

```
package JavaProject;
```

```
//OOPS Concepts
```

```
class One {
```

```
    public void display() {
```

```
        System.out.println("One");
```

```
    }
```

```
}
```

```
//inheritance
```

```
class Two extends One {
```

```
    @Override
```

```
    public void display() {
```

```
        System.out.println("Two");
```

```
    }
```

```
    public int add(int x, int y) {
```

```
        return x+y;
```

```
}
```

```
//Overload
```

```
public double add(double x,double y) {
```

```
return x+y;
```

```
}
```

```
}
```

```
//encapsulation example
```

```
class EncapTest {
```

```
private String name;
```

```
public String getName() {
```

```
return name;
```

```
}
```

```
public void setName(String newName) {
```

```
name = newName;
```

```
}
```

```
}
```

```
//abstraction
```

```
abstract class TwoWheeler {
```

```
public abstract void run();
```

```
}
```

```
class Honda extends TwoWheeler{
```

```
public void run(){
```

```
System.out.println("\nbike is Running..");
```

```
}
```

```
}
```

```
class MainClass {
```

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

```
One a=new One();
```

```
a.display();
```

```
Two b=new Two();
```

```
b.display();
```

```
System.out.println(b.add(4,2));
```

```
System.out.println(b.add(5.,2.)); //polymorphism
```

```
EncapTest encap = new EncapTest();
```

```
encap.setName("Sandeep's");
```

```
System.out.print("Name : " + encap.getName() );
```

```
TwoWheeler test = new Honda();
```

```
test.run();
```

```
//Arithmetic operators
```

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

```
    System.out.println("Arithmetic operators are:");
```

```
    int a1 = 20;
```

```
    int b1 = 10;
```

```
    int sum = a1+b1;
```

```
    System.out.println("Sum is: "+(sum));
```

```
    System.out.println("Substraction is:" +(a1-b1));
```

```
    System.out.println("Multiplication is:" +(a1*b1));
```

```
    System.out.println("Division is:" +(a1/b1));
```

```
    System.out.println("Modulo is:" +(a1%b1));
```

//Assignment Operators

```
int x = 35;  
x += 3;  
System.out.println("The Result is:" + (x));
```

```
int num = 5;  
num -= 3;  
System.out.println(num);
```

```
int Y = 5;  
Y *= 3;  
System.out.println(Y);
```

```
int number = 60;  
number /= 10;  
System.out.println(number);
```

```
int n = 5;  
n >>= 3;  
System.out.println(n);
```

```
int R = 5;  
R <<= 1;  
System.out.println(R);
```

```
int K = 10;  
K ^= 2;  
System.out.println(K);
```

```
//comparison operators
```

```
int a11 = 4;
```

```
int b11 = 5;
```

```
System.out.println(a11>b11);
```

```
int M = 10;
```

```
int N = 5;
```

```
System.out.println(M<N);
```

```
int k = 3;
```

```
int L = 3;
```

```
System.out.println(K == L);
```

```
int p = 5;
```

```
int q = 3;
```

```
System.out.println(p != q);
```

```
int S = 5;
```

```
int T = 3;
```

```
System.out.println(S >= T);
```

```
int num1 = 5;
```

```
int num2 = 3;
```

```
System.out.println(num1 <= num2);
```

```
//Logical operators
```

```
int N1 = 20;  
System.out.println("The Result of AND is:" + (x > 6 && x < 10));
```

```
int Y1 = 17;  
System.out.println("The result of OR is:" + (Y1 > 3 || Y1 < 4));
```

```
int Z = 5;  
System.out.println("The result of NOT is:" + !(Z > 3 && Z < 10));
```

```
//Array  
int a111[]=new int[5];//declaration and instantiation  
a111[0]=10;//initialization  
a111[1]=20;  
a111[2]=70;  
a111[3]=40;  
a111[4]=50;  
//traversing array  
for(int i=0;i<a111.length;i++)//length is the property of array  
System.out.println(a111[i]);
```

```
//for loop  
int i;  
for(i=1; i<=5; i=i+1)  
{  
    System.out.println("Welcome to Edubridge");  
}
```

```
//while loop  
int O = 1;
```

```
while(O<=5)
{
    System.out.println("Hello World");
    O=O+1;
```

```
//do while loop
int var=1;
do
{
    System.out.println(var);
    var=var+1;
}
while(var<=10);
```

```
//break statement
int i1;
for(i1=2; i1<=50; i1=i1+2)
{
    if(i1==10)
    {
        break;
    }
    System.out.print(i1 + " ");
}
}
}
```


