

## Java Assignment-Arrays

Print the Elements of an Array

```
package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }
        System.out.println("Array is ");
        for(i=0;i<5;i++)
        {
            System.out.print(array1[i]);
        }
    }
}
```

```
10
20
30
40
50
Array is
1020304050
```

Sort the Elements of an Array in Ascending Order

```
package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }

        //Sorting
        int t;
        for(i=0;i<5;i++)
        {
            for(int j=i+1;j<5;j++)
            {
                if(array1[i]>array1[j])
```

```

        {
            t=array1[i];
            array1[i]=array1[j];
            array1[j]=t;
        }
    }
}
System.out.println(" Sorted array is ");
for(i=0;i<5;i++)
{
    System.out.print(array1[i]+" ");
}
}
}

```

```

10
5
20
8
25
Sorted array is
5 8 10 20 25

```

Sort the Elements of an Array in Descending Order

```

package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }
        int t;
        for(i=0;i<5;i++)
        {
            for(int j=i+1;j<5;j++)
            {
                if(array1[i]<array1[j])
                {
                    t=array1[i];
                    array1[i]=array1[j];
                    array1[j]=t;
                }
            }
        }

        System.out.println(" Sorted array is ");
        for(i=0;i<5;i++)
        {
            System.out.print(array1[i]+" ");
        }
    }
}

```

```

    }
}
}

```

```

10
5
25
8
50
Sorted array is
50 25 10 8 5

```

Find the Length of an Array

```

package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }

        System.out.println(" Length of the array is "+array1.length);
        for(i=0;i<5;i++)
        {
            System.out.print(array1[i]+" ");
        }

    }

}

```

```

10
20
30
40
50
Length of the array is 5
10 20 30 40 50

```

Find the Sum of All the Elements of an Array

```

package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;

```

```

Scanner sc=new Scanner(System.in);
System.out.println("Enter the array elements ");
for(i=0;i<5;i++)
{
    array1[i]=sc.nextInt();
}
int sum=0;
for(i=0;i<5;i++)
{
    sum=sum+array1[i];
}
System.out.println("Sum of the array elements = "+sum);
}
}

```

Enter the array elements  
10  
20  
25  
50  
55  
Sum of the array elements = 160

Find the Product of All the Elements of an Array

```

package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array elements ");
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }

        int product=1;
        for(i=0;i<5;i++)
        {
            product=product*array1[i];
        }
        System.out.println("The product of all the array elements = "
+product);
    }
}

```

Enter the array elements

1  
2  
2  
3  
1

The product of all the array elements = 12

Find the Average of an Array

```
package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array elements ");
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }
        int sum=0;
        for(i=0;i<5;i++)
        {
            sum=sum+array1[i];
        }
        float average=sum/array1.length;
        System.out.println("The average of all the array elements = "
            +average);
    }
}
```

Enter the array elements

10  
20  
30  
40  
50

The average of all the array elements = 30.0

Find the Largest Number in an Array

```
package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
```

```

        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array elements ");
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }
        int max=array1[0];
        for(i=1;i<5;i++)
        {
            if(array1[i]>max)
            {
                max=array1[i];
            }
        }
        System.out.println("The largest value in the array = "+max);
    }
}

```

Enter the array elements

10  
5  
25  
50  
100

The largest value in the array = 100

Find the Smallest Number in an Array

```

package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array elements ");
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }
        int min=array1[0];
        for(i=1;i<5;i++)
        {
            if(array1[i]<min)
            {
                min=array1[i];
            }
        }
        System.out.println("The smallest value in the array = "+min);
    }
}

```

Enter the array elements

10  
5  
8  
20  
25

The smallest value in the array = 5

Print an Array in Reverse Order

```
package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array elements ");
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }
        System.out.println("Reverse array");
        for(i=4;i>=0;i--)
        {
            System.out.print(array1[i]+" ");
        }

    }

}
```

Enter the array elements

10  
20  
30  
40  
50

Reverse array

50 40 30 20 10

Find the Second Largest Number in an Array

```
package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array elements ");
        for(i=0;i<5;i++)
        {
```

```

        array1[i]=sc.nextInt();
    }
    int max1=array1[0], max2=array1[1],t;
    if(max2>max1)
    {
        t=max1;
        max1=max2;
        max2=t;
    }
    for(i=2;i<5;i++)
    {
        if(array1[i]>max1)
        {
            max2=max1;
            max1=array1[i];
        }
    }
    System.out.print("The second highest value in the array = "
+max2);
}
}

```

Enter the array elements

```

20
5
30
50
100

```

The second highest value in the array = 50

Find the Second Smallest Number in an Array

```

package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array elements ");
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }
        int min1=array1[0], min2=array1[1],t;
        if(min2<min1)
        {
            t=min1;
            min1=min2;
            min2=t;
        }
        for(i=2;i<5;i++)
        {

```



```

        if(array1[i]<min1)
        {
            min2=min1;
            min1=array1[i];
        }
        if(array1[i]<min2 && array1[i]>min1)
        {
            min2=array1[i];
        }
    }
    System.out.print("The second smallest value in the array = "
+min2);

}

}

```

Enter the array elements

```

10
5
8
20
50

```

The second smallest value in the array = 8

Find the Middle Element of an Array

```

package arrayPackage;
import java.util.*;

public class ArrayClass {

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int array1[]=new int[5],i;
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the array elements ");
        for(i=0;i<5;i++)
        {
            array1[i]=sc.nextInt();
        }
        int middle=array1[array1.length/2];
        System.out.print("The middle value in the array = "+middle);

    }

}

```

Enter the array elements

```

10
20
30
40
50

```

The middle value in the array = 30

Print the Elements of an Array Present in Even Position

