ASSIGNMENT NO : 9 (A)

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Batch : TE - B2

PROBLEM STATEMENT :

Database Connectivity: Write a program to implement MySQL/Oracle database connectivity with any front end language to implement Database navigation operations (add, delete, edit etc.)

Program :

```
import mysql.connector

# Establish database connection
  conn = mysql.connector.connect(
  host="localhost",
  user="root",
  password="newpassword",  # Replace with your MySQL password
  database="demo_db"
)
cursor = conn.cursor()

# Menu for CRUD operations
def menu():
  print("\n1. Add Employee\n2. Edit Employee\n3. Delete Employee\n4. View All Employees\n5.
Exit")
  return input("Select an option: ")

# Add employee
def add_employee():
  name = input("Enter name: ")
  dept = input("Enter department: ")
  salary = float(input("Enter salary: "))
  cursor.execute("INSERT INTO employees (name, department, salary) VALUES (%s, %s,
%s)", (name, dept, salary))
  conn.commit()
  print("Employee added successfully!")

# Edit employee
def edit_employee():
```

```
    emp_id = int(input("Enter employee ID to edit: "))
    name = input("Enter new name: ")
    dept = input("Enter new department: ")
    salary = float(input("Enter new salary: "))
    cursor.execute("UPDATE employees SET name=%s, department=%s, salary=%s WHERE
id=%s", (name, dept, salary, emp_id))
    conn.commit()
    print("Employee updated successfully!")

# Delete employee
def delete_employee():
    emp_id = int(input("Enter employee ID to delete: "))
    cursor.execute("DELETE FROM employees WHERE id=%s", (emp_id,))
    conn.commit()
    print("Employee deleted successfully!")

# View all employees
def view_employees():
    cursor.execute("SELECT * FROM employees")
    for row in cursor.fetchall():
        print(row)

# Main loop
while True:
    option = menu()
    if option == "1":
        add_employee()
    elif option == "2":
        edit_employee()
    elif option == "3":
        delete_employee()
    elif option == "4":
        view_employees()
    elif option == "5":
        cursor.close()
        conn.close()
        break
    else:
        print("Invalid option! Please try again.")
```

Terminal output :

```
1. Add Employee
2. Edit Employee
3. Delete Employee
4. View All Employees
5. Exit
Select an option: 1
Enter name: Ronak
Enter department: Computer
Enter salary: 30000
Employee added successfully!

1. Add Employee
2. Edit Employee
3. Delete Employee
4. View All Employees
5. Exit
Select an option: 1
Enter name: Raj
Enter department: IT
Enter salary: 35000
Employee added successfully!

1. Add Employee
2. Edit Employee
3. Delete Employee
4. View All Employees
5. Exit
Select an option: 4
(1, 'Ronak', 'Computer', Decimal('30000.00'))
(2, 'Raj', 'IT', Decimal('35000.00'))

1. Add Employee
2. Edit Employee
3. Delete Employee
4. View All Employees
5. Exit
Select an option: 5
```

Database Output :

```
mysql> CREATE database demo_db;
Query OK, 1 row affected (0.00 sec)
mysql> USE demo_db;
Database changed
mysql> CREATE TABLE employees (
    ->     id INT AUTO_INCREMENT PRIMARY KEY,
    ->     name VARCHAR(255) NOT NULL,
    ->     department VARCHAR(255),
    ->     salary DECIMAL(10, 2)
    -> );
Query OK, 0 rows affected (0.01 sec)
mysql> show * from employees;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to
your MySQL server version for the right syntax to use near '* from employees' at line 1
mysql> SELECT * FROM employees;
Empty set (0.01 sec)
mysql> SELECT * FROM employees;
+----+-------+------------+----------+
| id | name  | department | salary   |
+----+-------+------------+----------+
|  1 | Ronak | Computer   | 30000.00 |
|  2 | Raj   | IT         | 35000.00 |
+----+-------+------------+----------+
2 rows in set (0.00 sec)
```

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