ASSIGNMENT NO : 4 (B)

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Roll No : 26
Batch : TE - B2

PROBLEM STATEMENT :

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

Program :

```
from pymongo import MongoClient

# Establish connection to MongoDB
client = MongoClient("mongodb://localhost:27017/")
db = client["demo_db"]
employees = db["employees"]

# 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: "))
  employee = {"name": name, "department": dept, "salary": salary}
  employees.insert_one(employee)
  print("Employee added successfully!")

# Edit employee
def edit_employee():
  emp_id = input("Enter employee ID to edit: ")  # MongoDB ObjectId is string-based
  name = input("Enter new name: ")
  dept = input("Enter new department: ")
  salary = float(input("Enter new salary: "))
  employees.update_one({"_id": emp_id}, {"$set": {"name": name, "department": dept, "salary": salary}})
```

```
    print("Employee updated successfully!")

# Delete employee
def delete_employee():
    emp_id = input("Enter employee ID to delete: ")
    employees.delete_one({"_id": emp_id})
    print("Employee deleted successfully!")

# View all employees
def view_employees():
    for emp in employees.find():
        print(emp)

# 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":
        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: IT
Enter salary: 40000
Employee added successfully!
```

1. Add Employee
2. Edit Employee
3. Delete Employee
4. View All Employees
5. Exit
Select an option: 4
{'_id': ObjectId('6711211a9a04cfb3730c4d50'), 'name': 'Ronak', 'department': 'IT', 'salary': 40000.0}

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

Database Output :

```
test> use demo_db
switched to db demo_db
demo_db> db.employees.find().pretty()
demo_db> db.employees.find().pretty()
[
  {
    _id: ObjectId('6711211a9a04cfb3730c4d50'),
    name: 'Ronak',
    department: 'IT',
    salary: 40000
  }
]
demo_db>
```

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