

1. Create a class Complex Number with data members as real and imag and add following methods :
 - a. Constructor
 - b. Destructor
 - c. Overload +,- operator

```
class ComplexNumber:
    # Constructor
    def __init__(self, real, imag):
        self.real = real
        self.imag = imag

    # Destructor: called when the object is deleted
    def __del__(self):
        print(f"Complex number {self.real}+{self.imag}i deleted")

    # Overloading + operator to add two complex numbers
    def __add__(self, other):
        return ComplexNumber(self.real + other.real, self.imag + other.imag)

    # Overloading - operator to subtract two complex numbers
    def __sub__(self, other):
        return ComplexNumber(self.real - other.real, self.imag - other.imag)

    # Display complex number nicely
    def __str__(self):
        return f"{self.real}+{self.imag}i"

c1 = ComplexNumber(2, 3)
c2 = ComplexNumber(1, 4)

print("Sum:", c1 + c2)
print("Difference:", c1 - c2)
```

2. Create a class Distance with data members as km,m and cm and add following methods :

a. Constructor

b. Destructor

c. Overload +,- operator

```
class Distance:
```

```
    def __init__(self, km, m, cm):
```

```
        self.km = km
```

```
        self.m = m
```

```
        self.cm = cm
```

```
    def __del__(self):
```

```
        print(f"Distance object {self.km}km {self.m}m {self.cm}cm deleted")
```

```
    def __add__(self, other):
```

```
        return Distance(self.km + other.km, self.m + other.m, self.cm + other.cm)
```

```
    def __sub__(self, other):
```

```
        return Distance(self.km - other.km, self.m - other.m, self.cm - other.cm)
```

```
    def show(self):
```

```
        print(f"{self.km}km {self.m}m {self.cm}cm")
```

```
d1 = Distance(2, 300, 50)
```

```
d2 = Distance(1, 200, 75)
```

```
d3 = d1 + d2
```

```
d3.show()
```

```
d4 = d1 - d2
```

```
d4.show()
```