

Assignment No:-16

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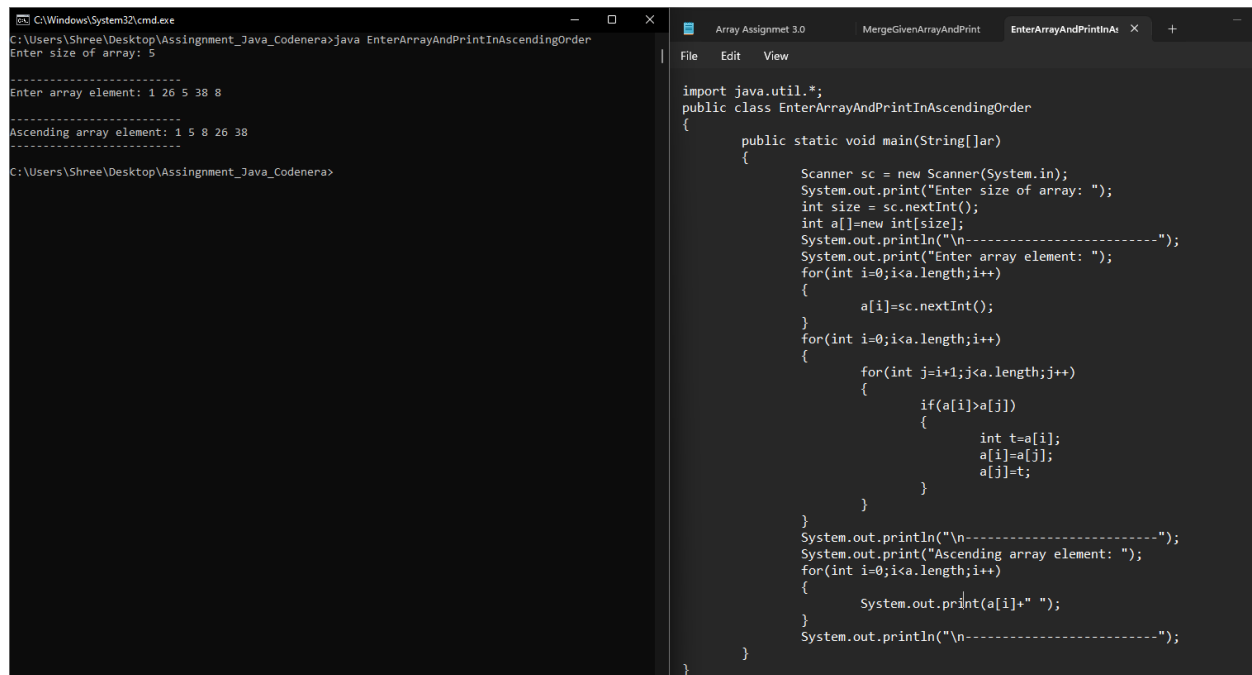
Batch: - Delta - DCA (Java) 2024 Date:-23/5/2024

1. Write a java program to merge two Array and print the final array.

```
import java.util.*;
public class MergeGivenArrayAndPrint
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]={1,2,3,4,5};
        int b[]={6,7,8,9,10};
        System.out.println("\n-----");
        System.out.print("\nFirst array element: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
        System.out.print("\nSecond array element: ");
        for(int i=0;i<b.length;i++)
        {
            System.out.print(b[i]+" ");
        }
        int c[]=new int[a.length+b.length];
        int x=0;
        for(int i=0;i<a.length;i++)
        {
            c[i]=a[i];
            x++;
        }
        for(int i=0;i<b.length;i++)
        {
            c[x]=b[i];
            x++;
        }
        System.out.println("\n-----");
        System.out.print("\nFirst array element: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
        System.out.print("\nSecond array element: ");
        for(int i=0;i<b.length;i++)
        {
            System.out.print(b[i]+" ");
        }
        int c[]=new int[a.length+b.length];
        int x=0;
        for(int i=0;i<a.length;i++)
        {
            c[i]=a[i];
            x++;
        }
        for(int i=0;i<b.length;i++)
        {
            c[x]=b[i];
            x++;
        }
        System.out.println("\n-----");
        System.out.print("\nMerged array element: ");
        for(int i=0;i<c.length;i++)
        {
            System.out.print(c[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

```
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac MergeGivenArrayAndPrint.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java MergeGivenArrayAndPrint
Enter size of array: 5
-----
First array element: 1 2 3 4 5
-----
Second array element: 6 7 8 9 10
-----
Merged array element: 1 2 3 4 5 6 7 8 9 10
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

2. Write a java program enter an array and sort that in ascending order.



The image shows a screenshot of a Java IDE with two windows. The left window is a command prompt running the program, and the right window shows the source code.

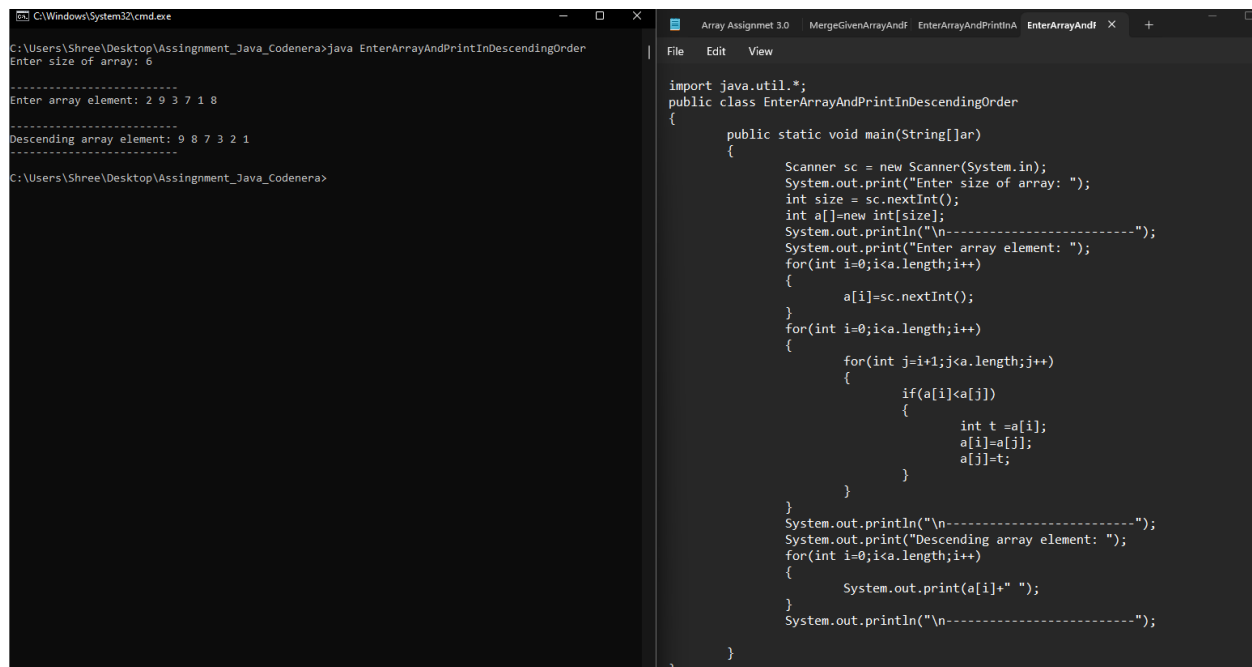
Command Prompt Output:

```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assignment_Java_Code>java EnterArrayAndPrintInAscendingOrder
Enter size of array: 5
-----
Enter array element: 1 2 6 5 38 8
-----
Ascending array element: 1 5 8 26 38
-----
C:\Users\Shree\Desktop\Assignment_Java_Code>
```

Source Code:

```
import java.util.*;
public class EnterArrayAndPrintInAscendingOrder
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[] = new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element: ");
        for(int i=0; i<a.length; i++)
        {
            a[i] = sc.nextInt();
        }
        for(int i=0; i<a.length; i++)
        {
            for(int j=i+1; j<a.length; j++)
            {
                if(a[i]>a[j])
                {
                    int t=a[i];
                    a[i]=a[j];
                    a[j]=t;
                }
            }
        }
        System.out.println("\n-----");
        System.out.print("Ascending array element: ");
        for(int i=0; i<a.length; i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

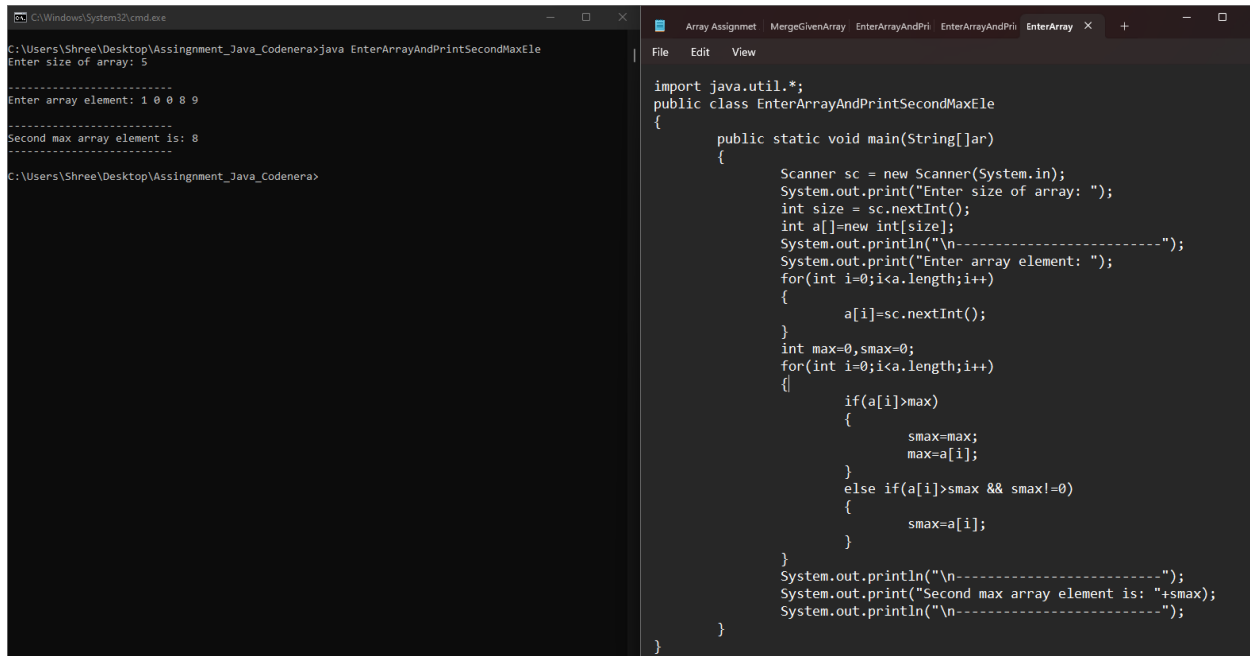
3. Write a java program enter an array and sort that in descending order.



```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java EnterArrayAndPrintInDescendingOrder
Enter size of array: 6
-----
Enter array element: 2 9 3 7 1 8
-----
Descending array element: 9 8 7 3 2 1
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

```
import java.util.*;
public class EnterArrayAndPrintInDescendingOrder
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element: ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        for(int i=0;i<a.length;i++)
        {
            for(int j=i+1;j<a.length;j++)
            {
                if(a[i]<a[j])
                {
                    int t =a[i];
                    a[i]=a[j];
                    a[j]=t;
                }
            }
        }
        System.out.println("\n-----");
        System.out.print("Descending array element: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

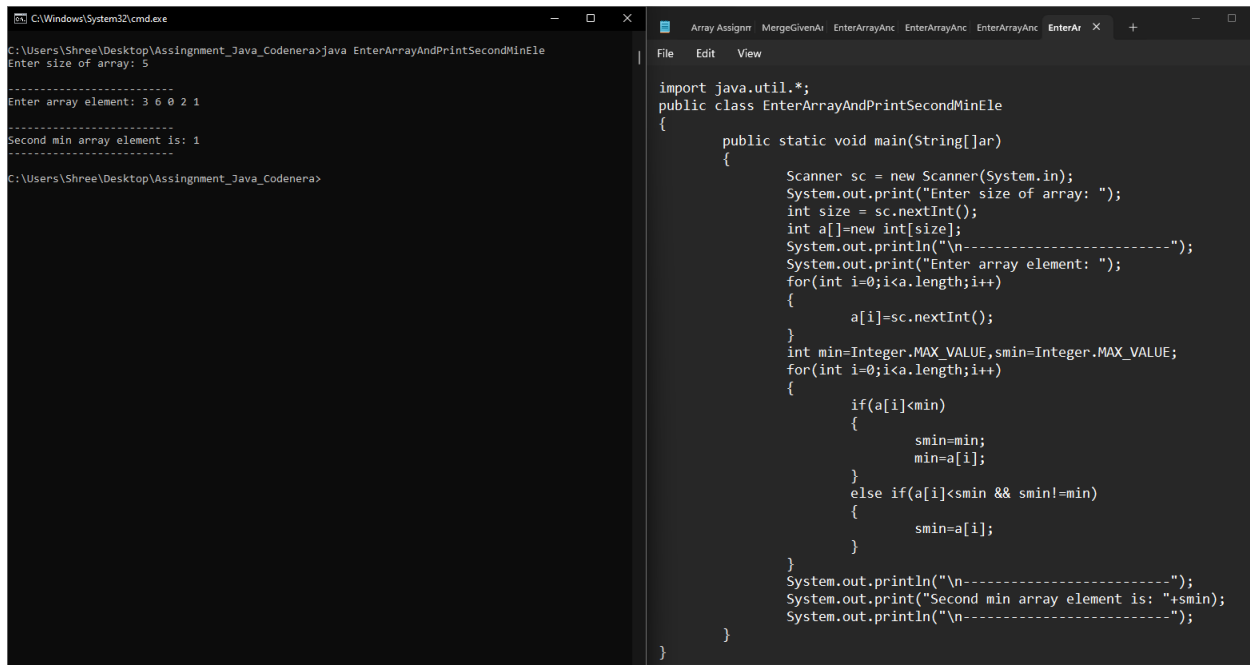
4. Write a java program enter an array and find the second max element.



```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java EnterArrayAndPrintSecondMaxEle
Enter size of array: 5
-----
Enter array element: 1 0 0 8 9
-----
Second max array element is: 8
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

```
import java.util.*;
public class EnterArrayAndPrintSecondMaxEle
{
    public static void main(String[] ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element: ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        int max=0,smax=0;
        for(int i=0;i<a.length;i++)
        {
            if(a[i]>max)
            {
                smax=max;
                max=a[i];
            }
            else if(a[i]>smax && smax!=0)
            {
                smax=a[i];
            }
        }
        System.out.println("\n-----");
        System.out.print("Second max array element is: "+smax);
        System.out.println("\n-----");
    }
}
```

5. Write a program enter an array and find the second min element.



The image shows a screenshot of a Java IDE with two windows. The left window is a command prompt running a Java program, and the right window is the source code editor for the program.

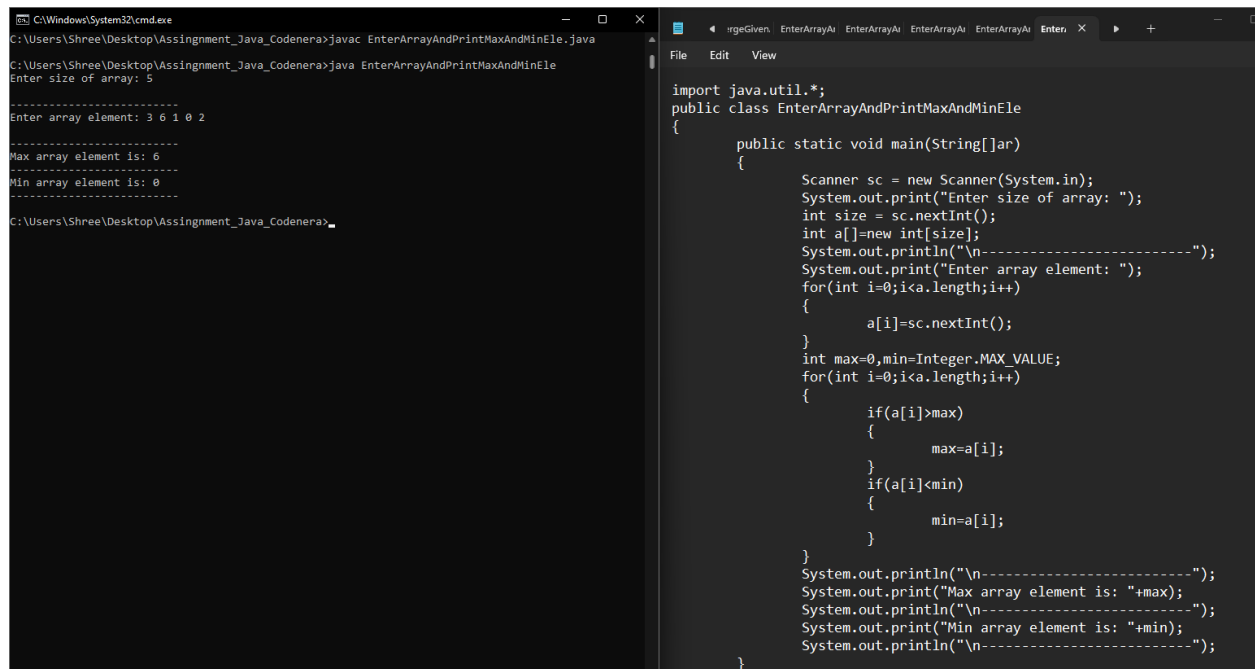
Command Prompt Output:

```
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java EnterArrayAndPrintSecondMinEle
Enter size of array: 5
-----
Enter array element: 3 6 0 2 1
-----
Second min array element is: 1
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

Source Code:

```
import java.util.*;
public class EnterArrayAndPrintSecondMinEle
{
    public static void main(String[] ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element: ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        int min=Integer.MAX_VALUE, smin=Integer.MAX_VALUE;
        for(int i=0;i<a.length;i++)
        {
            if(a[i]<min)
            {
                smin=min;
                min=a[i];
            }
            else if(a[i]<smin && smin!=min)
            {
                smin=a[i];
            }
        }
        System.out.println("\n-----");
        System.out.print("Second min array element is: "+smin);
        System.out.println("\n-----");
    }
}
```

6. Write a program enter an array and find max and min element.

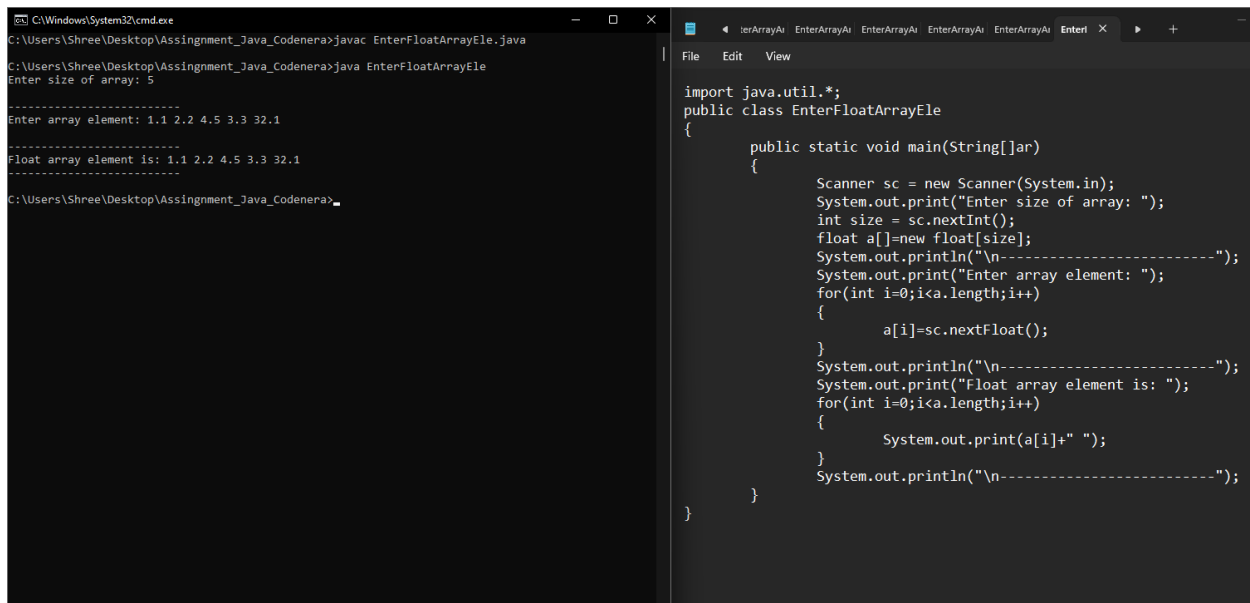


The image shows a screenshot of a Java program being executed in a command prompt and its source code in an IDE. The command prompt on the left shows the execution of the program, which prompts the user to enter the size of the array (5) and then the array elements (3 6 1 0 2). The program outputs the maximum array element (6) and the minimum array element (0). The IDE on the right shows the source code of the program, which uses a Scanner to read input and a loop to find the maximum and minimum values in the array.

```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac EnterArrayAndPrintMaxAndMinEle.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java EnterArrayAndPrintMaxAndMinEle
Enter size of array: 5
-----
Enter array element: 3 6 1 0 2
-----
Max array element is: 6
-----
Min array element is: 0
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

```
import java.util.*;
public class EnterArrayAndPrintMaxAndMinEle
{
    public static void main(String[] ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element: ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        int max=0,min=Integer.MAX_VALUE;
        for(int i=0;i<a.length;i++)
        {
            if(a[i]>max)
            {
                max=a[i];
            }
            if(a[i]<min)
            {
                min=a[i];
            }
        }
        System.out.println("\n-----");
        System.out.print("Max array element is: "+max);
        System.out.println("\n-----");
        System.out.print("Min array element is: "+min);
        System.out.println("\n-----");
    }
}
```

7. Write a program Input 10 elements in float and print it.



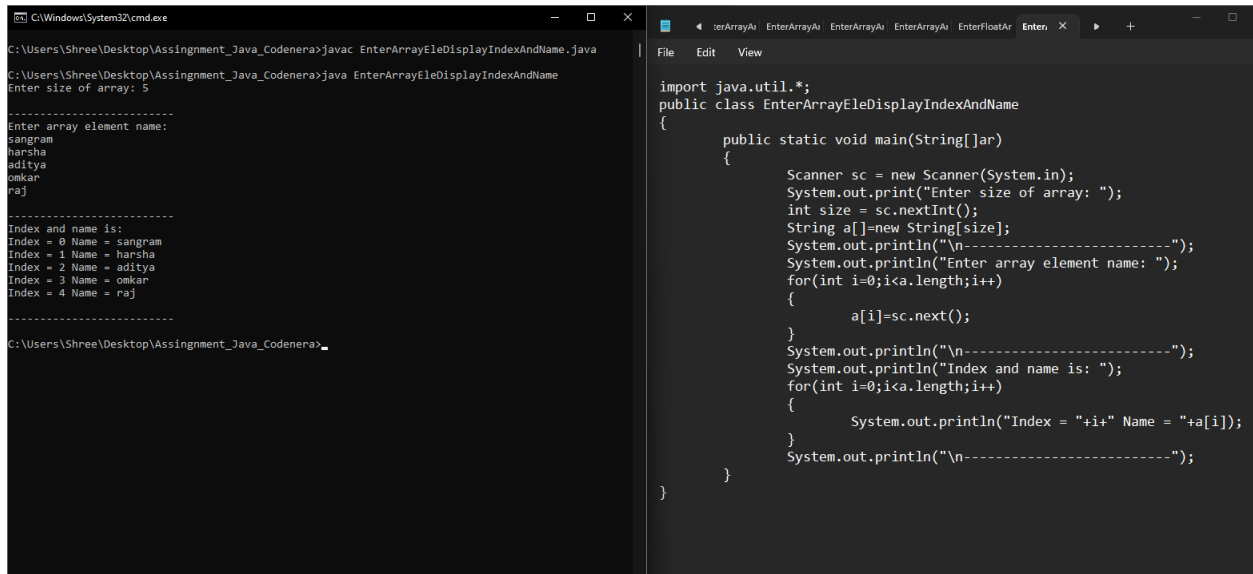
The image shows a screenshot of a Java IDE with two windows. The left window is a command prompt running the Java compiler and the program. The right window shows the source code for the program.

```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assignment_Java_Codenera>javac EnterFloatArrayEle.java
C:\Users\Shree\Desktop\Assignment_Java_Codenera>java EnterFloatArrayEle
Enter size of array: 5
-----
Enter array element: 1.1 2.2 4.5 3.3 32.1
-----
Float array element is: 1.1 2.2 4.5 3.3 32.1
-----
C:\Users\Shree\Desktop\Assignment_Java_Codenera>_
```

```
import java.util.*;
public class EnterFloatArrayEle
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        float a[]=new float[size];
        System.out.println("\n-----");
        System.out.print("Enter array element: ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextFloat();
        }
        System.out.println("\n-----");
        System.out.print("Float array element is: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

8. Write a program input 10 name and print with index

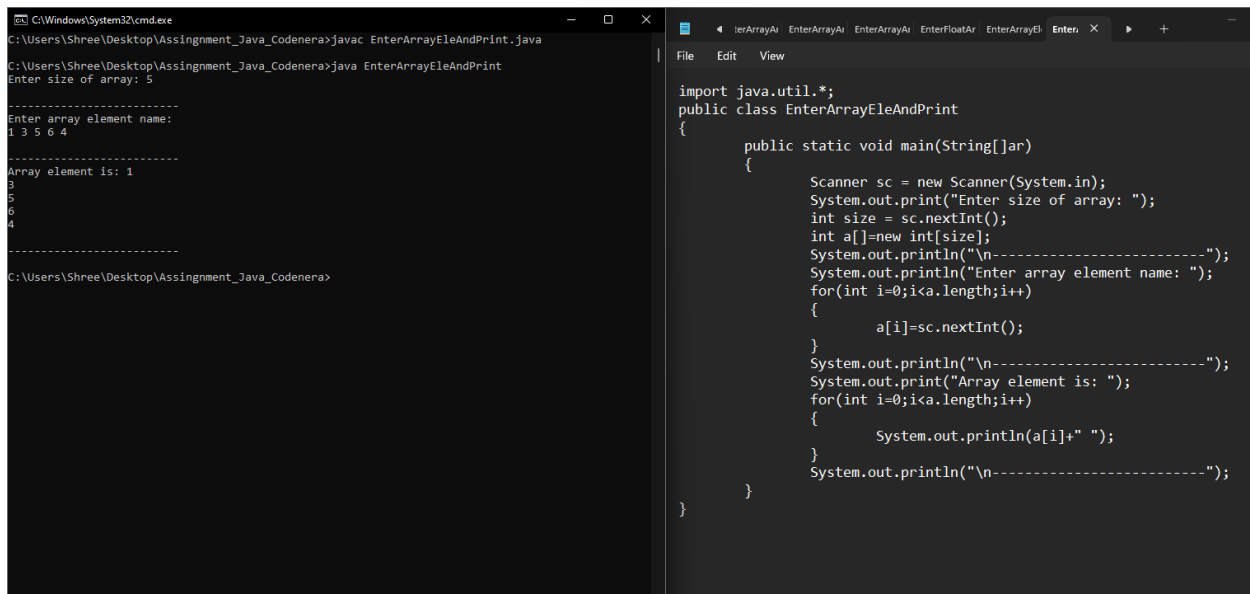
Index name.



```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assignment_Java_Codenera>javac EnterArrayEleDisplayIndexAndName.java
C:\Users\Shree\Desktop\Assignment_Java_Codenera>java EnterArrayEleDisplayIndexAndName
Enter size of array: 5
-----
Enter array element name:
sangram
harsha
aditya
omkar
raj
-----
Index and name is:
Index = 0 Name = sangram
Index = 1 Name = harsha
Index = 2 Name = aditya
Index = 3 Name = omkar
Index = 4 Name = raj
-----
C:\Users\Shree\Desktop\Assignment_Java_Codenera>_

import java.util.*;
public class EnterArrayEleDisplayIndexAndName
{
    public static void main(String[] ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        String a[]=new String[size];
        System.out.println("\n-----");
        System.out.println("Enter array element name: ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.next();
        }
        System.out.println("\n-----");
        System.out.println("Index and name is: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.println("Index = "+i+" Name = "+a[i]);
        }
        System.out.println("\n-----");
    }
}
```


9. Write a program to input an array and print it.



The screenshot displays a Java IDE with two windows. The left window is a command prompt titled 'C:\Windows\System32\cmd.exe' showing the compilation and execution of a Java program. The right window is a code editor titled 'EnterArrayEleAndPrint.java' showing the source code.

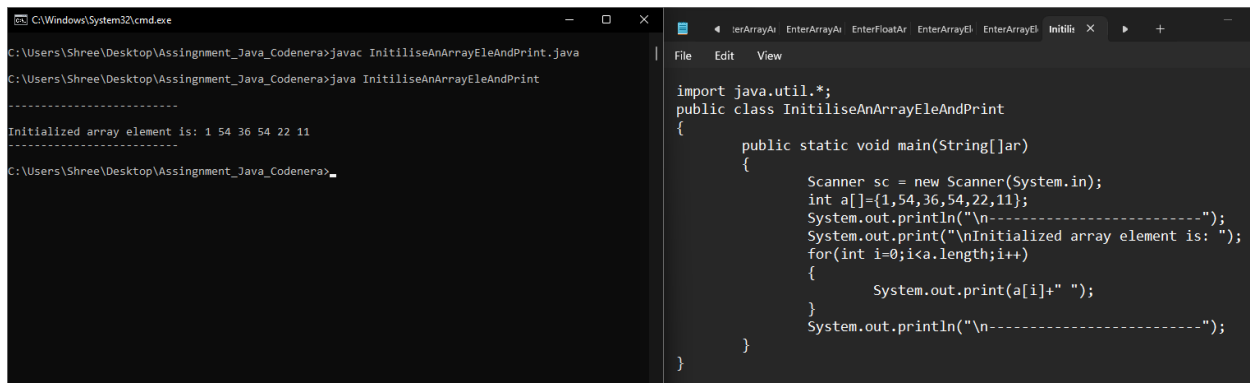
Command Prompt Output:

```
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>javac EnterArrayEleAndPrint.java
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>java EnterArrayEleAndPrint
Enter size of array: 5
-----
Enter array element name:
1 3 5 6 4
-----
Array element is: 1
5
6
4
-----
C:\Users\Shree\Desktop\Assingnment_Java_Codenera>
```

Source Code (EnterArrayEleAndPrint.java):

```
import java.util.*;
public class EnterArrayEleAndPrint
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.println("Enter array element name: ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        System.out.println("\n-----");
        System.out.print("Array element is: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.println(a[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

10. Write a program initialise an array and print it.



The screenshot shows a Java IDE with two windows. The left window is a command prompt titled 'C:\Windows\System32\cmd.exe' showing the compilation and execution of a Java program. The right window is the IDE editor showing the source code of the program.

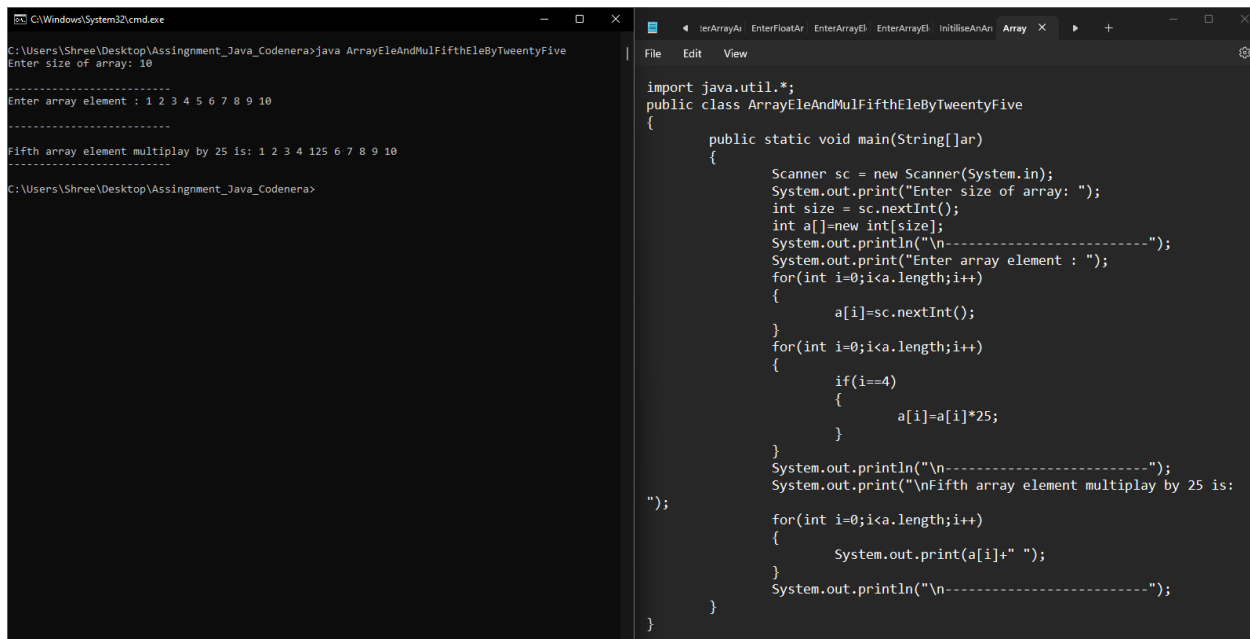
```
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac InitiliseAnArrayEleAndPrint.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java InitiliseAnArrayEleAndPrint

-----
Initialized array element is: 1 54 36 54 22 11
-----

C:\Users\Shree\Desktop\Assingment_Java_Codenera>_
```

```
import java.util.*;
public class InitiliseAnArrayEleAndPrint
{
    public static void main(String[] ar)
    {
        Scanner sc = new Scanner(System.in);
        int a[]={1,54,36,54,22,11};
        System.out.println("\n-----");
        System.out.print("\nInitialized array element is: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

11. Write a program input 10 elements and multiply 5th elements by 25.



The screenshot shows a Java IDE with two windows. The left window is a command prompt titled 'C:\Windows\System32\cmd.exe' showing the compilation and execution of a Java program. The right window is the IDE editor showing the source code of the program.

```
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java ArrayEleAndMulFifthEleByTwentyFive
Enter size of array: 10

-----
Enter array element : 1 2 3 4 5 6 7 8 9 10
-----

Fifth array element multiplay by 25 is: 1 2 3 4 125 6 7 8 9 10
-----

C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

```
import java.util.*;
public class ArrayEleAndMulFifthEleByTwentyFive
{
    public static void main(String[] ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element : ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        for(int i=0;i<a.length;i++)
        {
            if(i==4)
            {
                a[i]=a[i]*25;
            }
        }
        System.out.println("\n-----");
        System.out.print("\nFifth array element multiplay by 25 is: ");

        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

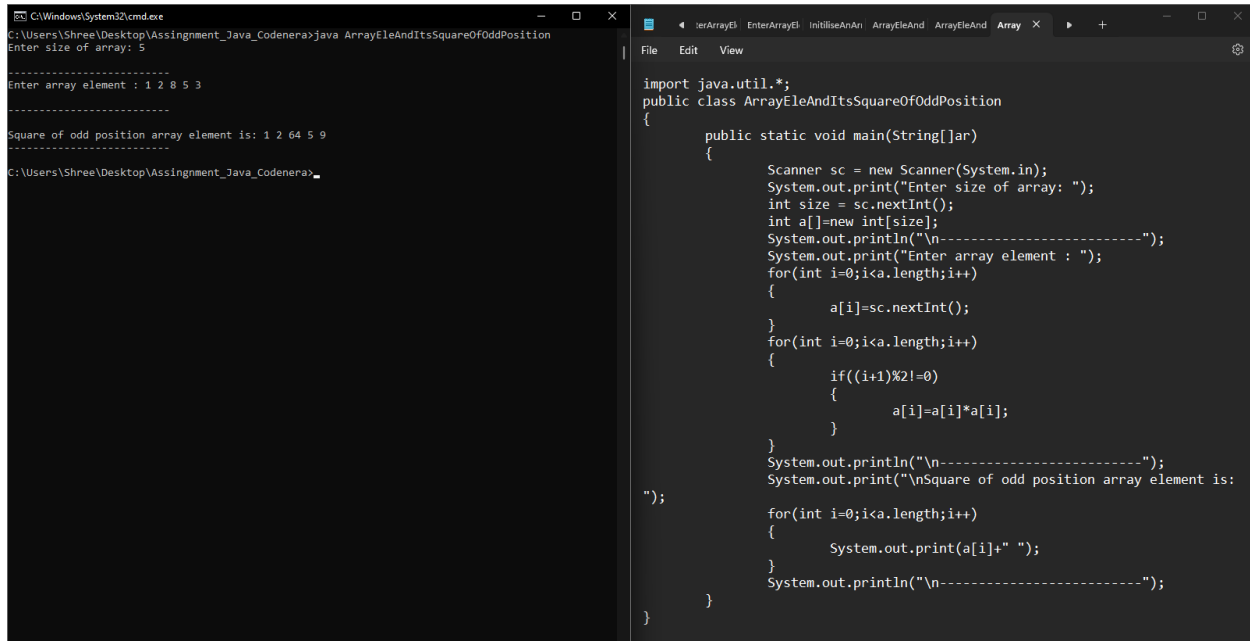
12. Write a program to input an array and find its average of first 5 element.

```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac ArrayEleAndItsAverage.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java ArrayEleAndItsAverage
Enter size of array: 5
-----
Enter array element : 1 2 3 4 5
-----
Given array element is: 1 2 3 4 5
-----
Average of given array element is: 3
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

```
File Edit View

import java.util.*;
public class ArrayEleAndItsAverage
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element : ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        int sum=0;
        System.out.println("\n-----");
        System.out.print("\nGiven array element is: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
            sum+=a[i];
        }
        System.out.println("\n-----");
        System.out.print("\n Average of given array element is: ");
        System.out.println("\n-----");
    }
}
```

13. Write a program enter an array and print the square of the element which is present at odd position.



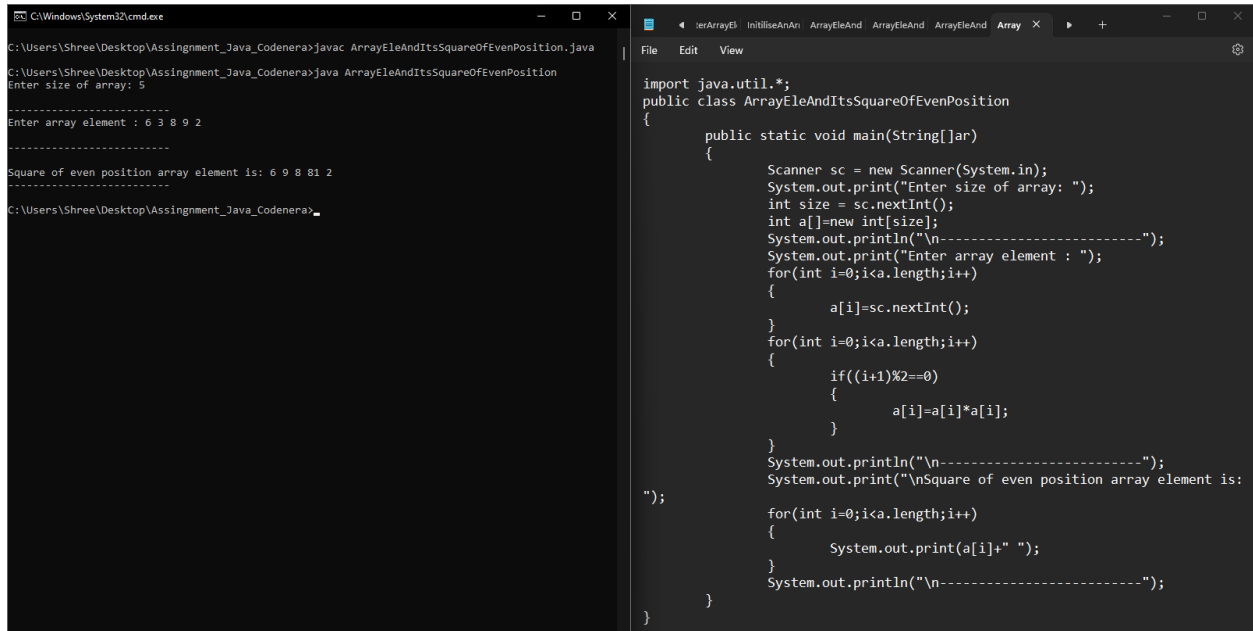
The image shows a screenshot of a Java program being executed in a command prompt and its source code in an IDE. The command prompt on the left shows the execution of the program, where the user enters the size of the array (5) and the array elements (1 2 8 5 3). The program outputs the square of the elements at odd positions (1, 8, 5), which are 1, 64, and 25, resulting in the output: 1 2 64 5 9.

```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java ArrayEleAndItsSquareOfOddPosition
Enter size of array: 5
-----
Enter array element : 1 2 8 5 3
-----
Square of odd position array element is: 1 2 64 5 9
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

The IDE on the right shows the source code of the program, which is a Java class named `ArrayEleAndItsSquareOfOddPosition`. The code uses a `Scanner` to take input from the user, calculates the square of elements at odd positions, and prints the result.

```
import java.util.*;
public class ArrayEleAndItsSquareOfOddPosition
{
    public static void main(String[] ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element : ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        for(int i=0;i<a.length;i++)
        {
            if((i+1)%2!=0)
            {
                a[i]=a[i]*a[i];
            }
        }
        System.out.println("\n-----");
        System.out.print("\nSquare of odd position array element is: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

14. Write a program enter an array and print the square of the element which is present at even position.



The image shows a Java IDE on the right and a Windows command prompt on the left. The IDE contains the following Java code:

```
import java.util.*;
public class ArrayEleAndItsSquareOfEvenPosition
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element : ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        for(int i=0;i<a.length;i++)
        {
            if((i+1)%2==0)
            {
                a[i]=a[i]*a[i];
            }
        }
        System.out.println("\n-----");
        System.out.print("\nSquare of even position array element is: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

The command prompt shows the execution of the program:

```
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac ArrayEleAndItsSquareOfEvenPosition.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java ArrayEleAndItsSquareOfEvenPosition
Enter size of array: 5
-----
Enter array element : 6 3 8 9 2
-----
Square of even position array element is: 6 9 8 81 2
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

15. Write a program input two array and merge in third array.

```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac InputTwoArrayEleAndMergeInThirdEle.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java InputTwoArrayEleAndMergeInThirdEle
Enter size of array: 5
-----
Enter first array element : 1 2 3 4 5
-----
Enter second array element : 6 7 8 9 10
-----
Merge of two array element is: 1 2 3 4 5 6 7 8 9 10
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

```
import java.util.*;
public class InputTwoArrayEleAndMergeInThirdEle
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        int b[]=new int[size];
        int c[]=new int[a.length+b.length];
        System.out.println("\n-----");
        System.out.print("Enter first array element : ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        System.out.println("\n-----");
        System.out.print("Enter second array element : ");
        for(int i=0;i<b.length;i++)
        {
            b[i]=sc.nextInt();
        }
        int x=0;
        for(int i=0;i<a.length;i++)
        {
            c[i]=a[i];
            x++;
        }
        for(int i=0;i<b.length;i++)
        {
            c[x]=b[i];
            x++;
        }
    }
}
```

```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac InputTwoArrayEleAndMergeInThirdEle.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java InputTwoArrayEleAndMergeInThirdEle
Enter size of array: 5
-----
Enter first array element : 1 2 3 4 5
-----
Enter second array element : 6 7 8 9 10
-----
Merge of two array element is: 1 2 3 4 5 6 7 8 9 10
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

```
import java.util.*;
public class InputTwoArrayEleAndMergeInThirdEle
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        int b[]=new int[size];
        int c[]=new int[a.length+b.length];
        System.out.println("\n-----");
        System.out.print("Enter first array element : ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }
        System.out.println("\n-----");
        System.out.print("Enter second array element : ");
        for(int i=0;i<b.length;i++)
        {
            b[i]=sc.nextInt();
        }
        int x=0;
        for(int i=0;i<a.length;i++)
        {
            c[i]=a[i];
            x++;
        }
        for(int i=0;i<b.length;i++)
        {
            c[x]=b[i];
            x++;
        }
        System.out.println("\n-----");
        System.out.print("\nMerge of two array element is: ");
        for(int i=0;i<c.length;i++)
        {
            System.out.print(c[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

16. Write a program $a[] = \{10, 20, 30, 40, 50\}$, $b[] = \{1, 2, 3, 4, 5\}$

output array $c[] = \{10, 5, 20, 4, 30, 3, 40, 2, 50, 1\}$.

```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac InputTwoArrayEleAndMergeInBetweenThirdEle.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java InputTwoArrayEleAndMergeInBetweenThirdEle
Enter size of array: 5
-----
Enter first array element : 10 20 30 40 50
-----
Enter second array element : 1 2 3 4 5
-----
Merge of two array element is: 10 5 20 4 30 3 40 2 50 1
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

```
import java.util.*;
public class InputTwoArrayEleAndMergeInBetweenThirdEle
{
    public static void main(String[] ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[] = new int[size];
        int b[] = new int[size];
        int c[] = new int[a.length+b.length];
        System.out.println("\n-----");
        System.out.print("Enter first array element : ");
        for(int i=0; i<a.length; i++)
        {
            a[i] = sc.nextInt();
        }
        System.out.println("\n-----");
        System.out.print("Enter second array element : ");
        for(int i=b.length-1; i>=0; i--)
        {
            b[i] = sc.nextInt();
        }
        int x=0, y=0;
        for(int i=0; i<c.length; i++)
        {
            if(i%2==0)
            {
                c[i] = a[x];
                x++;
            }
            else
            {

```

```
C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac InputTwoArrayEleAndMergeInBetweenThirdEle.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java InputTwoArrayEleAndMergeInBetweenThirdEle
Enter size of array: 5
-----
Enter first array element : 10 20 30 40 50
-----
Enter second array element : 1 2 3 4 5
-----
Merge of two array element is: 10 5 20 4 30 3 40 2 50 1
-----
C:\Users\Shree\Desktop\Assingment_Java_Codenera>
```

```
        System.out.print("Enter first array element : ");
        for(int i=0; i<a.length; i++)
        {
            a[i] = sc.nextInt();
        }
        System.out.println("\n-----");
        System.out.print("Enter second array element : ");
        for(int i=b.length-1; i>=0; i--)
        {
            b[i] = sc.nextInt();
        }
        int x=0, y=0;
        for(int i=0; i<c.length; i++)
        {
            if(i%2==0)
            {
                c[i] = a[x];
                x++;
            }
            else
            {
                c[i] = b[y];
                y++;
            }
        }
        System.out.println("\n-----");
        System.out.print("\nMerge of two array element is: ");
        for(int i=0; i<c.length; i++)
        {
            System.out.print(c[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

17. Write a program sort half array in ascending and half in descending order

input= int [] a={9,1,3,5,6,11,22,66,10,19}.

output={1,3,5,6,9,10,66,22,19,11,10}

```
import java.util.*;
public class ArrayEleAndHalfAscendingAndDescendingEle
{
    public static void main(String[]ar)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter size of array: ");
        int size = sc.nextInt();
        int a[]=new int[size];
        System.out.println("\n-----");
        System.out.print("Enter array element : ");
        for(int i=0;i<a.length;i++)
        {
            a[i]=sc.nextInt();
        }

        for(int i=0;i<a.length/2;i++)
        {
            for(int j=i+1;j<a.length/2;j++)
            {
                if(a[i]>a[j])
                {
                    int t=a[i];
                    a[i]=a[j];
                    a[j]=t;
                }
            }
        }
        for(int i=a.length/2;i<a.length;i++)
        {
            for(int j=i+1;j<a.length;j++)
            {
                if(a[i]<a[j])
                {
                    int t=a[i];
                    a[i]=a[j];
                    a[j]=t;
                }
            }
        }
        System.out.println("\n-----");
        System.out.print("\nHalf ascendingand descending array
element is: ");
        for(int i=0;i<a.length;i++)
        {
            System.out.print(a[i]+" ");
        }
        System.out.println("\n-----");
    }
}
```

C:\Windows\System32\cmd.exe
C:\Users\Shree\Desktop\Assingment_Java_Codenera>javac ArrayEleAndHalfAscendingAndDescendingEle.java
C:\Users\Shree\Desktop\Assingment_Java_Codenera>java ArrayEleAndHalfAscendingAndDescendingEle
Enter size of array: 10

Enter array element : 9 1 3 5 6 11 22 66 10 19

Half ascendingand descending array element is: 1 3 5 6 9 66 22 19 11 10

C:\Users\Shree\Desktop\Assingment_Java_Codenera>