import mysql.connector

# Connect to MySQL

def connect\_to\_mysql():

    try:

        connection = mysql.connector.connect(

            host="localhost",

            user="root",

            password="root123",  # replace with your MySQL password

            database="dbmslab",  # replace with your database name

        )

        if connection.is\_connected():

            print("Connected to MySQL database")

        return connection

    except mysql.connector.Error as err:

        print(f"Error: {err}")

        return None

# Create employees table if it doesn't exist

def create\_table(cursor):

    try:

        cursor.execute("""

        CREATE TABLE IF NOT EXISTS employees (

            id INT PRIMARY KEY,

            name VARCHAR(255),

            department VARCHAR(255)

        )

        """)

        print("Table created or already exists.")

    except mysql.connector.Error as err:

        print(f"Error creating table: {err}")

# Add a new record to the employees table

def add\_record(cursor, connection, emp\_id, emp\_name, emp\_dept):

    try:

        query = "INSERT INTO employees (id, name, department) VALUES (%s, %s, %s)"

        values = (emp\_id, emp\_name, emp\_dept)

        cursor.execute(query, values)

        connection.commit()

        print("Record added successfully!")

    except mysql.connector.Error as err:

        print(f"Error: {err}")

# Delete a record from the employees table

def delete\_record(cursor, connection, employee\_id):

    try:

        query = "DELETE FROM employees WHERE id = %s"

        cursor.execute(query, (employee\_id,))

        connection.commit()

        print(f"Record with id {employee\_id} deleted successfully!")

    except mysql.connector.Error as err:

        print(f"Error: {err}")

# Edit a record in the employees table

def edit\_record(cursor, connection, employee\_id, new\_name):

    try:

        query = "UPDATE employees SET name = %s WHERE id = %s"

        cursor.execute(query, (new\_name, employee\_id))

        connection.commit()

        print(f"Record with id {employee\_id} updated successfully!")

    except mysql.connector.Error as err:

        print(f"Error: {err}")

# Close the connection

def close\_connection(connection):

    if connection.is\_connected():

        connection.close()

        print("MySQL connection closed")

# Main function to demonstrate operations

if \_\_name\_\_ == "\_\_main\_\_":

    # Step 1: Connect to MySQL

    conn = connect\_to\_mysql()

    if conn:

        cursor = conn.cursor()

        # Step 2: Create employees table

        create\_table(cursor)

        # Step 3: Add a record

        print("\nAdding a record:")

        add\_record(cursor, conn, 1, "John Doe", "HR")

        # Step 4: Edit the record

        print("\nEditing the record:")

        edit\_record(cursor, conn, 1, "Jane Doe")

        # Step 5: Delete the record

        print("\nDeleting the record:")

        delete\_record(cursor, conn, 1)

        # Step 6: Close the connection

        close\_connection(conn)

