1.SWAP NUMBER

```
package task1;
import java.util.Scanner;
public class Swap {
public static void main(String[] args) {
        Four1 w= new Four1();
        w.two();
        w.two1();
        w.three();
        w.three1();
        w.four();
        w.four1();
}
}
class  Two {
 Scanner s = new Scanner(System.in);
 public void two() {
         System.out.println("Two number swap with third variable:");
                System.out.println("Enter a First Number:");
                int a=s.nextInt();
                System.out.println("Enter a Second Number:");
                int b=s.nextInt();

                int temp=a;
                a=b;
                b=temp;

                System.out.println("Before swap:");
                System.out.println(a);
                System.out.println(b);
                }
        }
class Two1 extends Two{
        public void two1() {
```

```
                System.out.println("\nTwo number swap without third
variable:");
                System.out.println("Enter a First Number:");
            int a=s.nextInt();
                System.out.println("Enter a Second Number:");
                int b=s.nextInt();
                a=a+b;
                b=a-b;
                a=a-b;
                System.out.println("Before swap:");
                System.out.println(a);
                System.out.println(b);
        }

}
class Three extends Two1{
        public void three() {
        System.out.println("\nThree number swap with fourth
variable:");
    System.out.println("Enter a First Number:");
    int a=s.nextInt();
    System.out.println("Enter a Second Number:");
    int b=s.nextInt();
    System.out.println("Enter a Third Number:");
    int c=s.nextInt();

int temp=a;
a=b;
b=c;
c=temp;

System.out.println("Before swap:");
System.out.println(a);
System.out.println(b);
System.out.println(c);
}
```

```
}
class Three1 extends Three{
        public void three1() {
        System.out.println("\nThree number swap without fourth
variable:");
    System.out.println("Enter a First Number:");
    int a=s.nextInt();
    System.out.println("Enter a Second Number:");
    int b=s.nextInt();
    System.out.println("Enter a Third Number:");
    int c=s.nextInt();

    a=a*b*c;
    b=a/(b*c);
    c=a/(b*c);
    a=a/(b*c);


System.out.println("Before swap:");
System.out.println(a);
System.out.println(b);
System.out.println(c);
}
}

class Four extends Three1{
        public void four() {
                System.out.println("\n Four number swap with fifth
variable:");
            System.out.println("Enter a First Number:");
            int a=s.nextInt();
            System.out.println("Enter a Second Number:");
            int b=s.nextInt();
            System.out.println("Enter a Third Number:");
            int c=s.nextInt();
            System.out.println("Enter a Fourth Number:");
            int d=s.nextInt();
```

```
        int temp1=a;
        int temp2=b;
        int temp3=c;
        a=d;
        b=temp1;
        c=temp2;
        d=temp3;


      System.out.println("Before swap:");
      System.out.println(a);
      System.out.println(b);
      System.out.println(c);
      System.out.println(d);
      }
      }


class Four1 extends Four{
      public void four1() {
            System.out.println("\n Four number swap without fifth
variable:");
        System.out.println("Enter a First Number:");
        int a=s.nextInt();
        System.out.println("Enter a Second Number:");
        int b=s.nextInt();
        System.out.println("Enter a Third Number:");
        int c=s.nextInt();
        System.out.println("Enter a Fourth Number:");
        int d=s.nextInt();

       int sum=a+b+c+d;
       b=sum-(b+c+d);
       c=sum-(b+c+d);
       d=sum-(b+c+d);
```

```
    a=sum-(b+c+d);

    System.out.println("Before swap:");
    System.out.println(a);
    System.out.println(b);
    System.out.println(c);
    System.out.println(d);
    }
    }
```

OUTPUT:

```
Two number swap with third variable:
Enter a First Number:
2
Enter a Second Number:
3
Before swap:
3
2

Two number swap without third variable:
Enter a First Number:
4
Enter a Second Number:
5
Before swap:
5
4

Three number swap with fourth variable:
Enter a First Number:
5
Enter a Second Number:
```

6
Enter a Third Number:
7
Before swap:
6
7
5

Three number swap without fourth variable:
Enter a First Number:
4
Enter a Second Number:
6
Enter a Third Number:
7
Before swap:
7
4
6

Four number swap with fifth variable:
Enter a First Number:
3
Enter a Second Number:
4
Enter a Third Number:
6
Enter a Fourth Number:
7
Before swap:
7
3
4
6

Four number swap without fifth variable:
Enter a First Number:

9
Enter a Second Number:
7
Enter a Third Number:
5
Enter a Fourth Number:
4
Before swap:
4
9
7
5