

PARTE 1: Configuración del entorno

creando directorio:

```
administrador@ubusrv:~$ mkdir -p docker-web
cd docker-web
```

creando una pagina web personalizada:

```
GNU nano 7.2                               index.html
<!DOCTYPE html>
<html lang="es">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Mi Página Web</title>
</head>
<body>
  <h1>¡Hola, mundo desde Docker!</h1>
  <p>Esta es una página servida por un contenedor de Nginx.</p>
</body>
</html>
```

[Read 12 lines]

^G Help	^O Write Out	^W Where Is	^K Cut	^T Execute
^X Exit	^R Read File	^\\ Replace	^U Paste	^J Justify

Creación de un archivo para Nginx:

```
GNU nano 7.2                               default.conf
server {
    listen 80;
    server_name localhost;

    location / {
        root /usr/share/nginx/html;
        index index.html;
    }
}

[ Read 9 lines ]
^G Help      ^O Write Out  ^W Where Is   ^K Cut       ^T Execute
^X Exit      ^R Read File  ^\ Replace    ^U Paste    ^J Justify
```

PARTE 2: construcción de un contenedor

creacion de un archivo Dockerfile:

```
GNU nano 7.2                               Dockerfile
# Usar la imagen oficial de Nginx como base
FROM nginx:latest

# Copiar la configuración personalizada
COPY default.conf /etc/nginx/conf.d/default.conf

# Copiar la página web
COPY index.html /usr/share/nginx/html/index.html

# (Sin USER nginx para evitar problemas de puertos)

[ Read 10 lines ]
^G Help      ^O Write Out  ^W Where Is   ^K Cut       ^T Execute
^X Exit      ^R Read File  ^\ Replace    ^U Paste    ^J Justify
```

construir la imagen personalizada:

```
administrador@ubusrv:~/docker-web$ sudo docker build -t mi-nginx .
[+] Building 2.7s (8/8) FINISHED
      docker:default
      => [internal] load build definition from Dockerfile          0.1s
      => => transferring dockerfile: 330B                         0.0s
      => [internal] load metadata for docker.io/library/nginx:latest 1.1s
      => [internal] load .dockerignore                            0.0s
      => => transferring context: 2B                           0.0s
      => [1/3] FROM docker.io/library/nginx:latest@sha256:553f64aecdc31b5b 0.2s
      => => resolve docker.io/library/nginx:latest@sha256:553f64aecdc31b5b 0.2s
      => [internal] load build context                          0.1s
      => => transferring context: 64B                         0.0s
      => CACHED [2/3] COPY default.conf /etc/nginx/conf.d/default.conf 0.0s
      => CACHED [3/3] COPY index.html /usr/share/nginx/html/index.html 0.0s
      => exporting to image                                    0.7s
      => => exporting layers                                 0.0s
      => => exporting manifest sha256:877c118a07d149211942db57a96fbcbf306b 0.1s
      => => exporting config sha256:0c6dd40f6f32d5f6fd5bd80896997614c086e1 0.1s
      => => exporting attestation manifest sha256:0ce3af4ee00ce973b0227bf3 0.2s
      => => exporting manifest list sha256:baeaf7bbcb13aeb5590b9876be79a85 0.1s
      => => naming to docker.io/library/mi-nginx:latest       0.0s
      => => unpacking to docker.io/library/mi-nginx:latest    0.1s
```

verificación de la creación de la imagen creada anteriormente:

```
administrador@ubusrv:~/docker-web$ sudo docker images
[sudo] password for administrador:
      A  Info →   U In Use
IMAGE           ID          DISK USAGE     CONTENT SIZE     EXTRA
hello-world:latest  f7931603f70e  20.3kB        3.96kB      U
mi-nginx:latest   baeaf7bbcb13  225MB        59.8MB      U
administrador@ubusrv:~/docker-web$ |
```

PARTE 3: despliegue del servidor web

ejecutar el contenedor:

```
administrador@ubusrv:~/docker-web$ sudo docker run -d --name servidor-web -p
8080:80 mi-nginx
```

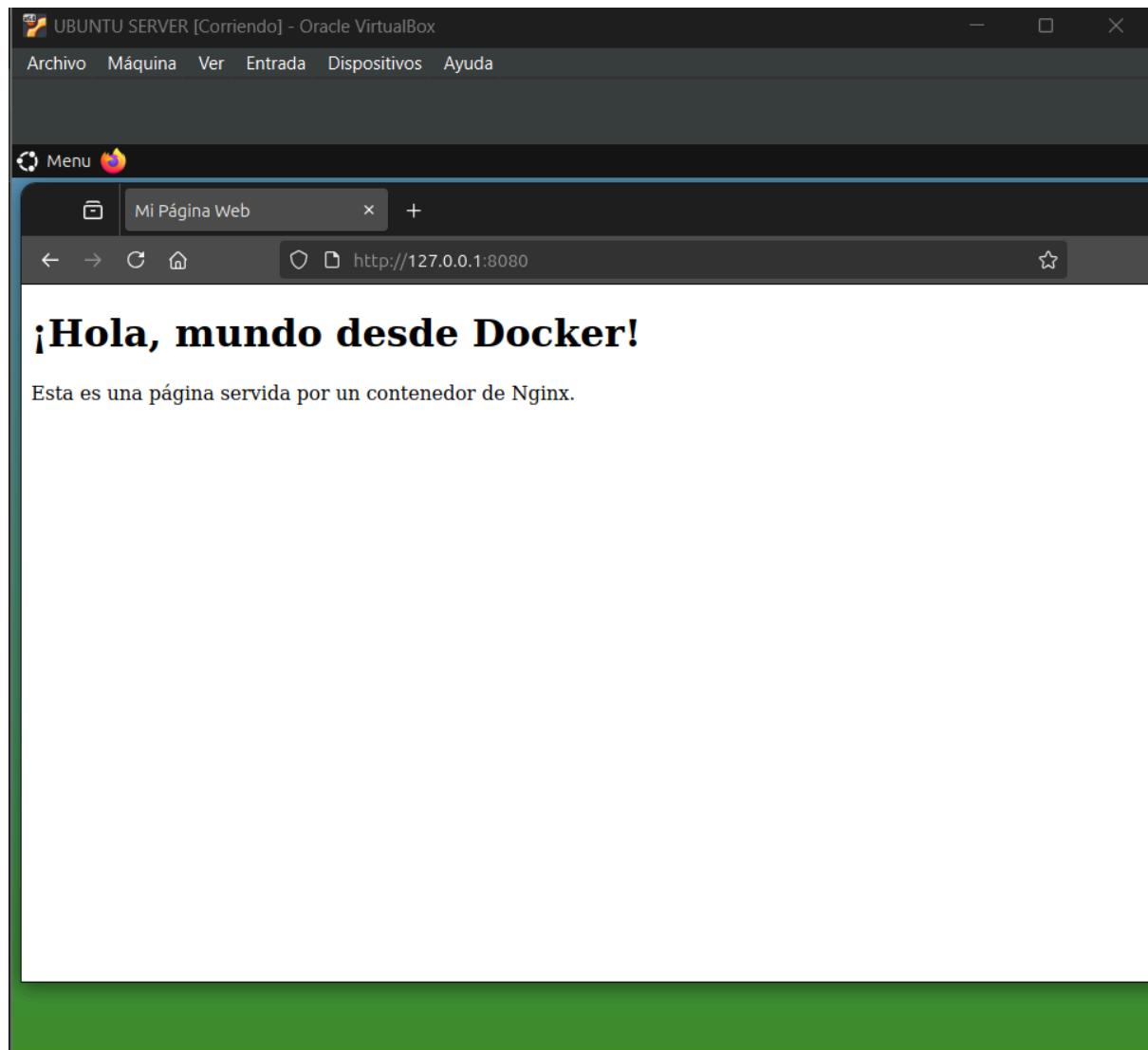
verificar que el contenedor esta corriendo:

```
administrador@ubusrv:~/docker-web$ sudo docker ps
CONTAINER ID   IMAGE      COMMAND          CREATED          STATUS
              NAMES
5c4d8006e2e6   mi-nginx   "/docker-entrypoint..."  15 seconds ago   Up 15 se
condo         0.0.0.0:8080->80/tcp, [::]:8080->80/tcp   servidor-web
```

probar la pagina web:

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PARTE 4: Docker Compose

creacion del archivo docker-compose.yml:

```
GNU nano 7.2                               docker-compose.yml
version: '3.8'

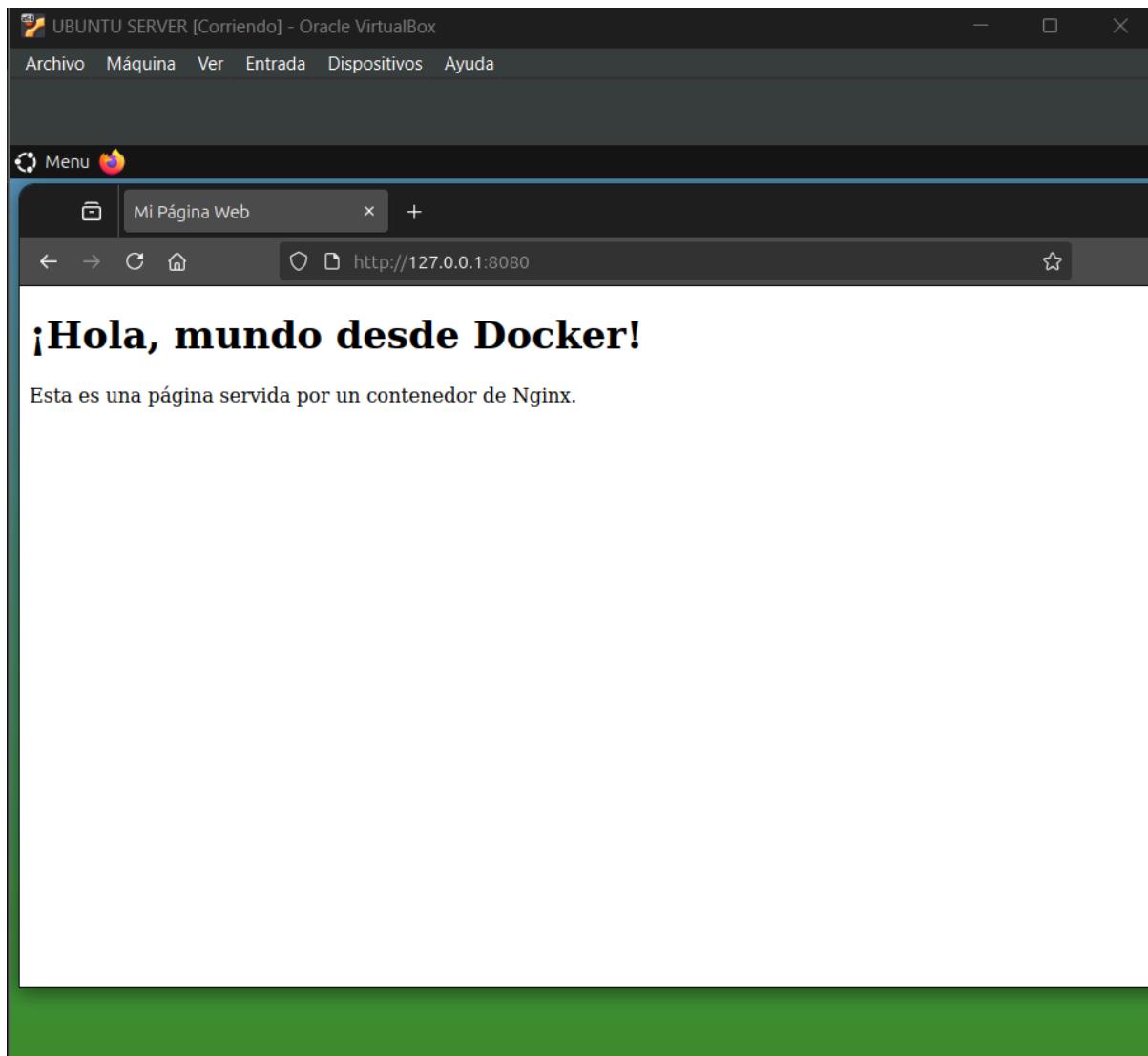
services:
  web:
    build: .
    ports:
      - "8080:80"
    container_name: servidor-web-compose
    volumes:
      - ./index.html:/usr/share/nginx/html/index.html:ro
      - ./default.conf:/etc/nginx/conf.d/default.conf:ro
    restart: always
```

[Read 12 lines]
^G Help ^O Write Out ^W Where Is ^K Cut ^T Execute
^X Exit ^R Read File ^\ Replace ^U Paste ^J Justify

iniciando 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
[+] Building 1.4s (10/10) FINISHED
=> [internal] load local bake definitions          0.0s
=> => reading from stdin 507B                      0.0s
=> [internal] load build definition from Dockerfile 0.0s
=> => transferring dockerfile: 319B                0.0s
=> [internal] load metadata for docker.io/library/nginx:latest 0.9s
=> [internal] load .dockerrcignore                 0.0s
=> => transferring context: 2B                   0.0s
=> [1/3] FROM docker.io/library/nginx:latest@sha256:553f64aecdc31b5b 0.0s
=> => resolve docker.io/library/nginx:latest@sha256:553f64aecdc31b5b 0.0s
=> [internal] load build context                  0.0s
=> => transferring context: 390B                0.0s
=> CACHED [2/3] COPY default.conf /etc/nginx/conf.d/default.conf 0.0s
=> CACHED [3/3] COPY index.html /usr/share/nginx/html/index.html 0.0s
=> exporting to image                           0.1s
=> => exporting layers                         0.0s
=> => exporting manifest sha256:4ba0464940049abc80baf3ce54fa618fab74 0.0s
=> => exporting config sha256:a7339b4d0bfd3f6b0502d6897f5600007a83cc 0.0s
=> => exporting attestation manifest sha256:76ab2b57e0a019f3312c3dba 0.0s
=> => exporting manifest list sha256:67e25cd34e903d435a342a0722f4f33 0.0s
=> => naming to docker.io/library/docker-web-web:latest 0.0s
=> => unpacking to docker.io/library/docker-web-web:latest 0.0s
=> resolving provenance for metadata file       0.0s
[+] Running 3/3
✓ docker-web-web           Built          0.0s
✓ Network docker-web_default Cre... 0.1s
✓ Container servidor-web-compose Started 0.5s
```

comprobando que funciona correctamente:



verificación de 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   C
      CREATED      STATUS      PORTS
servidor-web-compose  docker-web-web  "/docker-entrypoint...."  web      3
                     minutes ago  Up 3 minutes  0.0.0.0:8080->80/tcp, [::]:8080->80/tcp
```

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 c
onfusion
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-resolvers.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 | 2025/11/21 22:54:04 [notice] 1#1: using the "epoll" event method
servidor-web-compose | 2025/11/21 22:54:04 [notice] 1#1: nginx/1.29.3
servidor-web-compose | 2025/11/21 22:54:04 [notice] 1#1: built by gcc 14.2.0 (Debian 14.2.0-19)
servidor-web-compose | 2025/11/21 22:54:04 [notice] 1#1: OS: Linux 6.8.0-84-generic
servidor-web-compose | 2025/11/21 22:54:04 [notice] 1#1: getrlimit(RLIMIT_NOFILE): 1024:524288
servidor-web-compose | 2025/11/21 22:54:04 [notice] 1#1: start worker processes
servidor-web-compose | 2025/11/21 22:54:04 [notice] 1#1: start worker process 21
servidor-web-compose | 2025/11/21 22:54:04 [notice] 1#1: start worker process 22
servidor-web-compose | 2025/11/21 22:56:44 [error] 22#22: *2 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: "127.0.0.1:8080", referer: "http://127.0.0.1:8080/"
servidor-web-compose | 172.18.0.1 - [21/Nov/2025:22:56:44 +0000] "GET /favicon.ico HTTP/1.1" 404 153 "http://127.0.0.1:8080/" "Mozilla/5.0 (X11; Ubuntu;
Linux x86_64; rv:143.0) Gecko/20100101 Firefox/143.0" "-"
administrador@ubusrv:~/docker-web$
```

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deteniendo y eliminando los servicios:

```
administrador@ubusrv:~/docker-web$ sudo docker compose down
```

PARTE 5: Limpieza

eliminando 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:
39aa235429f2cbd2a0e961eafe11c32c25d97cf52d2886af348ea726917e6753

Total reclaimed space: 4.096kB
```

eliminando la imagen ya creada:

```
administrador@ubusrv:~/docker-web$ sudo docker rmi mi-nginx
```