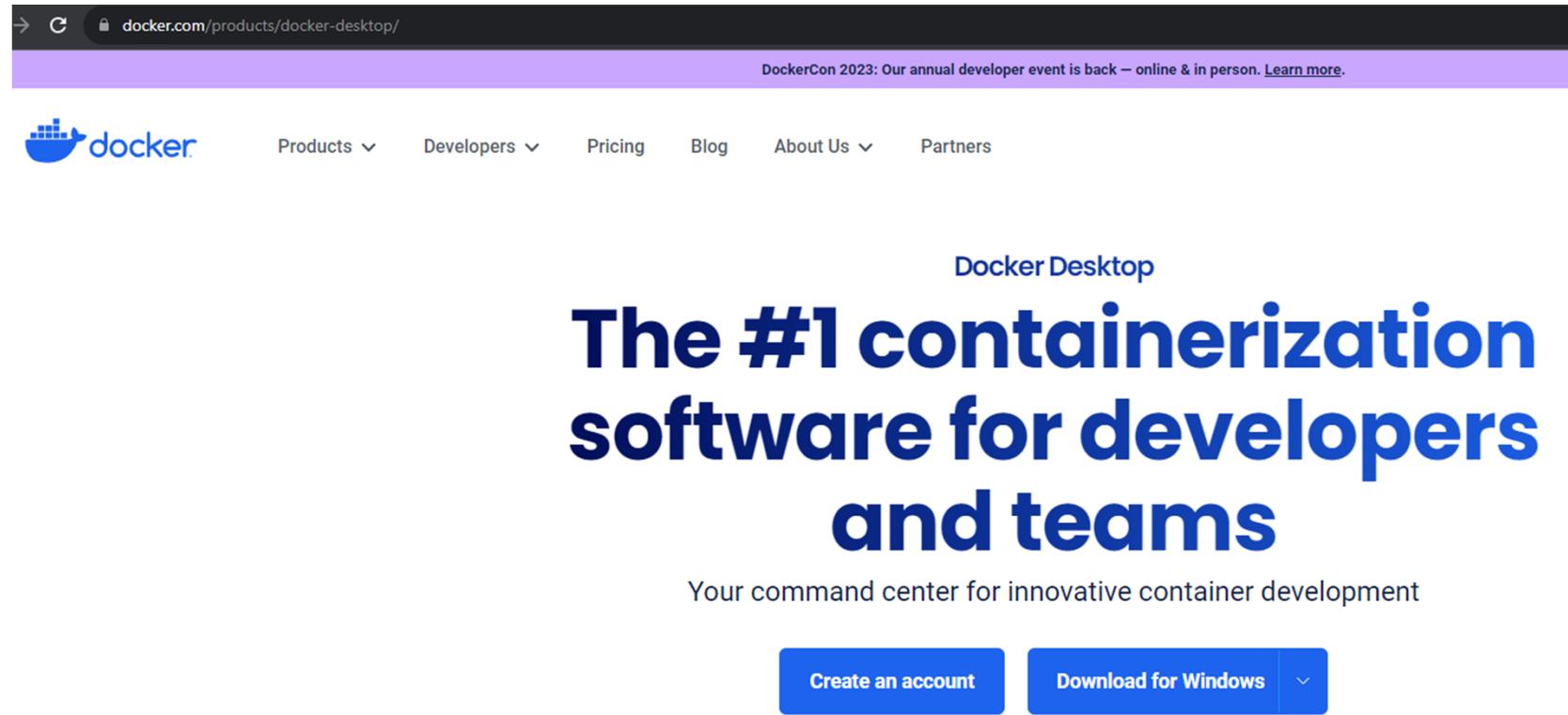


docker®

Docker Desktop



The screenshot shows the Docker Desktop product page on the official Docker website. At the top, there's a navigation bar with links for Products, Developers, Pricing, Blog, About Us, and Partners. A purple banner at the top of the main content area reads "DockerCon 2023: Our annual developer event is back – online & in person. [Learn more.](#)". The main headline is "Docker Desktop" followed by the tagline "The #1 containerization software for developers and teams". Below that, it says "Your command center for innovative container development". There are two prominent blue buttons: "Create an account" and "Download for Windows".

docker.com/products/docker-desktop/

DockerCon 2023: Our annual developer event is back – online & in person. [Learn more.](#)

Products ▾ Developers ▾ Pricing Blog About Us ▾ Partners

Docker Desktop

The #1 containerization software for developers and teams

Your command center for innovative container development

Create an account

Download for Windows ▾

El instalador



Installing Docker Desktop 4.24.0 (122432)

Docker Desktop

Initializing...

Verifying package

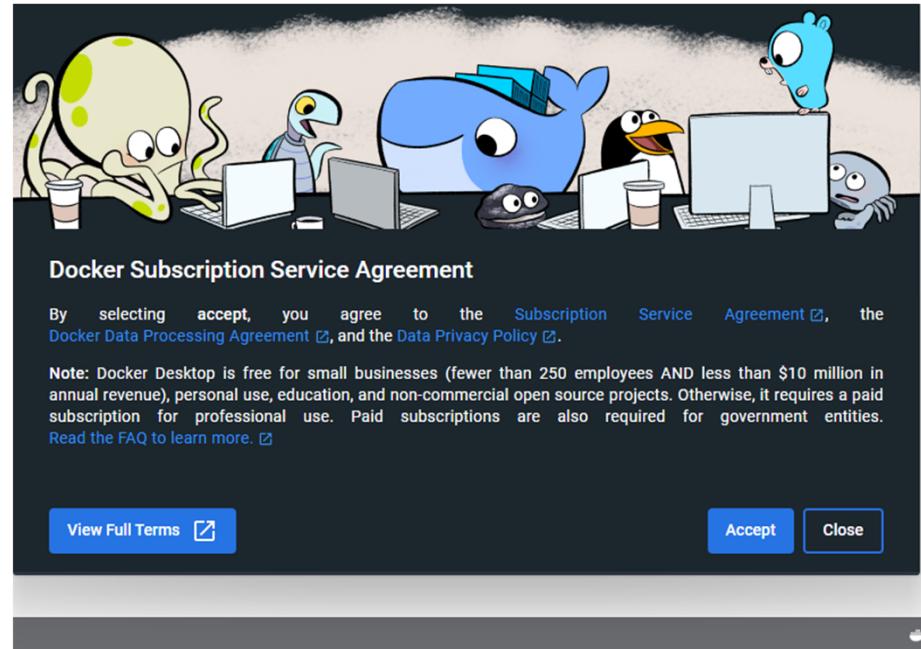
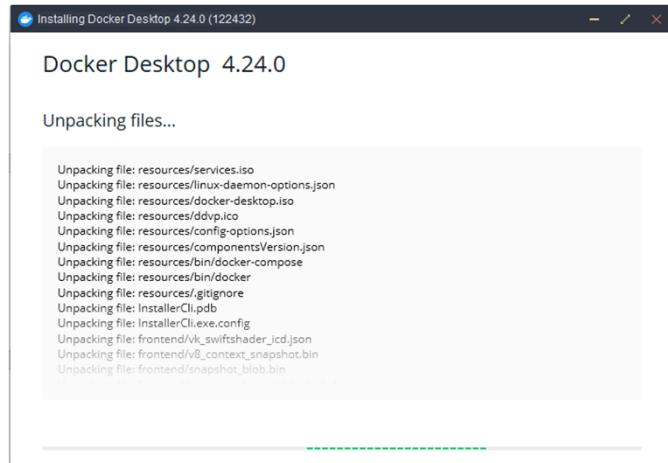
Installing Docker Desktop 4.24.0 (122432)

Configuration

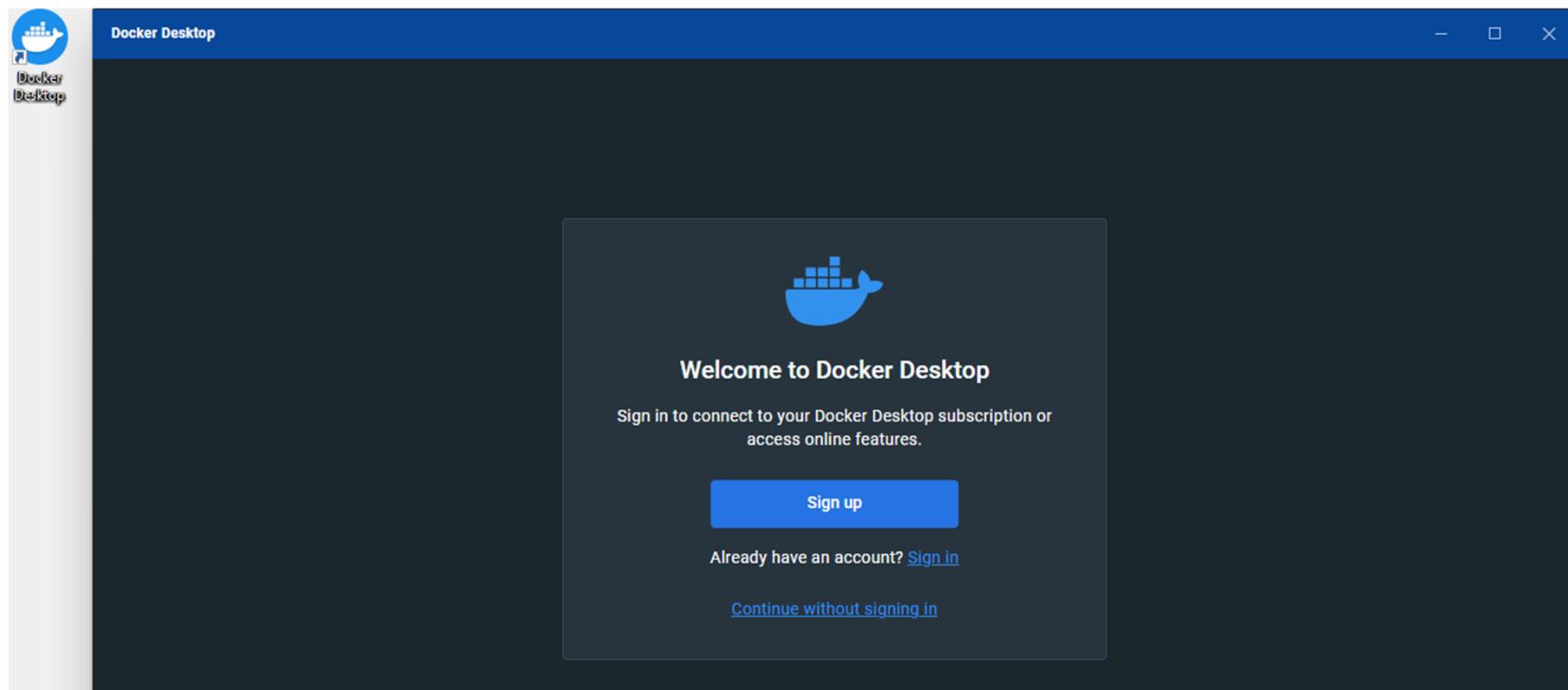
Use WSL 2 instead of Hyper-V (recommended)
 Add shortcut to desktop

Ok 3

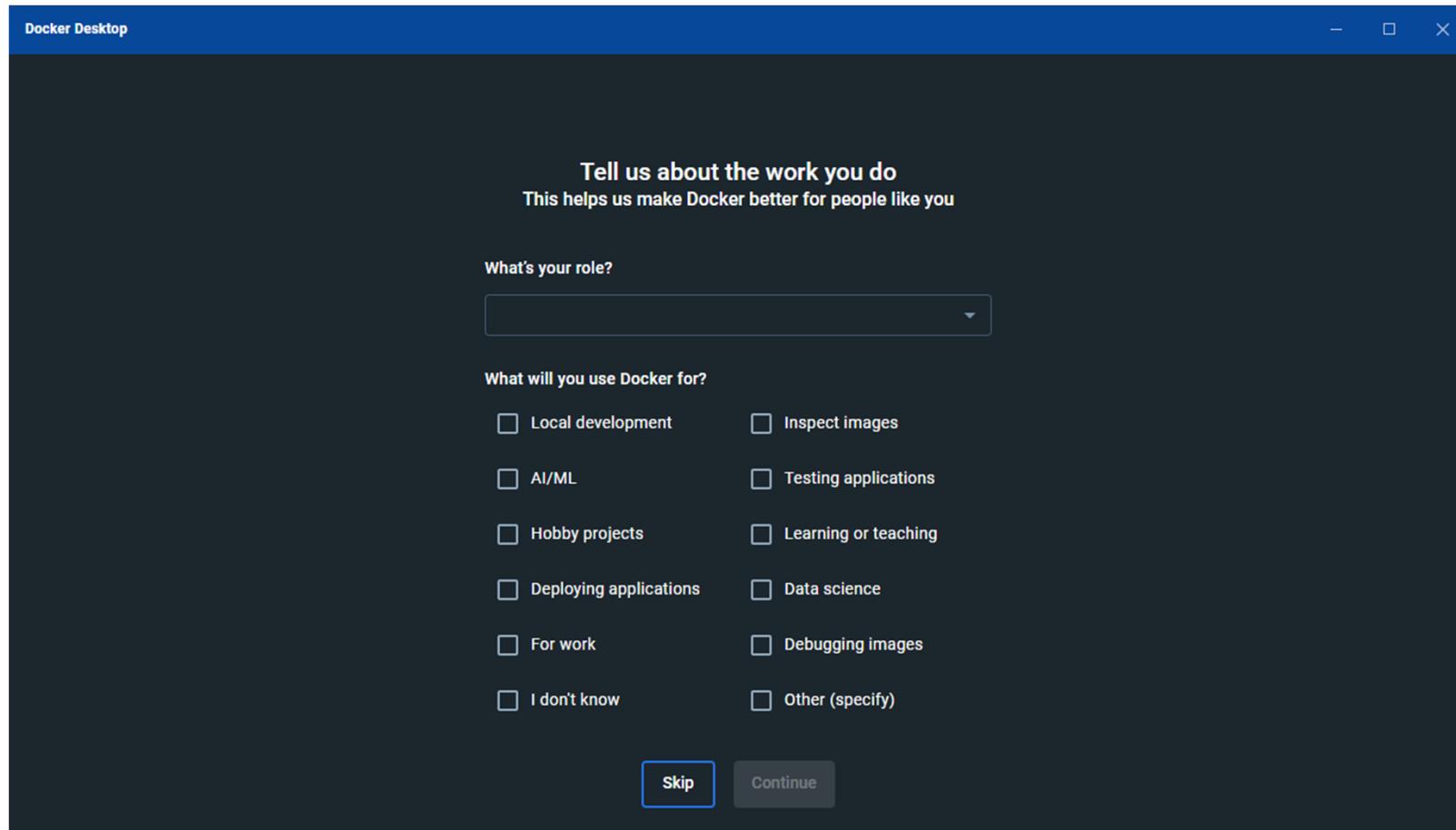
Instalando ...



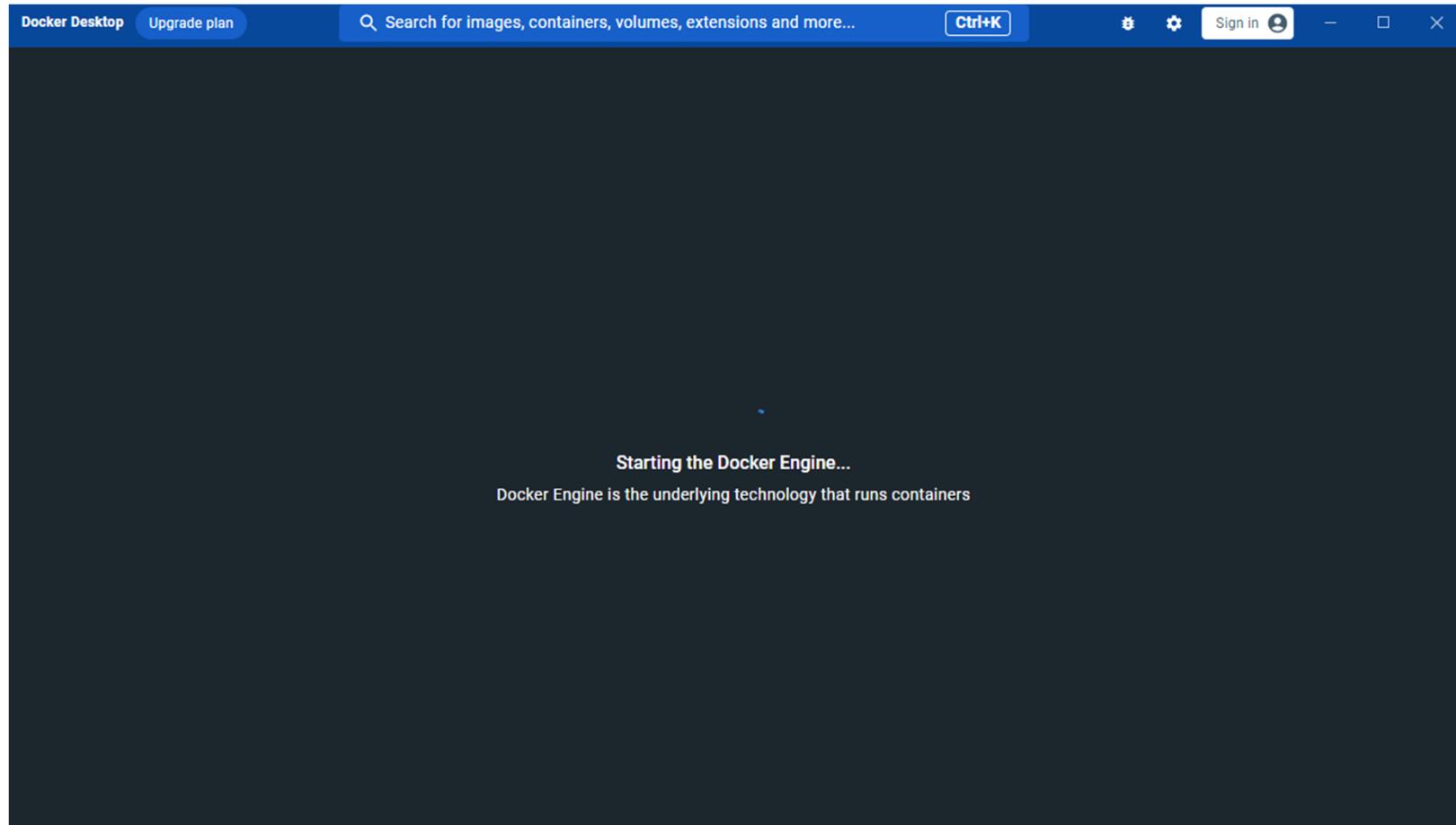
Instalado ¿?



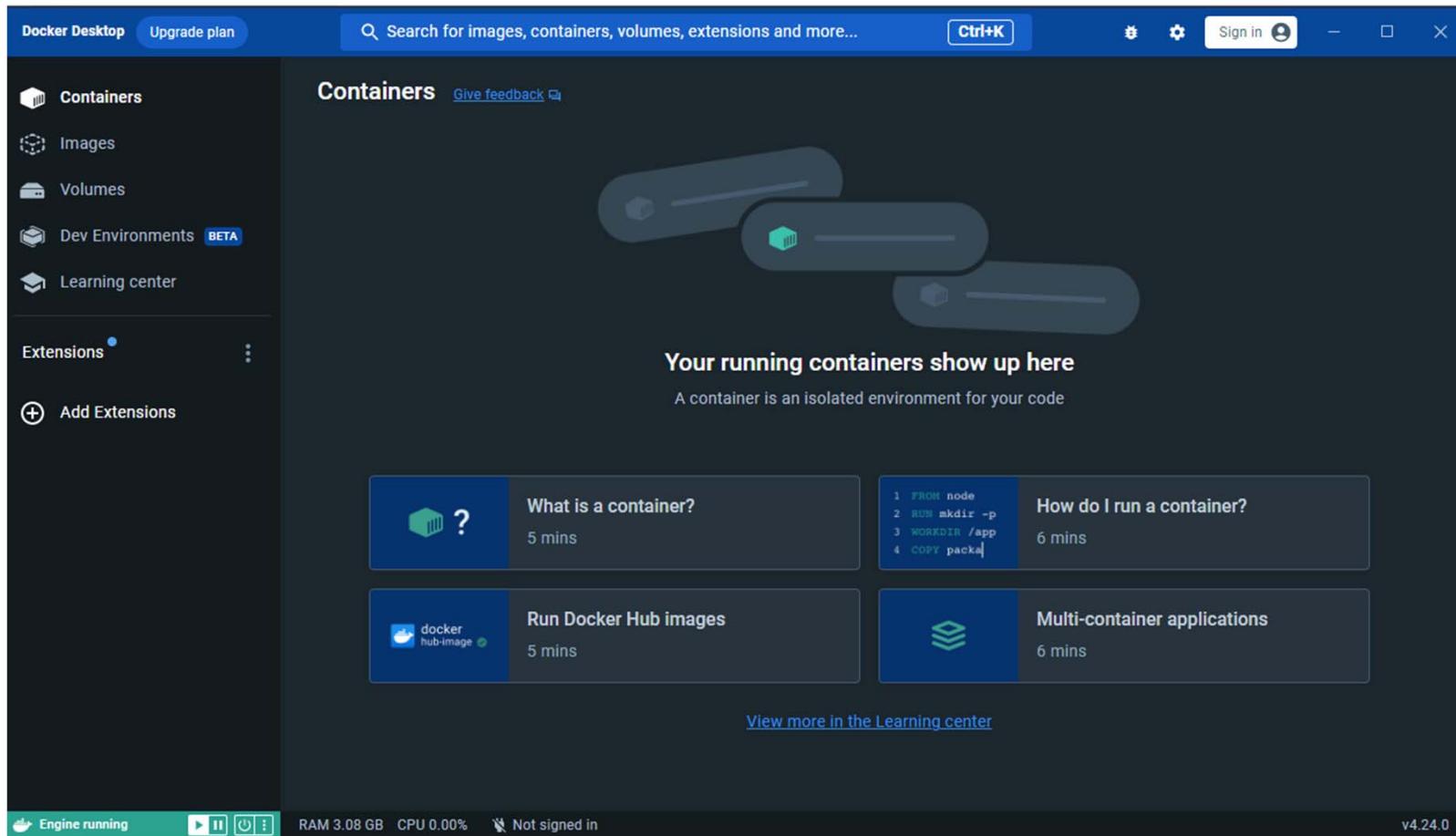
Más preguntas



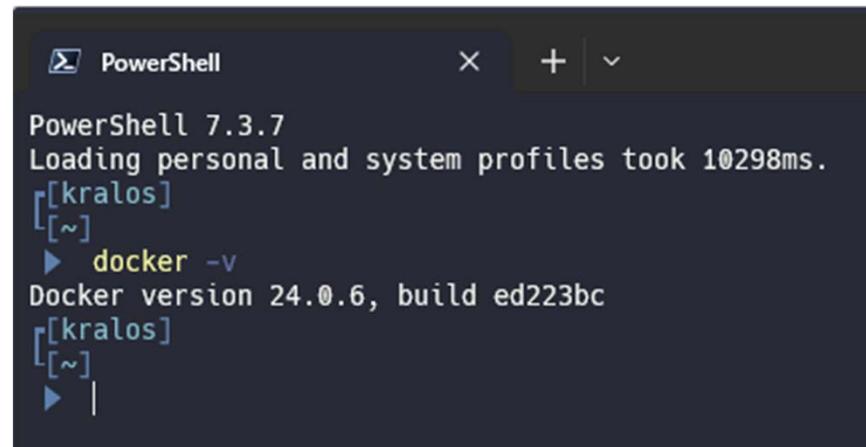
Ahora parece que ya inicio



Según ya esta ejecutándose ...



Verificación de que todo esta bien



```
PowerShell 7.3.7
Loading personal and system profiles took 10298ms.
[kralos]
[~]
▶ docker -v
Docker version 24.0.6, build ed223bc
[kralos]
[~]
▶ |
```

hub.Docker.com

The screenshot shows the Docker Hub homepage at hub.docker.com. The top navigation bar includes a lock icon, the URL, a purple banner for DockerCon, the Docker Hub logo, a search bar, and links for Explore, Pricing, Sign In, and Sign up. The main visual features a large blue hexagonal graphic with white text: "Build and Ship any Application Anywhere". Below it, a sub-headline reads: "Docker Hub is the world's easiest way to create, manage, and deliver your team's container applications." To the right is a "Create your account" form with fields for Email, Username, and Password, and a checkbox for product updates. A note states the site is protected by reCAPTCHA and Google's Privacy Policy and Terms of Service apply. At the bottom of the form is a "Sign up" button, and below it, a link for existing users: "Already have an account? Sign in".

Join the DockerCon online event Oct 4-5th, live from Los Angeles. [Watch now.](#)

hub.docker.com

docker hub Search Docker Hub

Explore Pricing Sign In [Sign up](#)

Build and Ship any Application Anywhere

Docker Hub is the world's easiest way to create, manage, and deliver your team's container applications.

Create your account

Signing up for Docker is fast and free.

Email

Username

Password

Send me occasional product updates and announcements.

This site is protected by reCAPTCHA and the Google [Privacy Policy](#) and [Terms of Service](#) apply.

[Sign up](#)

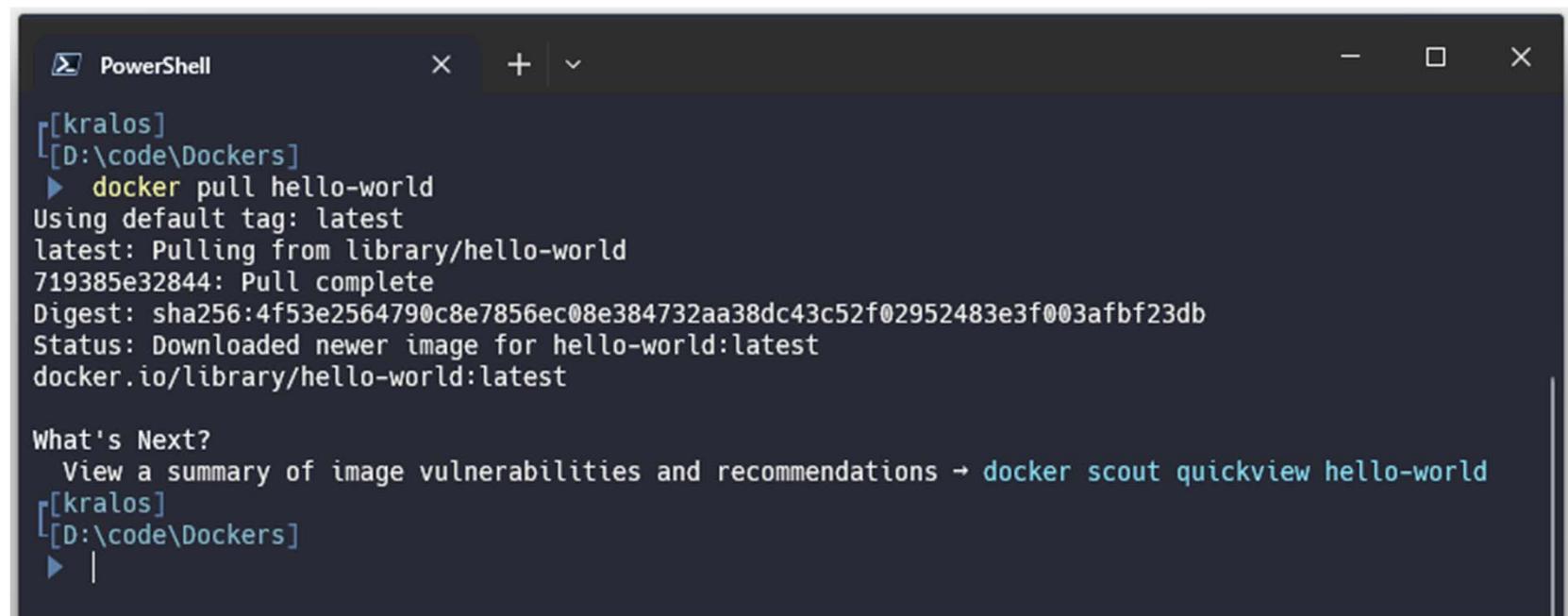
By creating an account I agree to the [Subscription Service Agreement](#), [Privacy Policy](#), [Data Processing Terms](#).

Already have an account? [Sign in](#)

El hola mundo de docker

The screenshot shows the Docker Hub interface for the 'hello-world' image. At the top, there's a search bar with 'hello-world' and navigation links for 'Explore', 'Official Images', and 'hello-world'. The main content area displays the 'hello-world' image card, which includes the Docker Hub logo, the image name 'hello-world', its status as a 'Docker Official Image', its size of '1B+', and its star count of '2.1K'. Below the card is a brief description: 'Hello World! (an example of minimal Dockerization)'. There are two tabs: 'Overview' (which is selected) and 'Tags'. To the right of the image card is a button labeled 'docker pull hello-world' with a copy icon. On the left side of the main content area, there's a 'Quick reference' section with bullet points about maintainers and help resources. Below that is a 'Supported tags and respective Dockerfile links' section, which notes that tags are shared between 'Shared' and 'Simple' tags. It lists several simple tags: 'linux', 'nanoserver-ltsc2022', and 'nanoserver-1809'. To the right of the main content area are two boxes: 'Recent Tags' containing a list of recent tags like 'nanoserver-ltsc2022', 'nanoserver-1809', etc., and 'About Official Images' which explains that official images are curated open source repositories designed for best practices.

Ahora si, primeros pasos

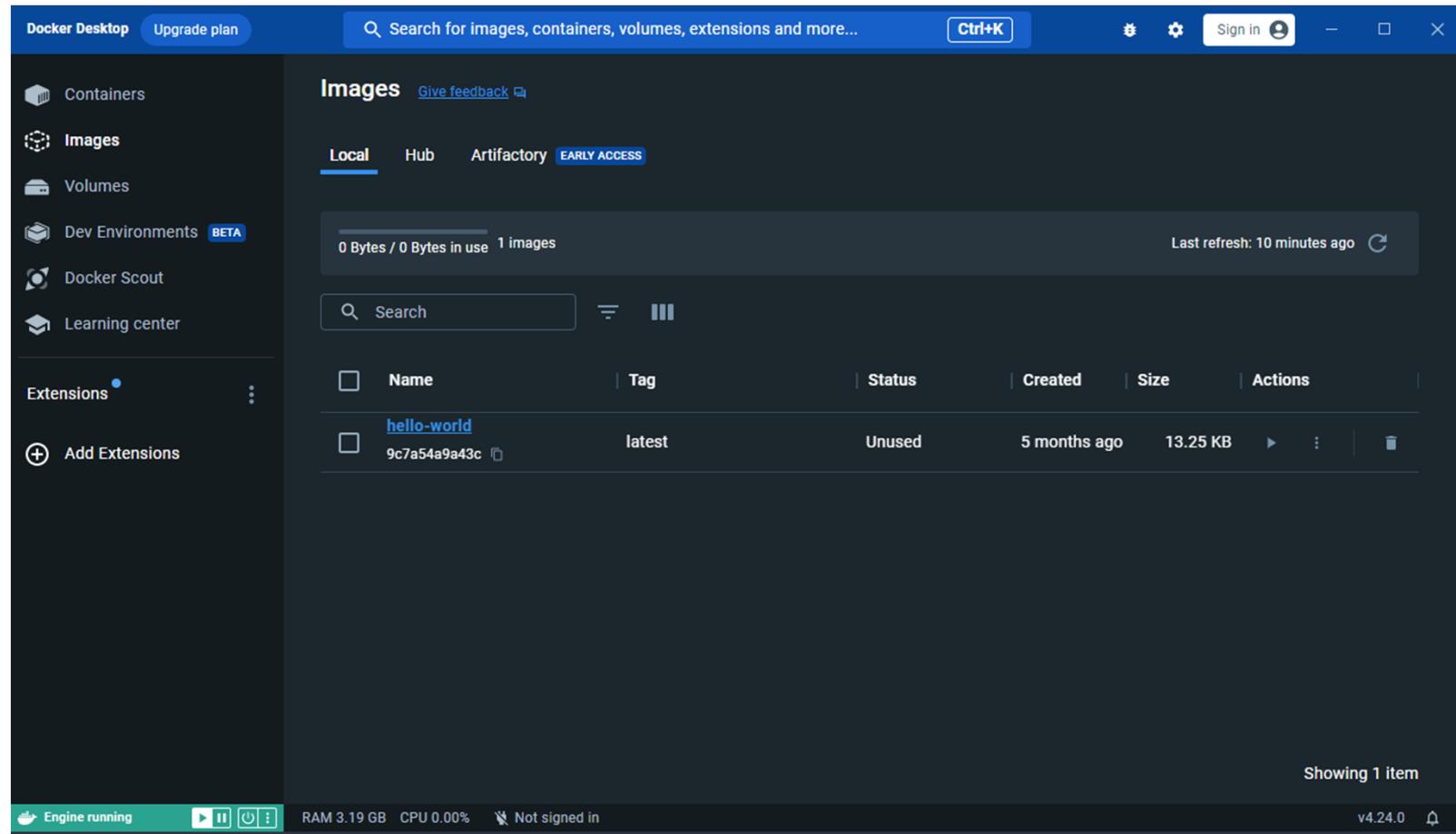


The screenshot shows a PowerShell window with the title bar "PowerShell". The command entered was "docker pull hello-world". The output indicates that the latest tag is being pulled from the library/hello-world repository, resulting in a digest hash of 719385e32844 and a status message stating that a newer image has been downloaded for the hello-world:latest tag. A "What's Next?" section at the bottom suggests viewing image vulnerabilities and recommendations with the command "docker scout quickview hello-world".

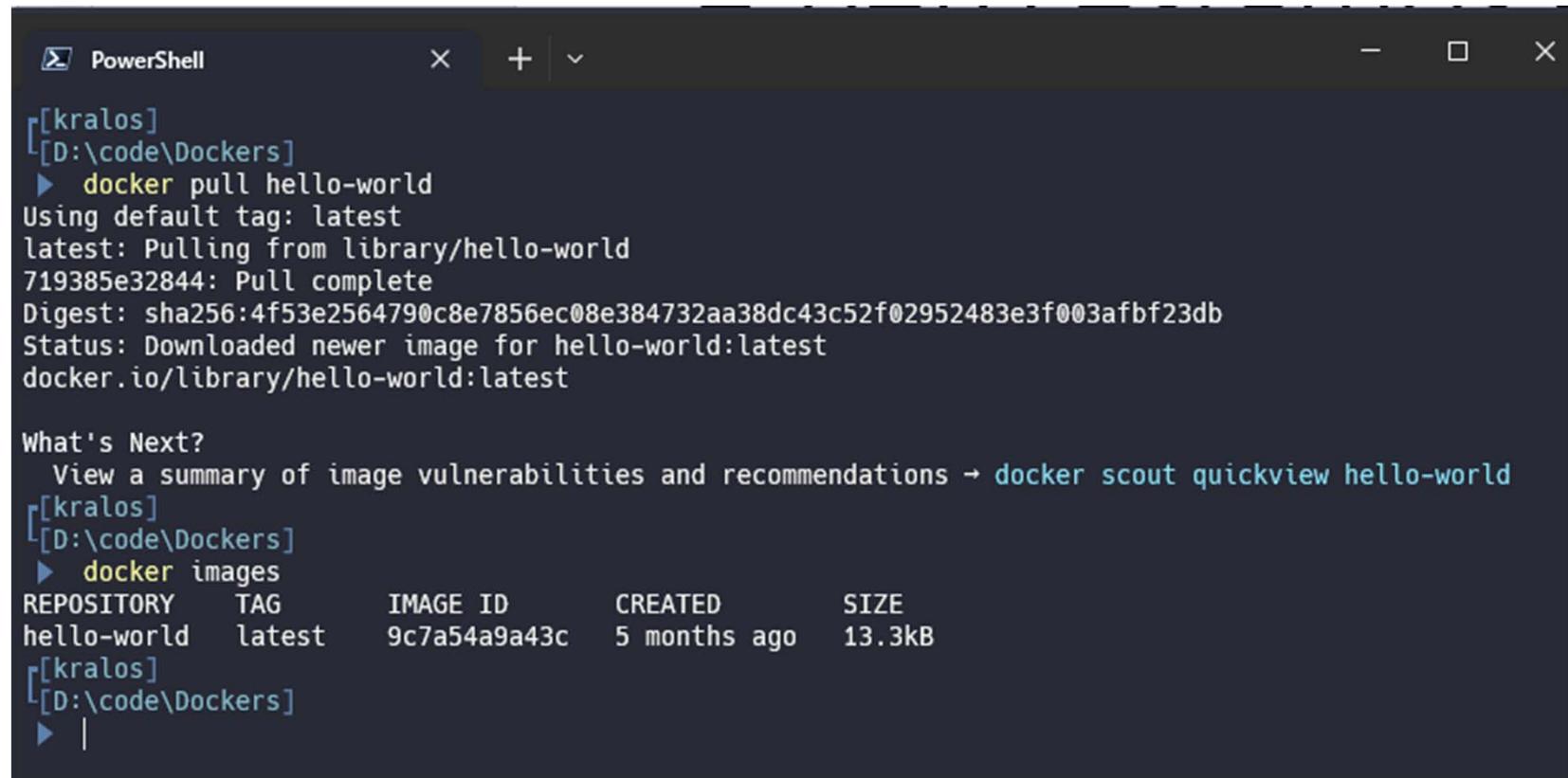
```
[[kralos]
[D:\code\Dockers]
▶ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
719385e32844: Pull complete
Digest: sha256:4f53e2564790c8e7856ec08e384732aa38dc43c52f02952483e3f003afbf23db
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview hello-world
[[kralos]
[D:\code\Dockers]
▶ |
```

Por si las flies ...



A pero estamos en CLI ...



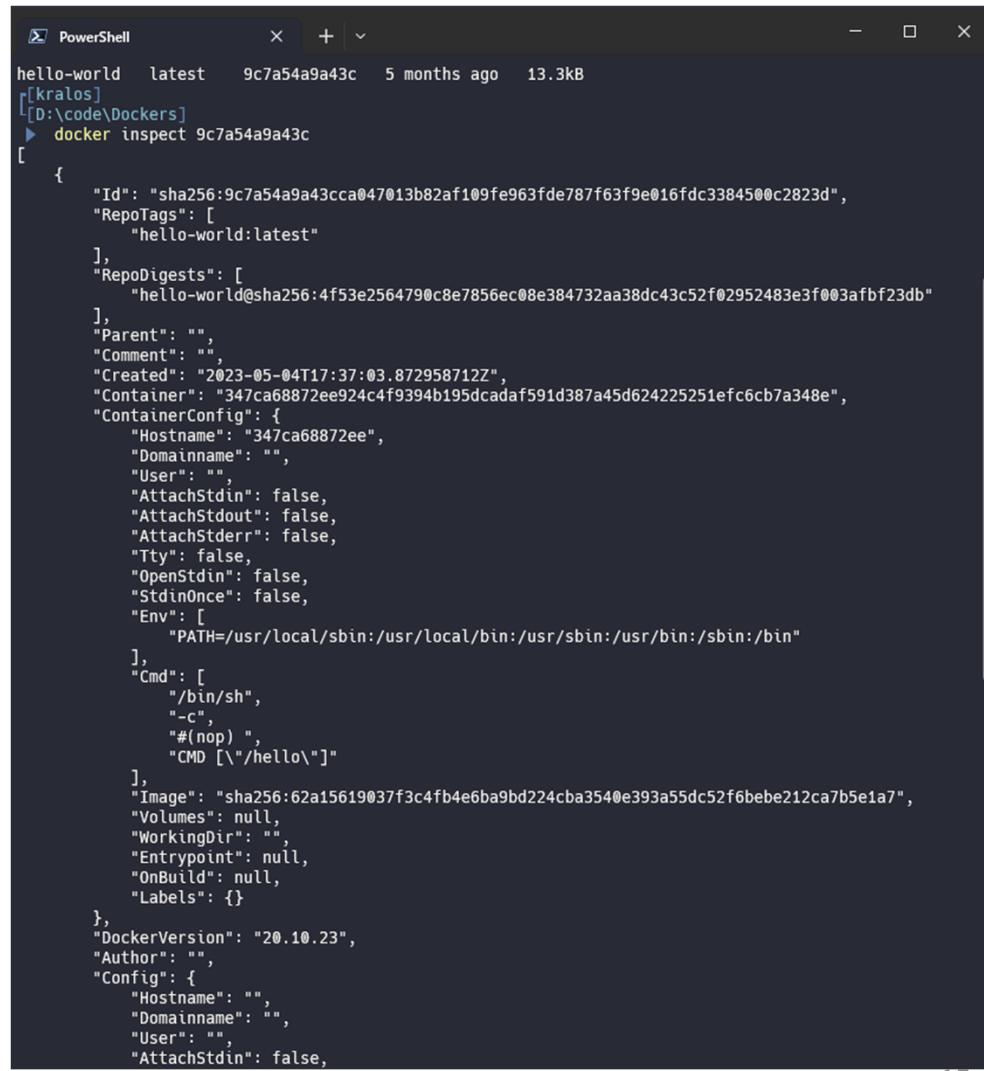
The screenshot shows a PowerShell window with the following content:

```
[kralos]
[D:\code\Dockers]
▶ docker pull hello-world
Using default tag: latest
latest: Pulling from library/hello-world
719385e32844: Pull complete
Digest: sha256:4f53e2564790c8e7856ec08e384732aa38dc43c52f02952483e3f003afbf23db
Status: Downloaded newer image for hello-world:latest
docker.io/library/hello-world:latest

What's Next?
View a summary of image vulnerabilities and recommendations → docker scout quickview hello-world
[kralos]
[D:\code\Dockers]
▶ docker images
REPOSITORY      TAG          IMAGE ID      CREATED        SIZE
hello-world     latest       9c7a54a9a43c   5 months ago   13.3kB
[kralos]
[D:\code\Dockers]
▶ |
```

Comandos para imágenes docker

Imagenes
docker images
Lista las imágenes almacenadas en el host
docker search imagen
Busca una imagen en el Docker hub
docker inspect id/nombre
Muestra los detalles de una imagen a partir de un id o un nombre
docker pull nombre
Descarga la imagen correspondiente a ese nombre
docker rmi id/nombre
Elimina la imagen correspondiente a ese id o nombre



```
PowerShell
hello-world  latest  9c7a54a9a43c  5 months ago  13.3kB
[kralos]
[D:\code\Dockers]
> docker inspect 9c7a54a9a43c
[
  {
    "Id": "sha256:9c7a54a9a43cca047013b82af109fe963fde787f63f9e016fdc3384500c2823d",
    "RepoTags": [
      "hello-world:latest"
    ],
    "RepoDigests": [
      "hello-world@sha256:4f53e2564790c8e7856ec08e384732aa38dc43c52f02952483e3f003afbfb23db"
    ],
    "Parent": "",
    "Comment": "",
    "Created": "2023-05-04T17:37:03.872958712Z",
    "Container": "347ca68872ee924c4f9394b195dcadaf591d387a45d624225251efc6cb7a348e",
    "ContainerConfig": {
      "Hostname": "347ca68872ee",
      "Domainname": "",
      "User": "",
      "AttachStdin": false,
      "AttachStdout": false,
      "AttachStderr": false,
      "Tty": false,
      "OpenStdin": false,
      "StdinOnce": false,
      "Env": [
        "PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin"
      ],
      "Cmd": [
        "/bin/sh",
        "-c",
        "#(nop)",
        "CMD [\"/hello\"]"
      ],
      "Image": "sha256:62a15619037f3c4fb4e6ba9bd224cba3540e393a55dc52f6bebe212ca7b5e1a7",
      "Volumes": null,
      "WorkingDir": "",
      "Entrypoint": null,
      "OnBuild": null,
      "Labels": {}
    },
    "DockerVersion": "20.10.23",
    "Author": "",
    "Config": {
      "Hostname": "",
      "Domainname": "",
      "User": "",
      "AttachStdin": false,
      "Env": [
        "PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin"
      ],
      "Cmd": [
        "/bin/sh",
        "-c",
        "#(nop)",
        "CMD [\"/hello\"]"
      ],
      "Image": "sha256:62a15619037f3c4fb4e6ba9bd224cba3540e393a55dc52f6bebe212ca7b5e1a7",
      "Volumes": null,
      "WorkingDir": "",
      "Entrypoint": null,
      "OnBuild": null,
      "Labels": {}
    }
  }
]
```

Pull especificando una etiqueta

The screenshot shows the Docker Hub interface for the `hello-world` repository. The `Tags` tab is selected. Two sections are visible: `latest` and `linux`.

latest Section:

DIGEST	OS/ARCH	VULNERABILITIES	COMPRESSED SIZE
004d23c66201	linux/386	None found	2.65 KB
efd257c8ea08	windows/amd64	None found	114.99 MB
75043f8f1db5	windows/amd64	None found	99.65 MB

A tooltip for the `004d23c66201` row contains the command `docker pull hello-world:latest`.

linux Section:

DIGEST	OS/ARCH	VULNERABILITIES	COMPRESSED SIZE
004d23c66201	linux/386	None found	2.65 KB
7e9b6e7ba284	linux/amd64	None found	2.4 KB
084c3bdd1271	linux/arm/v5	None found	3.57 KB

A tooltip for the `004d23c66201` row contains the command `docker pull hello-world:linux`.

Otro hola mundo

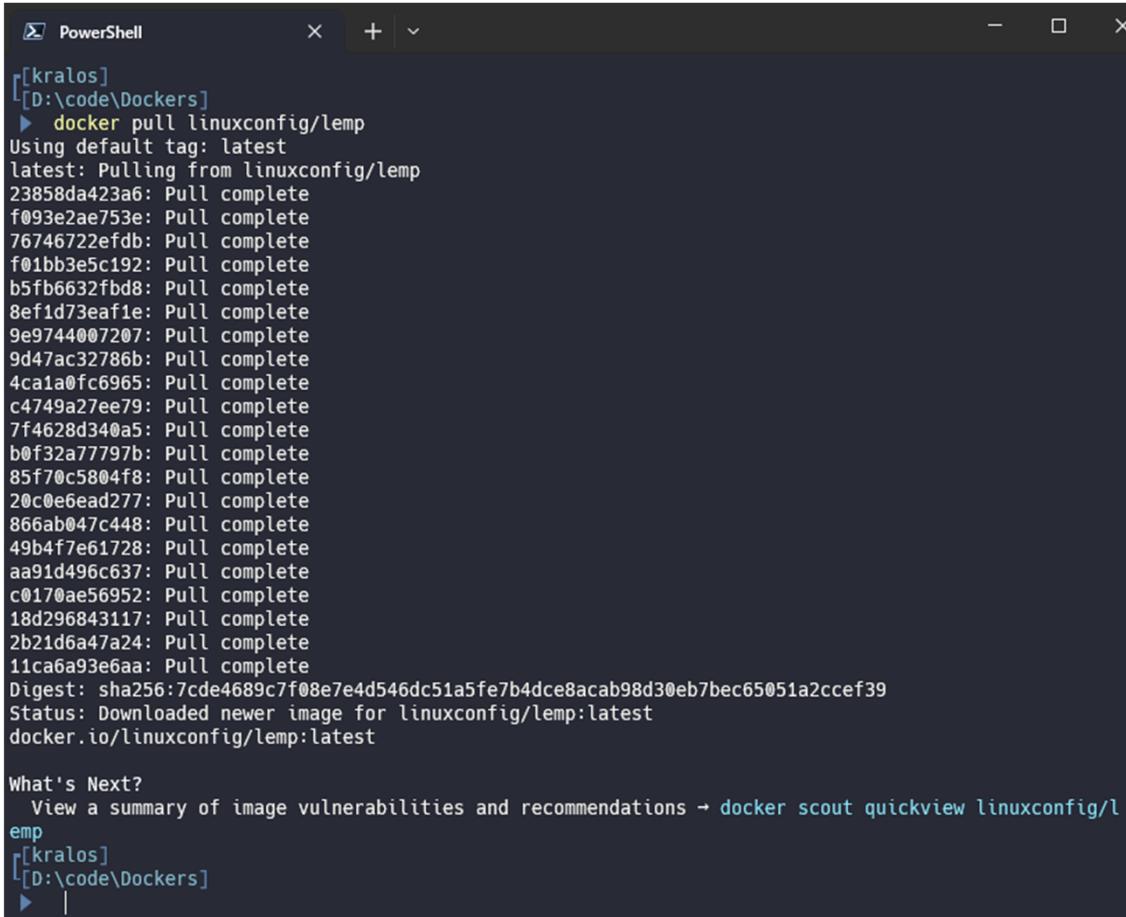
```
[kralos] [D:\code\Dockers]
▶ docker pull hello-world:nanoserver-ltsc2022
nanoserver-ltsc2022: Pulling from library/hello-world
no matching manifest for linux/amd64 in the manifest list entries
[kralos][xERROR]
[D:\code\Dockers]
▶ docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
hello-world     latest   9c7a54a9a43c  5 months ago  13.3kB
linuxconfig/lEMP latest   670ff9140a94  12 months ago 1.05GB
[kralos]
[D:\code\Dockers]
▶ docker pull hello-world:linux
linux: Pulling from library/hello-world
Digest: sha256:726023f73a8fc5103fa6776d48090539042cb822531c6b751b1f6dd18cb5705d
Status: Downloaded newer image for hello-world:linux
docker.io/library/hello-world:linux

What's Next?
 1. Sign in to your Docker account → docker login
 2. View a summary of image vulnerabilities and recommendations → docker scout quickview hello-wor
d:linux
[kralos]
[D:\code\Dockers]
▶ docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
hello-world     latest   9c7a54a9a43c  5 months ago  13.3kB
hello-world     linux    9c7a54a9a43c  5 months ago  13.3kB
linuxconfig/lEMP latest   670ff9140a94  12 months ago 1.05GB
[kralos]
[D:\code\Dockers]
▶ |
```

A descargar imágenes

The screenshot shows the Docker Hub interface for the `linuxconfig/lemp` repository. At the top, there's a blue header bar with the Docker Hub logo, a search bar containing `lemp`, and navigation links for `Explore`, `Pricing`, `Sign In`, and `Sign up`. Below the header, the breadcrumb navigation shows `Explore > linuxconfig/lemp`. The main content area features a large image of a blue cube icon, the repository name `linuxconfig/lemp` with a star icon, the creator's name `linuxconfig`, and a note that it was updated a year ago. It also mentions that it's a "Stable build LEMP stack environment for fast application deployments". There are buttons for `Image` and `Pulls 6.4K`. Below this, there are two tabs: `Overview` (which is selected) and `Tags`. The `Overview` section contains a summary of the `LEMP Stack`, which is described as a stable automated build docker LEMP image. It can be used as a testing environment for dynamic PHP applications. It comprises of Debian GNU/Linux, lightweight and yet powerful Nginx webserver, MariaDB relational database management system and PHP scripting language. It also lists current versions: Debian Linux 11, Nginx 1.18.0, MariaDB 10.5.15-MariaDB, and PHP 7.4.30. To the right, there are two boxes: one for the `Docker Pull Command` (`docker pull linuxconfig/lemp`) and another for the `Source Repository` (Bitbucket, `linuxconfig/lemp`).

Se tardo creo ... no vi :S



```
[kralos] [D:\code\Dockers] ▶ docker pull linuxconfig/lEMP
Using default tag: latest
latest: Pulling from linuxconfig/lEMP
23858da423a6: Pull complete
f093e2ae753e: Pull complete
76746722efdb: Pull complete
f01bb3e5c192: Pull complete
b5fb6632fdb8: Pull complete
8ef1d73eaf1e: Pull complete
9e9744007207: Pull complete
9d47ac32786b: Pull complete
4ca1a0fc6965: Pull complete
c4749a27ee79: Pull complete
7f4628d340a5: Pull complete
b0f32a77797b: Pull complete
85f70c5804f8: Pull complete
20c0e6ead277: Pull complete
866ab047c448: Pull complete
49b4f7e61728: Pull complete
aa91d496c637: Pull complete
c0170ae56952: Pull complete
18d296843117: Pull complete
2b21d6a47a24: Pull complete
11ca6a93e6aa: Pull complete
Digest: sha256:7cde4689c7f08e7e4d546dc51a5fe7b4dce8acob98d30eb7bec65051a2cce39
Status: Downloaded newer image for linuxconfig/lEMP:latest
docker.io/linuxconfig/lEMP:latest

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview linuxconfig/lEMP
[kralos] [D:\code\Dockers] ▶ |
```

Comandos para contenedores

Contenedores

docker create -it --name nombre imagen

Crea un contenedor denominado name a partir de imagen

docker start nombre

Arranca el contenedor denominado nombre

docker stop nombre

Para el contenedor denominado nombre

docker restart nombre

Rearranca el contenedor denominado nombre

docker rm nombre

Elimina el contenedor denominado nombre

docker ps -a

Lista todos los contenedores en ejecución (-a incluye los parados)

docker run -it imagen comando

Arranca y ejecuta el comando en un contenedor de esa imagen en modo interactivo

docker exec -it nombre comando

Ejecuta el comando en el contenedor nombre

docker run -d

Arranca el contenedor en modo daemon

docker run -P

Arranca el contenedor y expone los puertos del contenedor en puertos aleatorios del host

docker run -p

puerto_host:puerto_contenedor

Arranca el contenedor y expone el puerto_contenedor en el puerto_host

docker run -v

directorio_host:directorio_contenedor

Asigna el directorio_host para mapearlo en el directorio_contenedor

docker run --hostname nombre_host

Arranca el contenedor y asigna nombre_host al contenedor

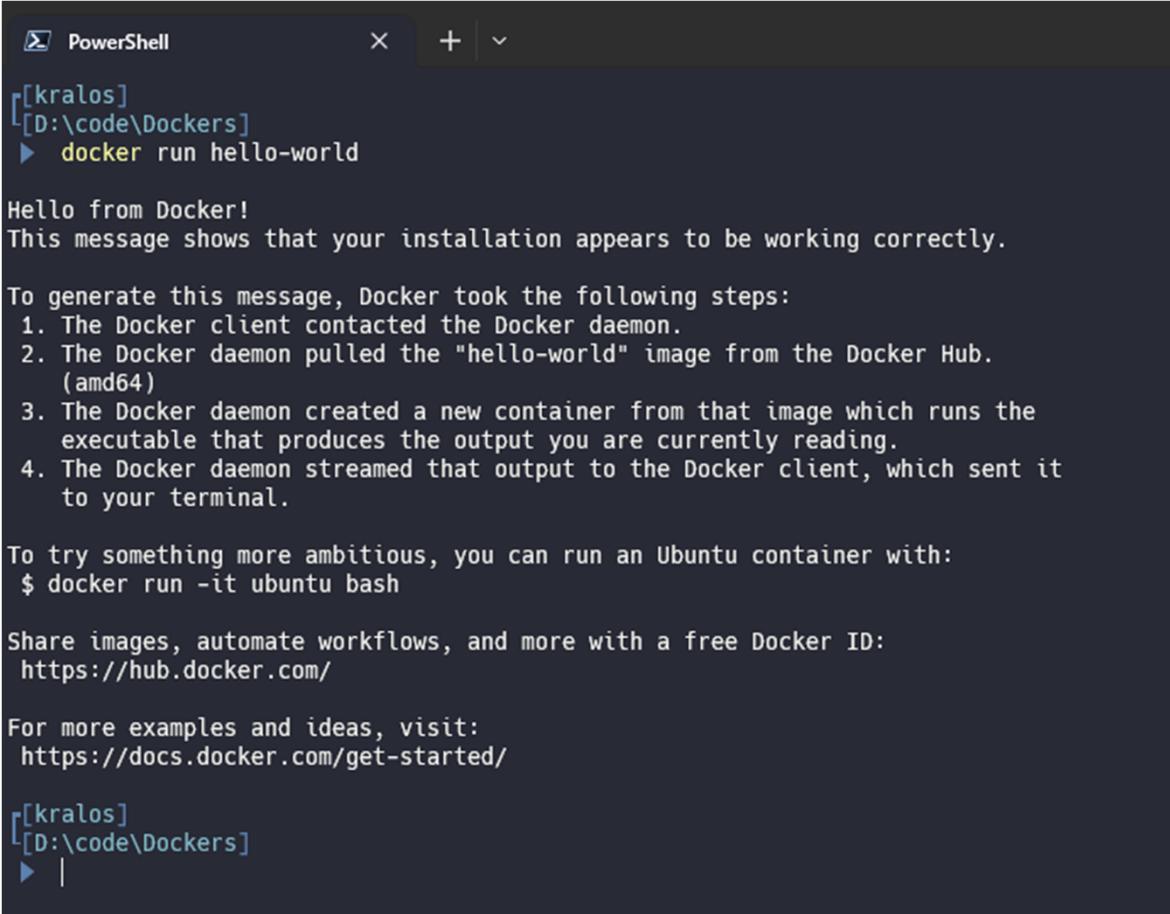
docker run --net=mired

Arranca el contenedor y lo asigna en la red denominada mired

“Crear” un contenedor

```
Σ PowerShell × + ▾ — □ ×
[[kralos]
[D:\code\Dockers]
▶ docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
hello-world     latest   9c7a54a9a43c  5 months ago  13.3kB
hello-world     linux    9c7a54a9a43c  5 months ago  13.3kB
linuxconfig/lEMP  latest   670ff9140a94  12 months ago  1.05GB
[[kralos]
[D:\code\Dockers]
▶ docker create hello-world
2bc45d52863bfde33bc68c0caf3a33b479de42e3bc2d9ddd9575bb57afc9f812
[[kralos]
[D:\code\Dockers]
▶ docker ps -a
CONTAINER ID      IMAGE      COMMAND      CREATED      STATUS      PORTS      NAMES
2bc45d52863b      hello-world      "/hello"    36 seconds ago      Created      gifted_matsumoto
[[kralos]
[D:\code\Dockers]
▶ |
```

Ejecutando un contenedor ..



```
PowerShell          X + | ▾
[kralos]
[D:\code\Dockers]
▶ docker run hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/

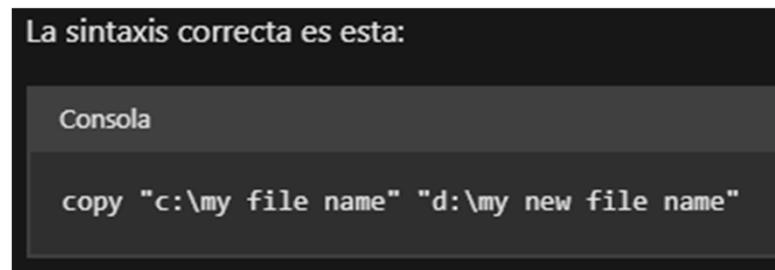
[kralos]
[D:\code\Dockers]
▶ |
```

Cuidado con los espacios

- Use comillas al especificar nombres de archivo largos o rutas de acceso con espacios. Por ejemplo, escribir el comando

```
copy c:\my file name d:\my new file name
```

- El símbolo del sistema da como resultado el siguiente mensaje de error: El sistema no puede encontrar el archivo especificado.



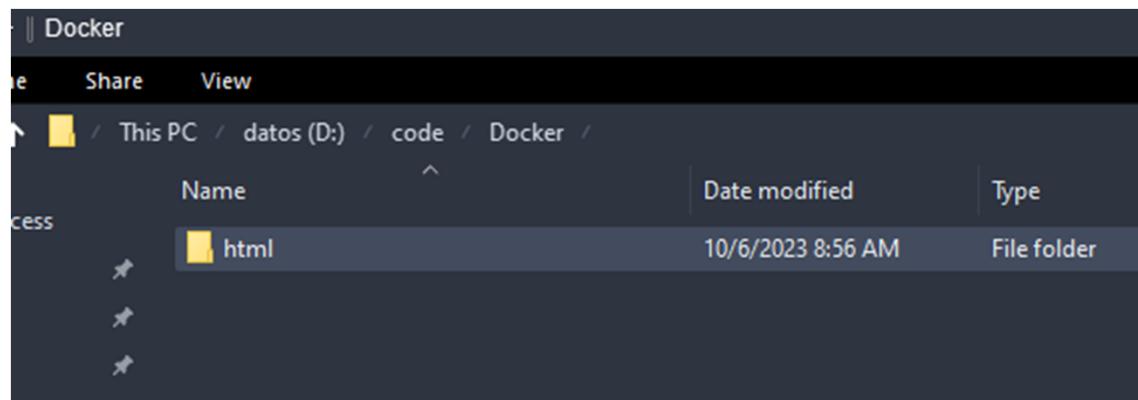
The image shows a terminal window with a dark background and light-colored text. At the top, it says "La sintaxis correcta es esta:". Below that, it says "Consola". In the main area, there is a command line input followed by an error message. The command is "copy "c:\my file name" "d:\my new file name"" and the error message is "El sistema no puede encontrar el archivo especificado.". The entire window is enclosed in a black border.

```
La sintaxis correcta es esta:  
Consola  
copy "c:\my file name" "d:\my new file name"  
El sistema no puede encontrar el archivo especificado.
```

Ejemplo de contenedor LEMP

1. Crear un directorio llamado “html” en SO anfitrión.

D:\code\Docker\html

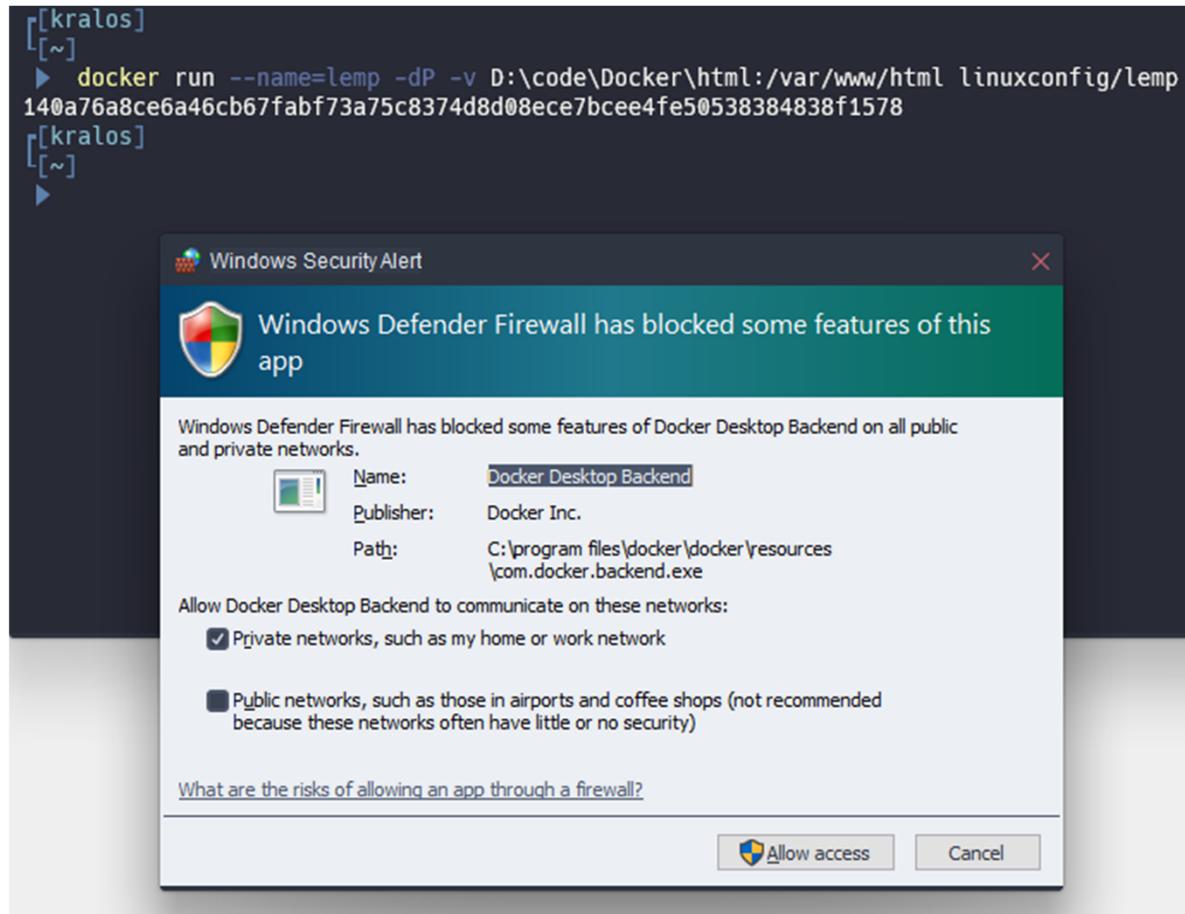


Ejemplo de contenedor LEMP

2. Crear y ejecutar un contendor, además se especifica el directorio referenciado entre la PC local y el contendor a crearse.

```
docker run --name=lemp -dP -v  
D:\code\Docker\html:/var/www/html linuxconfig/lemp
```

Ejemplo de contenedor LEMP



Ejemplo de contenedor LEMP

The screenshot shows the Docker Desktop interface. On the left, there's a sidebar with options like Containers, Images, Volumes, Dev Environments (BETA), Docker Scout, Learning center, Extensions, and Add Extensions. The main area is titled "Containers" and displays the following information:

- Container CPU usage: 0.03% / 400% (4 cores allocated)
- Container memory usage: 120.1MB / 3.61GB
- Search bar and filter: Only show running containers
- A table listing three stopped containers and one running container:

Name	Image	Status	CPU (%)	Port(s)	Last started	Actions
nostalgic_moser 2f5eba4f771b	hello-world	Exited	0%		2 days ago	▶ ⋮ ☰
gifted_matsumoto 2bc45d52863b	hello-world	Exited	0%		2 days ago	▶ ⋮ ☰
lemp 140a76a8ce6a	linuxconfig/lemp	Running	0.03%	32768:3306	34 minutes ago	[] ⋮ ☰
- A message at the bottom says "Showing 3 items"
- Below the table, there's a "Walkthroughs" section with two cards:
 - "What is a container?" (5 mins) with a question mark icon.
 - "How do I run a container?" (6 mins) with a terminal icon showing the command: `1 FROM node
2 RUN mkdir -p /app
3 WORKDIR /app
4 COPY packa`
- At the bottom, there are status icons for Engine running, RAM (3.03 GB), CPU (0.25%), and a note about Not signed in. It also shows version v4.24.0 and a notification count of 1.

Ejemplo de contenedor LEMP

3. Entramos al servidor web, pero antes necesitamos saber en que Puerto esta mapeado.

Vemos que hay dos puertos abiertos:

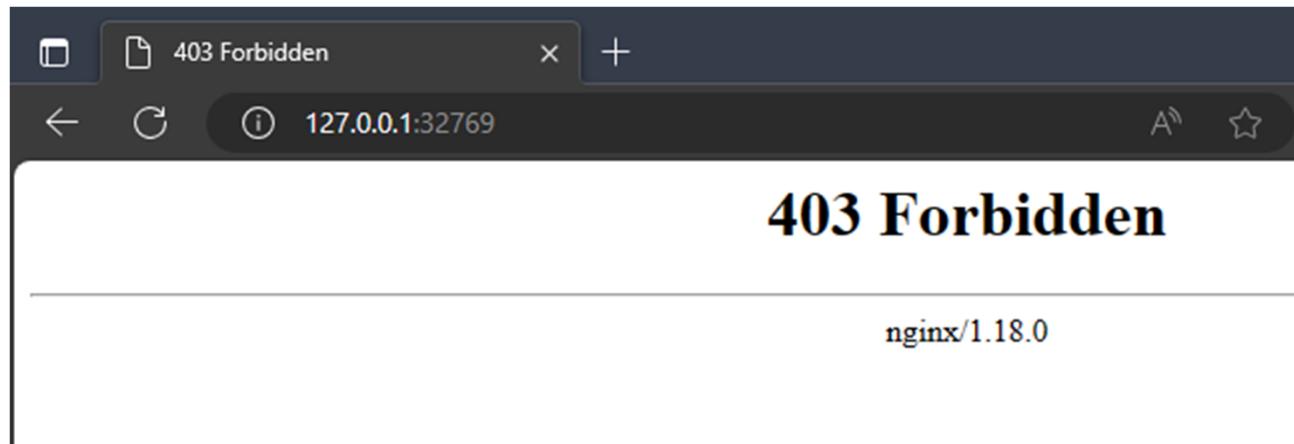
32269 para el servidor web

32768 para el servidor de base de dato

```
▶ docker port lemp
80/tcp -> 0.0.0.0:32769
3306/tcp -> 0.0.0.0:32768
```

Ejemplo de contenedor LEMP

- El servidor web esta activo pero no tiene nada ...



Ejemplo de contenedor LEMP

- El código se debe colocar el directorio “html” creado en el paso 1.
- Podemos usar nuestro editor favorito.

The screenshot shows a code editor on the left and a terminal window on the right. The code editor displays the file `index.php` with the following content:

```
Run Terminal Help
index.php X
index.php > html > body > p
1  <!DOCTYPE html>
2  <html lang="es">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Docker</title>
7  </head>
8  <body>
9      <p>Hola contenedor</p>
10 </body>
11 </html>
```

The terminal window is titled "Docker" and shows the IP address "127.0.0.1:32769". It contains the text "Hola contenedor", which is the output of the PHP script.

Ejemplo de contenedor LEMP

4. Ingresamos a la línea de comandos del contenedor

```
▶ docker exec -it lemp /bin/bash
root@140a76a8ce6a:/# ls
bin  boot  dev  etc  home  lib  lib64  media  mnt  opt  proc  root  run  sbin
root@140a76a8ce6a:/# pwd
/
root@140a76a8ce6a:/# whoami
root
root@140a76a8ce6a:/# ls /var/www/html/
index.php
root@140a76a8ce6a:/# cat /var/www/html/index.php
<!DOCTYPE html>
<html lang="es">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Docker</title>
</head>
<body>
    <p>Hola contenedor</p>
</body>
</html>root@140a76a8ce6a:/# |
```

Referencias

- *Comandos más usados en Docker.* (n.d.). Tutoriales.online. Retrieved October 4, 2023, from <https://tutoriales.online/chuletas/docker>
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