

# DOCKER INSTALADO

Ask Gordon BETA

Containers

Images

Volumes

Builds

Docker Hub

**Docker Scout**

Extensions

< Docker Scout [Give feedback](#)

## Advanced image analysis with Docker Scout

Want to use Docker Scout on your remote repositories? [Set up your integrations now](#)

Understand your application's dependencies, analyze the vulnerabilities, and act quickly with suggested remediation options. [Learn more](#) and [upgrade](#).

Sample Image

Vulnerabilities

mis\_contenedores-php:latest

Not analyzed

Analyze Image

Advanced Image analysis can be accessed by viewing any of the Images on the [Images view](#).

How to access Advanced image analysis

dockerdesktop

Search for images, containers, volumes, extension: XXX

Engine running

RAM 1.57 GB CPU 0.13% Disk: 4.91 GB used (limit 1006.85 GB)

Terminal

New version available

## VERIFICACIÓN DE INSTALACIÓN

```
PS C:\Windows\system32> docker version
Client:
 Version:           28.0.1
 API version:       1.48
 Go version:        go1.23.6
 Git commit:        068a01e
 Built:            Wed Feb 26 10:41:52 2025
 OS/Arch:          windows/amd64
 Context:          desktop-linux

Server: Docker Desktop 4.39.0 (184744)
Engine:
 Version:           28.0.1
 API version:       1.48 (minimum version 1.24)
 Go version:        go1.23.6
 Git commit:        bbd0a17
 Built:            Wed Feb 26 10:41:16 2025
 OS/Arch:          linux/amd64
 Experimental:      false
containerd:
 Version:           1.7.25
 GitCommit:        bcc810d6b9066471b0b6fa75f557a15a1cbf31bb
runc:
 Version:           1.2.4
 GitCommit:        v1.2.4-0-g6c52b3f
docker-init:
 Version:           0.19.0
 GitCommit:        de40ad0

PS C:\Windows\system32> |
```

## COMANDO DOCKER INFO

```
PS C:\Windows\system32> docker info
Client:
Version:      28.0.1
Context:      desktop-linux
Debug Mode:   false
Plugins:
ai: Docker AI Agent - Ask Gordon (Docker Inc.)
   Version:   v0.9.4
   Path:      C:\Program Files\Docker\cli-plugins\docker-ai.exe
buildx: Docker Buildx (Docker Inc.)
   Version:   v0.21.1-desktop.2
   Path:      C:\Program Files\Docker\cli-plugins\docker-buildx.exe
compose: Docker Compose (Docker Inc.)
   Version:   v2.33.1-desktop.1
   Path:      C:\Program Files\Docker\cli-plugins\docker-compose.exe
debug: Get a shell into any image or container (Docker Inc.)
   Version:   0.0.38
   Path:      C:\Program Files\Docker\cli-plugins\docker-debug.exe
desktop: Docker Desktop commands (Beta) (Docker Inc.)
   Version:   v0.1.5
   Path:      C:\Program Files\Docker\cli-plugins\docker-desktop.exe
dev: Docker Dev Environments (Docker Inc.)
   Version:   v0.1.2
   Path:      C:\Program Files\Docker\cli-plugins\docker-dev.exe
extension: Manages Docker extensions (Docker Inc.)
   Version:   v0.2.27
   Path:      C:\Program Files\Docker\cli-plugins\docker-extension.exe
feedback: Provide feedback, right in your terminal! (Docker Inc.)
   Version:   v1.0.5
   Path:      C:\Program Files\Docker\cli-plugins\docker-feedback.exe
init: Creates Docker-related starter files for your project (Docker Inc.)
   Version:   v1.4.0
   Path:      C:\Program Files\Docker\cli-plugins\docker-init.exe
sbom: View the packaged-based Software Bill Of Materials (SBOM) for an image (Anchore Inc.)
   Version:   0.6.0
   Path:      C:\Program Files\Docker\cli-plugins\docker-sbom.exe
scout: Docker Scout (Docker Inc.)
   Version:   v1.16.3
```

## COMANDO DOCKER IMAGES

```
PS C:\Windows\system32> docker images
REPOSITORY      TAG          IMAGE ID      CREATED        SIZE
php              8.1-fpm     9711445cf92f  3 weeks ago   692MB
nginx           latest      124b44bfc9cc  8 weeks ago   279MB
PS C:\Windows\system32>
```

## COMANDO DOCKER SEARCH MYSQL

```
PS C:\Windows\system32> docker search mysql
NAME                DESCRIPTION                                     STA
mysql               MySQL is a widely used, open-source relationâ€¦ 1
bitnami/mysql       Bitnami container image for MySQL             134
circleci/mysql      MySQL is a widely used, open-source relationâ€¦ 3
bitnamicharts/mysql Bitnami Helm chart for MySQL                  0
cimg/mysql          3
ubuntu/mysql        MySQL open source fast, stable, multi-threadâ€¦ 6
linuxserver/mysql   A Mysql container, brought to you by LinuxSeâ€¦ 4
google/mysql        MySQL server for Google Compute Engine        25
elestio/mysql       Mysql, verified and packaged by Elestio        1
docksal/mysql       MySQL service images for Docksal - https://dâ€¦ 0
alpine/mysql        mysql client                                    4
mysql/mysql-server  Optimized MySQL Server Docker images. Createâ€¦ 1
ddev/mysql          ARM64 base images for ddev-dbserver-mysql-8.â€¦ 1
```

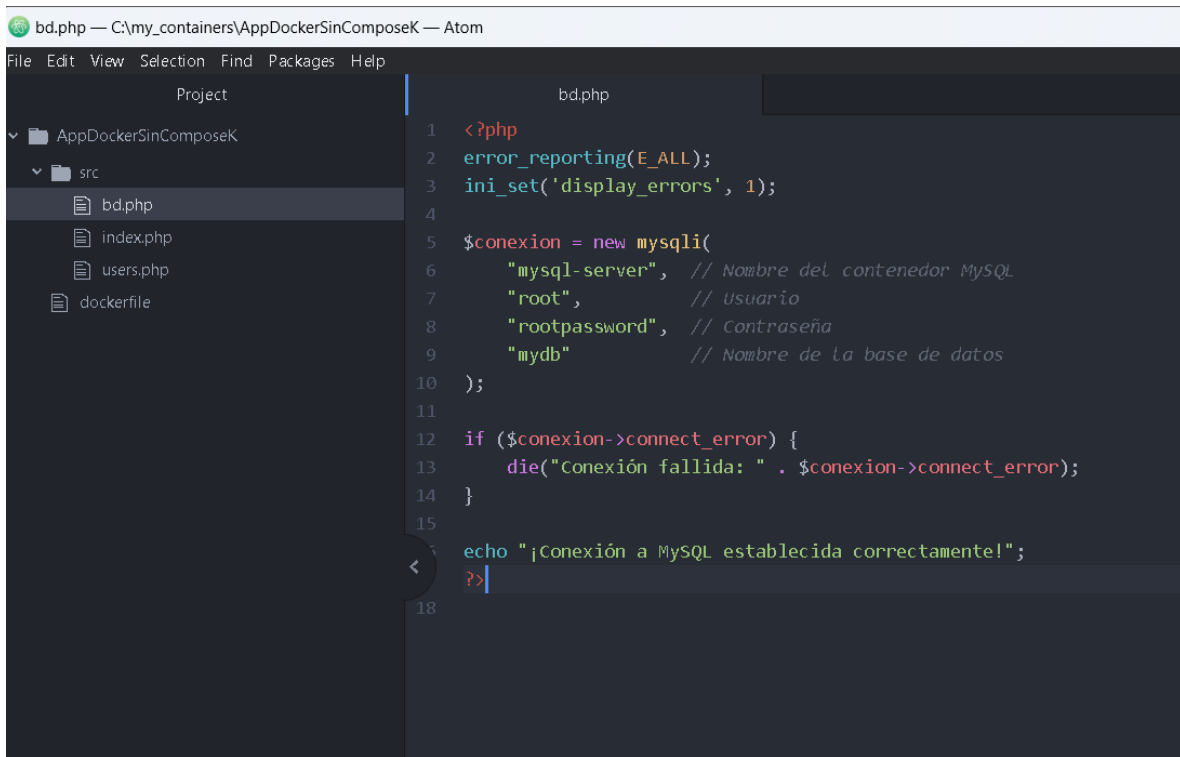
## CONTENEDORES EN EJECUCIÓN:

```
PS C:\Windows\system32> docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS
be36fc7f6142   mysql:5.7 "docker-entrypoint.sâ€¦" About an hour ago Up 7 minutes   0.0.0.0:3306->3306/tcp, 33060/tcp
PS C:\Windows\system32>
```

## CONTENEDORES EN EJECUCIÓN Y DETENIDOS

```
PS C:\Windows\system32> docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS
81f84d158b99   roymar-p "docker-php-entrypoiâ€¦" About an hour ago Exited (255) 7 minutes ago   9000/tcp
bf32b080cc9f   nginx:late "/docker-entrypoint.â€¦" About an hour ago Exited (0) 46 minutes ago
be36fc7f6142   mysql:5.7 "docker-entrypoint.sâ€¦" About an hour ago Up 7 minutes   0.0.0.0:3306->3306/tcp, 33060/tcp
bb4ecd66228d   php-crud  "docker-php-entrypoiâ€¦" 3 weeks ago   Exited (255) 2 hours ago   0.0.0.0:8080->80/tcp
92f9c26133af   mysql:8.0 "docker-entrypoint.sâ€¦" 4 weeks ago   Exited (255) 2 hours ago   33060/tcp, 0.0.0.0:3308->3306/tcp
```

## CARPETA ABIERTA CON ATOM



The screenshot shows the Atom text editor with a project named "AppDockerSinComposeK". The file explorer on the left shows the project structure, including a "src" folder containing "bd.php", "index.php", "users.php", and "dockerfile". The main editor area displays the content of "bd.php", which is a PHP script for connecting to a MySQL database.

```
1 <?php
2 error_reporting(E_ALL);
3 ini_set('display_errors', 1);
4
5 $conexion = new mysqli(
6     "mysql-server", // Nombre del contenedor MySQL
7     "root",          // usuario
8     "rootpassword", // Contraseña
9     "mydb"           // Nombre de la base de datos
10 );
11
12 if ($conexion->connect_error) {
13     die("Conexión fallida: " . $conexion->connect_error);
14 }
15
16 echo "¡Conexión a MySQL establecida correctamente!";
17 ?>
```

## mysql:8.0

```
PS C:\my_containers\AppDockerSinCompose> docker run -d --name mysql-server -e MYSQL_ROOT_PASSWORD=rootpassword -e MYSQL_DATABASE=midb -p 3307:3306 mysql:8.0
Unable to find image 'mysql:8.0' locally
8.0: Pulling from library/mysql
e5fa3211d7a7: Pull complete
be386ff914e3: Pull complete
de67a2f637e5: Pull complete
036f4325df2d: Pull complete
cea172a6e83b: Pull complete
28e01aa53f13: Pull complete
93272c957f26: Pull complete
b1339a14fa1a: Pull complete
753b8441f7e6: Pull complete
1d34979e7120: Pull complete
c106a4902288: Pull complete
Digest: sha256:bf577825b52ab281d6281fb281eabbfdc73507eda8f2c2745790251533ef0306
Status: Downloaded newer image for mysql:8.0
73f20aff74b7e20742be60add91d50dfa748e68ed03a7904a2165ee976fd998c
docker: Error response from daemon: Ports are not available: exposing port TCP 0.0.0.0:3307 -> 127.0.0.1:0: listen tcp 0.0.0.0:3307: bind: Only one usage of each socket address (protocol/network address/port) is normally permitted.

Run 'docker run --help' for more information
PS C:\my_containers\AppDockerSinCompose>
```

## SE ESTA EJECUTANDO CORRECTAMENTE EL CONTENEDOR

```
PS C:\my_containers\AppDockerSinCompose> docker ps -a
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS          NAMES
73f20aff74b7   mysql:8.0   "docker-entrypoint.s..." 4 minutes ago   Created              mysql-server
PS C:\my_containers\AppDockerSinCompose>
```

Conectamos a MySQL por medio del contenedor, para ello utilizaremos las credenciales que configuramos en el comando que usamos para crear el contenedor de MySQL.

```
PS C:\Windows\system32> docker exec -it mysql-server mysql -uroot -prootpassword
mysql: [Warning] Using a password on the command line interface can be insecure.
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.41 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

## LAS BASES DE DATOS

```
mysql> show databases
-> ;
+-----+
| Database |
+-----+
| information_schema |
| mldb        |
| mysql       |
| performance_schema |
| sys        |
+-----+
5 rows in set (0.04 sec)

mysql> _
```

## CREACIÓN DE BASE DE DATOS Y CREACIÓN DE TABLA USERS

```
mysql> Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases
-> ;
+-----+
| Database |
+-----+
| information_schema |
| mldb        |
| mysql       |
| performance_schema |
| sys        |
+-----+
5 rows in set (0.04 sec)

mysql> CREATE DATABASE MYBD;
Query OK, 1 row affected (0.08 sec)

mysql> USE MYBD;
Database changed
mysql> CREATE TABLE USERS(
-> id INT AUTO_INCREMENT PRIMARY KEY,
-> nombre varchar(100),
-> email varchar(100));
Query OK, 0 rows affected (0.09 sec)

mysql> desc users;
ERROR 1146 (42S02): Table 'MYBD.users' doesn't exist
mysql> describe users;
ERROR 1146 (42S02): Table 'MYBD.users' doesn't exist
mysql> describe USERS;
+-----+
| Field | Type          | Null | Key | Default | Extra          |
+-----+
| id    | int           | NO   | PRI | NULL    | auto_increment |
| nombre | varchar(100)  | YES  |     | NULL    |                |
| email  | varchar(100)  | YES  |     | NULL    |                |
+-----+
3 rows in set (0.03 sec)

mysql> _
```

## BD.PHP

```
1  <?php
2  error_reporting(E_ALL);
3  ini_set('display_errors', 1);
4
5  $conexion = new mysqli(
6      "mysql-server",
7      "root",
8      "rootpassword",
9      "mydb"
10 );
11
12 if ($conexion->connect_error) {
13     die("Conexión fallida: " . $conexion->connect_error);
14 }
15
16 echo "¡Conexión a MySQL establecida correctamente!";
17 ?>
18
```



## INDEX.PHP

```
bd.php • | index.php
1 <?php
2 include 'bd.php';
3
4 $resultado = $conexion->query("SELECT * FROM USERS");
5
6 ?>
7
8
9 <h1>Users</h1>
10
11 <ul>
12     <?php while ($fila = $resultado->fetch_assoc()):?>
13         <li><?= $fila['nombre']?> (<?= $fila['email']?>)</li>
14     <?php endwhile;?>
15
16
17 </ul>
18
19 <a href="users.php">Add Users</a>
```

## USERS.PHP

```
1 <?php
2     include 'bd.php';
3
4     if($_SERVER['REQUEST_METHOD'] === 'POST'){
5         $nombre = $_POST['nombre'];
6         $email = $_POST['email'];
7         $conexion->query("INSERT INTO USERS (nombre,email) VALUES ('$nombre','$email')")
8         header("Location: index.php");
9     }
10
11 ?>
12
13 <h1>Add User</h1>
14
15 <form method="POST">
16     <input type="text" name="nombre" placeholder="nombre" required>
17     <input type="email" name="email" placeholder="email" required>
18     <button type="submit">Save</button>
19 </form>
```

## DOCKFILE

```
bd.php  users.php  dockerfile
1 FROM php:8.2-apache
2
3
4 RUN docker-php-ext-install mysqli pdo mysql
5
6 COPY src/ /var/www/html
```

## COMANDO DOCKER BUILD -T PHP-CRUD .

[illegible]

## CREACIÓN Y EJECUCIÓN DEL CONTENEDOR

```
PS C:\my_containers\AppData\Local\Composer> docker run -d --name php-app -p 8080:80 php-crud
e56c19ed3a26cee1998d16cf05eb2bdd8f43b18884b04fb5cb8194aa38a9537
PS C:\my_containers\AppData\Local\Composer>
```

## ESTADO

```
PS C:\my_containers\AppDockerSinCompose> docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
e56c19ed3a26	php-crud	"docker-php-entrypoi..."	18 seconds ago	Up 17 seconds	0.0.0.0:8080->80/tcp
8bb259b4f5e5	mysql:8.0	"docker-entrypoint.s..."	31 minutes ago	Up 31 minutes	33060/tcp, 0.0.0.0:3308->3306/tc

```

PS C:\my_containers\AppDockerSinCompose>

```

## CREACIÓN DE RED INTERNA EN DOKCER Y ACTUALIZACIÓN

```
PS C:\my_containers\AppDockerSinCompose> docker network create mi-red
c88f595970a2844097d6f6e79fefc88520245251ab1ccb9a8822cad58918eaac
PS C:\my_containers\AppDockerSinCompose>
```

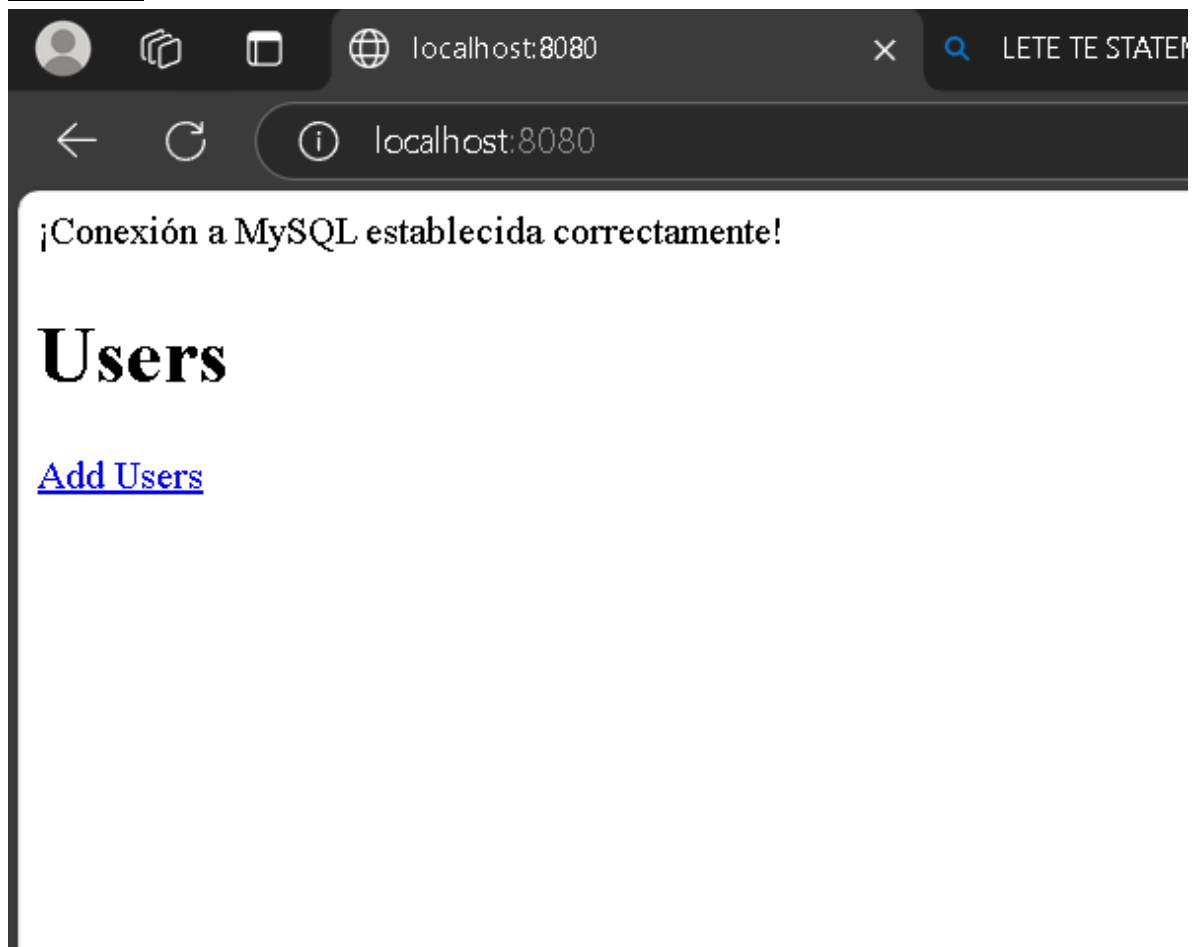
```

c88f595970a2844097d6f6e79f9fc88520245251ab1ccb9a8822cad58918eaac
PS C:\my_containers\AppDockerSinCompose> docker rm -f mysql-server
mysql-server
PS C:\my_containers\AppDockerSinCompose> docker run -d --name mysql-server --network mi-red -e MYSQL_ROOT_PASSWORD=
otpassword -e MYSQL_DATABASE=mladb -p 3308:3306 mysql:8.0
92f9c26133af2ae11a1c2b9a6e893aaa28c46485dde759670bc55a3d0f49076b
PS C:\my_containers\AppDockerSinCompose>

p - mysql-server
PS C:\my_containers\AppDockerSinCompose> docker network create mi-red
c88f595970a2844097d6f6e79f9fc88520245251ab1ccb9a8822cad58918eaac
PS C:\my_containers\AppDockerSinCompose> docker rm -f mysql-server
mysql-server
PS C:\my_containers\AppDockerSinCompose> docker run -d --name mysql-server --network mi-red -e MYSQL_ROOT_PASSWORD=
otpassword -e MYSQL_DATABASE=mladb -p 3308:3306 mysql:8.0
92f9c26133af2ae11a1c2b9a6e893aaa28c46485dde759670bc55a3d0f49076b
PS C:\my_containers\AppDockerSinCompose> docker rm -f php-app
php-app
PS C:\my_containers\AppDockerSinCompose> docker run -d --name php-app --network mi-red -p 8080:80 php-crud
f69f7de610403de56cc6abf6b6baed5ba21e0d2fcf6ff3e707711a4d21bf12a8
PS C:\my_containers\AppDockerSinCompose> docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS
f69f7de61040   php-crud      "docker-php-entrypoi..." 10 seconds ago Up 9 seconds  0.0.0.0:8080->80/tcp
92f9c26133af   php-app
92f9c26133af   mysql:8.0     "docker-entrypoint.s..." About a minute ago Up About a minute 33060/tcp, 0.0.0.0:3308
>3306/tcp      mysql-server
PS C:\my_containers\AppDockerSinCompose>

```

## Resultado



localhost:8080/users.php

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←

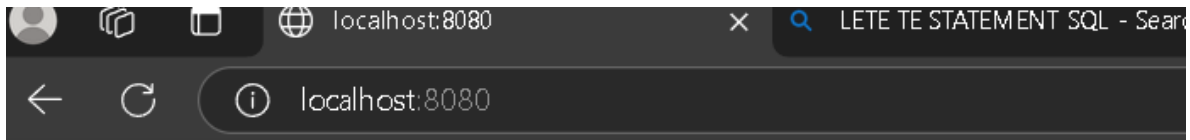
↺

i

localhost:8080/users.php

¡Conexión a MySQL establecida correctamente!

# Add User



¡Conexión a MySQL establecida correctamente!

## Users

- maria (maria@hernandez)

[Add Users](#)

