Static methods and Array of Objects

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Same class

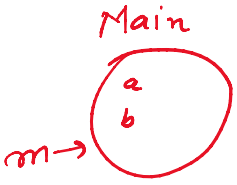
```
import java.util.*;

public class Main
{
        public static void main(String[] args)
        {
           int n;
           Scanner s=new Scanner(System.in);
                System.out.println("Enter a number");
                n=s.nextInt();
                System.out.println("Factorial is "+Fact(n));
        }
        static int Fact(int n)
        {
           if(n==1)
           return 1;
           else
           return n*Fact(n-1);
        }
}
```

Different class.

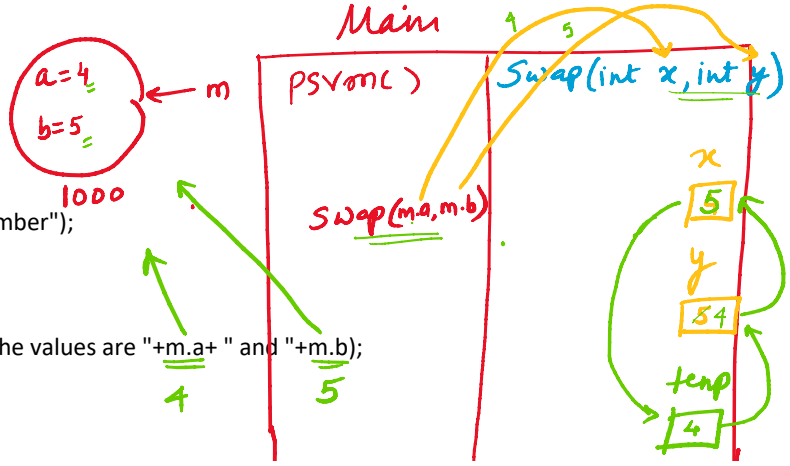
```
import java.util.*;

public class Main
{
        public static void main(String[] args)
        {
           int n;
           Scanner s=new Scanner(System.in);
                System.out.println("Enter a number");
                n=s.nextInt();
                System.out.println("Factorial is
                "+DJ.Fact(n));
        }
}
class DJ
{
        static int Fact(int n)
        {
           if(n==1)
           return 1;
           else
           return n*Fact(n-1);
        }
}
```

Call by value

```
public class Main
{
   int a,b;
        public static void main(String[] args)
        {
           Scanner s=new Scanner(System.in);
           Main m=new Main();
                System.out.println("Enter two number");
           m. a=s.nextInt();
           m. b=s.nextInt();
                System.out.println("Factorial is "+DJ.Fact(n));
        }
```

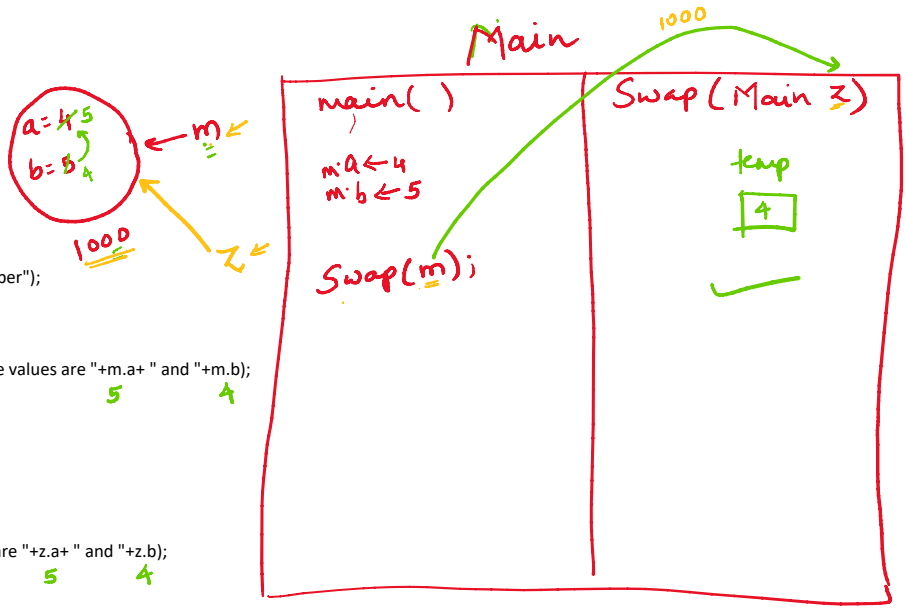



```
    import java.util.*;

    public class Main
    {
       int a,b;
            public static void main(String[] args)
            {
               Scanner s=new Scanner(System.in);
               Main m=new Main();
                    System.out.println("Enter two number");
                    m.a=s.nextInt();
                    m.b=s.nextInt();
                    swap(m.a,m.b);
                    System.out.println("after swap() the values are "+m.a+ " and "+m.b);
            }
            static void swap(int x,int y)
            {
```



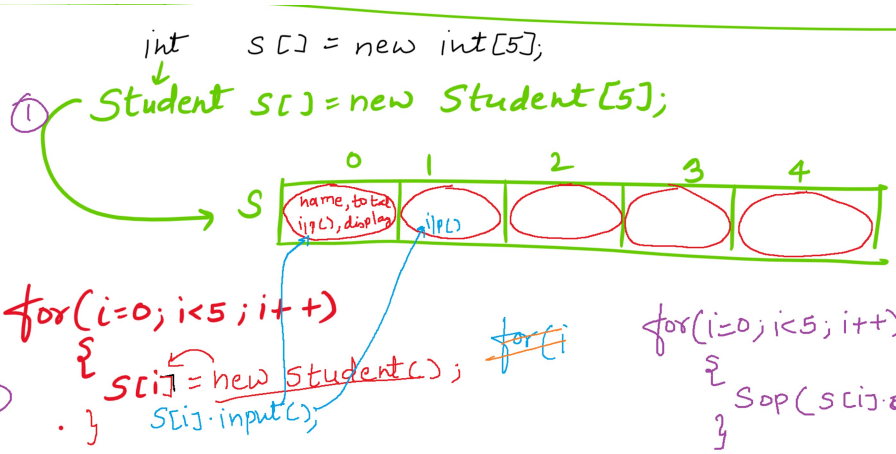
```
    }
    static void swap(int x,int y)
    {
        int temp;
        temp=x;
        x=y;
        y=temp;
        System.out.println("In swap() the values are "+x+ " and "+y);
    }
}
```


```
import java.util.*;

public class Main
{
   int a,b;
        public static void main(String[] args)
        {
           Scanner s=new Scanner(System.in);
           Main m=new Main();
                System.out.println("Enter two number");
                m.a=s.nextInt(); 4
                m.b=s.nextInt(); 5
              swap(m);
                System.out.println("after swap() the values are "+m.a+ " and "+m.b);
        }
        static void swap(Main z)
        {
           int temp;
           temp=z.a;
           z.a=z.b;
           z.b=temp;
           System.out.println("In swap() the values are "+z.a+ " and "+z.b);
        }
}
```



Array of Objects

```
class Student
{ String name;
  int total;
  void input()
  { name←
    total←
  }
  void display()
  { Sop(name,total);
  }
}
```




```
import java.util.*;

public class Main
{
        public static void main(String[] args)
        {
           Student s[]=new Student[3];
           for(int i=1;i<3;i++)
           {
              s[i]=new Student();
              s[i].input();
           }
           for(int i=1;i<3;i++)
           {
            s[i].display();
           }
        }
```

```
}
class Student
{
   String name;
   int total;
   Scanner s=new Scanner(System.in);
   void input()
   {
      System.out.println("Please enter name and total");
      name=s.nextLine();
      total=s.nextInt();
   }
   void display()
   {
      System.out.print("name and total is "+name+ " and "+total);
   }
}
```