

Prac-03

Create and run a MySQL Docker container using MySQL 8.x.

Access the running container using docker exec as an admin user, display all databases, and switch to mydatabase.

```
Windows PowerShell
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PS C:\Users\narut> mkdir dockerfile-prac2

Directory: C:\Users\narut

Mode                LastWriteTime     Length Name
----                <-----          ----- 
d----       13-02-2026     12:31           dockerfile-prac2

PS C:\Users\narut> cd dockerfile-prac2
PS C:\Users\narut\dockerfile-prac2> notepad dockerfile
PS C:\Users\narut\dockerfile-prac2> ren dockerfile.txt dockerfile
```

Step1: create the file

Step2: get inside the file and add the content

```
FROM mysql:8.1
```

```
ENV MYSQL_ROOT_PASSWORD=root123
ENV MYSQL_DATABASE=mydatabase
ENV MYSQL_USER=admin
ENV MYSQL_PASSWORD=root123
```

```
EXPOSE 3306
```

Step3: change the dockerfile.txt

```
Terminal

PS C:\Users\narut\dockerfile-prac2> docker build -t mysql:8.1 .
[+] Building 2.8s (6/6) FINISHED
=> [internal] load build definition from dockerfile
=> => transferring dockerfile: 188B
=> [internal] load metadata for docker.io/library/mysql:8.1
=> [auth] library/mysql:pull token for registry-1.docker.io
=> [internal] load .dockerignore
=> => transferring context: 2B
=> CACHED [1/1] FROM docker.io/library/mysql:8.1@sha256:f61944ff3f2961363a4d22913b2ac581523273679d7e14dd26e8db8c9f571a7e
=> => resolve docker.io/library/mysql:8.1@sha256:f61944ff3f2961363a4d22913b2ac581523273679d7e14dd26e8db8c9f571a7e
=> => exporting to image
=> => exporting layers
=> => exporting manifest sha256:8d9ece2a9838c8a2555e80c3d6eef06a43c7c2807625b6fe34e0943956c1f8c2
=> => exporting config sha256:7e15f9851d4c3a1ac330d91375bfed33283d0e84d09955fb9aaab22b78a3b85f
=> => exporting attestation manifest sha256:2fbb57ed0ea29f394d159324216e3fbaf1d9b0ce1b72f11de84f848e701f59d1
=> => exporting manifest list sha256:a1361596e6183dd784cfacbd63838e3ff2f070ce6ce66c874719056e9dff658e
=> => naming to docker.io/library/mysql:8.1
=> => unpacking to docker.io/library/mysql:8.1
```

Step4: Build the image

```

=> => exporting config sha256:7e15f9851d4c3a1ac330d91375bfed33283d0e84d09955fb9aab22b78a3b85f
=> => exporting attestation manifest sha256:2fb57dd0ea29f394d159324216e3fbaf1d9b0ce1b72f11d684f848e701f59d1
=> => exporting manifest list sha256:a1361596e6183dd784cfacbd63838e3ff2f070ce6ce66c874719056e9dff658e
=> => naming to docker.io/library/mysql:8.1
=> => unpacking to docker.io/library/mysql:8.1

2 warnings found (use docker --debug to expand):
- SecretsUsedInArgOrEnv: Do not use ARG or ENV instructions for sensitive data (ENV "MYSQL_PASSWORD") (line 6)
- SecretsUsedInArgOrEnv: Do not use ARG or ENV instructions for sensitive data (ENV "MYSQL_ROOT_PASSWORD") (line 3)

mysql:latest          6b18dd01fb632    1.27GB      283MB   U
nginx:latest           c881927c4077    240MB       65.7MB   U
b:latest               3234976d504b    412MB      115MB   U
buntu:latest           cd1dba651b30    119MB      31.7MB   U
S C:\Users\narut\dockerfile-prac2> docker run -d -p 3306:3306 --name mysql mysql:8.0
ca2ee7c505b8b798ad64405e8b2432b862d708a5596f63e2cd52923842ef856
S C:\Users\narut\dockerfile-prac2> docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
ca2ee7c505b mysql:8.0 "docker-entrypoint.s..." 7 seconds ago Up 6 seconds 0.0.0.0:3306->3306/tcp, [::]:3306->3306/tcp mysql
S C:\Users\narut\dockerfile-prac2> docker run -it mysql:8.0 bash

```

Step5: Run the container

```

PS C:\Users\narut> docker exec -it mysql mysql -u admin -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.1.0 MySQL Community Server - GPL

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owners.

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

mysql> USE mydatabase
Database changed
mysql> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mydatabase |
| performance_schema |
+-----+

```

Step6: get inside the container

Step7: show all the database and switch to mydatabase