

**/\*Java Application to show the case of "Call-by-Reference" method/technique" \*/**

```
import java.util.Scanner;
```

```
class Complex{
```

```
private int real,imag;
```

```
void read(int r, int i){
```

```
real=r; imag=i;
```

```
}
```

```
void show(){
```

```
String ch="+";
```

```
if(imag<0)
```

```
ch="";
```

```
System.out.println(real+ch+imag+"i");
```

```
}
```

```
Complex addComplex(Complex T){
```

```
Complex tmp=new Complex();
```

```
tmp.real=real+T.real;
```

```
tmp.imag=imag+T.imag;
```

```
return(tmp);
```

```
}
```

```
}//Close of class Complex
```

```
class OComplex{
```

```
public static void main(String args[]){
```

```
Scanner s=new Scanner(System.in);
```

```

Complex C1=new Complex();

Complex C2=new Complex();

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.read(real1,imag1);

C1.show();

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.read(real2,imag2);

C2.show();

System.out.println("After addition of first and second Complex no.--");

Complex C=C1.addComplex(C2);           //Call-by-Reference

C.show();

}//Close of main

}//Close of class OComplex

```

## **//OUTPUT**

Enter value for first complex no. ::5

$5+4i$

Enter value for second complex no. ::3

-1

$3-1i$

After addition of first and second Complex no.--

$8+3i$

Call-by-Reference