

**Assignment: IV**

Name: Shubham Gupta

RollNo: 11941140

Email: shubamgupta@iitbhilai.ac.in

Collaborators Names: Aayush Deshmukh(11940010), Santaz Sahithi(11940230)

**1.1 1A**

# Derived from official mysql image (our base image)  
FROM mysql  
ENV MYSQL\_DATABASE User  
# All scripts in docker-entrypoint-initdb.d/ are automatically  
# executed during container startup  
COPY ./docker-entrypoint-initdb.d/  
MYSQL\_DATABASE is used in passing the arguments while creating the required data base

```
C:\Users\shubham gupta\Desktop>docker build -t my-mysql .  
[+] Building 109.6s (7/7) FINISHED  
=> [internal] load build definition from Dockerfile  
=> => transferring dockerfile: 268B  
=> [internal] load .dockerignore  
=> => transferring context: 2B  
=> [internal] load metadata for docker.io/library/mysql:latest  
=> [internal] load build context  
=> => transferring context: 20.98kB  
=> CACHED [1/2] FROM docker.io/library/mysql  
=> [2/2] COPY ./docker-entrypoint-initdb.d/  
=> exporting to image  
=> => exporting layers  
=> => writing image sha256:171ffc7ee9038017c2e5915f3bf438bc6732d96de2fa1fbe95f5e3cfb99e48cb  
=> => naming to docker.io/library/my-mysql  
C:\Users\shubham gupta\Desktop>
```

In the working directory that we have created create a folder and write the following content in .sql file

```
CREATE DATABASE User;  
CREATE TABLE dbo.MyUser  
(  
id bigint IDENTITY(1,1) PRIMARY KEY,  
name varchar(500) null  
)
```

Now execute the database using docker exec -it my -mysql

```
C:\Users\shubham gupta\Desktop>docker exec -it my-mysql bash
root@aef2c5d82683:/# mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 8.0.22 MySQL Community Server - GPL

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owners.

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

mysql> show databases;
+-----+
| Database |
+-----+
| User      |
| information_schema |
| mysql     |
| performance_schema |
| sys       |
+-----+
5 rows in set (0.00 sec)

mysql> use User;
Database changed
mysql> CREATE TABLE MyUser (id bigint PRIMARY KEY,name varchar(500) NULL);
Query OK, 0 rows affected (0.93 sec)

mysql> show tables;
+-----+
| Tables_in_User |
+-----+
| MyUser          |
+-----+
1 row in set (0.00 sec)

mysql> INSERT INTO MyUser (id, name) VALUES (11941140, "shubham gupta");
Query OK, 1 row affected (0.26 sec)
```

```
mysql> SELECT * FROM MyUser;
+-----+
| id      | name      |
+-----+
| 11941140 | shubham gupta |
+-----+
1 row in set (0.00 sec)

mysql> show tables;
+-----+
| Tables_in_User |
+-----+
| MyUser          |
+-----+
1 row in set (0.00 sec)

mysql> exit
Bye
root@aef2c5d82683:/# exit
exit

C:\Users\shubham gupta\Desktop>docker commit shubham11941140
sha256:8a39ff604422777cfb84ba2026c74733a5a5e99c88579bd9cbb05a168e50dd97

C:\Users\shubham gupta\Desktop>docker tag 8a39ff604422777cfb84ba2026c74733a5a5e99c88579bd9cbb05a168e50dd97 q1test2shubham

C:\Users\shubham gupta\Desktop>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
q1test2shubham      latest             8a39ff604422       40 seconds ago     545MB
my-mysql            latest            171ffc7ae903       31 minutes ago     2.54GB
<none>              <none>            d2055a2480aa       54 minutes ago     2.54GB
shubhamgupta11941140/cs200q1docker custom_shubhamgupta e1441579fdb6       24 hours ago       545MB
custom_shubhamgupta latest            e1441579fdb6       24 hours ago       545MB
mysql               latest            dd7265748b5d       6 days ago         545MB
alpine/git          latest            a8b6c5c0eb62       5 weeks ago        28.4MB
hello-world         latest            bf756fb1ae65       10 months ago      13.3kB
```

Lastly save the container as a new image and push it to your own Docker repository

```

C:\Users\shubham gupta\Desktop>docker login
Authenticating with existing credentials...
Login Succeeded

C:\Users\shubham gupta\Desktop>docker tag qltest2shubham shubhamgupta11941140/qltry:qltest2shubham

C:\Users\shubham gupta\Desktop>docker push shubhamgupta11941140/qltry:qltest2shubham
The push refers to repository [docker.io/shubhamgupta11941140/qltry]
96463a43923c: Mounted from shubhamgupta11941140/cs200q1docker
b4b078c72dbb: Mounted from shubhamgupta11941140/cs200q1docker
a84df125760c: Mounted from shubhamgupta11941140/cs200q1docker
a68528a82320: Mounted from shubhamgupta11941140/cs200q1docker
9390c6bf0802: Mounted from shubhamgupta11941140/cs200q1docker
2172a8cf5620: Mounted from shubhamgupta11941140/cs200q1docker
ccc9d99589b0: Mounted from shubhamgupta11941140/cs200q1docker
21855dc9d111: Mounted from shubhamgupta11941140/cs200q1docker
954ae77d425d: Mounted from shubhamgupta11941140/cs200q1docker
5a04f2c11114: Mounted from shubhamgupta11941140/cs200q1docker
0cfb425b2248: Mounted from shubhamgupta11941140/cs200q1docker
92266a3c960d: Mounted from shubhamgupta11941140/cs200q1docker
f5600c6330da: Mounted from shubhamgupta11941140/cs200q1docker
qltest2shubham: digest: sha256:84776bdd78ef7bdeafca4f04191985d42f6a01e23a47714f566989b52af5e3b8 size: 3035

C:\Users\shubham gupta\Desktop>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
qltest2shubham      latest             8a39ff604422       4 minutes ago      545MB
shubhamgupta11941140/qltry  qltest2shubham    8a39ff604422       4 minutes ago      545MB
my-mysql            latest            171ffc7ee903       36 minutes ago     2.54GB
<none>              <none>            d2055a2480aa       59 minutes ago     2.54GB
shubhamgupta11941140/cs200q1docker  custom_shubhamgupta  e1441579fdbe       24 hours ago       545MB
custom_shubhamgupta  latest            e1441579fdbe       24 hours ago       545MB
mysql               latest            dd7265748b5d       6 days ago         545MB
alpine/git          latest            a8b6c5c0eb62       5 weeks ago        28.4MB
hello-world         latest            bf756fb1ae65       10 months ago      13.3kB

C:\Users\shubham gupta\Desktop>docker pull shubhamgupta11941140/qltry:qltest2shubham
qltest2shubham: Pulling from shubhamgupta11941140/qltry
Digest: sha256:84776bdd78ef7bdeafca4f04191985d42f6a01e23a47714f566989b52af5e3b8
Status: Image is up to date for shubhamgupta11941140/qltry:qltest2shubham
docker.io/shubhamgupta11941140/qltry:qltest2shubham

```