Java Program to copy all elements of one array into another array

```java
1  import java.util.*;
2
3  class Task_arr{
4      static int number;
5      public static void main(String args[]) {
6          Scanner c = new Scanner(System.in);
7          System.out.println("Enter the size value of the array: ");
8          number = c.nextInt();
9          int arr[] = new int[number];
10         int b[]=new int[number];
11         System.out.println("Enter the array Elements in the array arr[]: ");
12         for(int i=0;i<number;i++) {
13             arr[i]=c.nextInt();
14             b[i]=arr[i];
15         }
16         System.out.println("Printing values in b[]: ");
17         for(int i=0;i<number;i++) {
18             System.out.println(b[i]);
19         }
20     }
21 }
```

<terminated> Task_arr [Java Application] C:\Users\shriv\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_23.0.2.v20250131-0604\jre\bin\javaw.exe (3 Feb 2025, 2:45:23 pm – 2:45:35 pm elapsed: 0:00:11.857) [pid: 21296]
Enter the size value of the array:
5
Enter the array Elements in the array arr[]:
1
2
3
4
5
Printing values in b[]:
1
2
3
4
5

Java Program to find the frequency of each element in the array

```java
1  /*** array programs */
2
3  import java.util.*;
4
5  class Main{
6
7      static int number;
8      static int count;
9
10     public static void main(String args[]){
11         System.out.println("Enter the Array size: ");
12         Scanner c = new Scanner(System.in);
13         number = c.nextInt();
14         int arr[]= new int[number];
15
16         for(int i = 0;i<number;i++){
17             arr[i]=c.nextInt();
18         }
19
20         Arrays.sort(arr);
21
22         System.out.println("The frequency of the elements in array: ");
23
24         for(int i=0;i<number;i++){
25             count=1;
26             while (i + 1 < number && arr[i] == arr[i + 1]) {
27                 count++;
28                 i++;
29             }
30             System.out.println("Frequency of the element "+arr[i]+" is: " + count);
31
32         }
33
34     }
5  class Main{
```

```
                                    input
Enter the Array size:
6
1
2
1
3
1
4
The frequency of the elements in array:
Frequency of the element 1 is: 3
Frequency of the element 2 is: 1
Frequency of the element 3 is: 1
Frequency of the element 4 is: 1


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to left rotate the elements of an array

```java
1  /*** Left rotate an array */
2
3  import java.util.*;
4
5  class Main{
6      static int number;
7      static int rotate;
8
9      public static void main(String args[]){
10         System.out.println("Enter the size of the array: ");
11         Scanner c = new Scanner(System.in);
12         number = c.nextInt();
13          System.out.println("Enter the rotation count: ");
14         rotate = c.nextInt();
15         int arr[] = new int[number];
16         int temp[]=new int[rotate];
17
18         for(int i=0;i<number;i++){
19             arr[i]=c.nextInt();
20         }
21
22         for(int i=0;i<rotate;i++){
23             temp[i]=arr[i];
24         }
25         for(int i=0;i<number-rotate;i++){
26             arr[i]=arr[i+rotate];
27         }
28         for(int i=0;i<rotate;i++){
29             arr[number - rotate + i] = temp[i];
30         }
31         System.out.println(" ");
32         System.out.println(" After Rotation: ");
33         for(int i=0;i<number;i++){
34             System.out.println(arr[i]+ " ");
```

input

```
Enter the size of the array:
5
Enter the rotation count:
3
1
2
3
4
5

 After Rotation:
4
5
1
2
3
```

Java Program to right rotate the elements of an array

```java
/*** Right rotate an array */

import java.util.*;

class RightRotate{
    static int number;
    static int rotate;

    public static void main(String args[]){
        System.out.println("Enter the size of the array: ");
        Scanner c = new Scanner(System.in);
        number = c.nextInt();
        System.out.println("Enter the rotation count: ");
        rotate = c.nextInt();
        int arr[] = new int[number];
        int temp[]=new int[rotate];

        for(int i=0;i<number;i++){
            arr[i]=c.nextInt();
        }

        for(int i=0;i<rotate;i++){
            temp[i]=arr[number - rotate+i];
        }
        for(int i=number-1;i>=rotate;i--){
            arr[i]=arr[i-rotate];
        }
        for(int i=0;i<rotate;i++){
            arr[i] = temp[i];
        }
        System.out.println(" ");
        System.out.println(" After Rotation: ");
        for(int i=0;i<number;i++){
            System.out.println(arr[i]+ " ");
```

```
Enter the size of the array:
5
Enter the rotation count:
2
1
2
3
4
5

 After Rotation:
4
5
1
2
3


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to print the elements of an array

```java
1  /*** Printing array */
2
3  import java.util.*;
4
5  class Print{
6      static int number;
7
8      public static void main(String args[]){
9          System.out.println("Enter the size of the array: ");
10         Scanner c = new Scanner(System.in);
11         number=c.nextInt();
12         System.out.println("\n Enter the array elements: ");
13         int a[]=new int[number];
14
15         for(int i=0;i<number;i++){
16             a[i]=c.nextInt();
17         }
18         System.out.println();
19
20         for(int i=0;i<number;i++){
21             System.out.println(a[i]);
22         }
23     }
24 }
```

```java
1  /*** Printing array */
2
3  import java.util.*;
4
5  class Main{
```

```
input
Enter the size of the array:
5

 Enter the array elements:
1
2
3
4
5

1
2
3
4
5


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to print the elements of an array in reverse order

```java
1  /*** Printing array in reverse order*/
2
3  import java.util.*;
4
5  class ReverseArray{
6      static int number;
7
8      public static void main(String args[]){
9          System.out.println("Enter the size of the array: ");
10         Scanner c = new Scanner(System.in);
11         number=c.nextInt();
12         System.out.println("\n Enter the array elements: ");
13         int a[]=new int[number];
14
15         for(int i=0;i<number;i++){
16             a[i]=c.nextInt();
17         }
18         System.out.println();
19
20         for(int i=number-1;i>=0;i--){
21             System.out.println(a[i]);
22         }
23     }
24 }
```

```
5  class ReverseArray{
                                        input
Enter the size of the array:
5

 Enter the array elements:
1
2
3
4
5

5
4
3
2
1


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to print the elements of an array present on even position

```java
1  /*** Printing array elements present in even position*/
2
3  import java.util.*;
4
5  class EvenPosition{
6      static int number;
7
8      public static void main(String args[]){
9          System.out.println("Enter the size of the array: ");
10         Scanner c = new Scanner(System.in);
11         number=c.nextInt();
12         System.out.println("\n Enter the array elements: ");
13         int a[]=new int[number];
14
15         for(int i=0;i<number;i++){
16             a[i]=c.nextInt();
17         }
18         System.out.println();
19
20         System.out.println("Elements present in even position");
21
22         for(int i=0;i<number;i++){
23
24             if(i%2==0){
25                 System.out.println(a[i]);
26             }
27
28
29         }
30     }
31 }
```

```
5  class EvenPosition{
                                          input
Enter the size of the array:
5

 Enter the array elements:
1
2
3
4
5

Elements present in even position
1
3
5
```

Java Program to print the elements of an array present on odd position

```java
1  /*** Printing array elements present in odd position*/
2
3  import java.util.*;
4
5  class OddPosition{
6      static int number;
7
8      public static void main(String args[]){
9          System.out.println("Enter the size of the array: ");
10         Scanner c = new Scanner(System.in);
11         number=c.nextInt();
12         System.out.println("\n Enter the array elements: ");
13         int a[]=new int[number];
14
15         for(int i=0;i<number;i++){
16             a[i]=c.nextInt();
17         }
18         System.out.println();
19
20         System.out.println("Elements present in odd position");
21
22         for(int i=0;i<number;i++){
23
24             if(i%2!=0){
25                 System.out.println(a[i]);
26             }
27
28
29         }
30     }
31 }
```

```
input
Enter the size of the array:
5

 Enter the array elements:
1
2
3
4
5

Elements present in even position
2
4


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to print the largest element in an array

```java
/*** Largest element in an array */
import java.util.*;
class Main{
    static int number;

    public static void main(String args[]){

        System.out.println("Enter the size of the Array: ");
        Scanner c = new Scanner(System.in);
        number = c.nextInt();
        int a[]= new int[number];

        for(int i=0;i<number;i++){
            a[i]=c.nextInt();
        }
        int max=a[0];
        for(int i=0;i<number;i++){
            for(int j=i+1;j<number;j++){
                if(a[i]>max){
                    max = a[i];
                }
            }
        }
        System.out.println("\n Largest number in the array is: " + max);
    }
}
```

```
input
21
1

 Largest number in the array is: 21

...Program finished with exit code 0
Press ENTER to exit console.
```

```
input
Enter the size of the Array:
5
5
4
3
21
1

 Largest number in the array is: 21

...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to print the smallest element in an array

```java
1   /*** Smallest element in an array */
2
3   import java.util.*;
4
5   class Main{
6       static int number;
7
8       public static void main(String args[]){
9
10          System.out.println("Enter the size of the Array: ");
11          Scanner c = new Scanner(System.in);
12          number = c.nextInt();
13          int a[]= new int[number];
14
15          for(int i=0;i<number;i++){
16              a[i]=c.nextInt();
17          }
18          int min=a[0];
19          for(int i=0;i<number;i++){
20                  if(a[i]<min){
21                      min = a[i];
22                  }
23          }
24          System.out.println("\n Smallest number in the array is: " + min);
25      }
26  }
```

```
input
Enter the size of the Array:
5
3
2
5
4
1

 Smallest number in the array is: 1


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to print the number of elements present in an array

```java
1  import java.util.*;
2
3  class Main{
4      static int number;
5
6      public static void main(String args[]){
7
8          System.out.println("Enter the size of the Array: ");
9          Scanner c = new Scanner(System.in);
10         number = c.nextInt();
11         int a[]= new int[number];
12
13         for(int i=0;i<number;i++){
14             a[i]=c.nextInt();
15         }
16         System.out.println("No of inputs inside the array is: "+a.length);
17     }
18 }
```

input

```
Enter the size of the Array:
5
1
2
3
4
5
No of inputs inside the array is: 5


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to print the sum of all the items of the array

```java
1  /*** Sum of the element in an array */
2
3  import java.util.*;
4
5  class Main{
6      static int number;
7
8      public static void main(String args[]){
9
10          System.out.println("Enter the size of the Array: ");
11          Scanner c = new Scanner(System.in);
12          number = c.nextInt();
13          int a[]= new int[number];
14
15          System.out.println();
16
17          for(int i=0;i<number;i++){
18              a[i]=c.nextInt();
19          }
20          int sum=0;
21          for(int i=0;i<number;i++){
22              sum = sum+a[i];
23          }
24          System.out.println("sum of the elements in the array: "+ sum);
25      }
26  }
27
```

```
                                                    input
Enter the size of the Array:
5

1
2
3
4
5
sum of the elements in the array: 15


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to Print Odd and Even Numbers from an array

```java
3  import java.util.*;
4
5  class Main{
6      static int number;
7
8      public static void main(String args[]){
9
10         System.out.println("Enter the size of the Array: ");
11         Scanner c = new Scanner(System.in);
12         number = c.nextInt();
13         int a[]= new int[number];
14
15         System.out.println();
16
17         for(int i=0;i<number;i++){
18             a[i]=c.nextInt();
19         }
20         System.out.println("Even numbers from the array are: ");
21         for(int i=0;i<number;i++){
22             if(a[i]%2==0)
23             {
24                 System.out.println(a[i]);
25             }
26         }
27         System.out.println();
28
29         System.out.println("odd numbers from the array are: ");
30         for(int i=0;i<number;i++){
31             if(a[i]%2!=0)
32             {
33                 System.out.println(a[i]);
34             }
35         }
```

```
                                                                    input
Enter the size of the Array:
5

22
33
44
55
66
Even numbers from the array are:
22
44
66

odd numbers from the array are:
33
55


...Program finished with exit code 0
Press ENTER to exit console.
```

How to Sort an Array in Java

```java
1  /*** sorting array */
2
3  import java.util.*;
4
5  class Main{
6      static int number;
7
8      public static void main(String args[]){
9
10          System.out.println("Enter the size of the Array: ");
11          Scanner c = new Scanner(System.in);
12          number = c.nextInt();
13          int a[]= new int[number];
14
15          System.out.println();
16
17          for(int i=0;i<number;i++){
18              a[i]=c.nextInt();
19          }
20
21      Arrays.sort(a);
22
23          System.out.println();
24
25          for(int i=0;i<number;i++){
26                  System.out.println(a[i]);
27              }
28      }
29  }
30
```

input

```
Enter the size of the Array:
5

6
23
54
68
24

6
23
24
54
68


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to sort the elements of an array in ascending order

```java
/*** ascending order */

import java.util.*;

class Main{
    static int number;

    public static void main(String args[]){

        System.out.println("Enter the size of the Array: ");
        Scanner c = new Scanner(System.in);
        number = c.nextInt();
        int a[]= new int[number];

        System.out.println();

        for(int i=0;i<number;i++){
            a[i]=c.nextInt();
        }

        Arrays.sort(a);

        System.out.println();

        for(int i=0;i<number;i++){
                System.out.println(a[i]);
            }
    }
}
```

```
                                        input
Enter the size of the Array:
5

32
26
58
95
75

26
32
58
75
95


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to sort the elements of an array in descending order

```java
1  /*** desending order */
2
3  import java.util.*;
4
5  class Main{
6      static int number;
7
8      public static void main(String args[]){
9
10         System.out.println("Enter the size of the Array: ");
11         Scanner c = new Scanner(System.in);
12         number = c.nextInt();
13         int a[]= new int[number];
14         int temp=0;
15
16         System.out.println();
17
18         for(int i=0;i<number;i++){
19             a[i]=c.nextInt();
20         }
21         for(int i=0;i<number;i++){
22             for(int j=i+1;j<number;j++){
23                 if(a[i]<a[j]){
24                     temp=a[i];
25                     a[i]=a[j];
26                     a[j]=temp;
27                 }
28             }
29         }
30         System.out.println();
31
32         for(int i=0;i<number;i++){
33             System.out.println(a[i]);
34         }
```

```
5  class Main{
```
input
```
Enter the size of the Array:
5

99
87
94
57
64

99
94
87
64
57


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to Find 2nd Largest Number in an array

```java
1  /*** Second Largest element in an array */
2
3  import java.util.*;
4
5  class Main{
6      static int number;
7
8      public static void main(String args[]){
9
10             System.out.println("Enter the size of the Array: ");
11             Scanner c = new Scanner(System.in);
12             number = c.nextInt();
13             int a[]= new int[number];
14
15             for(int i=0;i<number;i++){
16                 a[i]=c.nextInt();
17             }
18             int max=a[0];
19             int second_max=a[0];
20             for(int i=0;i<number;i++){
21                     if(a[i]>max){
22                         max = a[i];
23                     }
24             }
25             for(int i=0;i<number;i++){
26                     if(a[i]!=max && a[i]>second_max){
27                         second_max=a[i];
28                     }
29             }
30             System.out.println("\n Second Largest number in the array is: " + second_max);
31      }
32
33  }
```
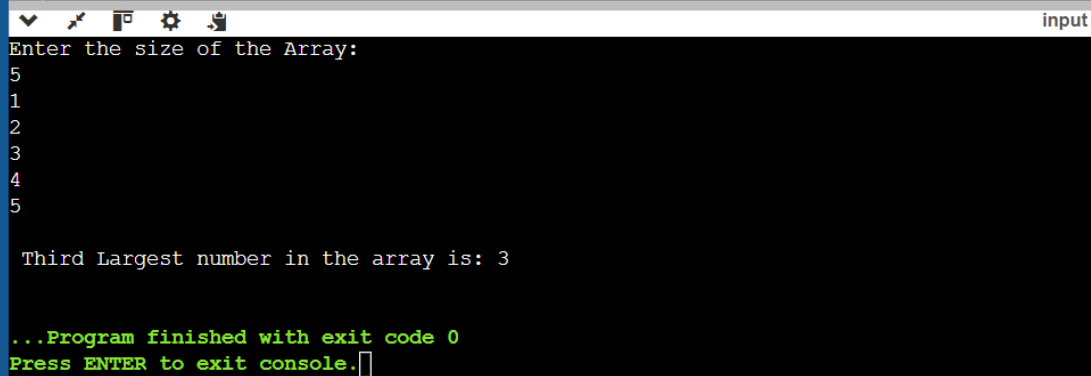
```
input
Enter the size of the Array:
5
1
2
3
4
5

 Second Largest number in the array is: 4


...Program finished with exit code 0
Press ENTER to exit console.
```

Java Program to Find Largest Number in an array

```java
import java.util.*;

class Main{
    static int number;

    public static void main(String args[]){

        System.out.println("Enter the size of the Array: ");
        Scanner c = new Scanner(System.in);
        number = c.nextInt();
        int a[]= new int[number];

        for(int i=0;i<number;i++){
            a[i]=c.nextInt();
        }
        int max=a[0];
        int second_max=a[0];
        int third_max=a[0];
        for(int i=0;i<number;i++){
            if(a[i]>max){
                max = a[i];
            }
        }
        for(int i=0;i<number;i++){
            if(a[i]!=max && a[i]>second_max){
                second_max=a[i];
            }
        }
        for(int i=0;i<number;i++){
            if(a[i]!=max && a[i]!=second_max && a[i]>third_max){
                third_max=a[i];
            }
        }
        System.out.println("\n Third Largest number in the array is: " + third_max);
```

```
                                                          input
Enter the size of the Array:
5
1
2
3
4
5

 Third Largest number in the array is: 3


...Program finished with exit code 0
Press ENTER to exit console.
```

Java to Program Find 2nd Smallest Number in an array

```java
1  /*** Smallest element in an array */
2
3  import java.util.*;
4
5  class Main{
6      static int number;
7
8      public static void main(String args[]){
9
10         System.out.println("Enter the size of the Array: ");
11         Scanner c = new Scanner(System.in);
12         number = c.nextInt();
13         int a[]= new int[number];
14
15         for(int i=0;i<number;i++){
16             a[i]=c.nextInt();
17         }
18         int min=a[0];
19         int second_min=a[0];
20
21         for(int i=0;i<number;i++){
22                 if(a[i]<min){
23                     min = a[i];
24                 }
25         }
26          for(int i=0;i<number;i++){
27                 if(a[i]>min && a[i]<second_min){
28                     second_min = a[i];
29                 }
30         }
31         System.out.println("Second Smallest number in the array is: " + second_min);
32     }
33 }
```

```
5  class Main{
                                                          input
Enter the size of the Array:
5
65
32
98
45
21
Second Smallest number in the array is: 32


...Program finished with exit code 0
Press ENTER to exit console.
```