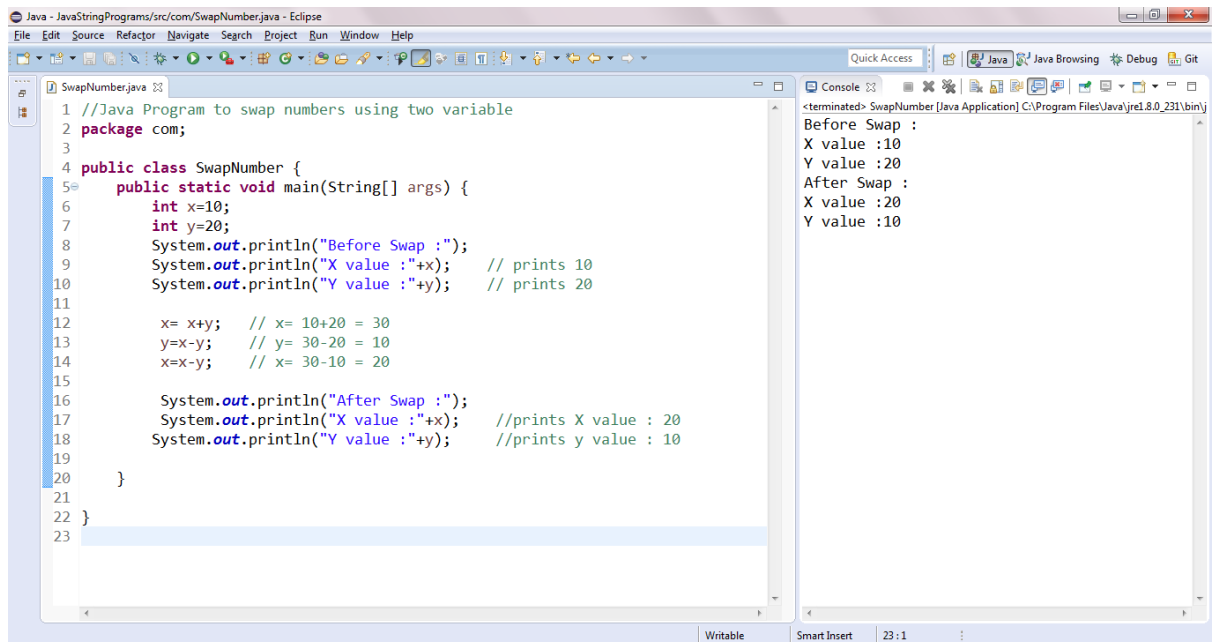


Simple Java Interview Programs

Java program for swap two number

Swap two numbers means exchange the values of two variables with each other. For example variable num1 contains 10 and num2 contains 20 after swap there values num1 contains 20 and num2 contains 10

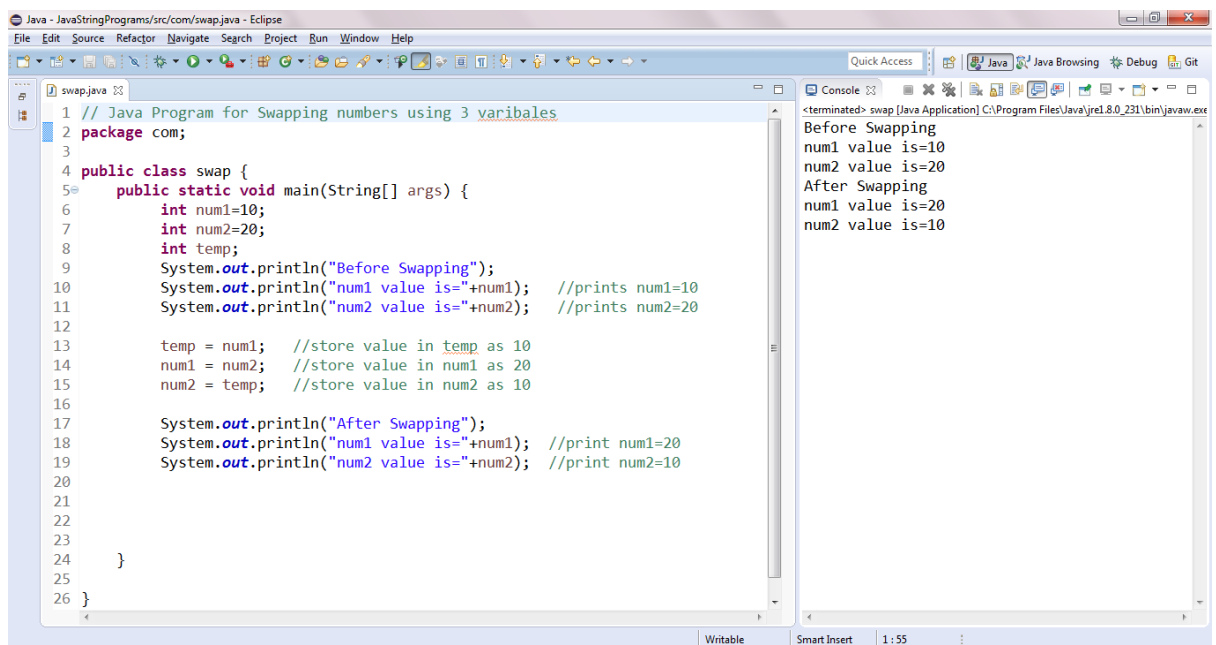


The screenshot shows the Eclipse IDE with a Java file named `SwapNumber.java`. The code uses arithmetic operations to swap two numbers, `x` and `y`, with initial values 10 and 20 respectively. The console output shows the state before and after the swap.

```
1 //Java Program to swap numbers using two variable
2 package com;
3
4 public class SwapNumber {
5     public static void main(String[] args) {
6         int x=10;
7         int y=20;
8         System.out.println("Before Swap :");
9         System.out.println("X value :"+x); // prints 10
10        System.out.println("Y value :"+y); // prints 20
11
12        x= x+y; // x= 10+20 = 30
13        y=x-y; // y= 30-20 = 10
14        x=x-y; // x= 30-10 = 20
15
16        System.out.println("After Swap :");
17        System.out.println("X value :"+x); //prints X value : 20
18        System.out.println("Y value :"+y); //prints y value : 10
19    }
20 }
21
22
23
```

Console Output:

```
<terminated> SwapNumber [Java Application] C:\Program Files\Java\jre1.8.0_231\bin\j
Before Swap :
X value :10
Y value :20
After Swap :
X value :20
Y value :10
```



The screenshot shows the Eclipse IDE with a Java file named `swap.java`. The code uses a temporary variable `temp` to swap two numbers, `num1` and `num2`, with initial values 10 and 20 respectively. The console output shows the state before and after the swap.

```
1 // Java Program for Swapping numbers using 3 variables
2 package com;
3
4 public class swap {
5     public static void main(String[] args) {
6         int num1=10;
7         int num2=20;
8         int temp;
9         System.out.println("Before Swapping");
10        System.out.println("num1 value is="+num1); //prints num1=10
11        System.out.println("num2 value is="+num2); //prints num2=20
12
13        temp = num1; //store value in temp as 10
14        num1 = num2; //store value in num1 as 20
15        num2 = temp; //store value in num2 as 10
16
17        System.out.println("After Swapping");
18        System.out.println("num1 value is="+num1); //print num1=20
19        System.out.println("num2 value is="+num2); //print num2=10
20    }
21 }
22
23
24 }
25
26 }
```

Console Output:

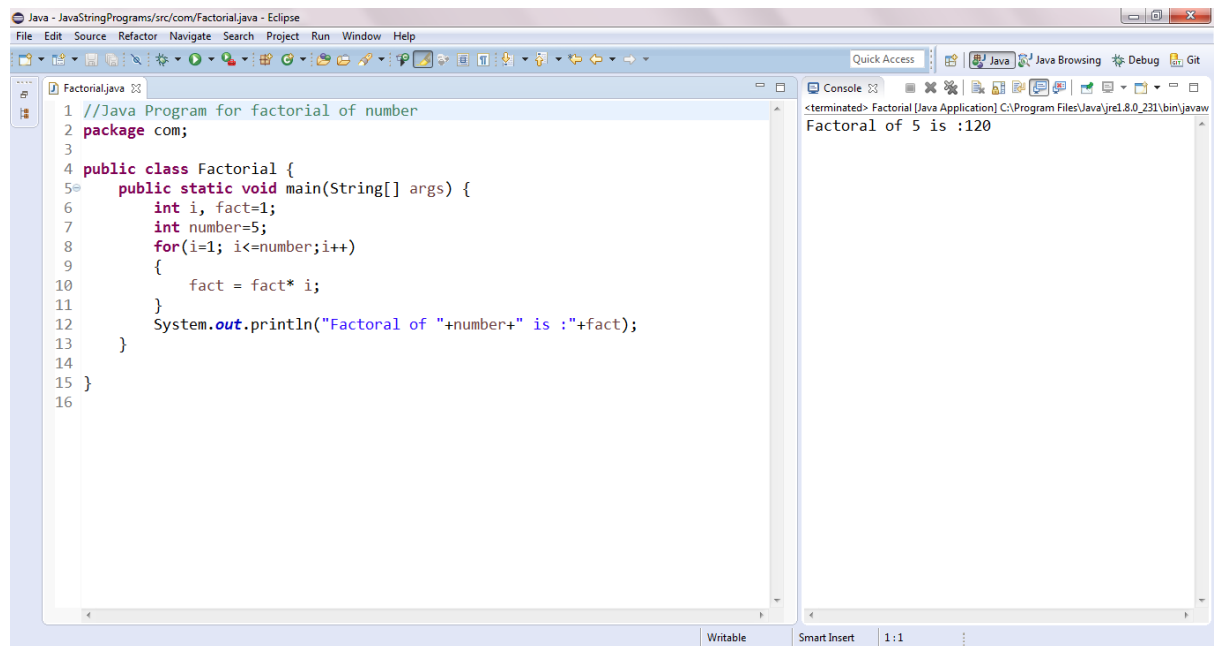
```
<terminated> swap [Java Application] C:\Program Files\Java\jre1.8.0_231\bin\javaw.exe
Before Swapping
num1 value is=10
num2 value is=20
After Swapping
num1 value is=20
num2 value is=10
```

Java Program for Factorial of Number

Factorial means the product of all positive integers less than or equal to a given positive integer and denoted by that integer

Example

$$5! = 5*4*3*2*1 = 120$$



```
1 //Java Program for factorial of number
2 package com;
3
4 public class Factorial {
5     public static void main(String[] args) {
6         int i, fact=1;
7         int number=5;
8         for(i=1; i<=number;i++)
9         {
10             fact = fact* i;
11         }
12         System.out.println("Factorial of "+number+" is :"+fact);
13     }
14 }
15 }
16 }
```

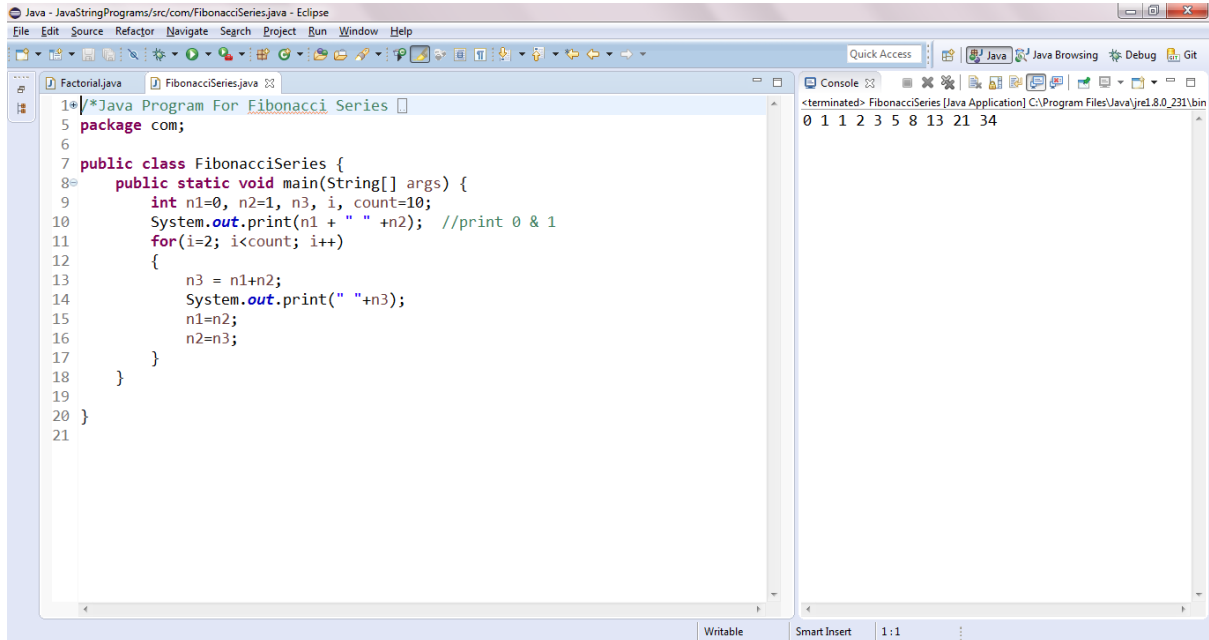
Console Output: <terminated> Factorial [Java Application] C:\Program Files\Java\jre1.8.0_231\bin\javaw
Factorial of 5 is :120

Logic

	Condition	fact= fact* i	value of i
i=1	1<=5 True	fact= 1x1 =1	i++
i=2	2<=5 True	fact= 1x2 =2	i++
i=3	3<=5 True	fact=2*3=6	i++
i=4	4<=5 True	fact=6*4=24	i++
i=5	5<=5 True	fact= 24* 5= 120	i++
i=6	6<=5 False		

Java Program for Fibonacci Series

A series of numbers in which each number (*Fibonacci number*) is the sum of the two preceding numbers. The simplest is the series 1, 1, 2, 3, 5, 8, 13, 21, 34 etc.



```
1/*Java Program For Fibonacci Series
5package com;
6
7public class FibonacciSeries {
8    public static void main(String[] args) {
9        int n1=0, n2=1, n3, i, count=10;
10       System.out.print(n1 + " " + n2); //print 0 & 1
11       for(i=2; i<count; i++)
12       {
13           n3 = n1+n2;
14           System.out.print(" " + n3);
15           n1=n2;
16           n2=n3;
17       }
18   }
19 }
20 }
21 }
```

Console Output: 0 1 1 2 3 5 8 13 21 34

Logic

	i<count	n3=n1+n2	n1=n2 stores n2 value into n1	n2=n3 stores n3 value into n2	increment
i=2	2<10 True	n3= 0+1 =1	n1=1	n2=1	i++
i=3	3<10 True	n3= 1+1 =2	n1=1	n2=2	i++
i=4	4<10 True	n3=1+2= 3	n1=2	n2=3	i++
i=5	5<10 True	n3=2+3 =5	n1=3	n2=5	i++
i=6	6<10 True	n3=3+5=8	n1=5	n2=8	i++
i=7	7<10 True	n3=5+8=13	n1=8	n2=13	i++
i=8	8<10 True	n3=8+13=21	n1=13	n2=21	i++
i=9	9<10 True	n3=13+21=34	n1=21	n2=34	i++
i=10	10<10 False				

Java Program Reverse Number

```

1 //Java Program for Reverse Number
2 package com;
3
4 public class ReverseNumber {
5     public static void main(String[] args) {
6         int number = 1234;
7         int reverse = 0;
8         int temp =0;
9         while(number>0)
10            {
11                temp = number%10;
12                reverse= reverse*10+temp;
13                number = number/10;
14            }
15        System.out.println("Reverse of number is :"+reverse);
16    }
17 }
18
19 }
20

```

Console Output: <terminated> ReverseNumber [Java Application] C:\Program Files\Java\jre1.8.0_231\bin
Reverse of number is :4321

Logic

	temp	Reverse	number
number > 0	temp=number % 10	Reverse=reverse*10+temp	number=number/10
1234 > 0 True	temp=1234 % 10=4	Reverse=0*10 + 4= 4	number=1234/10 = 123
123 > 0 True	temp= 123 % 10 = 3	Reverse= 4*10 + 3 = 43	number=1234/10 = 12
12 > 0 True	temp = 12%10 =2	Reverse= 43*10+2= 432	number= 12/10=1
1>0 True	temp= 1%10=1	Reverse = 432*10+1= 4321	number= 1/10=0
0>0 False			