**/*Java Application to demonstrate Returning Reference from a Method to Caller */**

```
import java.util.Scanner;
class ComplexNo{
private int real,imag;
void insert(int r, int i){
real=r;
imag=i;
}
void display(){
if (imag>0)
System.out.println(real+"+"+imag+"i");
else
System.out.println(real+""+imag+"i");
}
ComplexNo addComplexNo(ComplexNo x){
ComplexNo C=new ComplexNo();
C.real=real+x.real;
C.imag=imag+x.imag;
return(C);
```

**//Returning Reference to Caller**

```
}
```

**}//Close of class ComplexNo**

```
class OComplexNo{
public static void main(String args[]){
Scanner s=new Scanner(System.in);
```

```
ComplexNo C1=new ComplexNo();
ComplexNo C2=new ComplexNo();
System.out.println();
System.out.print("Enter value for first complex no. ::");
int real1=s.nextInt();
int imag1=s.nextInt();
//System.out.println(real1);
//System.out.println(imag1);
C1.insert(real1,imag1);
C1.display();
System.out.print("Enter value for second complex no. ::");
int real2=s.nextInt();
int imag2=s.nextInt();
//System.out.println(real2);
//System.out.println(imag2);
C2.insert(real2,imag2);
C2.display();
ComplexNo Y=C1.addComplexNo(C2);
System.out.println("After addition of First and Second Complex No.--");
Y.display();
}//Close of main
}//Close of class OComplexNo
```

## //OUTPUT

Enter value for first complex no. ::5

4

5+4i

Enter value for second complex no. ::4

-2

4-2i

After addition of First and Second Complex No.--

9+2i

## /*Java Application to demonstrate Returning Reference from a Method to Caller */

```
import java.util.Scanner;
class Distance{
private int feet, inch;
void input(int f, int i){
feet=f;
inch=i;
}
void output(){
if(inch>=12){
feet=feet+inch/12;
inch=inch%12;
}
System.out.println("Measured Lenfth="+feet+"'"+inch+"\"");
}
```

```
Distance addDistance(Distance x){
Distance temp=new Distance();
temp.feet=feet+x.feet;
temp.inch=inch+x.inch;
return(temp);                    //Returning Reference to Caller
}
}//Close of class Distance
class ODistance{
public static void main(String args[]){
Scanner s=new Scanner(System.in);
Distance D1=new Distance();
Distance D2=new Distance();
System.out.println();
System.out.print("Enter measured lenfth of first Object ::");
int feet1=s.nextInt();
int inch1=s.nextInt();
//System.out.println(feet1);
//System.out.println(inch1);
D1.input(feet1,inch1);
D1.output();
System.out.print("Enter measured lenfth of second Object ::");
int feet2=s.nextInt();
int inch2=s.nextInt();
//System.out.println(feet2);
//System.out.println(inch2);
```

```
D2.input(feet2,inch2);

D2.output();

Distance Y=D1.addDistance(D2);

System.out.println("After addition of First and Second Object Distance--");

Y.output();
```

**}//Close of main**

**}//Close of class ODistance**

# //OUTPUT

```
Enter measured lenfth of first Object ::5

10

Measured Lenfth=5'10"

Enter measured lenfth of second Object ::6

11

Measured Lenfth=6'11"

After addition of First and Second Object Distance--

Measured Lenfth=12'9"
```