ARRAYS

One Dimensional Arrays

Program 1:

```
package onedimension;
import java.util.Scanner;
public class HighestMarks {
	public static void main(String[] args) {
		Scanner scan=new Scanner(System.in);
		System.out.println("enter no of subjects");
		int sub=scan.nextInt();
		//creating an array
		int a[]=new int[sub];
		//storing marks in an array
		for(int i=0;i<a.length;i++)
		{
			System.out.println("enter marks of subject"+i);
			a[i]=scan.nextInt();
		}
		System.out.println();
		//printing marks
		for(int i=0;i<a.length;i++)
		{
			System.out.print(a[i]+" ");
```

```
        }
        System.out.println();
        //printing sum
        double sum=0;
        for(int i=0;i<a.length;i++)
        {
              sum=sum+a[i];
        }
        System.out.println("Sum="+sum);
        //printing percentage
        double per;
        per=(sum/(sub*100))*100;
        System.out.println("percentage="+per);
        //printing highest marks in subject
        int high=0;
        for(int i=0;i<a.length;i++)
        {
              if(a[i]>high)
              {
                    high=a[i];
              }
        }
        System.out.println("highestmarks="+high);
}
```

}

Output:

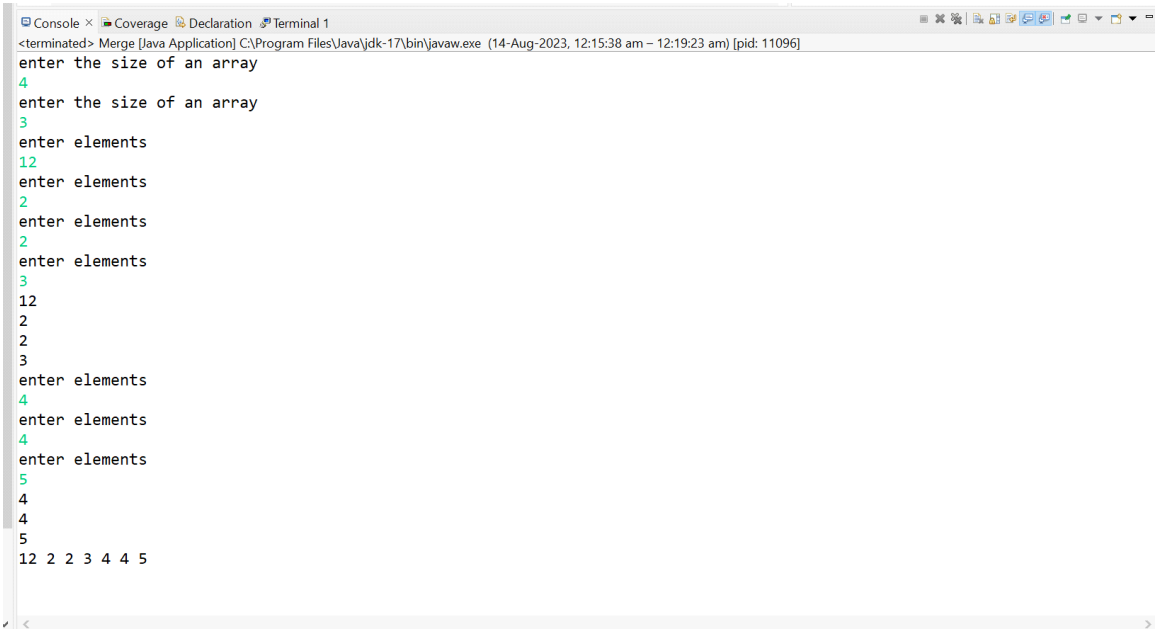
Program 2:

```
package onedimension;

import java.util.Scanner;

public class Merge {

	public static void main(String[] args) {

		Scanner scan=new Scanner(System.in);

		System.out.println("enter the size of an array");

		int n1=scan.nextInt();

		System.out.println("enter the size of an array");

		int n2=scan.nextInt();

		int a[]=new int[n1];

		int b[]=new int[n2];

		int c[]=new int [n1+n2];

		for(int i=0;i<a.length;i++)
```

```
{
	System.out.println("enter elements");
	a[i]=scan.nextInt();
}
for(int i=0;i<a.length;i++)
{
	System.out.println(a[i]);

}
for(int i=0;i<b.length;i++)
{
	System.out.println("enter elements");
	b[i]=scan.nextInt();
}
for(int i=0;i<b.length;i++)
{
	System.out.println(b[i]);

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

}
int ind=n1;
for(int i=0;i<b.length;i++)
{
```

```
                c[ind]=b[i];
                //System.out.print(c[n1]);
                ind++;
            }
            for(int i=0;i<c.length;i++)
            {
                System.out.print(c[i]+" ");
            }
        }

}
```

Output:



Program 3:

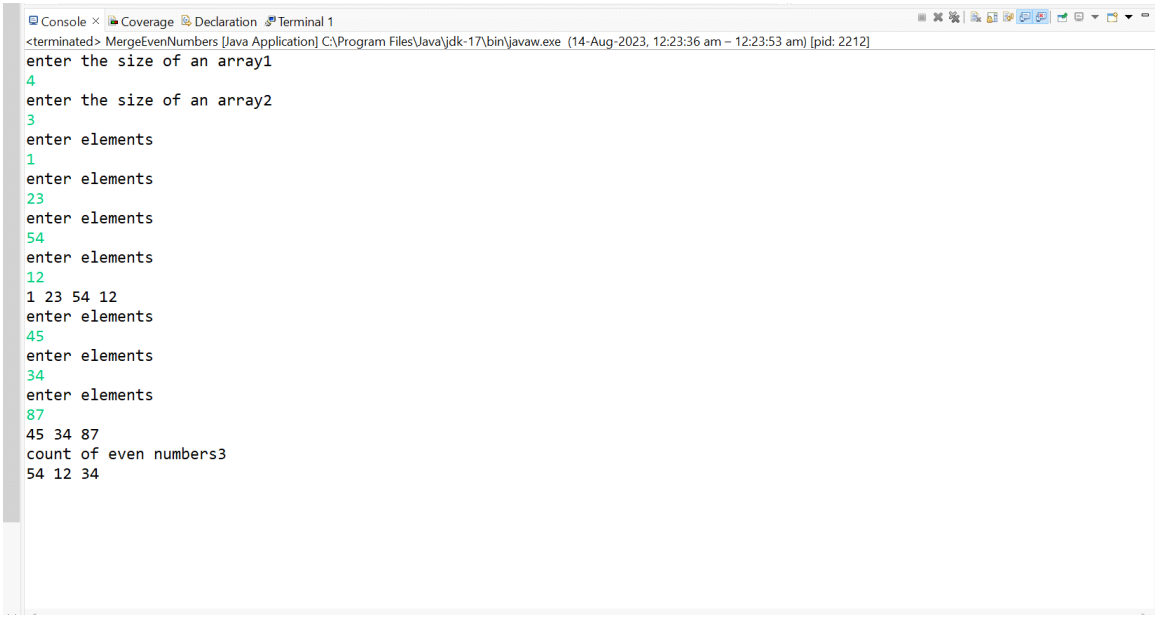
```
package onedimension;

import java.util.Scanner;
```

```java
public class MergeEvenNumbers {
	public static void main(String[] args) {
		Scanner scan=new Scanner(System.in);
		System.out.println("enter the size of an array1");
		int n1=scan.nextInt();
		System.out.println("enter the size of an array2");
		int n2=scan.nextInt();
		int count=0;

		int a[]=new int[n1];
		int b[]=new int[n2];

		for(int i=0;i<a.length;i++)
		{
			System.out.println("enter elements");
		    a[i]=scan.nextInt();
		}
		for(int i=0;i<a.length;i++)
		{
			System.out.print(a[i]+" ");
			if(a[i]%2==0)
			{
				count++;
			}
		}

		System.out.println();
```

```
for(int i=0;i<b.length;i++)
{
	System.out.println("enter elements");
	b[i]=scan.nextInt();
}
for(int i=0;i<b.length;i++)
{
	System.out.print(b[i]+" ");
	if(b[i]%2==0)
	{
		count++;
	}
}
System.out.println();
System.out.println("count of even numbers"+count);
//concantenation

int c[]=new int[count];
int ind=0;
for(int i=0;i<a.length;i++)
{
	if(a[i]%2==0)
	{
		c[ind]=a[i];
		 ind++;
	}
}
```

```
        for(int i=0;i<b.length;i++)
        {
              if(b[i]%2==0)
              {
                    c[ind]=b[i];
                     ind++;
              }
        }
        for(int i=0;i<c.length;i++)
        {
              System.out.print(c[i]+" ");
        }
        }
  }
```

Output:

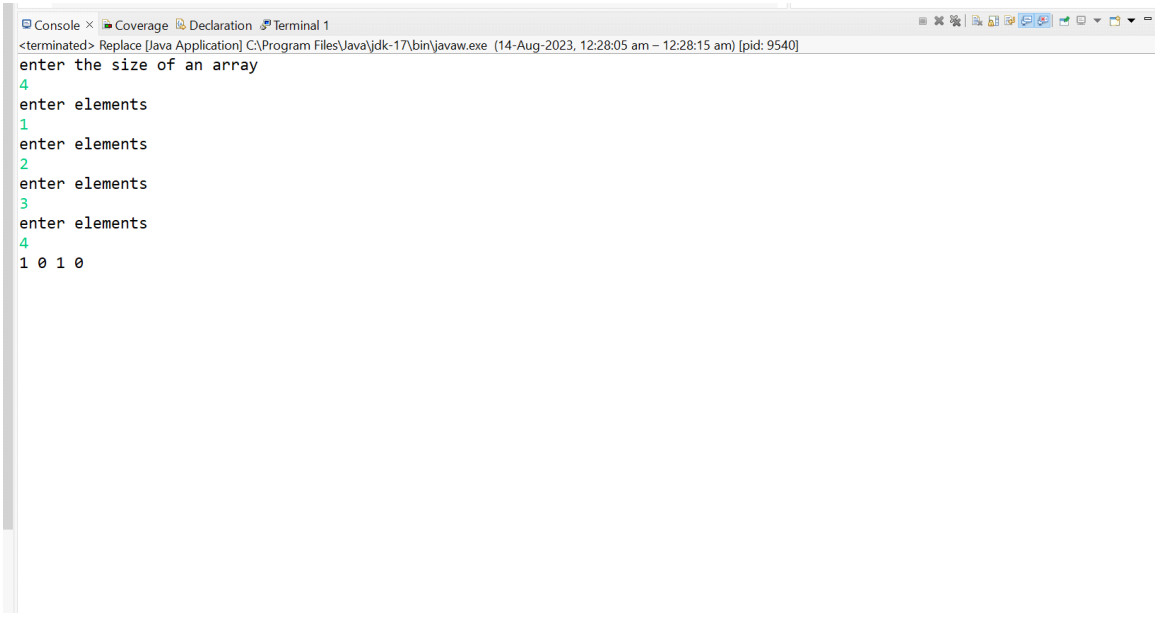


Program 4:

```
package onedimension;
import java.util.Scanner;
public class Replace {
	public static void main(String[] args) {
		Scanner scan=new Scanner(System.in);
		System.out.println("enter the size of an array");
		int n=scan.nextInt();
		int a[]=new int[n];
		for(int i=0;i<a.length;i++)
		{
			System.out.println("enter elements");
			a[i]=scan.nextInt();
		}
		for(int i=0;i<a.length;i++)
		{
			if(a[i]%2==0)
			{
				a[i]=0;
				System.out.print(a[i]+" ");
			}
			else
			{
				a[i]=1;
				System.out.print(a[i]+" ");
			}
```

```
        }
    }

}
```

Output:

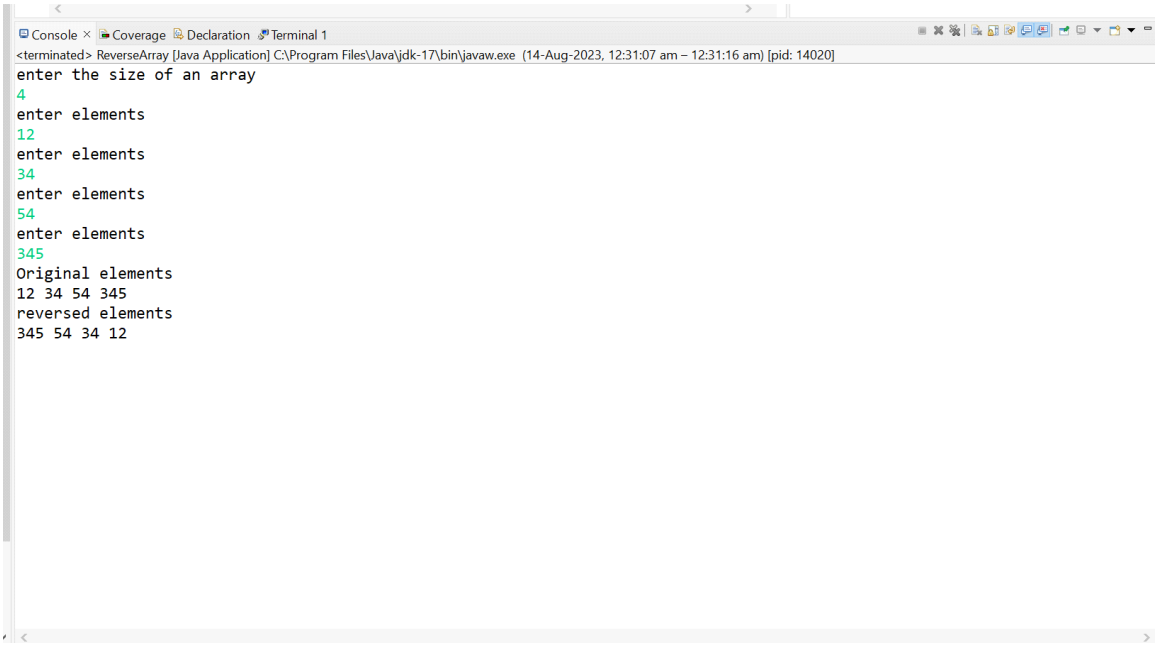


Program 5:

```
package onedimension;

import java.util.Scanner;

public class ReverseArray {

    public static void main(String[] args) {


        Scanner scan=new Scanner(System.in);

        System.out.println("enter the size of an array");

        int n=scan.nextInt();

        int a[]=new int[n];
```

```
            int b[]=new int[n];
            int ind=n-1;
            for(int i=0;i<a.length;i++)
            {
                  System.out.println("enter elements");
                  a[i]=scan.nextInt();
            }
            System.out.println("Original elements");
            for(int i=0;i<a.length;i++)
            {
                  System.out.print(a[i]+" ");
            }
            System.out.println();
            System.out.println("reversed elements");
            for(int i=0;i<a.length;i++)
            {
                  b[i]=a[ind];
                  System.out.print(b[i]+" ");
                  ind--;
            }

      }
}
```

Output:

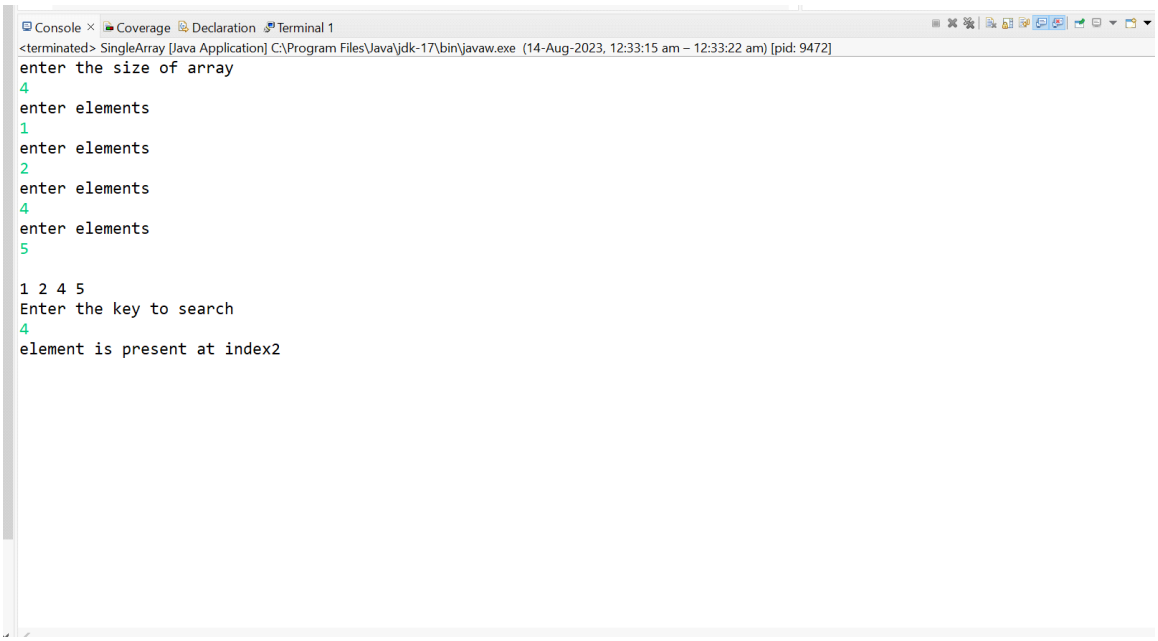


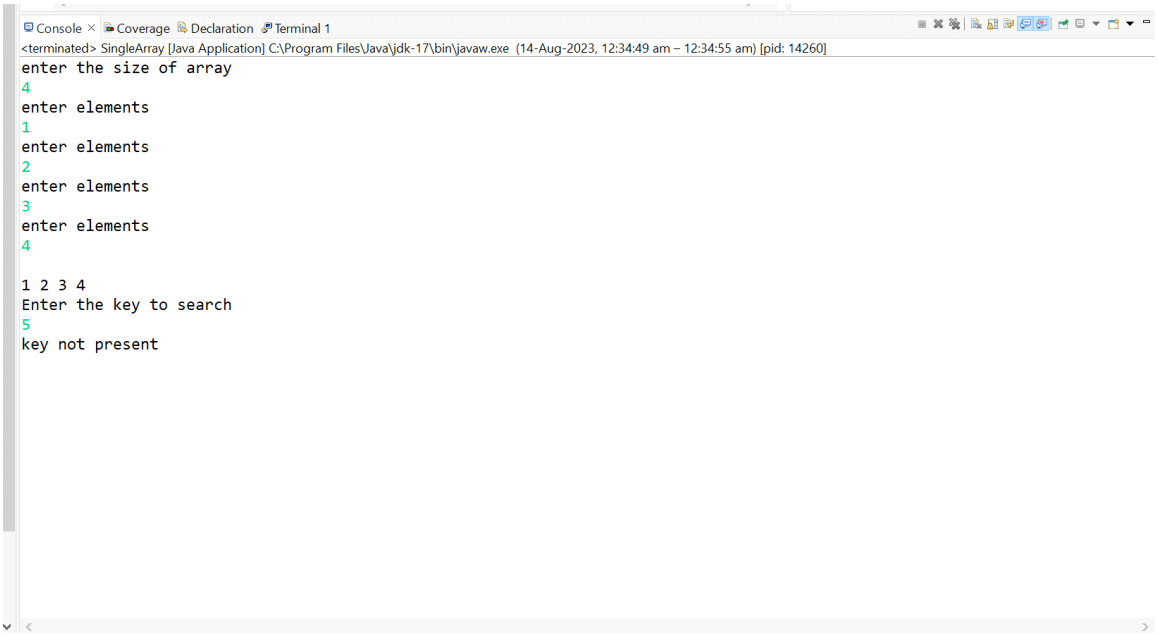
Program 6:

```
package onedimension;

import java.util.Scanner;

public class SingleArray {

	public static void main(String[] args) {


		Scanner scan=new Scanner(System.in);

		System.out.println("enter the size of array");

		int n=scan.nextInt();

		int a[]=new int[n];


		for(int i=0;i<a.length;i++)

		{

			System.out.println("enter elements");

			a[i]=scan.nextInt();
```

```
            }
            System.out.println();
            for(int i=0;i<a.length;i++)
            {
                  System.out.print(a[i]+" ");
            }
            System.out.println();
            System.out.println("Enter the key to search");
            int key=scan.nextInt();
            boolean present=false;
            for(int i=0;i<a.length;i++)
            {
                  if(a[i]==key)
                  {
                  System.out.println("element is present at index"+i);
                  present =true;
                  break;
                  }
            }
            if(present==false)
            {
                  System.out.println("key not present");
            }
      }
}
```

Output:





Program 7:

```
package onedimension;

import java.util.Scanner;

public class Sum {

	public static void main(String[] args) {

		Scanner scan=new Scanner(System.in);
```

```
System.out.println("enter the size of an array");
int n=scan.nextInt();
int a[]=new int[n];
int b[]=new int[n];
int c[]=new int[n];
for(int i=0;i<a.length;i++)
{
      System.out.println("enter elements");
      a[i]=scan.nextInt();
}
for(int i=0;i<a.length;i++)
{
      System.out.print(a[i]+" ");
}
System.out.println();
for(int i=0;i<b.length;i++)
{
      System.out.println("enter elements");
      b[i]=scan.nextInt();
}
for(int i=0;i<b.length;i++)
{
      System.out.print(b[i]+" ");
}
System.out.println();
System.out.println("sum of two arrays");
for(int i=0;i<c.length;i++)
```

```
            {
                  c[i]=a[i]+b[i];
                  System.out.print(c[i]+" ");
            }
      }
}
```

Output: