

Docker + MySQL Practical Example with Notes

✅ Step 1: Run MySQL Container

```
docker run -d --name mydbcont \ -e MYSQL_ROOT_PASSWORD=Pass@123 \
-e MYSQL_DATABASE=wordpressdb \ mysql
```

Explanation:

- -d → Run container in **detached** mode (in background).
 - --name mydbcont → Sets the container name to mydbcont.
 - -e MYSQL_ROOT_PASSWORD=Pass@123 → Sets the root password for MySQL.
 - -e MYSQL_DATABASE=wordpressdb → Automatically creates a database named wordpressdb.
 - mysql → Uses the **official MySQL image** from Docker Hub.
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✅ Step 2: List Running Containers

```
docker container ls
```

Explanation:

- Shows all running containers.
 - Helps you verify that mydbcont is up and running.
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✅ Step 3: Access the Container Shell

```
docker exec -it mydbcont /bin/bash
```

Explanation:

- exec → Execute a command inside a running container.
 - -it → Interactive terminal.
 - /bin/bash → Opens a bash shell inside the container.
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✅ Step 4: Log in to MySQL

```
mysql -u root -p
```

Explanation:

- -u root → Log in as MySQL **root user**.
 - -p → Prompt for password (use Pass@123 from earlier).
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✅ Step 5: Show Databases


mysql> show databases;

Expected Output:

Should list:

- information_schema
 - mysql
 - performance_schema
 - sys
 - wordpressdb ✅ (created automatically)
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Comment/Note:

 This setup launches a MySQL container with a pre-created database named **wordpressdb**, secured by the root password. This is useful for local development and connecting apps like WordPress to a preconfigured MySQL backend.

Create Container for Wordpress and connect it to the MYSQL container

✅ Step 1: Run WordPress Container

```
docker run -d --name worpress_cont -p 80:80 \
-e WORDPRESS_DB_HOST=mydbcont \
-e WORDPRESS_DB_USER=root \
-e WORDPRESS_DB_PASSWORD=Pass@123 \
-e WORDPRESS_DB_NAME=wordpressdb \
--link mydbcont:mysql \
Wordpress
```

Explanation:

- -d → Detached mode (runs in background).
- --name worpress_cont → Name of the WordPress container.
- -p 80:80 → Maps container port 80 to host port 80.
- -e WORDPRESS_DB_HOST=mydbcont → WordPress connects to the MySQL container mydbcont.
- -e WORDPRESS_DB_USER=root, -e WORDPRESS_DB_PASSWORD=Pass@123 → DB login credentials.
- -e WORDPRESS_DB_NAME=wordpressdb → WordPress will use this DB.
- --link mydbcont:mysql → Links MySQL container (deprecated, prefer custom bridge networks).