**Q.3 Practical List**

MySQL Connector/Python enables Python programs to access MySQL databases, using an API that is compliant with the [Python Database API Specification v2.0 (PEP 249)](http://www.python.org/dev/peps/pep-0249/).

<https://www.w3schools.com/python/python_mysql_getstarted.asp>

Download and install "MySQL Connector":

C:\Users\*Your Name*\AppData\Local\Programs\Python\Python36-32\Scripts>python -m pip install mysql-connector-python

* **connect()** constructor creates a connection to the MySQL server and returns a MySQLConnection object.
* **close()** method is used to close the current cursor object.
* **execute()** method accepts a MySQL query as a parameter and executes the given query.
* **fetchall()** method retrieves all the rows in the result set of a query and returns them as list of tuples. (If we execute this after retrieving few rows it returns the remaining ones)
* **s** returns the number of rows returned/updated in case of SELECT and UPDATE operations.

**Creating a Database**

import mysql.connector  
mydb = mysql.connector.connect(  
  host="localhost",  
  user="yourusername",  
  password="yourpassword"  
)

#Creating a mycursor object using the cursor() method

mycursor = mydb.cursor()  
mycursor.execute("CREATE DATABASE mydatabase")

**Creating a Table**

import mysql.connector  
  
mydb = mysql.connector.connect(  
  host="localhost",  
  user="yourusername",  
  password="yourpassword",  
  database="mydatabase"  
)  
  
mycursor = mydb.cursor()  
  
mycursor.execute("CREATE TABLE customers (name VARCHAR(255), address VARCHAR(255))")

**Insert Into Table**

import mysql.connector  
  
mydb = mysql.connector.connect(  
  host="localhost",  
  user="yourusername",  
  password="yourpassword",  
  database="mydatabase"  
)  
mycursor = mydb.cursor()  
sql = "INSERT INTO customers (name, address) VALUES (%s, %s)"  
val = ("John", "Highway 21")  
mycursor.execute(sql, val)  
**mydb.commit()**print(mycursor.rowcount, "record inserted.")

**Select From a Table**

import mysql.connector  
  
mydb = mysql.connector.connect(  
  host="localhost",  
  user="yourusername",  
  password="yourpassword",  
  database="mydatabase"  
)  
  
mycursor = mydb.cursor()  
mycursor.execute("SELECT \* FROM customers")  
myresult = mycursor.fetchall()  
for x in myresult:  
  print(x)

**Delete Record**

import mysql.connector  
  
mydb = mysql.connector.connect(  
  host="localhost",  
  user="yourusername",  
  password="yourpassword",  
  database="mydatabase"  
)  
  
mycursor = mydb.cursor()  
sql = "DELETE FROM customers WHERE address = 'Mountain 21'"  
mycursor.execute(sql)  
mydb.commit()  
print(mycursor.rowcount, "record(s) deleted")

**Join Two or More Tables**

import mysql.connector  
  
mydb = mysql.connector.connect(  
  host="localhost",  
  user="yourusername",  
  password="yourpassword",  
  database="mydatabase"  
)  
  
mycursor = mydb.cursor()  
  
sql = "SELECT \  
  users.name AS user, \  
  products.name AS favorite \  
  FROM users \  
  INNER JOIN products ON users.fav = products.id"  
  
mycursor.execute(sql)  
  
myresult = mycursor.fetchall()  
  
for x in myresult:  
  print(x)