

Práctica uso de Docker

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1. Comprueba la versión de Docker:

> `docker -version`

```
PS C:\Users\ASUS> docker --version
Docker version 28.3.2, build 578ccf6
```

2. Descarga una imagen de Docker, por ejemplo, httpd (Apache):

> `docker pull httpd`

```
PS C:\Users\ASUS> docker pull httpd
Using default tag: latest
latest: Pulling from library/httpd
Digest: sha256:3198c1839e1a875f8b83803083758a7635f1ae999f0601f30f2f3b8ce2ac99e3
Status: Image is up to date for httpd:latest
docker.io/library/httpd:latest
```

3. Consulta las imágenes descargadas:

> `docker images`

```
PS C:\Users\ASUS> docker images
REPOSITORY    TAG       IMAGE ID      CREATED        SIZE
httpd          latest    3198c1839e1a  13 days ago   174MB
```

4. Ejecuta una instancia (contenedor) de la imagen descargada (httpd):

> `docker run -it -d -p 8080:80 httpd`

```
PS C:\Users\ASUS> docker run -it -d -p 8080:80 httpd
c8c9b3d13764179bfe81af34c97a06b046c6c2a1a4c33d3871a1cd2fb533b5df
```

5. Consulta todos los contenedores creados:

> `docker ps`

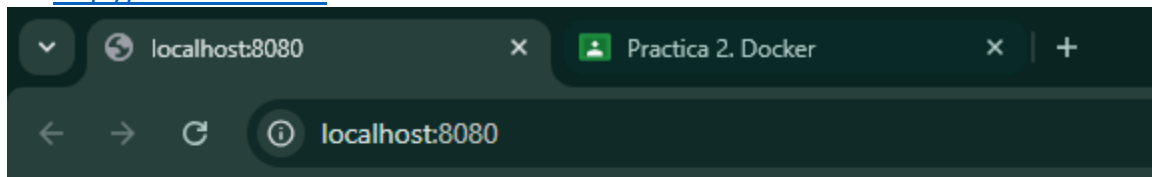
```
PS C:\Users\ASUS> docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS
c8c9b3d13764   httpd     "httpd-foreground"      About a minute ago    Up About a minute    0.0.0.0:8080->80/tcp, [::]:8080->80/t
cp   epic_robinson
```

> `docker ps -a`

```
PS C:\Users\ASUS> docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS
c8c9b3d13764   httpd     "httpd-foreground"      About a minute ago    Up About a minute    0.0.0.0:8080->80/tcp, [::]:8080->80/t
cp   epic_robinson
PS C:\Users\ASUS>
```

6. Comprueba el funcionamiento del contenedor desde el host:

> <http://localhost:8080>



It works!

7. Ejecuta la terminal de Linux dentro del contenedor:

> `ls`

```
PS C:\Users\ASUS> ls

Directorio: C:\Users\ASUS

Mode                LastWriteTime         Length Name
----                -
d-----           22/8/2025   13:57          .docker
d-----           6/6/2025   11:52          .vscode
d-r--           7/12/2019    03:09       3D Objects
```

> docker exec -it 2e50e06a5c84

```
PS C:\Users\ASUS> docker exec -it c8c9b3d13764 /bin/bash
root@c8c9b3d13764:/usr/local/apache2#
```

8. Borra el contenedor creado:

> docker rm CONTAINER_ID

```
PS C:\Users\ASUS> docker rm c8c9b3d13764
Error response from daemon: cannot remove container "c8c9b3d13764": container is running: stop the container before removing or force remove
```

> docker stop c8c9b3d13764 *(para el contenedor antes de borrarlo)*

```
PS C:\Users\ASUS> docker stop c8c9b3d13764
c8c9b3d13764
```

> docker rm c8c9b3d13764

```
PS C:\Users\ASUS> docker rm c8c9b3d13764
c8c9b3d13764
```

9. Comprueba que el contenedor ha sido eliminado:

> docker ps -a

```
PS C:\Users\ASUS> docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
PS C:\Users\ASUS>
```

10. Borra la imagen usando la identificación del Contenedor que ha sido eliminado:

> docker rmi IMAGE_ID

```
PS C:\Users\ASUS> docker rmi c8c9b3d13764
Error response from daemon: No such image: c8c9b3d13764:latest
PS C:\Users\ASUS>
```

> docker images

```
PS C:\Users\ASUS> docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
httpd         latest    3198c1839e1a   13 days ago   174MB
PS C:\Users\ASUS>
```

> docker rmi 3198c1839e1a

```
PS C:\Users\ASUS> docker rmi 3198c1839e1a
Untagged: httpd:latest
Deleted: sha256:3198c1839e1a875f8b83803083758a7635f1ae999f0601f30f2f3b8ce2ac99e3
PS C:\Users\ASUS>
```

> docker rmi -f 3198c1839e1a *(forzar el borrado)*

```
PS C:\Users\ASUS> docker rmi -f 3198c1839e1a
Error response from daemon: No such image: 3198c1839e1a:latest
```

11. Reinicia el contenedor:

> docker restart CONTAINER_ID

```
PS C:\Users\ASUS> docker restart ce0d0e310cb3
ce0d0e310cb3
```

> docker ps -a

```
PS C:\Users\ASUS> docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAME
S
ce0d0e310cb3   httpd     "httpd-foreground"      2 minutes ago Up 31 seconds  0.0.0.0:8080->80/tcp, [::]:8080->80/tcp   trus
ting_ramanujan
PS C:\Users\ASUS>
```

> docker restart 2e50e06a5c84

```
PS C:\Users\ASUS> docker restart ce0d0e310cb3
>>
ce0d0e310cb3
PS C:\Users\ASUS>
```

12. Detén y levanta el contenedor:

> docker stop CONTAINER_ID

```
PS C:\Users\ASUS> docker stop ce0d0e310cb3
ce0d0e310cb3
```

> docker stop ce0d0e310cb3

```
PS C:\Users\ASUS> docker stop ce0d0e310cb3
ce0d0e310cb3
```

> docker ps *(comprueba que está parado el contenedor)*

```
PS C:\Users\ASUS> docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS    NAMES
PS C:\Users\ASUS>
```

> docker start 2e50e06a5c84

```
PS C:\Users\ASUS> docker start ce0d0e310cb3
ce0d0e310cb3
```

> docker ps

```
PS C:\Users\ASUS> docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED    STATUS    PORTS    NAME
S
ce0d0e310cb3   httpd     "httpd-foreground"      6 minutes ago    Up 14 seconds    0.0.0.0:8080->80/tcp, [::]:8080->80/tcp    trus
ting_ramanujan
```

13. Mata el contenedor:

> docker kill 2e50e06a5c84

```
PS C:\Users\ASUS> docker kill ce0d0e310cb3
ce0d0e310cb3
```

> docker ps

```
PS C:\Users\ASUS> docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
PS C:\Users\ASUS>
```

14. Visualiza los detalles de la red definida con los clústeres:

> docker network

```
PS C:\Users\ASUS> docker network
Usage:  docker network COMMAND

Manage networks

Commands:
  connect      Connect a container to a network
  create       Create a network
  disconnect   Disconnect a container from a network
  inspect      Display detailed information on one or more networks
  ls           List networks
  prune        Remove all unused networks
  rm           Remove one or more networks

Run 'docker network COMMAND --help' for more information on a command.
PS C:\Users\ASUS>
```

> docker network ls

```
PS C:\Users\ASUS> docker network ls
NETWORK ID     NAME      DRIVER    SCOPE
2eea58a8f7ef   bridge    bridge    local
5fb81fb17a46   host      host      local
4bd19013a357   none      null      local
PS C:\Users\ASUS>
```

> docker ps

```
PS C:\Users\ASUS> docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
PS C:\Users\ASUS>
```

15. Obtén información detallada sobre los recursos de Docker:

> docker Info

```
PS C:\Users\ASUS> docker info
Client:
Version:      28.3.2
Context:      desktop-linux
Debug Mode:   false
Plugins:
ai: Docker AI Agent - Ask Gordon (Docker Inc.)
   Version:   v1.9.11
   Path:      C:\Program Files\Docker\cli-plugins\docker-ai.exe
buildx: Docker Buildx (Docker Inc.)
   Version:   v0.26.1-desktop.1
   Path:      C:\Program Files\Docker\cli-plugins\docker-buildx.exe
cloud: Docker Cloud (Docker Inc.)
   Version:   v0.4.18
   Path:      C:\Program Files\Docker\cli-plugins\docker-cloud.exe
compose: Docker Compose (Docker Inc.)
```

16. Revisa el historial de una imagen:

> docker history httpd

```
PS C:\Users\ASUS> docker history httpd
```

| IMAGE | CREATED | CREATED BY | SIZE | COMMENT |
|--------------|-------------|---|--------|------------------------|
| 3198c1839e1a | 2 weeks ago | CMD ["httpd-foreground"] | 0B | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | EXPOSE map[80/tcp:{}] | 0B | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | COPY httpd-foreground /usr/local/bin/ # buil... | 20.5kB | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | STOPSIGNAL SIGWINCH | 0B | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | RUN /bin/sh -c set -eux; savedAptMark="\$(a... | 34.8MB | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | ENV HTTPD_PATCHES= | 0B | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | ENV HTTPD_SHA256=58b8be97d9940ec17f7656c0c6b... | 0B | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | ENV HTTPD_VERSION=2.4.65 | 0B | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | RUN /bin/sh -c set -eux; apt-get install --... | 7MB | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | WORKDIR /usr/local/apache2 | 4.1kB | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | RUN /bin/sh -c mkdir -p "\$HTTPD_PREFIX" && ... | 16.4kB | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | ENV PATH=/usr/local/apache2/bin:/usr/local/s... | 0B | buildkit.dockerfile.v0 |
| <missing> | 2 weeks ago | ENV HTTPD_PREFIX=/usr/local/apache2 | 0B | buildkit.dockerfile.v0 |

17. Busca una imagen según el nombre:

>docker search httpd

```
PS C:\Users\ASUS> docker search httpd
```

| NAME | DESCRIPTION | STARS | OFFICIAL |
|------------------------|---|-------|----------|
| httpd | The Apache HTTP Server Project | 4898 | [OK] |
| manageiq/httpd | Container with httpd, built on CentOS for Ma... | 1 | |
| paketobuildpacks/httpd | | 0 | |
| vulhub/httpd | | 0 | |
| openeuler/httpd | | 0 | |
| dockerpinata/httpd | | 1 | |
| centos/httpd | | 36 | |
| e2eteam/httpd | | 0 | |
| manasip/httpd | | 0 | |
| amd64/httpd | The Apache HTTP Server Project | 1 | |
| futdryt/httpd | | 0 | |
| signiant/httpd | httpd (apache2) base container with a custom... | 0 | |
| ppc64le/httpd | The Apache HTTP Server Project | 0 | |
| arm64v8/httpd | The Apache HTTP Server Project | 11 | |