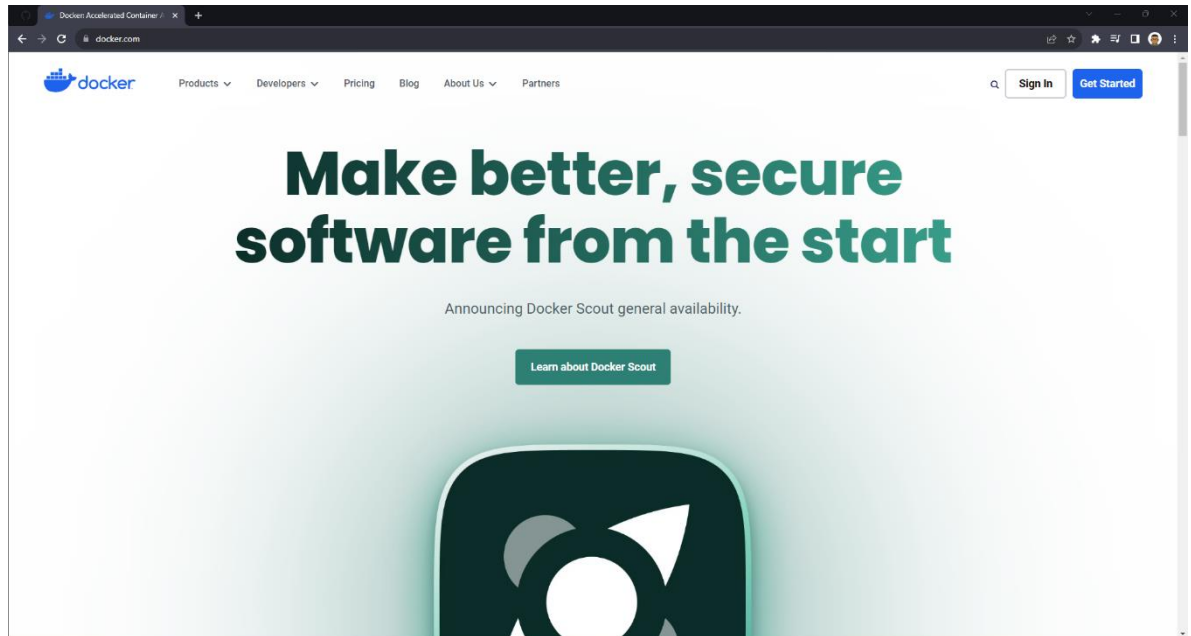


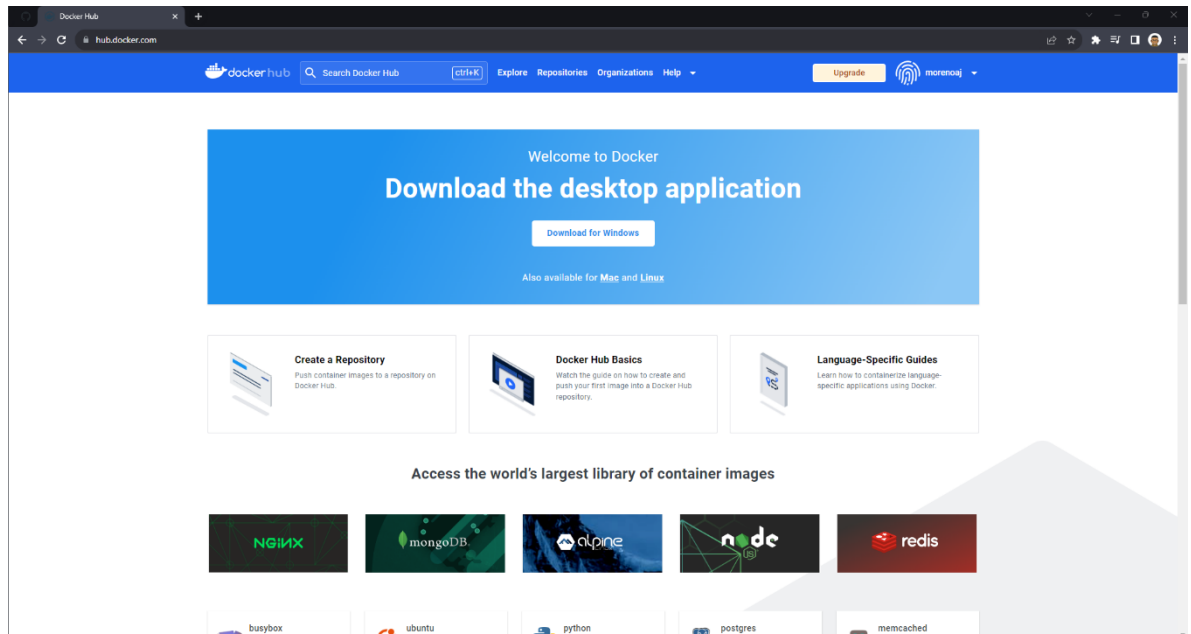
Lab22- Ejecución de apps PHP con contenedores Docker [OPCIONAL]

Parte A. Instalación de Docker

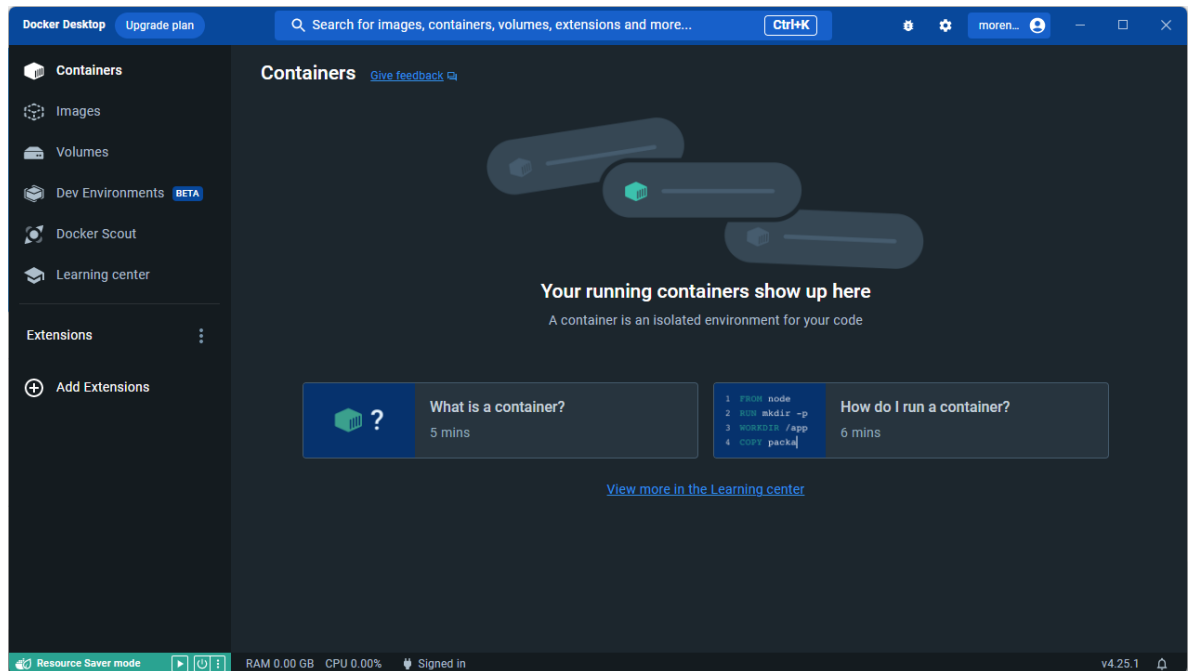
1. Ingresar a <https://www.docker.com/>



2. Registro en el sitio e acceder a los productos.

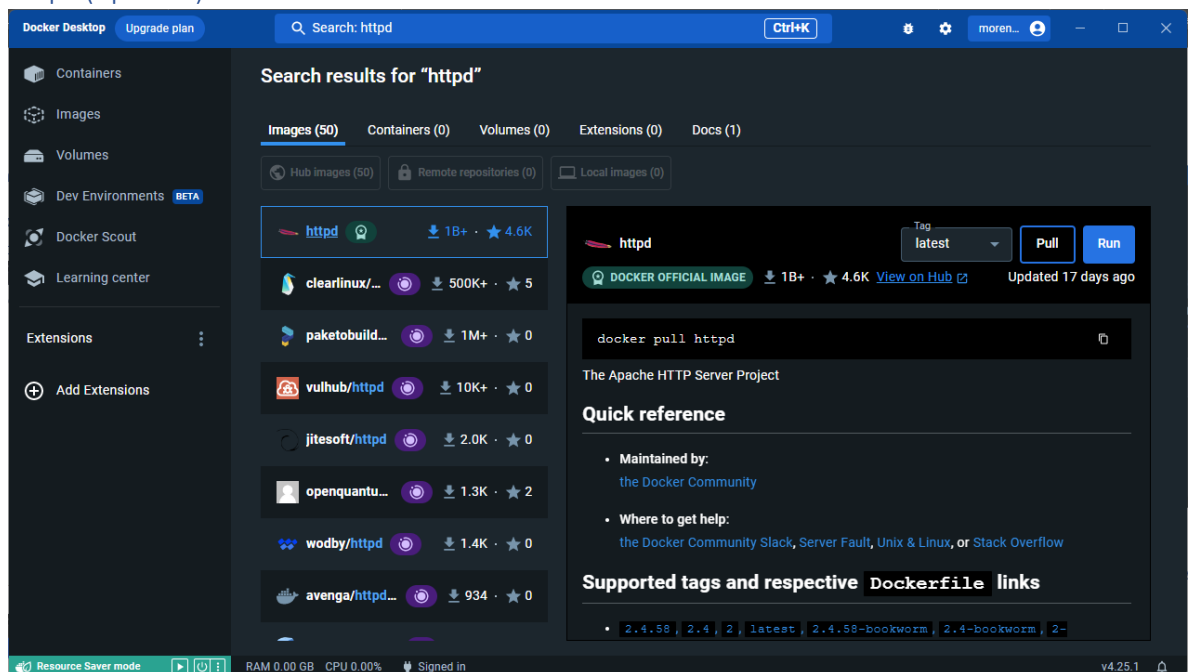


3. Docker instalado.



Parte B. Uso de DockerHub

1. Ingresar a <https://hub.docker.com/> autenticarse en el sitio y buscar la imagen httpd(apache)



2. Descargar la imagen httpd con el siguiente comando *docker pull httpd*

```
PowerShell 7.4.0
Loading personal and system profiles took 2802ms.

AlexJMoreno ~
$ docker pull httpd
Using default tag: latest
latest: Pulling from library/httpd
578acb154839: Pull complete
c1a8c8567b78: Pull complete
10b9ab03bf45: Pull complete
74dbedf7ddc0: Pull complete
6a3b76b70f73: Pull complete
Digest: sha256:4e24356b4b0aa7a961e7dfb9e1e5025ca3874c532fa5d999f13f8fc33c09d1b7
Status: Downloaded newer image for httpd:latest
docker.io/library/httpd:latest

What's Next?
View a summary of image vulnerabilities and recommendations → docker scout quickview httpd

AlexJMoreno ~
$
```

3. Mostramos las imágenes con *docker images*, ejecutamos 2 contenedores apache1 con el puerto 3000:80 y apache11 con el puerto 3001:80. Comando de referencia: *docker run -d --name apache11 -p 3001:80 httpd*
Posteriormente mostramos los contenedores corriendo.

```
PowerShell 7.4.0

AlexJMoreno ~
$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
httpd latest 7f6a969e81a5 2 weeks ago 168MB

AlexJMoreno ~
$ docker run -d --name apache1 -p 3000:80 httpd
dd6bd3f52328f82c5ebbbf001f09ef87d5b14c340b7e5b36de0c9cdf9a6fbffb

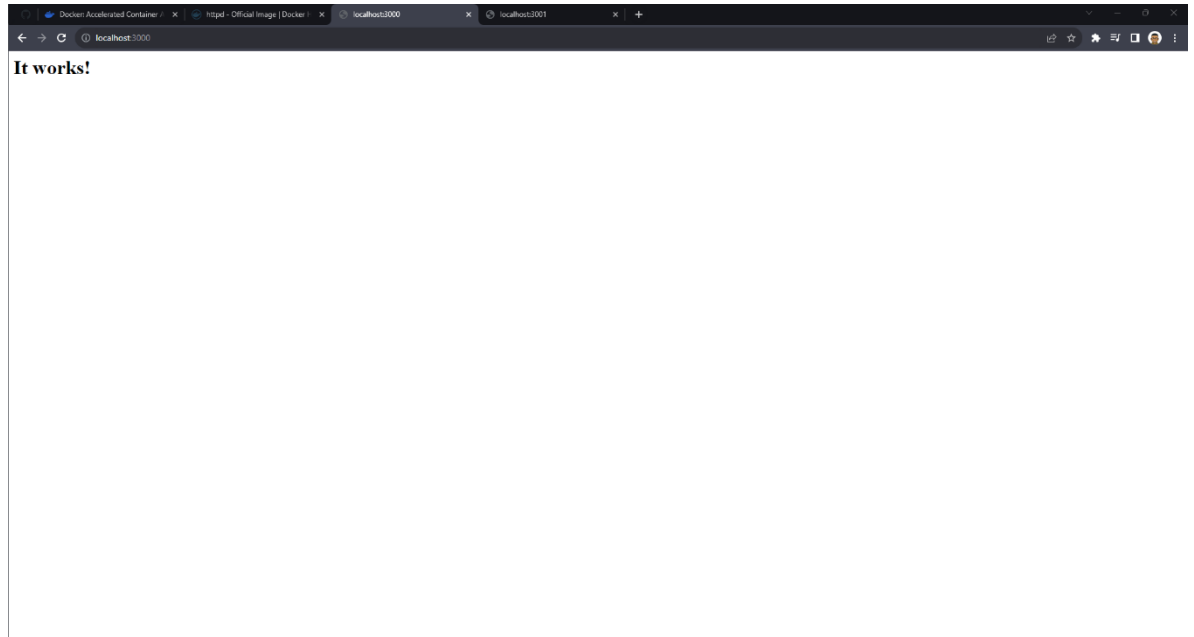
AlexJMoreno ~
$ docker run -d --name apache11 -p 3001:80 httpd
e06fecc877dfed9bcde5ed5c69b4ec430b29cad8465765567ab2b6f521a91113

AlexJMoreno ~
$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
e06fecc877df httpd "httpd-foreground" 17 seconds ago Up 17 seconds 0.0.0.0:3001→80/tcp apache11
dd6bd3f52328 httpd "httpd-foreground" About a minute ago Up About a minute 0.0.0.0:3000→80/tcp apache1

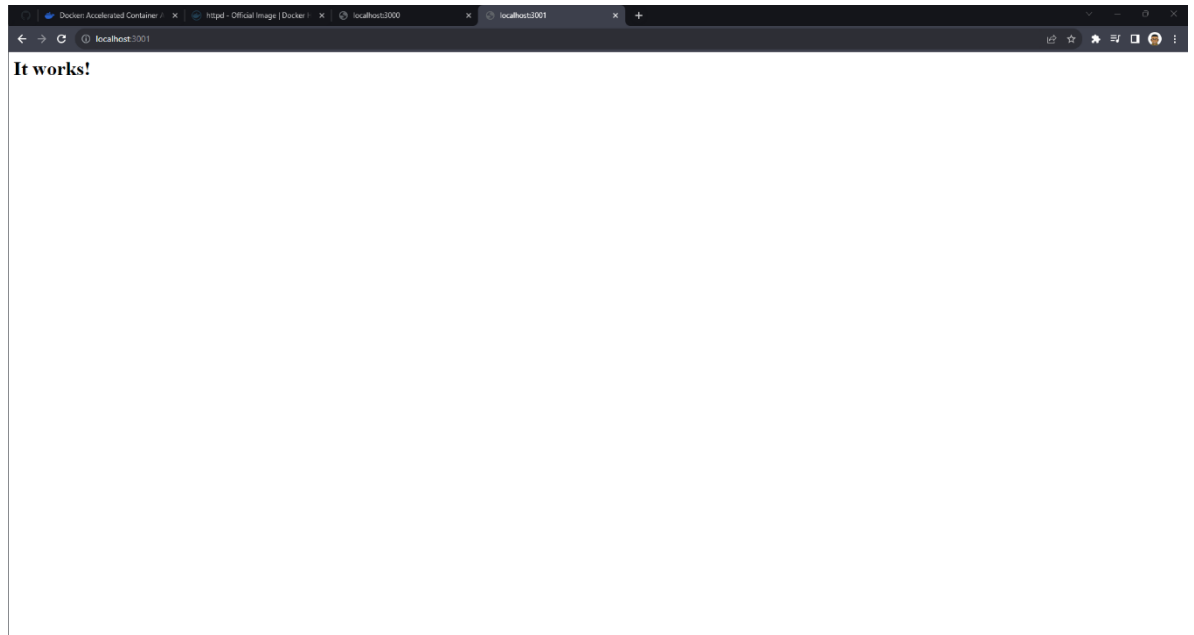
AlexJMoreno ~
$
```

4. Probamos la ejecución de apache en ambos contenedores puerto 3000 y 3001.

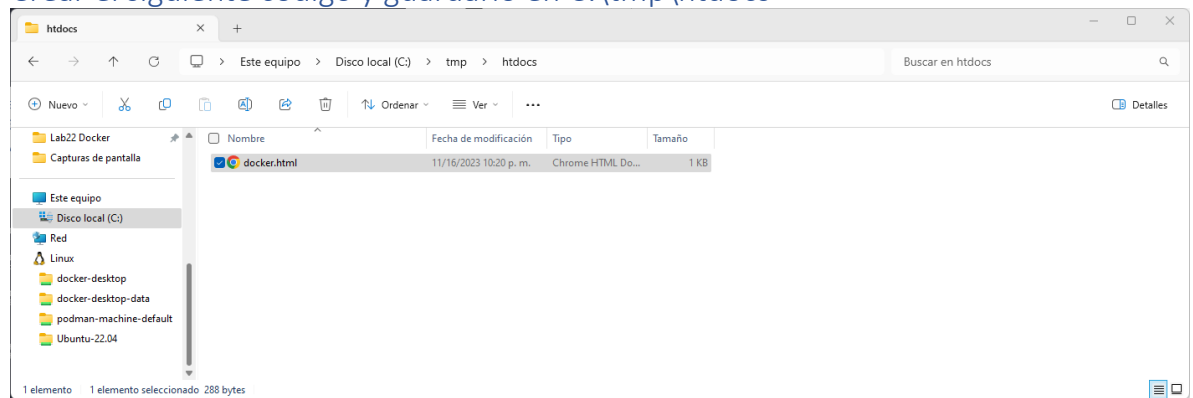
Puerto 3000



Puerto 3001



5. Crear el siguiente código y guardarlo en C:\tmp\htdocs



6. Entramos a la consola de apache del contenedor apache1 luego creamos un tercer contenedor que apunte hacia la carpeta donde esta nuestro .html creado usando el siguiente comando `docker run -d --name apache21 -v c:\tmp\htdocs\:/usr/local/apache2/htdocs -p 3002:80 httpd` Luego validamos que tenemos 3 contenedores.

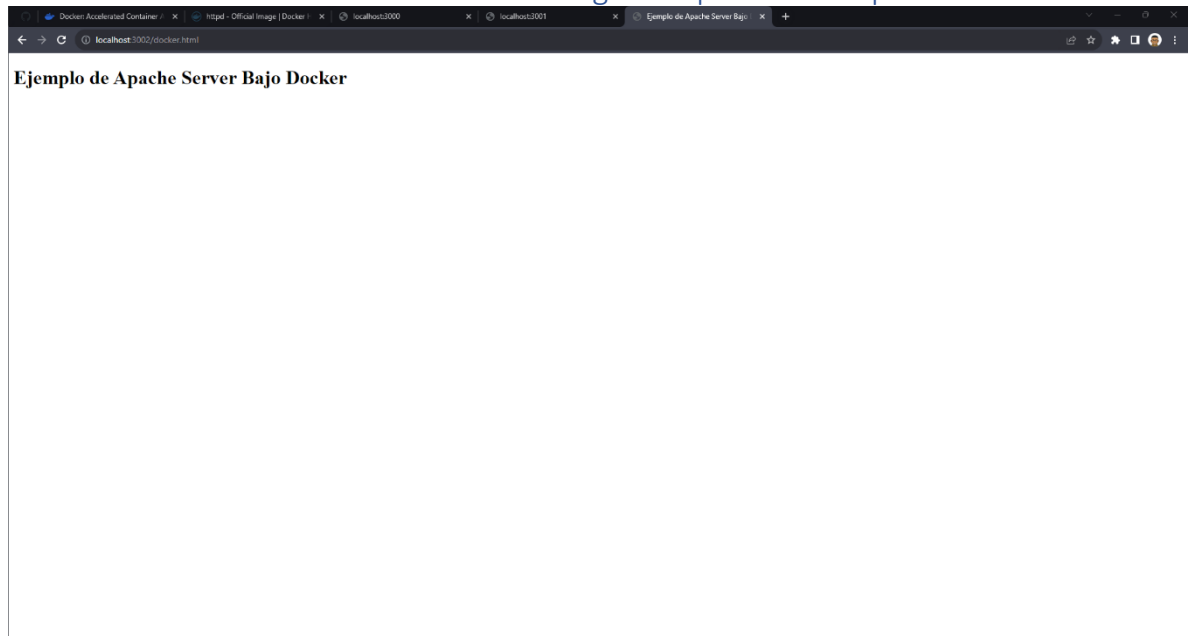
```
PowerShell x + v
AlexJMoreno C: > tmp 2ms 23:27:12
$ docker exec -it apache1 bash
root@dd6bd3f52328:/usr/local/apache2# exit
exit

AlexJMoreno C: > tmp 18.967s 23:28:00
$ docker run -d --name apache21 -v c:\tmp\htdocs\:/usr/local/apache2/htdocs -p 3002:80 httpd
81b68bd6925631c134af24290a89b5a2ff739f617aac719b2633d6d0509acd06

AlexJMoreno C: > tmp 824ms 23:29:08
$ docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
81b68bd69256   httpd     "httpd-foreground"      13 seconds ago Up 12 seconds 0.0.0.0:3002→80/tcp               apache21
e06fecc877df   httpd     "httpd-foreground"      20 minutes ago Up 20 minutes 0.0.0.0:3001→80/tcp               apache11
dd6bd3f52328   httpd     "httpd-foreground"      21 minutes ago Up 21 minutes 0.0.0.0:3000→80/tcp               apache1

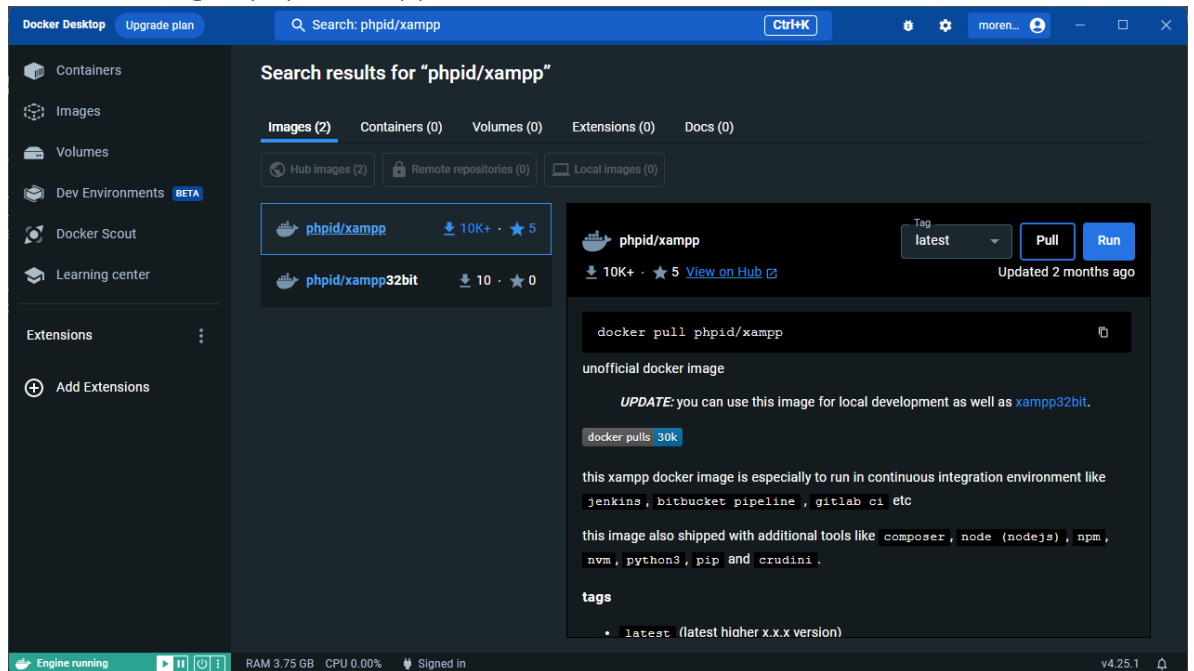
AlexJMoreno C: > tmp 176ms 23:29:20
$
```

7. Podemos ver el resultado en nuestro navegador apuntando al puerto 3002



Parte C. Imagen XAMPP

1. Ubicar la imagen phpид/xampp



2. Instalar la imagen con el siguiente comando: *docker pull phpid/xampp*

```
PowerShell x + v
6abbf1ed27b0: Pull complete
3f4f866dcfca: Pull complete
ff72a33957d2: Pull complete
c7b42e318d3a: Pull complete
02b8846f8b10: Pull complete
e878cc4daf9d: Pull complete
b01034b39046: Pull complete
0ceba5216015: Pull complete
bce51fffcac5: Pull complete
36677f3d8a3a: Pull complete
548c9b430392: Pull complete
ab41534e7c81: Pull complete
66280a1182e7: Pull complete
ce917c34443a: Pull complete
93f7d6228b95: Pull complete
5a9b73867b6b: Pull complete
1ecf5a44c22b: Pull complete
084d86c20f05: Pull complete
9c02d9a600ff: Pull complete
7152b63a749d: Pull complete
4f4fb700ef54: Pull complete
Digest: sha256:c28330e2f27c03cb5ab04041dddec284d8b223df36476568446f70919827481fd
Status: Downloaded newer image for phpid/xampp:latest
docker.io/phpid/xampp:latest

What's Next?
View a summary of image vulnerabilities and recommendations → docker scout quickview phpid/xampp

AlexJMoreno ~ 2m 25.245s 23:42:23
```

3. Verificamos las imágenes, creamos un contenedor sobre la imagen descargada y validamos que los contenedores estén en ejecución.

```
PowerShell x + v
AlexJMoreno ~ 2m 25.245s 23:42:23
$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
httpd latest 7f6a969e81a5 2 weeks ago 168MB
phpid/xampp latest 80a9b107e148 2 months ago 1.77GB

AlexJMoreno ~ 2.748s 23:44:21
$ docker run -it -d --name xamppid -p 3010:80 phpid/xampp /bin/bash
b4b72b364add2b1c1797cd8c18ccfcb822723c1f93df63fac2c44ac079e7aba

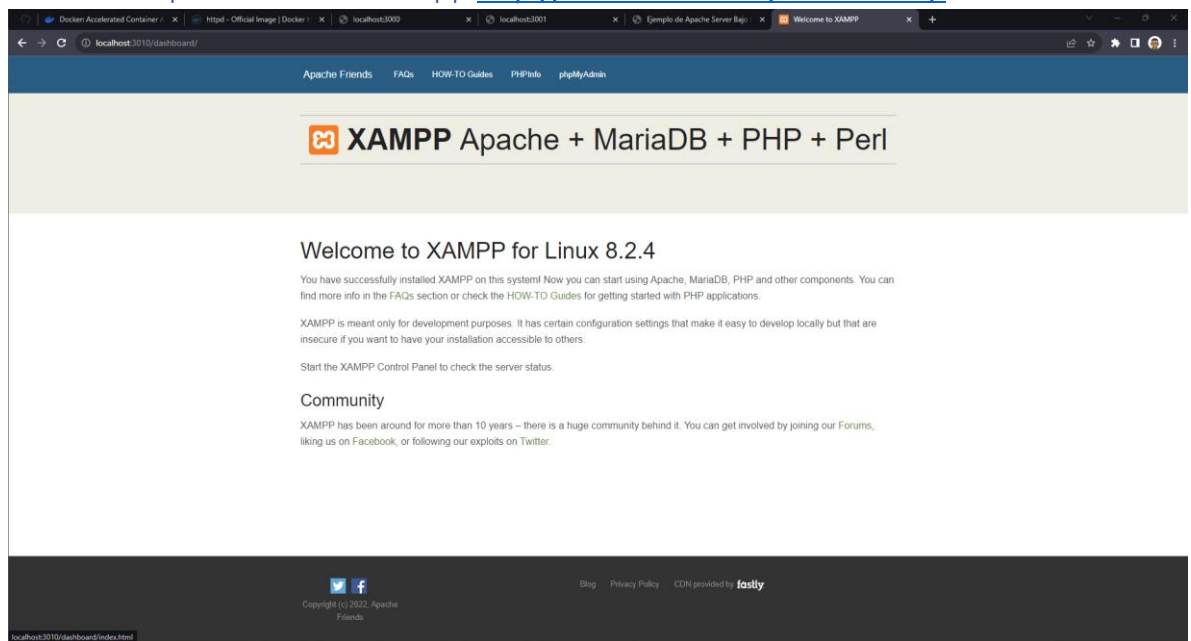
AlexJMoreno ~ 14.577s 23:45:01
$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS
NAMES
b4b72b364add phpid/xampp "/bin/bash" 19 seconds ago Up 6 seconds 21/tcp, 3306/tcp, 0.0.0.0:3010→80/tcp
xamppid
81b68bd69256 httpd "httpd-foreground" 16 minutes ago Up 15 minutes 0.0.0.0:3002→80/tcp
apache21
e06fecc877df httpd "httpd-foreground" 36 minutes ago Up 36 minutes 0.0.0.0:3001→80/tcp
apache11
dd6bd3f52328 httpd "httpd-foreground" 37 minutes ago Up 37 minutes 0.0.0.0:3000→80/tcp
apache1

AlexJMoreno ~ 950ms 23:45:07
$
```

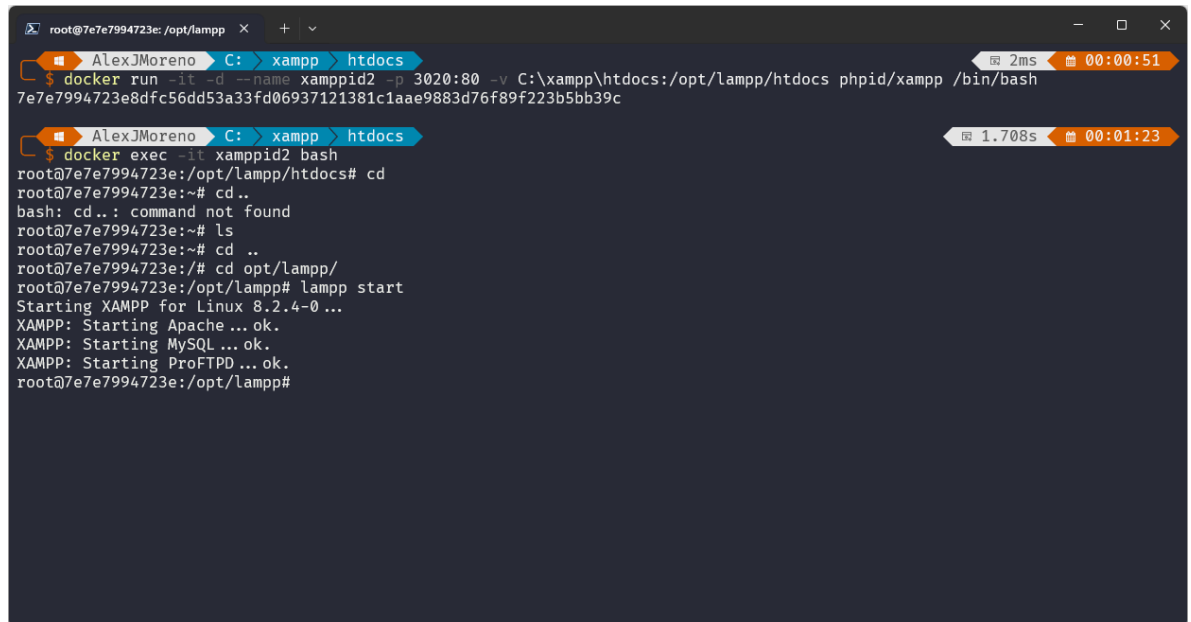
4. Iniciamos los servicios del contenedor en ejecución

```
root@b4b72b364add: /opt/lampp X + v
AlexJMoreno 2ms 23:51:47
$ docker exec -it xamppid bash
root@b4b72b364add:/opt/lampp/htdocs# cd
root@b4b72b364add:~# cd ..
root@b4b72b364add:/# cd opt/
root@b4b72b364add:/opt# cd lampp/
root@b4b72b364add:/opt/lampp# ls
README-wsrep  bin          error        include      libexec      manual      phpmyadmin    uninstall
README.md     build        etc          info         licenses     modules     proftpd       uninstall.dat
RELEASENOTES  cgi-bin      htdocs      lampp        logs         mysql       properties.ini var
THIRDPARTY    ctlscrip.sh icons        lib          man          pear        sbin          xampp
apache2       docs         img         lib64        manager-linux-x64.run  php         share
root@b4b72b364add:/opt/lampp# lampp start
Starting XAMPP for Linux 8.2.4-0 ...
XAMPP: Starting Apache ... ok.
XAMPP: Starting MySQL ... ok.
XAMPP: Starting ProFTPD ... ok.
root@b4b72b364add:/opt/lampp#
```

5. Validamos que este arriba xampp <http://localhost:3010/dashboard/>



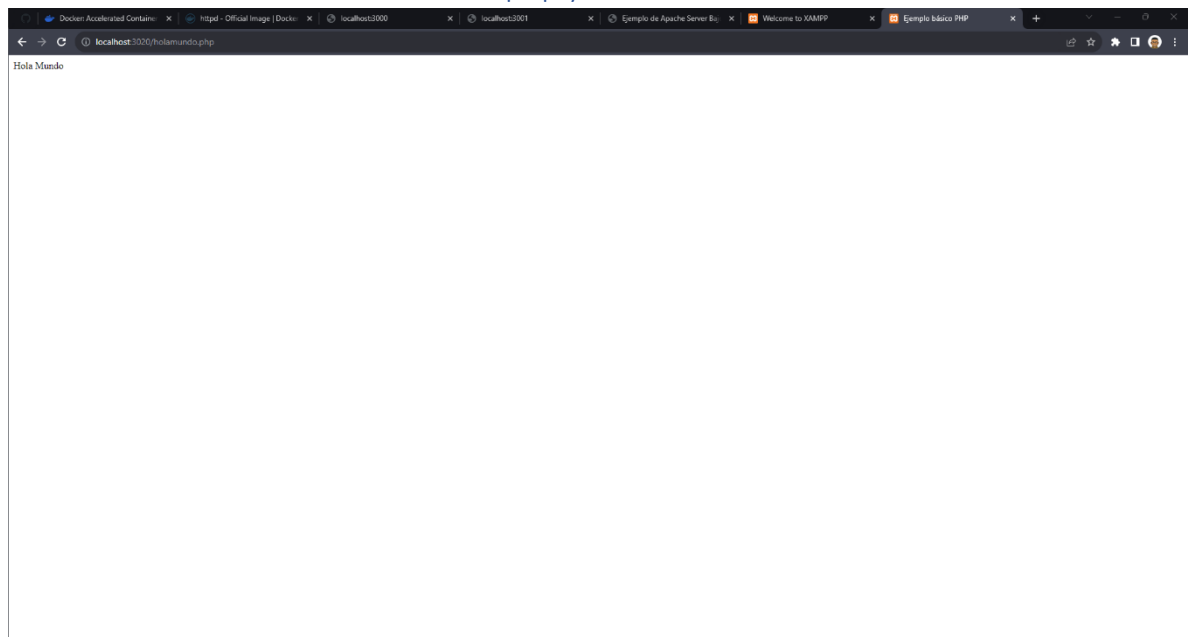
6. Ahora creamos otro contenedor dentro del volumen C:\xampp\htdocs y levantamos los servicios.



```
root@7e7e7994723e: /opt/lampp x
AlexJMoreno C: \xampp \htdocs
$ docker run -it -d --name xamppid2 -p 3020:80 -v C:\xampp\htdocs:/opt/lampp/htdocs phpid/xampp /bin/bash
7e7e7994723e8dfc56dd53a33fd06937121381c1aae9883d76f89f223b5bb39c

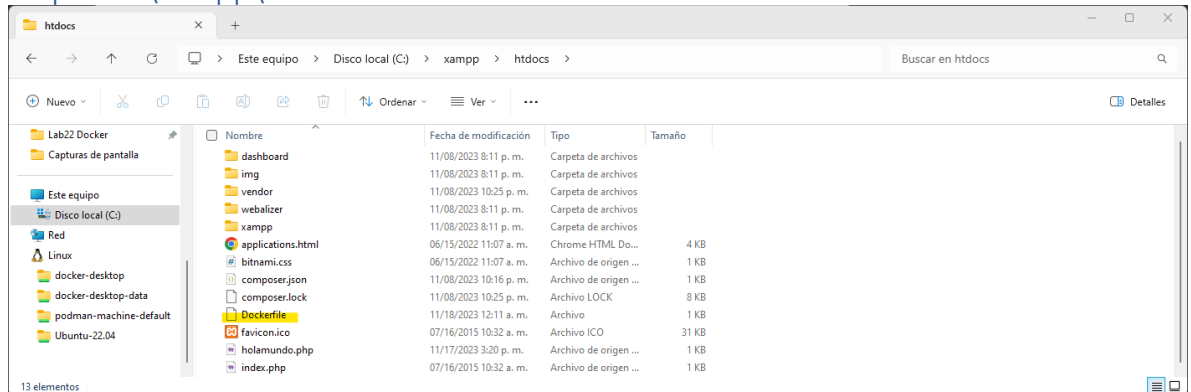
AlexJMoreno C: \xampp \htdocs
$ docker exec -it xamppid2 bash
root@7e7e7994723e:/opt/lampp/htdocs# cd
root@7e7e7994723e:~# cd ..
bash: cd..: command not found
root@7e7e7994723e:~# ls
root@7e7e7994723e:~# cd ..
root@7e7e7994723e:/# cd opt/lampp/
root@7e7e7994723e:/opt/lampp# lampp start
Starting XAMPP for Linux 8.2.4-0 ...
XAMPP: Starting Apache ... ok.
XAMPP: Starting MySQL ... ok.
XAMPP: Starting ProFTPD ... ok.
root@7e7e7994723e:/opt/lampp#
```

7. Creamos un formulario holamundo.php y lo validamos.

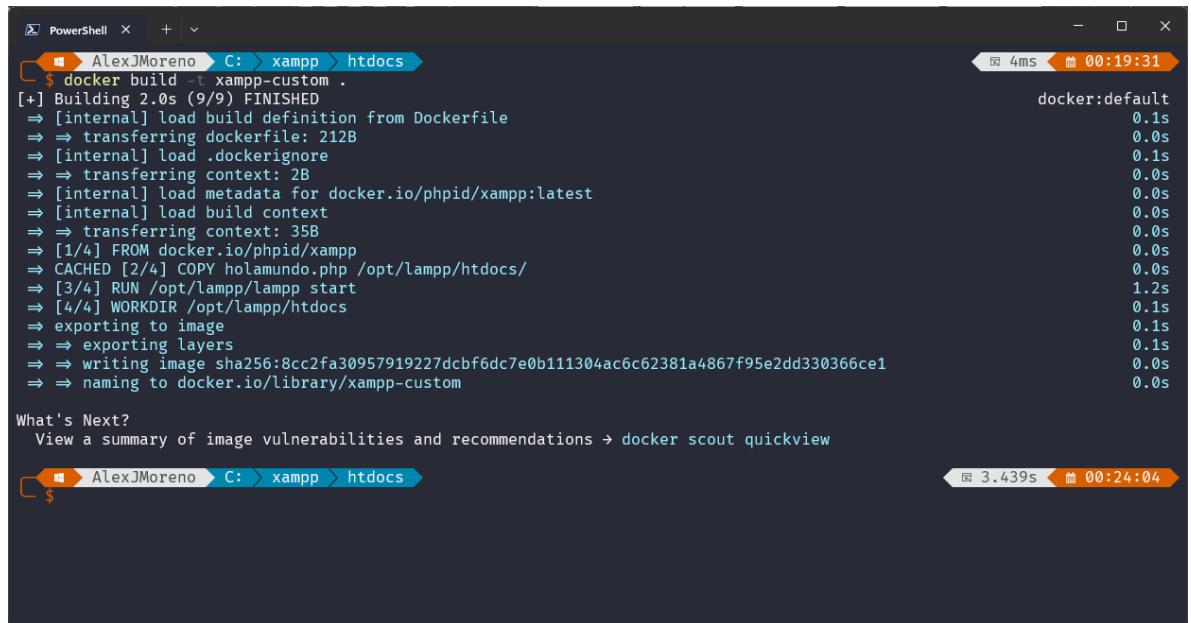


Parte D. Imagen personalizada XAMPP

1. Crear este archivo llamado “Dockerfile” (sin extensión) y guardarlo en la carpeta c:\xampp\htdocs



2. Construimos la imagen personalizada xampp-custom



3. Listamos las imágenes creadas, creamos el contenedor

```
PowerShell x + v
What's Next?
View a summary of image vulnerabilities and recommendations → docker scout quickview

AlexJMoreno C: > xampp > htdocs 3.439s 00:24:04
$ docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
xampp-custom latest 8cc2fa309579 46 seconds ago 1.77GB
<none> <none> 116afa247fbe 8 minutes ago 1.77GB
httpd latest 7f6a969e81a5 2 weeks ago 168MB
phpid/xampp latest 80a9b107e148 2 months ago 1.77GB

AlexJMoreno C: > xampp > htdocs 399ms 00:24:49
$ docker run -it -d --name xampp3 -p 3030:80 xampp-custom
b09dae0840f9f83db5e37cdb1b9f647aa458608f6c9f2a70887f0db0250e0525

AlexJMoreno C: > xampp > htdocs 25.508s 00:26:05
$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS
b09dae0840f9 xampp-custom "/bin/bash" 29 seconds ago Up 6 seconds 21/tcp, 433/tcp, 3306/tcp, 0.0.0.
0:3030→80/tcp xampp3
7e7e7994723e phpid/xampp "/bin/bash" 24 minutes ago Up 24 minutes 21/tcp, 3306/tcp, 0.0.0.0:3020→8
0/tcp xamppid2
b4b72b364add phpid/xampp "/bin/bash" 41 minutes ago Up 41 minutes 21/tcp, 3306/tcp, 0.0.0.0:3010→8
0/tcp xamppid
81b68bd69256 httpd "httpd-foreground" 57 minutes ago Up 57 minutes 0.0.0.0:3002→80/tcp
apache21
e06fecc877df httpd "httpd-foreground" About an hour ago Up About an hour 0.0.0.0:3001→80/tcp
apache11
dd6bd3f52328 httpd "httpd-foreground" About an hour ago Up About an hour 0.0.0.0:3000→80/tcp
apache1
```

4. Levantamos los servicios del contenedor creado

```
root@b09dae0840f9: /opt/lampp x + v
AlexJMoreno C: > xampp > htdocs 25.508s 00:26:05
$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS
b09dae0840f9 xampp-custom "/bin/bash" 29 seconds ago Up 6 seconds 21/tcp, 433/tcp, 3306/tcp, 0.0.0.
0:3030→80/tcp xampp3
7e7e7994723e phpid/xampp "/bin/bash" 24 minutes ago Up 24 minutes 21/tcp, 3306/tcp, 0.0.0.0:3020→8
0/tcp xamppid2
b4b72b364add phpid/xampp "/bin/bash" 41 minutes ago Up 41 minutes 21/tcp, 3306/tcp, 0.0.0.0:3010→8
0/tcp xamppid
81b68bd69256 httpd "httpd-foreground" 57 minutes ago Up 57 minutes 0.0.0.0:3002→80/tcp
apache21
e06fecc877df httpd "httpd-foreground" About an hour ago Up About an hour 0.0.0.0:3001→80/tcp
apache11
dd6bd3f52328 httpd "httpd-foreground" About an hour ago Up About an hour 0.0.0.0:3000→80/tcp
apache1

AlexJMoreno C: > xampp > htdocs 929ms 00:26:11
$ docker exec -it xampp3 bash
root@b09dae0840f9:/opt/lampp/htdocs# cd
root@b09dae0840f9:~# cd ..
root@b09dae0840f9:/# cd opt/lampp/
root@b09dae0840f9:/opt/lampp# lampp start
Starting XAMPP for Linux 8.2.4-0 ...
XAMPP: Starting Apache ... ok.
XAMPP: Starting MySQL ... ok.
XAMPP: Starting ProFTPD ... ok.
root@b09dae0840f9:/opt/lampp#
```

5. Validamos en el navegador lo realizado.

