

## Java Basic Programs

```
package JavaTestProject;
public class ClassOne {
    public static void main(String[] args) {

        System.out.println("-----Program 1-----");

        int a = 2, b = 3;
        System.out.println("Arithmetic operation (a+b) " + (a + b));
        System.out.println("Bitwise operation (a|b)" + (a | b));
        System.out.println("Shift operation (a<<b) " + (a << b));

        System.out.println("-----Program 2-----");
        int primeNumber = 5, temp;
        boolean isPrime = true;
        for (int i = 2; i <= primeNumber / 2; i++) {
            temp = primeNumber % i;
            if (temp == 0) {
                isPrime = false;
                break;
            }
        }
        if (isPrime)
            System.out.println(primeNumber + " is a Prime Number");
        else
            System.out.println(primeNumber + " is not a Prime Number");

        System.out.println("-----Program 3-----");
        int year = 2022;
        boolean leap = false;

        if (year % 4 == 0) {
            if (year % 100 == 0) {
                if (year % 400 == 0)
                    leap = true;
                else
                    leap = false;
            } else
                leap = true;
        } else
            leap = false;
    }
}
```

```

    if (leap)
        System.out.println(year + " is a leap year.");
    else
        System.out.println(year + " is not a leap year.");

    System.out.println("-----Program 4-----");
    System.out.println("Sum of first 10 numbers is " + (10 * (10 + 1) / 2));

    System.out.println("-----Program 5-----");
    int expression = 3;

    switch (expression) {
    case 1:
        System.out.println("Case is 1"); break;

    case 2:
        System.out.println("Case is 2");break;

    case 3:
        System.out.println("Case 3");break;

    default:
        System.out.println("Default case");
    }
}
}

```

## **OUTPUT**

```

<terminated> ClassOne [Java Application] C:\Users\romap\l
-----Program 1-----
Arithmetic operation (a+b) 5
Bitwise operation (a|b)3
Shift operation (a<<b) 16
-----Program 2-----
5 is a Prime Number
-----Program 3-----
2022 is not a leap year.
-----Program 4-----
Sum of first 10 numbers is 55
-----Program 5-----
Case 3
|

```