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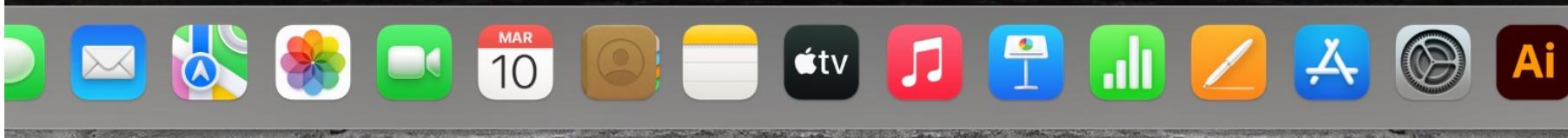
Reg No – 12017082

CSE 427 LAB , CA -02

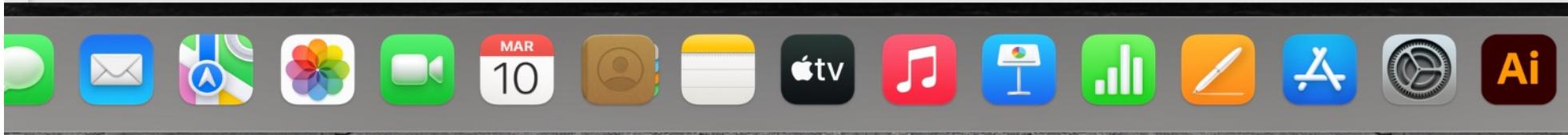
Q1. Pull Python ,
Create a
container of
Python and run
it



```
#####
[node1] (local) root@192.168.0.28 ~
$ docker pull python
Using default tag: latest
latest: Pulling from library/python
32fb02163b6b: Pull complete
167c7feebee8: Pull complete
d6dff1f6f3d: Pull complete
e9cdcd4942eb: Pull complete
ca3bce705f6c: Pull complete
5e1c6c4f8bbf: Pull complete
efba3dc31239: Pull complete
b45fafb4411c: Pull complete
70eb3e954fe5: Pull complete
Digest: sha256:d3c16df33787f3d03b2e096037f6deb3c1c5fc92c57994a7d6f2de018de01a6b
Status: Downloaded newer image for python:latest
docker.io/library/python:latest
[node1] (local) root@192.168.0.28 ~
$ docker run -it -d --name py python
b71c343b01c301e36d8e1f2e3b571caeb660336df561e88b6a0bc06099ace8b8
[node1] (local) root@192.168.0.28 ~
$ docker exec -it py bash
root@b71c343b01c3:/# python
Python 3.11.2 (main, Mar 1 2023, 14:46:02) [GCC 10.2.1 20210110] on linux
```



```
32fb02163b6b: Pull complete
167c7feeb8: Pull complete
d6ffff1f6f3d: Pull complete
e9cdcd4942eb: Pull complete
ca3bce705f6c: Pull complete
5e1c6c4f8bbf: Pull complete
efba3dc31239: Pull complete
b45fafb4411c: Pull complete
70eb3e954fe5: Pull complete
Digest: sha256:d3c16d133787f3d03b2e096037f6deb3c1c5fc92c57994a7d6f2de018de01a6b
Status: Downloaded newer image for python:latest
docker.io/library/python:latest
[node1] (local) root@192.168.0.28 ~
$ docker run -it -d --name py python
b71c343b01c301e36d8e1f2e3b571caeb660336df561e88b6a0bc06099ace8b8
[node1] (local) root@192.168.0.28 ~
$ docker exec -it py bash
root@b71c343b01c3:/# python
Python 3.11.2 (main, Mar  1 2023, 14:46:02) [GCC 10.2.1 20210110] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> 1+2
3
>>> exit()
root@b71c343b01c3:/# exit
```



We can see that I pulled python image , then executed it and run simple python command to add two numbers which shows that it is up and working properly. Check previous images



Q2. Pull the image
of MySQL and
execute MySQL



```
[node1] (local) root@192.168.0.28 ~
$ docker pull mysql/mysql-server:latest
latest: Pulling from mysql/mysql-server
6a4a3ef82cdc: Pull complete
5518b09b1089: Pull complete
b6b576315b62: Pull complete
349b52643cc3: Pull complete
abe8d2406c31: Pull complete
c7668948e14a: Pull complete
c7e93886e496: Pull complete
Digest: sha256:d6c8301b7834c5b9c2b733b10b7e630f441af7bc917c74dba379f24eeeb6a313
Status: Downloaded newer image for mysql/mysql-server:latest
docker.io/mysql/mysql-server:latest
```

```
[node1] (local) root@192.168.0.28 ~
$ docker run -d --name=mysql mysql/mysql-server:latest
8dbd0b3b7c7520ff12a179d5b6b4c01c5ec24ea7e2f0ab7b8c0b763e6d7ca4f7
[node1] (local) root@192.168.0.28 ~
$ docker logs mysql 2>&1 | grep GENERATED
[node1] (local) root@192.168.0.28 ~
$ docker logs mysql
[Entrypoint] MySQL Docker Image 8.0.32-1.2.11-server
[Entrypoint] No password option specified for new database.
[Entrypoint] A random onetime password will be generated.
[Entrypoint] Initializing database
2023-03-10T10:27:21.087648Z 0 [Warning] [MY-011068] [Server] The syntax '--skip-host-cache' is deprecated and will be removed in a future release. Please use SET GLOBAL host_cache_size=0 instead.
2023-03-10T10:27:21.087836Z 0 [System] [MY-013169] [Server] /usr/sbin/mysqld (mysqld 8.0.32) initializing of server in progress as process 16
2023-03-10T10:27:21.099937Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2023-03-10T10:27:21.437975Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2023-03-10T10:27:23.202459Z 6 [Warning] [MY-010453] [Server] root@localhost is created with an empty password ! Please consider switching off the --initialize-insecure option.
[Entrypoint] Database initialized
2023-03-10T10:27:27.040915Z 0 [Warning] [MY-011068] [Server] The syntax '--skip-host-cache' is deprecated and will be removed in a future release. Please use SET GLOBAL host_cache_size=0 instead.
2023-03-10T10:27:27.043357Z 0 [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 8.0.32) starting as process 59
2023-03-10T10:27:27.083199Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
```



```
2023-03-10T10:27:21.099937Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2023-03-10T10:27:21.437975Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2023-03-10T10:27:23.202459Z 6 [Warning] [MY-010453] [Server] root@localhost is created with an empty password ! Please consider switching off the --initialize-insecure option.
[Entrypoint] Database initialized
2023-03-10T10:27:27.040915Z 0 [Warning] [MY-011068] [Server] The syntax '--skip-host-cache' is deprecated and will be removed in a future release. Please use SET GLOBAL host_cache_size=0 instead.
2023-03-10T10:27:27.043357Z 0 [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 8.0.32) starting as process 59
2023-03-10T10:27:27.083199Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2023-03-10T10:27:27.340793Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2023-03-10T10:27:27.712009Z 0 [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
2023-03-10T10:27:27.712068Z 0 [System] [MY-013602] [Server] Channel mysql_main configured to support TLS. Encrypted connections are now supported for this channel.
2023-03-10T10:27:27.745491Z 0 [System] [MY-011323] [Server] X Plugin ready for connections. Socket: /var/run/mysqld/mysqlx.sock
2023-03-10T10:27:27.745654Z 0 [System] [MY-010931] [Server] /usr/sbin/mysqld: ready for connections. Version: '8.0.32' socket: '/var/lib/mysql/mysql.sock' port: 0 MySQL Community Server - GPL.
Warning: Unable to load '/usr/share/zoneinfo/iso3166.tab' as time zone. Skipping it.
Warning: Unable to load '/usr/share/zoneinfo/leapseconds' as time zone. Skipping it.
Warning: Unable to load '/usr/share/zoneinfo/tzdata.zi' as time zone. Skipping it.
Warning: Unable to load '/usr/share/zoneinfo/zone.tab' as time zone. Skipping it.
Warning: Unable to load '/usr/share/zoneinfo/zone1970.tab' as time zone. Skipping it.
[Entrypoint] GENERATED ROOT PASSWORD: Wt2sP9+Y2;e8M=M:?Hg@D6Vnn0R3:3Z.
```

```
2023-03-10T10:27:35.023007Z 0 [System] [MY-010931] [Server] /usr/sbin/mysqld: ready for connections. Version: '8.0.32'  s
ocket: '/var/lib/mysql/mysql.sock'  port: 3306  MySQL Community Server - GPL.
[node1] (local) root@192.168.0.28 ~
$ docker logs mysql 2>&1 | grep GENERATED
[Entrypoint] GENERATED ROOT PASSWORD: Wt2sP9+Y2;e8M=M:?:Hg@D6Vnn0R3:3Z.
[node1] (local) root@192.168.0.28 ~
$ docker exec -it mysql mysql -uroot -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 16
Server version: 8.0.32

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owners.

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

mysql> ALTER USER 'root'@'localhost' IDENTIFIED BY 'piyush';
Query OK, 0 rows affected (0.02 sec)

mysql> █
```



What I did is , I pulled Mysql server latest and then I ran the container and then there is default password which is generated and then we have to catch it using the logs where it is stored , then executing the container and entering the password we can operate MySQL server and so the practical is complete.