

## Lab 7:

IBM19CS057  
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```
class Generics <T, U> {
```

```
    T ob1;
```

```
    U ob2;
```

```
    Generics (T x, U y) {
```

```
        ob1 = x;
```

```
        ob2 = y;
```

```
    }  
    T getob1() {  
        return ob1;
```

```
    }  
    U getob2() {  
        return ob2;
```

```
    }  
    void display() {
```

```
        System.out.println("ob1:" + getob1());
```

```
        System.out.println("ob2:" + getob2());
```

```
    }
```

```
    U join() {
```

```
        if (ob1 instanceof Integer && ob2 instanceof Integer)
```

```
        {  
            int i1 = (Integer) getob1();
```

```
            int i2 = (Integer) getob2();
```

```
            return (U) new Integer (i1+i2);
```

```
        }
```

```
        else if (ob1 instanceof Double && ob2 instanceof Double)
```

```
        {  
            double d1 = (Double) getob1();
```

```
            double d2 = (Double) getob2();
```

```
            return (U) new Double (d1+d2);
```

```
        }
```

```
        else if (ob1 instanceof String && ob2 instanceof String)
```

```
        {  
            String s1 = (String) getob1();
```

```
            String s2 = (String) getob2();
```

```
            return (U) new String (s1+s2);
```

```
        }
```

```

else {
    return (v) new String("ERROR: ob1 & ob2 Type Mismatch...");
}
}
}

```

```

public class Lab7 {
    public static void main(String[] args) {
        Generics < Integer, Integer > iobj = new Generics < Integer, Integer >
            (5, 4);

        iobj.display();
        System.out.println("Sum:" + iobj.join());
        System.out.println();

        Generics < Double, Double > dobj = new Generics < Double, Double >
            (3.05, 4.02);

        dobj.display();
        System.out.println("Sum:" + dobj.join());
        System.out.println();

        Generics < String, String > sobj = new Generics < String, String >
            ("Hello.", "How are you?");

        sobj.display();
        System.out.println("Concatenation:" + sobj.join());
        System.out.println();
    }
}

```