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Python and MySQL

Connection, Create Database, Create Table, Insert Rows and Query

Prerequisite:

1. MS- visual studio redistributable 2015 package or above

(https://www.microsoft.com/en-in/download/details.aspx?id=48145) 64-bit

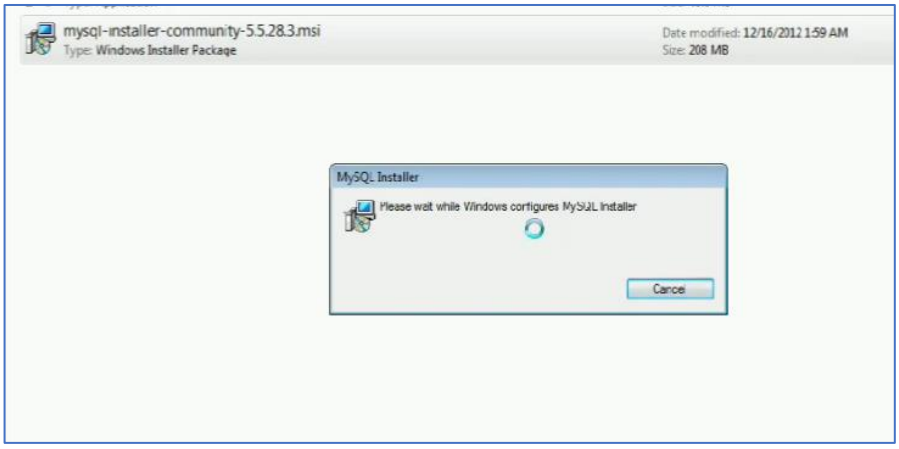
2. MySQL installer

(https://dev.mysql.com/downloads/installer/) select: Server: mysql-installer-community-8.0.19.0.msi

old: http://ftp.iij.ad.jp/pub/db/mysql/Downloads/MySQLInstaller/mysql-installer-community-5.5.28.3.msi

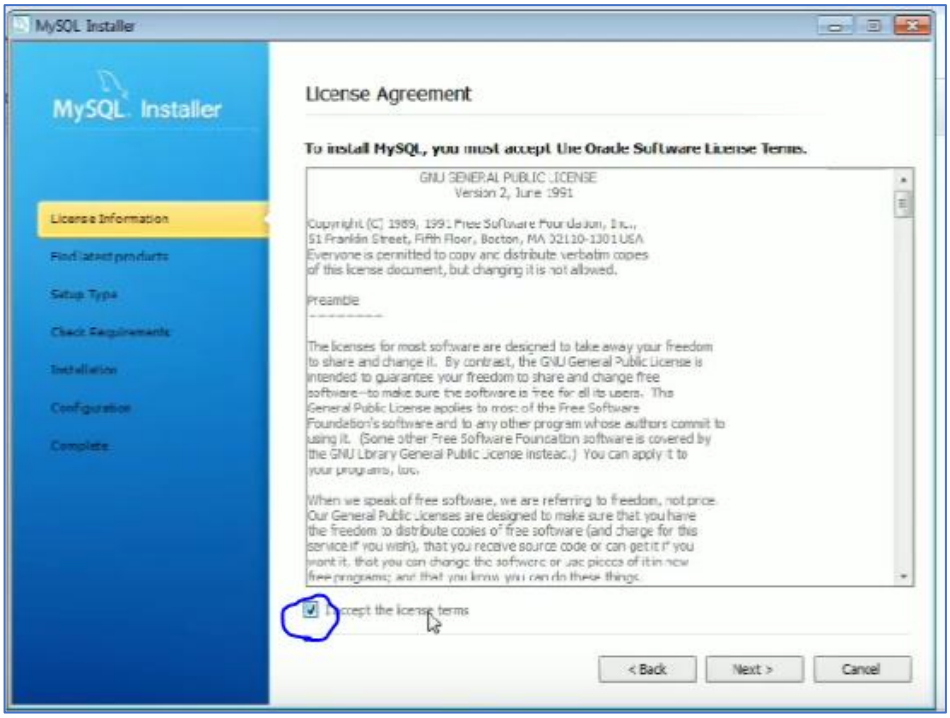
After download:

(i) Install it

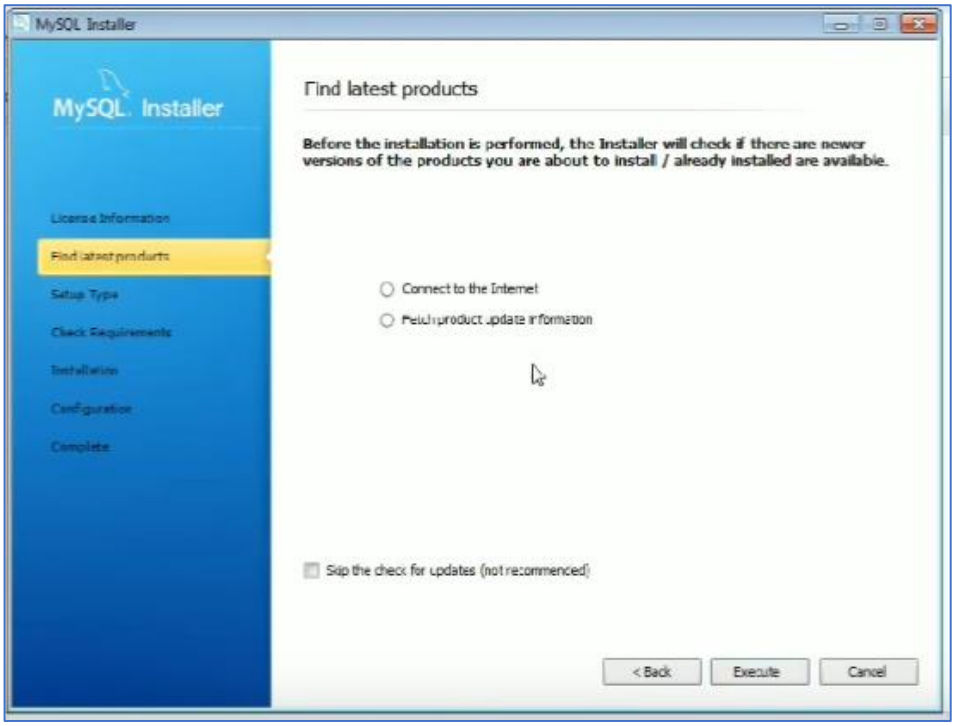


(ii) Select

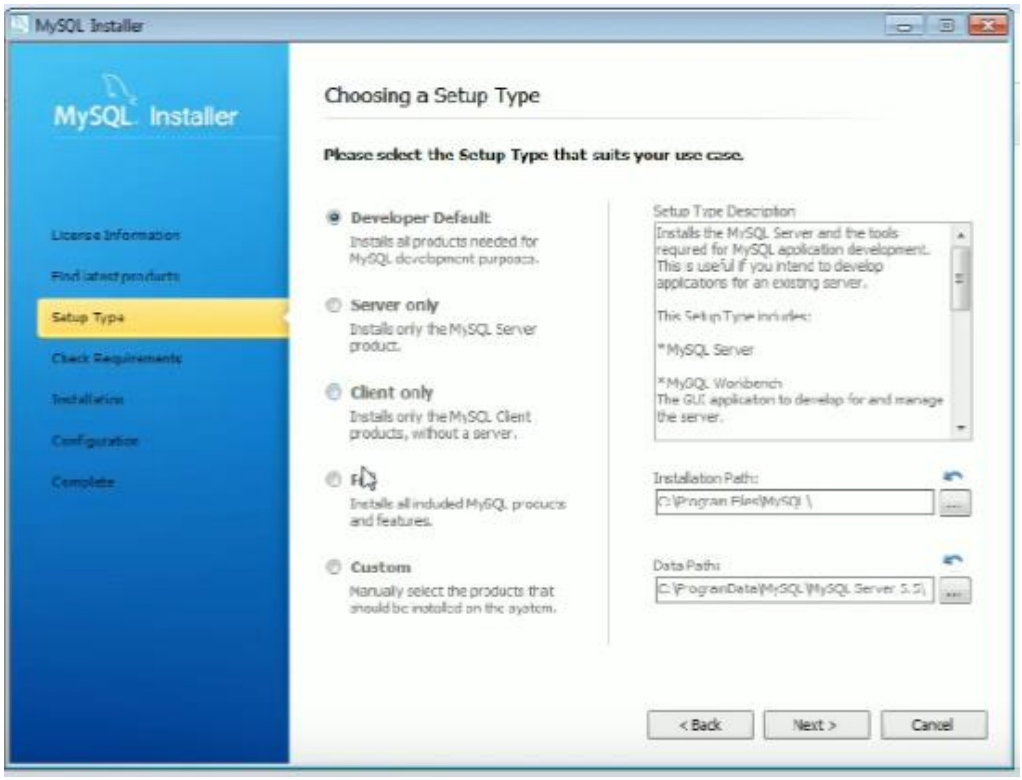
(iii) Accept the licence



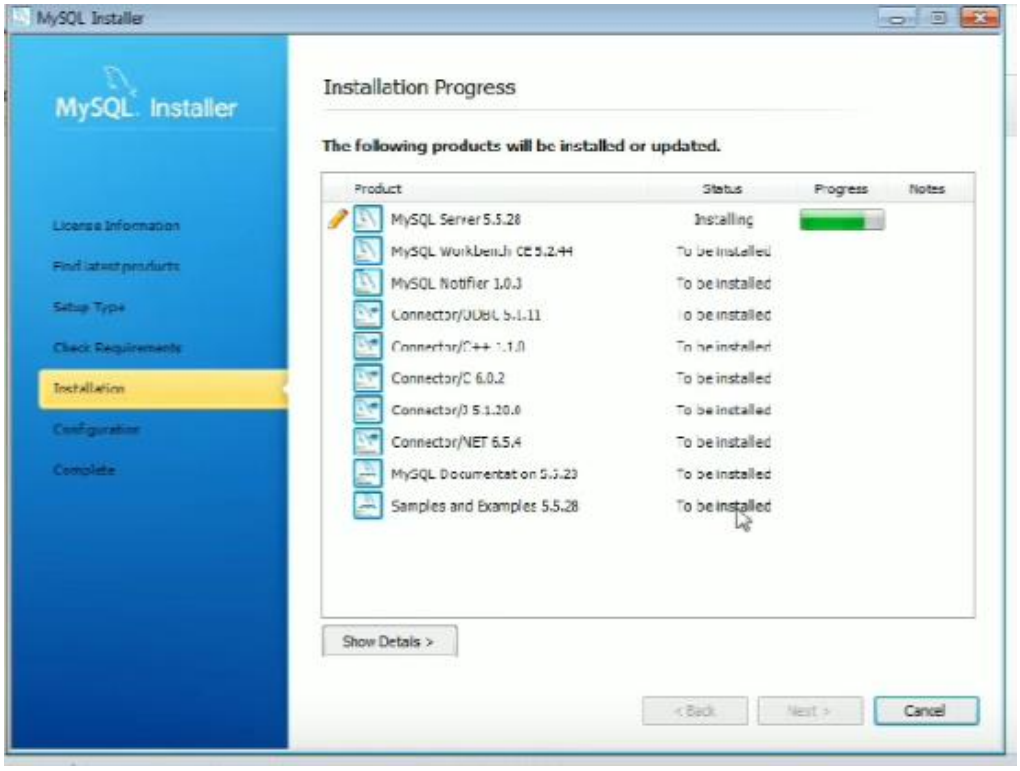
(iv) Skip the Update



(v) Select FULL > Next > Execute

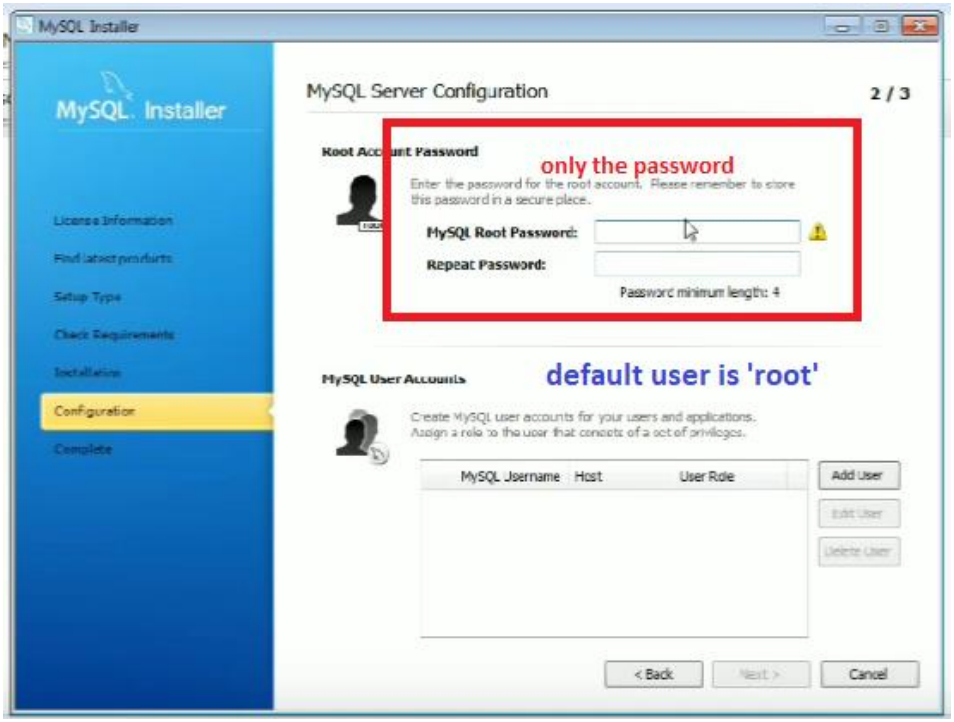


(vi) Installation Begins



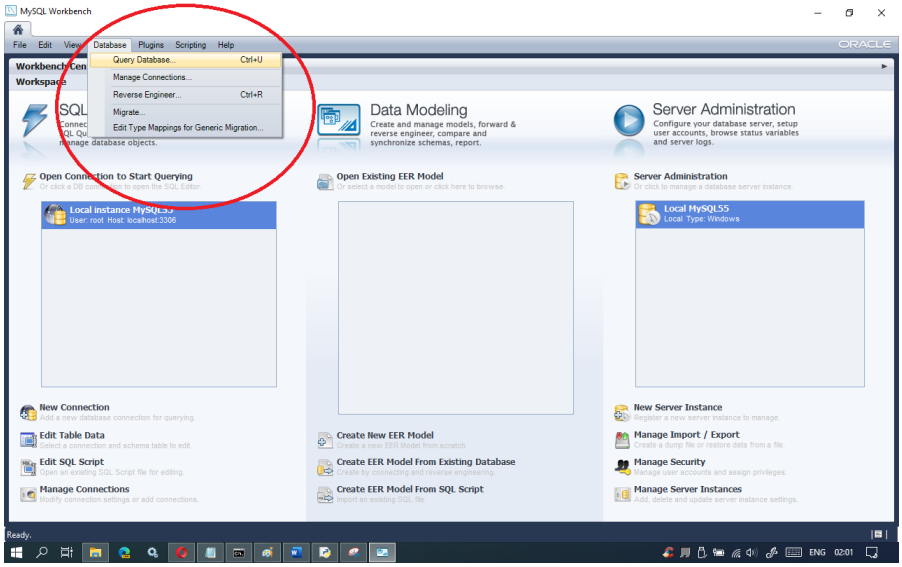
(vii) Configuration (Leave as it is) and Enable the check button (Show Advanced Options)

(viii) Enter only the Password (two-times)

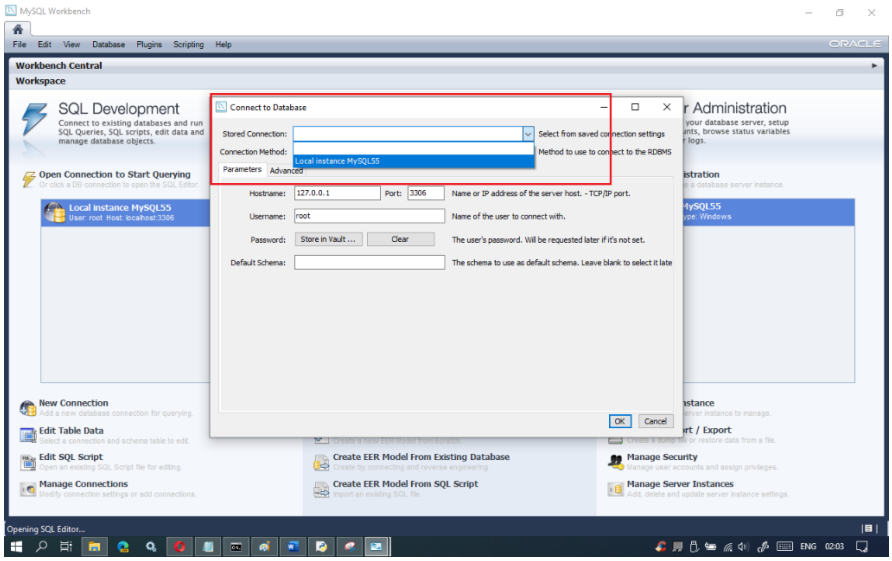


(ix) Finish & Run the Workbench

(x) Check for available users, databases & Tables (Select Query database from Database Menu)

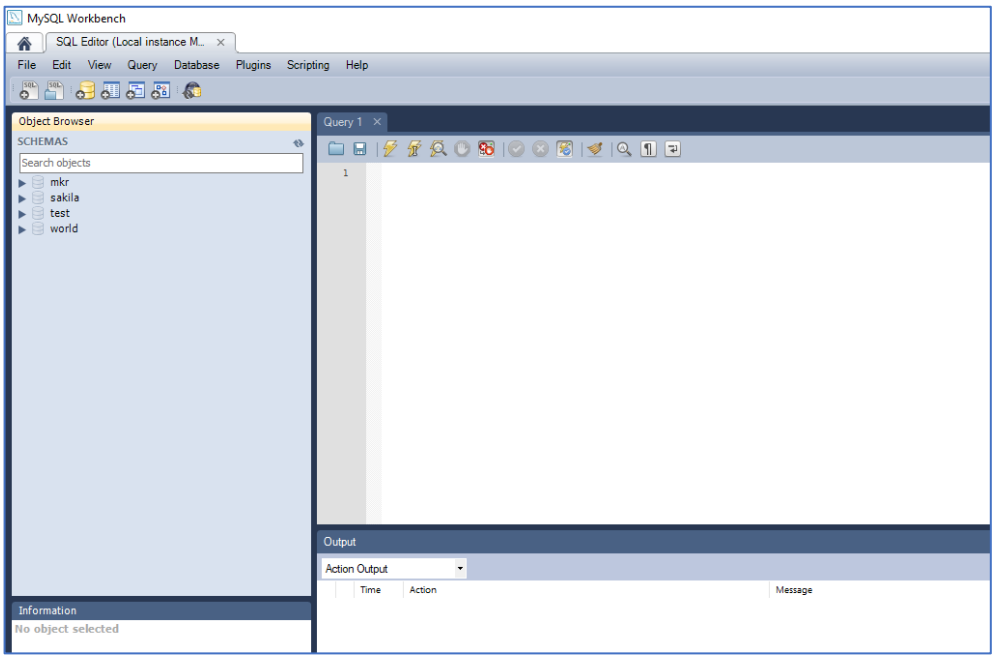


(xi) Select "Local instance MySL55"

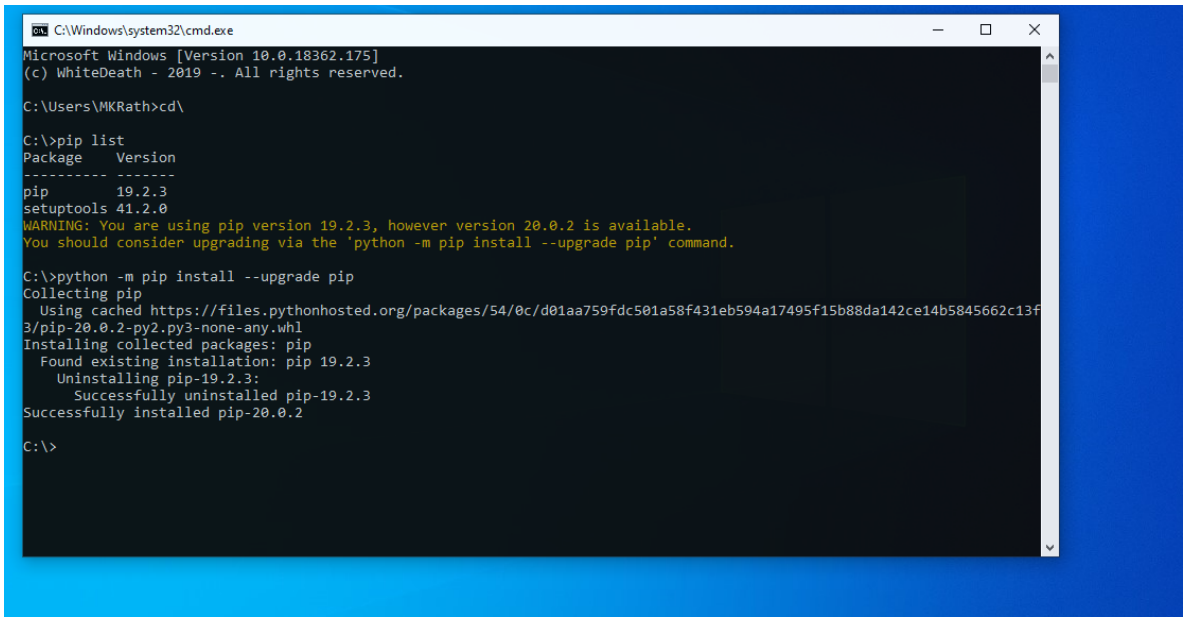


(xii) Enter the password:

(xiii) Find the Database and the Expand them to see the Tables in them



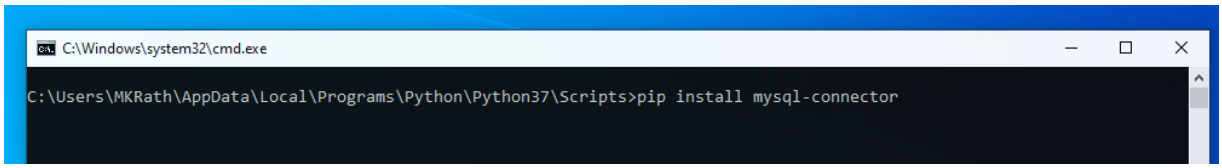
3. pip upgrade (python -m pip install --upgrade pip)



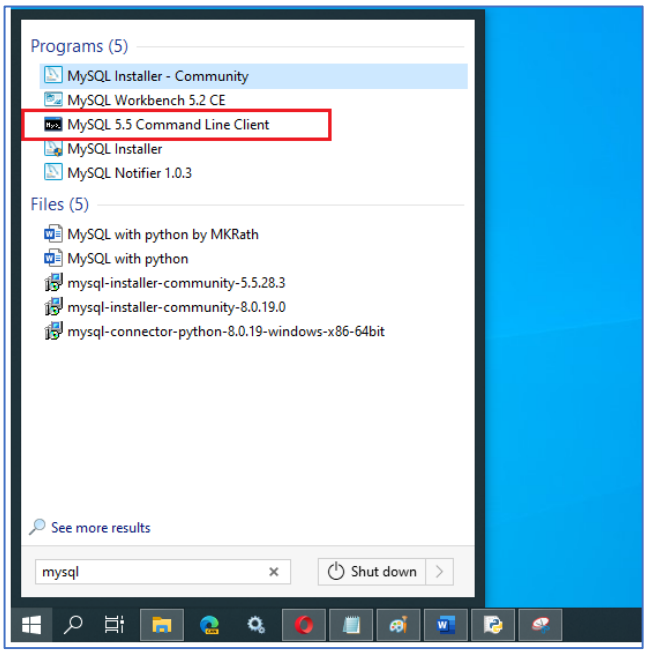
Python connection

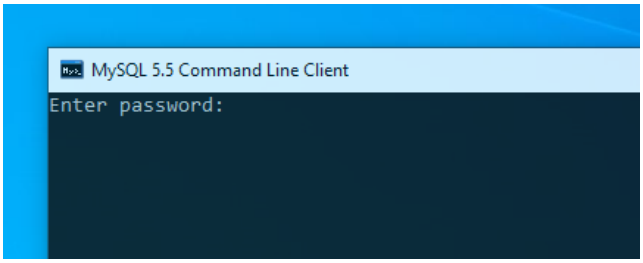
Step-1: (once) Run this in command-prompt

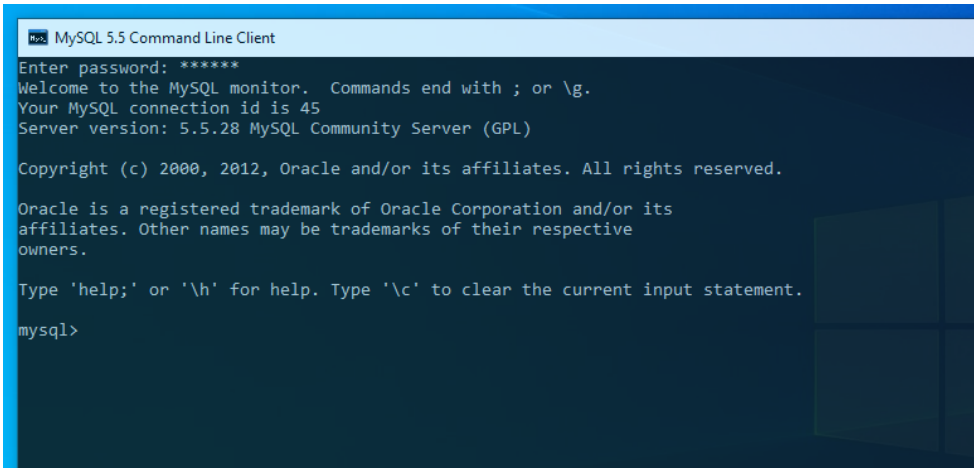
pip install mysql-connector-python



Step-2: start the MySQL client & enter the password and Don't close next screen (Let it run in the background)







Step-3: Write the Python script to connect

```
import mysql.connector
db_connection = mysql.connector.Connect(host='localhost',
                                        user='root',
                                        passwd='your_password')

print(db_connection)
```

Step-4: Creating a Database

```
import mysql.connector
db_connection = mysql.connector.Connect(host='localhost',
                                        user='root',
                                        passwd='your_password')
mycursor = db_connection.cursor()
mycursor.execute("CREATE DATABASE mkr")  #run this once

mycursor.execute("SHOW DATABASES")
for x in mycursor:
  print(x)
```

Option: connecting to an existing database (e.g. "mkr") directly:

```
import mysql.connector

db_connection = mysql.connector.connect(host='localhost',
                                        user='root',
                                        passwd='your_password',
                                        database='mkr')
```

Step-5: Creating a Table (e.g. employee)

```
import mysql.connector

db_connection = mysql.connector.connect(host='localhost',
                                        user='root',
                                        passwd='[redacted]',
                                        database='mkr')
mycursor = db_connection.cursor()

mycursor.execute("CREATE TABLE employee (ename VARCHAR(20), edesg VARCHAR(20), salary VARCHAR(20))") #run this once

mycursor.execute("SHOW TABLES")

for x in mycursor:
  print(x)
```

Step-6: Insert row(s) Into Table

```
sql = "INSERT INTO employee (ename, edesg, salary) VALUES (%s, %s, %s)"
val = ("Pradeep", "Clerk", "52000")
mycursor.execute(sql, val)

db_connection.commit()

print(mycursor.rowcount, "record inserted.")
```

Step-6: Table Content

```
#Listing the records of the above Table
mycursor.execute("SELECT * FROM employee")

myresult = mycursor.fetchall()

for x in myresult:
  print(x)
```

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