Menu-Driven Program for SQL Connectivity

import pymysql

conn = pymysql.connect(host="127.0.0.1", user="root", password="")

cur = conn.cursor()

print("No database is selected!\n")

def createDatabase(dbname):

cur.execute(f'CREATE DATABASE IF NOT EXISTS {dbname}')

cur.execute(f'USE {dbname}')

conn.commit()

print(f"{dbname} database selected\n")

def createTable(tname):

query = f"CREATE TABLE IF NOT EXISTS {tname} ("

ans = "yes"

while ans == "yes":

ans = input("Do you want to add more attributes?(yes/no): ")

if ans == "yes":

attributeName = input("Enter attribute name with its constraints: ")

query += attributeName + ", "

query = query[0:len(query)-2]

query += ");"

print(query)

cur.execute(f'{query}')

conn.commit()

print(f"Table {tname} is created successfully!")

def descTable(tname):

query = f"DESC {tname}"

cur.execute(f'{query}')

print("\n")

for x in cur:

print(x)

print("\n")

def insertTuple(tname):

query = f"SELECT COLUMN\_NAME FROM INFORMATION\_SCHEMA.COLUMNS WHERE TABLE\_NAME = '{tname}'"

cur.execute(query)

column\_names = cur.fetchall()

numOfAttr = len(column\_names)

column\_names = [column[0] for column in column\_names]

query = f"INSERT INTO {tname} VALUES("

for column\_name in column\_names:

curAttr = input(f"{column\_name} = ")

query += curAttr + ", ";

query = query[0:len(query)-2]

query += ");"

print(query)

cur.execute(f'{query}')

conn.commit()

print("Tuple inserted successfully!")

def deleteTuples(tname):

query = f"""

SELECT COLUMN\_NAME

FROM INFORMATION\_SCHEMA.KEY\_COLUMN\_USAGE

WHERE TABLE\_NAME = '{tname}'

AND CONSTRAINT\_NAME = 'PRIMARY'

"""

cur.execute(query)

pkey = cur.fetchone()

pkey\_value = int(input(f"Enter {pkey[0]} to delete: "))

query = f"DELETE FROM {tname} WHERE {pkey[0]} = {pkey\_value}"

cur.execute(query)

print("Tuple deleted successfully!\n")

conn.commit()

isContinue = True

while isContinue:

print("1. Create Database")

print("2. Create Table")

print("3. See description of the table")

print("4. Insert a tuple")

print("5. Delete tuple(s)")

print("6. Exit")

print("\n")

choice = int(input("Enter your choice: "))

if choice == 1:

dbname = input("Enter database name: ")

createDatabase(dbname)

elif choice == 2:

tname = input("Enter table name: ")

createTable(tname)

elif choice == 3:

tname = input("Enter table name: ")

descTable(tname)

elif choice == 4:

tname = input("Enter table name: ")

insertTuple(tname)

elif choice == 5:

tname = input("Enter table name: ")

deleteTuples(tname)

elif choice == 6:

isContinue = False

else:

print("Invalid Choice!")

# Output