**Database Assignment Week-7**

**Database Programming with Python**

**By Mohammed Minhaj Uddin.**

**GitHub link:**

**https://github.com/MohammedMinhajUddin/DB-07.git**

**Date: December,16 2022.**

**Installing the connector package using DOS:**

**Command-** pip install mysql-connector-python

A computer screen capture

Description automatically generated with medium confidence

**Creating a User in MySQL and adding privileges:**

**Query:**

CREATE USER "cs509@local" identified BY "cs509pw";

GRANT SELECT,INSERT,DELETE

ON mybusiness.\*TO "cs509@local";

SHOW GRANTS FOR "cs509@local";

Graphical user interface, text, application, email

Description automatically generated

**Display privileges for the user:**

**Graphical user interface, text, application, email

Description automatically generated**

**Connecting MySQL Database:**

**Graphical user interface, text, application, Word

Description automatically generated**

**Command:**

import mysql.connector

from mysql.connector import errorcode

try:

cm\_connection = mysql.connector.connect(

user="cs509",

password="cs509pw",

host="127.0.0.1",

database="mybusiness")

except mysql.connector.Error as err:

if err.errno == errorcode.ER\_ACCESS\_DENIED\_ERROR:

print("Invalid credentials")

elif err.errno == errorcode.ER\_BAD\_DB\_ERROR:

print("Database not found")

else:

print("Cannot connect to database:", err)

else:

# Execute database operations...your queries will go here

print("success!")

cm\_connection.close() # This should be the last line of your program.

**1.Displaying the database table using python:**

**Graphical user interface, text, application

Description automatically generated**

In the following program I have made changes to the code so that the program can print the customer names and their phone numbers from MySQL.

**Command:**

import mysql.connector

from mysql.connector import errorcode

try:

cm\_connection = mysql.connector.connect(

user="cs509",

password="cs509pw",

host="127.0.0.1",

database="mybusiness")

except mysql.connector.Error as err:

if err.errno == errorcode.ER\_ACCESS\_DENIED\_ERROR:

print("Invalid credentials")

elif err.errno == errorcode.ER\_BAD\_DB\_ERROR:

print("Database not found")

else:

print("Cannot connect to database:", err)

# Display customers – form the query, execute the query, print results

else:

customer\_cursor = cm\_connection.cursor()

customer\_query = ("SELECT CustomerName, CustomerPhone FROM customerinfo")

customer\_cursor.execute(customer\_query)

for row in customer\_cursor.fetchall():

print("{} has Phone Number {}".format(row[0], row[1]))

customer\_cursor.close()

cm\_connection.close()

**2.** **Inserting a row in the Employee table:**

**Inserting a row in the employee table:**

**Graphical user interface, text, application, Word

Description automatically generated**

**Displaying the table after inserting the row:**

As we can see the below image a new row with my name has been added.

**Graphical user interface, text, application, Word

Description automatically generated**

**Command:**

import mysql.connector

from mysql.connector import errorcode

try:

cm\_connection = mysql.connector.connect(

user="cs509",

password="cs509pw",

host="127.0.0.1",

database="mybusiness")

except mysql.connector.Error as err:

if err.errno == errorcode.ER\_ACCESS\_DENIED\_ERROR:

print("Invalid credentials")

elif err.errno == errorcode.ER\_BAD\_DB\_ERROR:

print("Database not found")

else:

print("Cannot connect to database:", err)

else:

office\_query = "SELECT officeCode, city FROM offices"

office\_cursor = cm\_connection.cursor()

office\_cursor.execute(office\_query)

for row in office\_cursor.fetchall():

print("{}. {}".format(row[0], row[1]))

office\_cursor.close()

office\_code= input("Enter office number: ")

employee\_number = input ("Enter EmployeeID: ")

first\_name = input("Enter employee first name: ")

last\_name = input("Enter employee last name: ")

email = last\_name+first\_name[0]+"@classicmodels.com"

extension = input("Enter extension: ")

job\_title = input("Enter title: ")

employee\_query = ("INSERT INTO employees "

"(employeeNumber, lastName, firstName, extension, email, officeCode, jobTitle)"

"VALUES (%s, %s, %s, %s, %s, %s, %s)")

employee\_data = (employee\_number, last\_name,first\_name, extension, email, office\_code, job\_title)

try:

employee\_cursor = cm\_connection.cursor()

employee\_cursor.execute(employee\_query, employee\_data)

cm\_connection.commit()

print("Added employee")

employee\_cursor.close()

except mysql.connector.Error as err:

print("\nEmployee not added")

print("Error: {}".format(err))

cm\_connection.close()

**3. Deleting a row from the Employee table:**

**Deleting a row with the last name John.**

**Graphical user interface, text, application, Word

Description automatically generated**

**Table after deleting the first row with the last name John.**

**Graphical user interface, text, application, Word

Description automatically generated**

**Command:**

import mysql.connector

from mysql.connector import errorcode

try:

cm\_connection = mysql.connector.connect(

user="cs509",

password="cs509pw",

host="127.0.0.1",

database="mybusiness")

except mysql.connector.Error as err:

if err.errno == errorcode.ER\_ACCESS\_DENIED\_ERROR:

print("Invalid credentials")

elif err.errno == errorcode.ER\_BAD\_DB\_ERROR:

print("Database not found")

else:

print("Cannot connect to database:", err)

else:

employee\_last = input("Enter employee last name of employee to delete ")

employee\_query = ("DELETE FROM employees "

"WHERE lastName = %s")

employee\_data = (employee\_last,)

try:

employee\_cursor = cm\_connection.cursor()

employee\_cursor.execute(employee\_query, employee\_data)

cm\_connection.commit()

print("Deleted employee")

employee\_cursor.close()

except mysql.connector.Error as err:

print("\nEmployee not updated")

print("Error: {}".format(err))

cm\_connection.close()

**Program used for displaying the table after inserting and deleting rows:**

**Command:**

import mysql.connector

from mysql.connector import errorcode

try:

cm\_connection = mysql.connector.connect(

user="cs509",

password="cs509pw",

host="127.0.0.1",

database="mybusiness")

except mysql.connector.Error as err:

if err.errno == errorcode.ER\_ACCESS\_DENIED\_ERROR:

print("Invalid credentials")

elif err.errno == errorcode.ER\_BAD\_DB\_ERROR:

print("Database not found")

else:

print("Cannot connect to database:", err)

else:

employee\_cursor = cm\_connection.cursor()

employee\_query = ("SELECT employeeNumber, lastName, firstName, extension, email, officeCode, jobTitle FROM employees")

employee\_cursor.execute(employee\_query)

for row in employee\_cursor.fetchall():

print("EmployeeNumber= {}, LastName= {}, FirstName= {}, Extension = {}, Email= {}, OfficeCode = {}, JobTitle = {} ".format(row[0], row[1],row[2],row[3],row[4],row[5],row[6]))

employee\_cursor.close()

cm\_connection.close()