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BSCS C203

### Finals Lab Task 6. Mysql and Python CRUD using CLI

```
import mysql.connector

# Connect to the MySQL database
conn = mysql.connector.connect(
    host="localhost",
    user="root",
    password="",
    database="testdb"
)

cursor = conn.cursor()

# Insert a New Record
def add_employee():
    name = input("Enter name: ")
    emp_id = input("Enter employee ID: ")
    salary = float(input("Enter salary: "))
    cursor.execute("INSERT INTO employees (name, emp_id, salary)
VALUES (%s, %s, %s)",
               (name, emp_id, salary))
    conn.commit()
    print("Employee added successfully!\n")
    view_employees()

# View all employees
def view_employees():
    cursor.execute("SELECT * FROM employees")
    rows = cursor.fetchall()
    if rows:
        print("\nEmployees List:")
        for row in rows:
            print(row)
    else:
        print("\nNo employees found.")

# Update employee
def update_employee():
    emp_id = input("Enter employee ID to update: ")
    name = input("Enter new name: ")
    salary = float(input("Enter new salary: "))
    cursor.execute("UPDATE employees SET name=%s, salary=%s WHERE emp_id=%s",
                   (name, salary, emp_id))
    conn.commit()
    print("Employee updated successfully!\n")
    view_employees()

# Delete employee
def delete_employee():
    emp_id = input("Enter employee ID to delete: ")
```

```

cursor.execute("DELETE FROM employees WHERE emp_id=%s", (emp_id,))
conn.commit()
print("Employee deleted successfully!\n")
view_employees()

# Search employee
def search_employee():
    print("Search by:")
    print("1. Name")
    print("2. Employee ID")
    choice = input("Enter your choice: ")
    if choice == "1":
        name = input("Enter name to search: ")
        cursor.execute("SELECT * FROM employees WHERE name LIKE %s", ('%' +
name + '%',))
    elif choice == "2":
        emp_id = input("Enter employee ID to search: ")
        cursor.execute("SELECT * FROM employees WHERE emp_id = %s",
(emp_id,))
    else:
        print("Invalid choice.")
        return
    rows = cursor.fetchall()
    if rows:
        print("\nSearch Results:")
        for row in rows:
            print(row)
    else:
        print("\nNo employees found.")

def main():
    while True:
        print("\nCLI Employee Management System")
        print("1. Add New Employee")
        print("2. Display All Employees")
        print("3. Update Employee")
        print("4. Delete Employee")
        print("5. Search Employee")
        print("6. Exit")
        choice = input("Enter your choice: ")
        if choice == "1":
            add_employee()
        elif choice == "2":
            view_employees()
        elif choice == "3":
            update_employee()
        elif choice == "4":
            delete_employee()
        elif choice == "5":
            search_employee()
        elif choice == "6":
            break
        else:
            print("Invalid choice. Please try again.")

if __name__ == '__main__':
    main()

```

## New Record

```
CLI Employee Management System
1. Add New Employee
2. Display All Employees
3. Update Employee
4. Delete Employee
5. Search Employee
6. Exit
Enter your choice: 1
Enter name: imran A
Enter employee ID: 105
Enter salary: 18000
Employee added successfully!
```

```
Employees List:
(101, 'Harry P', 5000.0)
(102, 'James R', 10000.0)
(103, 'David P', 8000.0)
(104, 'chriselle C', 15000.0)
(105, 'imran A', 18000.0)
```

## View all employees

```
CLI Employee Management System
1. Add New Employee
2. Display All Employees
3. Update Employee
4. Delete Employee
5. Search Employee
6. Exit
Enter your choice: 2
```

```
Employees List:
(101, 'Harry P', 5000.0)
(102, 'James R', 10000.0)
(103, 'David P', 8000.0)
(104, 'chriselle C', 15000.0)
(105, 'imran A', 18000.0)
```

## Update employee

```
CLI Employee Management System
1. Add New Employee
2. Display All Employees
3. Update Employee
4. Delete Employee
5. Search Employee
6. Exit
Enter your choice: 3
Enter employee ID to update: 104
Enter new name: chriselle C
Enter new salary: 20000
Employee updated successfully!

Employees List:
(101, 'Harry P', 5000.0)
(102, 'James R', 10000.0)
(103, 'David P', 8000.0)
(104, 'chriselle C', 20000.0)
(105, 'imran A', 18000.0)
```

## Delete employee

```
CLI Employee Management System
1. Add New Employee
2. Display All Employees
3. Update Employee
4. Delete Employee
5. Search Employee
6. Exit
Enter your choice: 4
Enter employee ID to delete: 102
Employee deleted successfully!

Employees List:
(101, 'Harry P', 5000.0)
(103, 'David P', 8000.0)
(104, 'chriselle C', 20000.0)
(105, 'imran A', 18000.0)
```

## Search Employee

```
CLI Employee Management System
1. Add New Employee
2. Display All Employees
3. Update Employee
4. Delete Employee
5. Search Employee
6. Exit
Enter your choice: 5
Search by:
1. Name
2. Employee ID
Enter your choice: 2
Enter employee ID to search: 101

Search Results:
(101, 'Harry P', 5000.0)
```

## Exit

```
CLI Employee Management System
1. Add New Employee
2. Display All Employees
3. Update Employee
4. Delete Employee
5. Search Employee
6. Exit
Enter your choice: 6

Process finished with exit code 0
```

## Invalid

```
CLI Employee Management System
1. Add New Employee
2. Display All Employees
3. Update Employee
4. Delete Employee
5. Search Employee
6. Exit
Enter your choice: 7
Invalid choice. Please try again.
```