

BDMH Assignment1

On Docker

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Question1: Create a database name mydb in MySQL and save above table in mydb; show application of 4 mysql commands.

1: Pull mysql image in docker and check via command docker images if image is successfully pulled

```
Administrator: Windows PowerShell
PS C:\WINDOWS\system32> docker images
REPOSITORY          TAG             IMAGE ID        CREATED         SIZE
sadhanatripathi/mongo 2               23a4d4460980   9 hours ago    449MB
mysql                latest          2933adc350f3    2 weeks ago    546MB
```

2: Creating docker container

```
PS C:\WINDOWS\system32> docker run -d --name mysqlldb -p 3306:3306 -e MYSQL_ROOT_PASSWORD=sadhana mysql
2d6817b2007fff718e057f03fe6ac6cdb785fcbd1d3b5d22e60b761208b5acb9
PS C:\WINDOWS\system32> docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
2d6817b2007f   mysql    "docker-entrypoint.s..." 11 seconds ago Up 6 seconds  0.0.0.0:3306->3306/tcp, 33060/tcp   mysqlldb
```

3: Executing bash statement for entering into mysql

```
PS C:\Users\Sadhana> docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
2d6817b2007f   mysql    "docker-entrypoint.s..." 38 minutes ago Up 38 minutes  0.0.0.0:3306->3306/tcp, 33060/tcp   mysqlldb
PS C:\Users\Sadhana> docker exec -it mysqlldb bash
root@2d6817b2007f:/# mysql -u root -h 127.0.0.1 -psadhana
```

4:Into mysql

```
PS C:\Users\Sadhana> docker exec -it mysqlldb bash
root@2d6817b2007f:/# mysql -u root -h 127.0.0.1 -psadhana
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: 8.0.23 MySQL Community Server - GPL

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owners.

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

5: show and create databases

```
mysql> show databases
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.01 sec)

mysql> create database mydb;
Query OK, 1 row affected (0.30 sec)

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

mysql> create database test;
Query OK, 1 row affected (0.27 sec)

mysql> create database use
+-----+
| Database |
+-----+
| information_schema |
| mydb |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0.01 sec)

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'use' at line 1
mysql> create database usertest;
Query OK, 1 row affected (0.45 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mydb |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0.01 sec)
```

6: drop database

```
Administrator: Windows PowerShell
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mydb |
| mysql |
| performance_schema |
| sys |
| test |
| usertest |
+-----+
7 rows in set (0.00 sec)

mysql> drop database usertest;
Query OK, 0 rows affected (0.42 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mydb |
| mysql |
| performance_schema |
| sys |
| test |
+-----+
6 rows in set (0.01 sec)
```

7: Use mydb, create table fruits and insert entries into table

```
mysql> use mydb;
Database changed
mysql> create table fruits (id int not null, name text, quantity int not null, primary key(id));
Query OK, 0 rows affected (2.88 sec)

mysql> show table;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '' at line 1
mysql> show tables;
+-----+
| Tables_in_mydb |
+-----+
| fruits |
+-----+
1 row in set (0.03 sec)

mysql> insert into fruits (id,name,quantity) values (1,'apples',50);
Query OK, 1 row affected (0.22 sec)

mysql> insert into fruits (id,name,quantity) values (2,'banana',5);
Query OK, 1 row affected (0.28 sec)

mysql> insert into fruits (id,name,quantity) values (3,'pears',15);
Query OK, 1 row affected (0.19 sec)
```

8: Read command

```
mysql> select * from fruits
-> ;
+----+-----+-----+
| id | name  | quantity |
+----+-----+-----+
| 1  | apples | 50       |
| 2  | banana | 5        |
| 3  | pears  | 15       |
+----+-----+-----+
3 rows in set (0.00 sec)
```

9: Update command

```
mysql> UPDATE fruits SET quantity = 5 WHERE id=1;
Query OK, 1 row affected (0.26 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from fruits;
+----+-----+-----+
| id | name  | quantity |
+----+-----+-----+
| 1  | apples | 5        |
| 2  | banana | 5        |
| 3  | pears  | 15       |
+----+-----+-----+
3 rows in set (0.00 sec)
```

10: Delete command

```
mysql> DELETE from fruits WHERE id =3;
Query OK, 1 row affected (0.20 sec)

mysql> select * from fruits;
+----+-----+-----+
| id | name  | quantity |
+----+-----+-----+
| 1  | apples | 5        |
| 2  | banana | 5        |
+----+-----+-----+
2 rows in set (0.00 sec)

mysql> exit
Bye
root@2d6817b2007f:/# exit
exit
```

11: Outside shell and container for creating image for container and deploying in docker hub

```
mysql> exit
Bye
root@2d6817b2007f:/# exit
exit
PS C:\Users\Sadhana> docker ps a
"docker ps" accepts no arguments.
See 'docker ps --help'.

Usage:  docker ps [OPTIONS]

List containers
PS C:\Users\Sadhana> docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
2d6817b2007f   mysql    "docker-entrypoint.s..." 50 minutes ago Up 50 minutes 0.0.0.0:3306->3306/tcp, 33060/tcp   mysqldb
PS C:\Users\Sadhana> docker commit 2d6817b2007f sadhanatripathi/mysql
sha256:049c38d142d4ee75d59aef71b0b45b6be0ba91baa5de8b76b8708f46dcc009d3
PS C:\Users\Sadhana> docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
sadhanatripathi/mysql   latest      049c38d142d4  18 seconds ago  546MB
sadhanatripathi/mongo   2           23a4d4460980  10 hours ago   449MB
mysql                latest      2933adc350f3  2 weeks ago   546MB
PS C:\Users\Sadhana> docker login
Authenticating with existing credentials...
Login Succeeded
PS C:\Users\Sadhana> docker push sadhanatripathi/mysql
Using default tag: latest
The push refers to repository [docker.io/sadhanatripathi/mysql]
049708443e51: Pushed
9fda8797bc31: Mounted from library/mysql
7cdc784cbcfc: Mounted from library/mysql
9ba725af2ff0: Mounted from library/mysql
5ba1eb4d2ba5: Mounted from library/mysql
9ffac285cc4f: Mounted from library/mysql
52d9c23a9a20: Mounted from library/mysql
902a5f810181: Mounted from library/mysql
411bb8845b78: Mounted from library/mysql
7c06655789f2: Mounted from library/mysql
1a4bac3ca47c: Mounted from library/mysql
6427e36e3873: Mounted from library/mysql
9eb82f04c782: Mounted from library/mysql
latest: digest: sha256:5bea2f8e73661d1e5b081e11280e6375492f81caff3fb2e6fb034f731dbc45f size: 3035
PS C:\Users\Sadhana> docker images
REPOSITORY          TAG         IMAGE ID      CREATED        SIZE
sadhanatripathi/mysql   latest      049c38d142d4  54 minutes ago  546MB
sadhanatripathi/mongo   2           23a4d4460980  11 hours ago   449MB
mysql                latest      2933adc350f3  2 weeks ago   546MB
```

12: pull Image for mysql container created and deployed in docker hub

```
root@50872ce2e3a8: /
exit
PS C:\WINDOWS\system32> docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS
50872ce2e3a8   ubuntu   "/bin/bash"   11 hours ago   Up 2 minutes   dockerubuntu
PS C:\WINDOWS\system32> commit dockerubuntu sadhanatripathi/ubuntu
commit : The term 'commit' is not recognized as the name of a cmdlet, fu
ction, script file, or operable program.
Check the spelling of the name, or if a path was included, verify that the path is correct and try again.
At line:1 char:1
+ ~~~~~
+ ~~~~~
+ CategoryInfo          : ObjectNotFound: (commit:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

PS C:\WINDOWS\system32> docker commit dockerubuntu sadhanatripathi/ubuntu
sha256:4b2c0ff1c28c8a4e4249b55655833f8a1a0b2e9d958bf60c3bb080779190873d
PS C:\WINDOWS\system32> docker images
REPOSITORY    TAG       IMAGE ID       CREATED       SIZE
sadhanatripathi/ubuntu   latest    4b2c0ff1c28c   11 hours ago   72.9MB
sadhanatripathi/mysql    latest    049c38d142d4   34 hours ago   546MB
sadhanatripathi/mongo    2         23a4d4d46090   44 hours ago   449MB
php              7.3-apache 285f9853d978   2 weeks ago   411MB
mysql            latest     2933adc350f3   2 weeks ago   546MB
ubuntu           latest     f63181f19b2f   5 weeks ago   72.9MB
PS C:\WINDOWS\system32> docker login
Authenticating with existing credentials...
Login Succeeded
7da64f89473: Pushed
The push refers to repository [docker.io/sadhanatripathi/ubuntu]
7da64f89473: Pushing [=====] 3.584kB
dbf2c0f42a39: Mounted from library/ubuntu
02473afd360b: Mounted from library/ubuntu
9f32931c9d28: Mounted fr
latest: digest: sha256:8a46db5a7a9dcf7c1c9b8bf60c780c8609435fcd4cf296ec8ca672fc9e49d9e size: 1150
PS C:\WINDOWS\system32> docker pull sadhanatripathi/ubuntu
Using default tag: latest
latest: Pulling from sadhanatripathi/ubuntu
Digest: sha256:8a46db5a7a9dcf7c1c9b8bf60c780c8609435fcd4cf296ec8ca672fc9e49d9e
Status: Image is up to date for sadhanatripathi/ubuntu:latest
docker.io/sadhanatripathi/ubuntu:latest
PS C:\WINDOWS\system32> docker images
REPOSITORY    TAG       IMAGE ID       CREATED       SIZE
sadhanatripathi/ubuntu   latest    4b2c0ff1c28c   11 hours ago   72.9MB
sadhanatripathi/mysql    latest    049c38d142d4   34 hours ago   546MB
sadhanatripathi/mongo    2         23a4d4d46090   44 hours ago   449MB
php              7.3-apache 285f9853d978   2 weeks ago   411MB
mysql            latest     2933adc350f3   2 weeks ago   546MB
ubuntu           latest     f63181f19b2f   5 weeks ago   72.9MB
PS C:\WINDOWS\system32> docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
50872ce2e3a8   ubuntu   "/bin/bash"   11 hours ago   Up 6 minutes   dockerubuntu
PS C:\WINDOWS\system32> docker exec -it dockerubuntu bash
root@50872ce2e3a8:/# mysql
bash: mysql: command not found
root@50872ce2e3a8:/#
```

13: Docker hub

