BITWISE RIGHT SHIFT OPERATOR IN JAVA

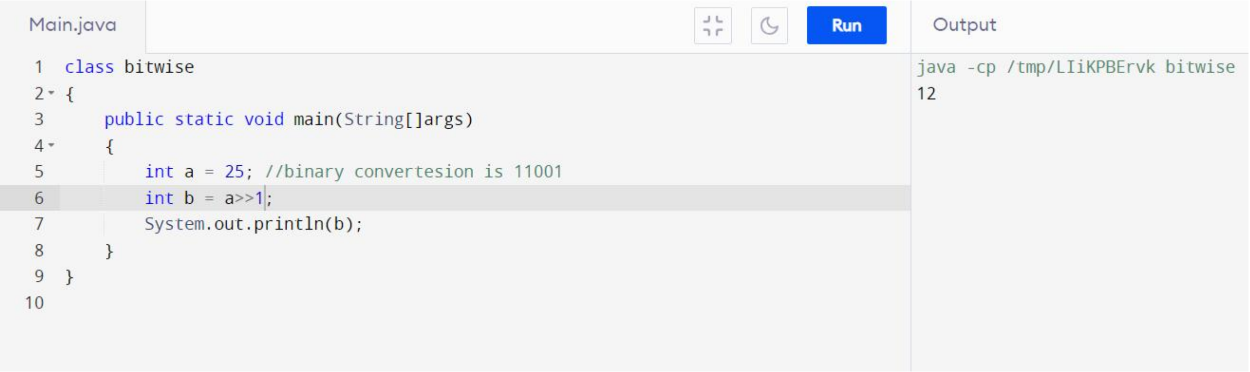
- **When we type x>>n, you tell the computer to move the bits x to the right n places.**
- **When the value of a number is shifted to the right "n" places the right most "n" bits are lost.**

Syntax :

Left_operand>>n

⇨ **Right shift by 1 Divides the number by 2 in java**

Ex: let's take a number 25 the output would be 12



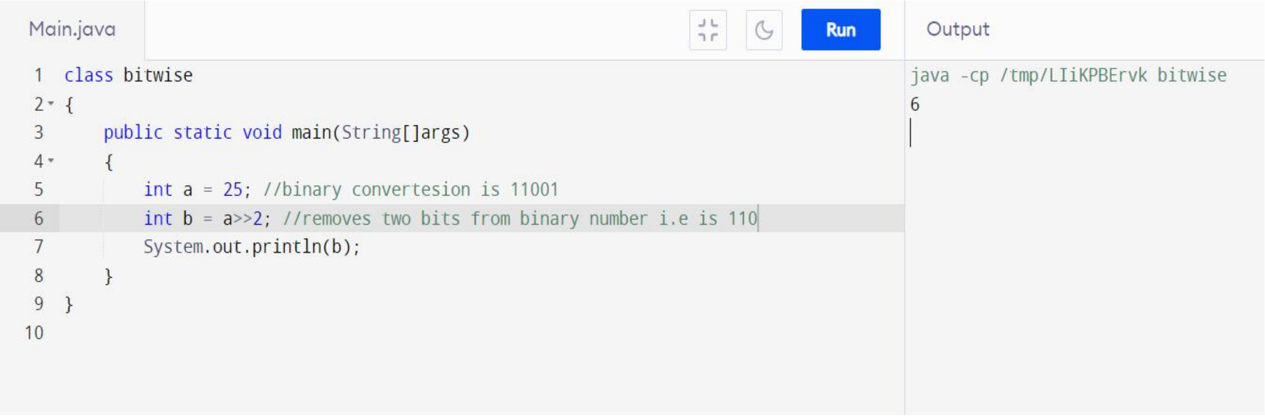
```java
class bitwise
{
    public static void main(String[]args)
    {
        int a = 25; //binary convertesion is 11001
        int b = a>>1;
        System.out.println(b);
    }
}
```

```
java -cp /tmp/LIiKPBErvk bitwise
12
```

⇨ **Right shift by 2 removes two bits from right side of a binary number**

Ex: 25 →binary conversion is 11001

→11001>>2 would be 110 therefore the value of binary number 110 is "6 ".



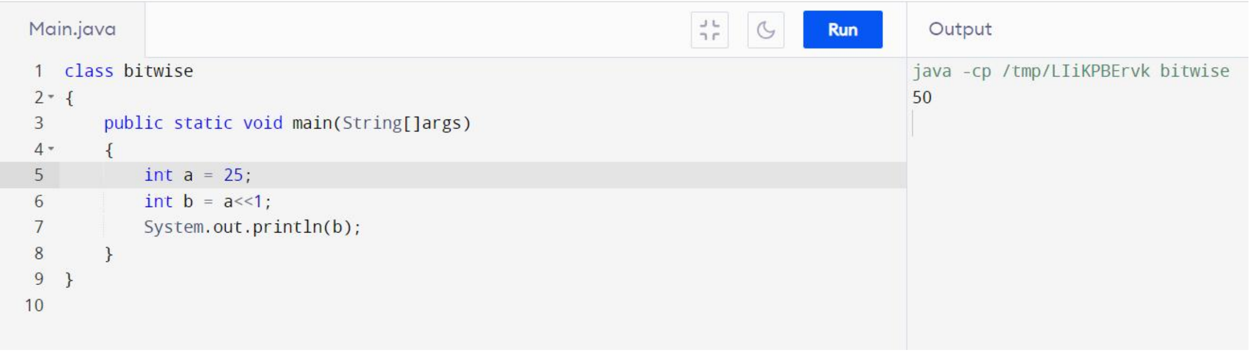
```
class bitwise
{
    public static void main(String[]args)
    {
        int a = 25; //binary convertesion is 11001
        int b = a>>2; //removes two bits from binary number i.e is 110
        System.out.println(b);
    }
}
```

```
java -cp /tmp/LIiKPBErvk bitwise
6
```

BITWISE LEFT SHIFT OPERATOR IN JAVA

⇨ **Left shift by 1 Multiplies the number by 2 in java**

Ex: 25 number multiplied by two in left shift by 1 is 50



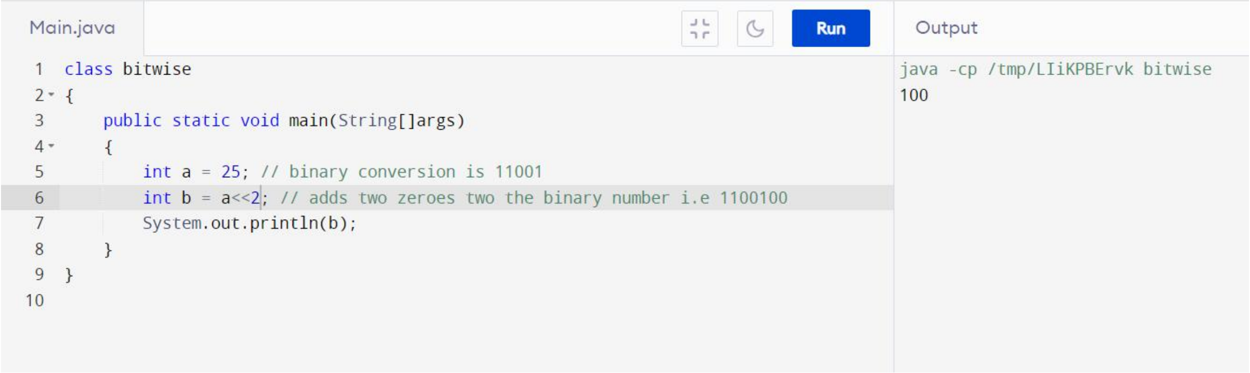
```
class bitwise
{
    public static void main(String[]args)
    {
        int a = 25;
        int b = a<<1;
        System.out.println(b);
    }
}
```

```
java -cp /tmp/LIiKPBErvk bitwise
50
```

⇨ **Left shift by 2 adds two zeroes two a binary number**

Ex: 25 binary conversion is 11001 after left shift by 2 it will become 1100100

The value is 100



```java
class bitwise
{
    public static void main(String[]args)
    {
        int a = 25; // binary conversion is 11001
        int b = a<<2; // adds two zeroes two the binary number i.e 1100100
        System.out.println(b);
    }
}
```

```
java -cp /tmp/LIiKPBErvk bitwise
100
```