e9e38b2856fe16c0a 0.0s

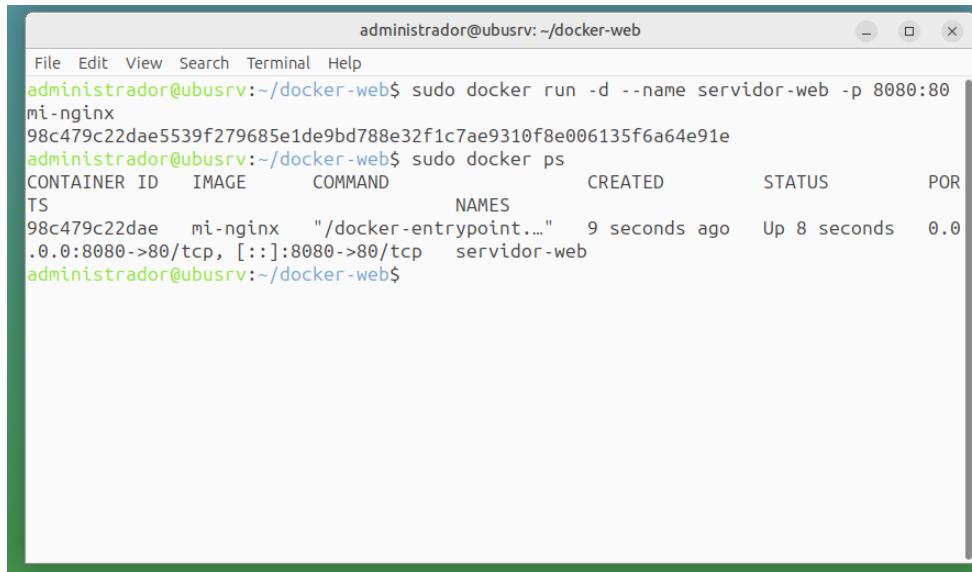
```

## 3. Verificar que la imagen se creó correctamente

IMAGE	ID	DISK USAGE	CONTENT SIZE	EXTRA
mi-nginx:latest	6581cf85f2fd	225MB	59.8MB	i Info → U In Use

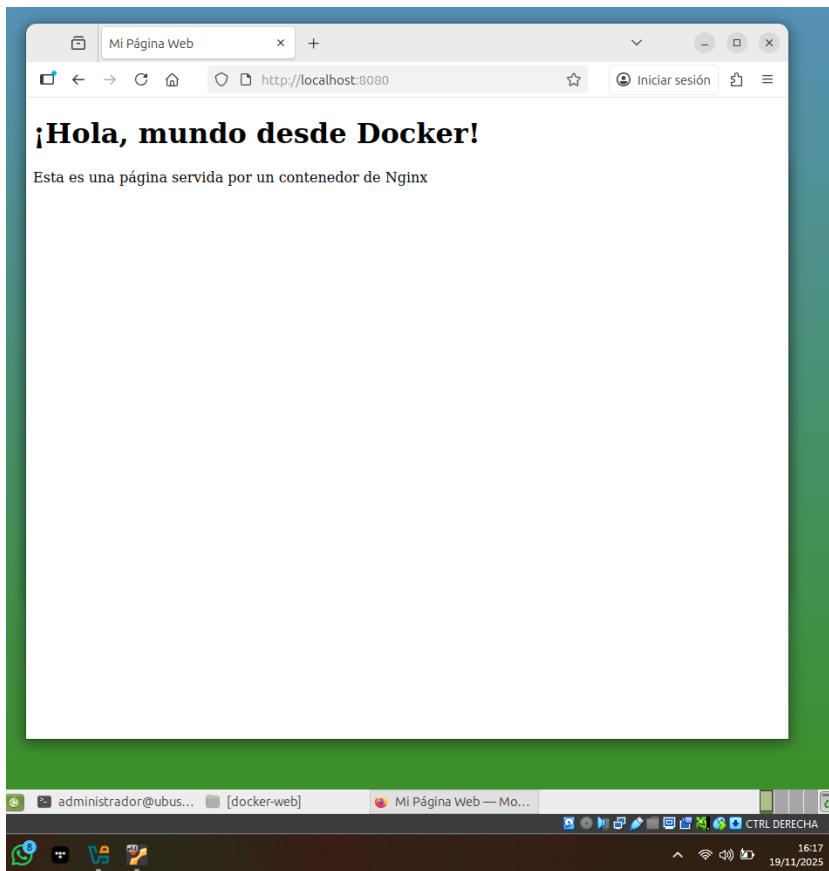
### **Parte 3: Despliegue del servidor web**

1. Ejecutar el contenedor y
2. Verificar que el contenedor está corriendo



```
administrador@ubusrv:~/docker-web$ sudo docker run -d --name servidor-web -p 8080:80
mi-nginx
98c479c22dae5539f279685e1de9bd788e32f1c7ae9310f8e006135f6a64e91e
administrador@ubusrv:~/docker-web$ sudo docker ps
CONTAINER ID   IMAGE      COMMAND       CREATED          STATUS          PORTS
TS            mi-nginx   "/docker-entrypoint..."   9 seconds ago   Up 8 seconds   0.0
.0.0:8080->80/tcp, [::]:8080->80/tcp   servidor-web
administrador@ubusrv:~/docker-web$
```

3. Probar la página web



## **Parte 4: Uso de Docker Compose**

### 1. Crear un archivo docker-compose.yml

```

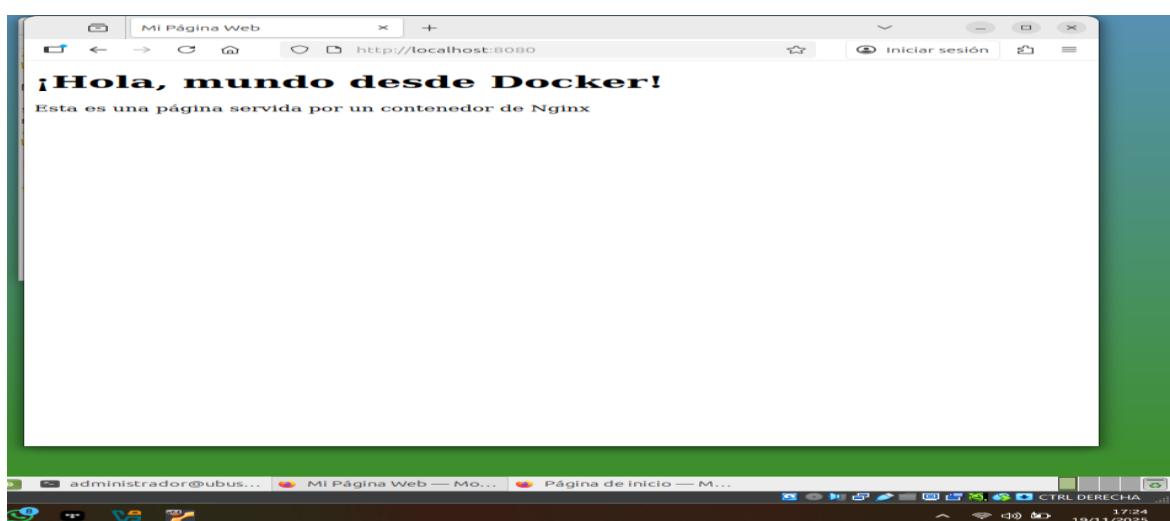
version: '3.8'
services:
  web:
    build: .
    ports:
      - "8080:80"
    container_name: servidor-web-compose
    volumes:
      # Volumen en modo solo lectura (ro)
      - ./index.html:/usr/share/nginx/html/index.html:ro
      # Volumen en modo solo lectura (ro)
      - ./default.conf:/etc/nginx/conf.d/default.conf:ro
    # Reinicia automáticamente si falla el contenedor
    restart: always
  
```

### 2. Iniciar los servicios con Docker Compose

```

administrador@ubusrv:~/docker-web$ sudo docker compose up -d
WARN[0000] /home/administrador/docker-web/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] Running 1/1
  ✓ Container servidor-web-compose  Running          0.0s
  
```

### 3. Comprobar que funciona



#### 4. Verificar los servicios levantados

```
administrador@ubusrv:~/docker-web$ sudo docker compose ps
WARN[0000] /home/administrador/docker-web/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion
NAME           IMAGE          COMMAND                  SERVICE    CREATED
STATUS         PORTS
servidor-web-compose  docker-web-web  "/docker-entrypoint..."  web        About a minute ago
Up About a minute  0.0.0.0:8080->80/tcp, [::]:8080->80/tcp
```

#### 5. Ver los logs del servicio

```
administrador@ubusrv:~/docker-web$ sudo docker compose logs web
WARN[0000] /home/administrador/docker-web/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion
servidor-web-compose | /docker-entrypoint.sh: /docker-entrypoint.d/ is not empty, will attempt to perform configuration
servidor-web-compose | /docker-entrypoint.sh: Looking for shell scripts in /docker-entrypoint.d/
servidor-web-compose | /docker-entrypoint.sh: Launching /docker-entrypoint.d/10-listen-on-ipv6-by-default.sh
servidor-web-compose | 10-listen-on-ipv6-by-default.sh: info: can not modify /etc/nginx/conf.d/default.conf (read-only file system?)
servidor-web-compose | /docker-entrypoint.sh: Sourcing /docker-entrypoint.d/15-local-resolver-envsh
servidor-web-compose | /docker-entrypoint.sh: Launching /docker-entrypoint.d/20-envsubst-on-templates.sh
servidor-web-compose | /docker-entrypoint.sh: Launching /docker-entrypoint.d/30-tune-worker-processes.sh
servidor-web-compose | /docker-entrypoint.sh: Configuration complete; ready for start up
servidor-web-compose | 2025/11/19 16:19:57 [notice] 1#1: using the "epoll" event method
servidor-web-compose | 2025/11/19 16:19:57 [notice] 1#1: nginx/1.29.3
servidor-web-compose | 2025/11/19 16:19:57 [notice] 1#1: built by gcc 14.2.0 (Debian 14.2.0-19)
servidor-web-compose | 2025/11/19 16:19:57 [notice] 1#1: OS: Linux 6.8.0-85-generic
servidor-web-compose | 2025/11/19 16:19:57 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1024:524288
servidor-web-compose | 2025/11/19 16:19:57 [notice] 1#1: start worker processes
servidor-web-compose | 2025/11/19 16:19:57 [notice] 1#1: start worker process 21
servidor-web-compose | 2025/11/19 16:19:57 [notice] 1#1: start worker process 22
servidor-web-compose | 172.18.0.1 - - [19/Nov/2025:16:20:21 +0000] "GET / HTTP/1.1" 304 0 "-" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:143.0) Gecko/20100101 Firefox/143.0" "-"
servidor-web-compose | 172.18.0.1 - - [19/Nov/2025:16:20:21 +0000] "GET /favicon.ico HTTP/1.1" 404 153 "http://localhost:8080/" "Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:143.0) Gecko/20100101 Firefox/143.0" "-"
servidor-web-compose | 2025/11/19 16:20:21 [error] 21#21: *1 open() "/usr/share/nginx/html/favicon.ico" failed (2: No such file or directory), client: 172.18.0.1, server: localhost, request: "GET /favicon.ico HTTP/1.1", host: "localhost:8080", referrer: "http://localhost:8080/"
```

#### 6. Detener y eliminar los servicios

```
administrador@ubusrv:~/docker-web$ sudo docker compose down
WARN[0000] /home/administrador/docker-web/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] Running 2/2
✓ Container servidor-web-compose  Removed                                0.4s
✓ Network docker-web_default     Removed                                0.2s
```

## Parte 5: Limpieza

### 1. Eliminar todos los contenedores detenidos

```
administrador@ubusrv:~/docker-web$ sudo docker container prune
WARNING! This will remove all stopped containers.
Are you sure you want to continue? [y/N] y
Deleted Containers:
98c479c22dae5539f279685e1de9bd788e32f1c7ae9310f8e006135f6a64e91e

Total reclaimed space: 77.82kB
```

### 2. Eliminar la imagen creada

IMAGE	ID	DISK USAGE	CONTENT SIZE	EXTRA
docker-web-web:latest	4843def4df9a	225MB	59.8MB	
mi-nginx:latest	962d82286c27	225MB	59.8MB	

```
administrador@ubusrv:~/docker-web$ sudo docker rmi mi-nginx
Untagged: mi-nginx:latest
Deleted: sha256:962d82286c275df06877c2eb7730f00335518cf98e6530a2ae8bcc232f1804c7

Untagged: docker-web-web:latest
Deleted: sha256:4843def4df9a0fc4fb91ca389f22c32b0b5fa7d264d680f348b12e223d4c168a
administrador@ubusrv:~/docker-web$
```