PRACTICA DE ARRAY

Programación

Leandro Clavijo

- **Array 1**

package array1;

import java.util.Scanner;

public class Array1 {

   public static void main(String[] args) {

  Scanner leer = new Scanner(System.in);

   int [] vector;

   vector = new int [10];

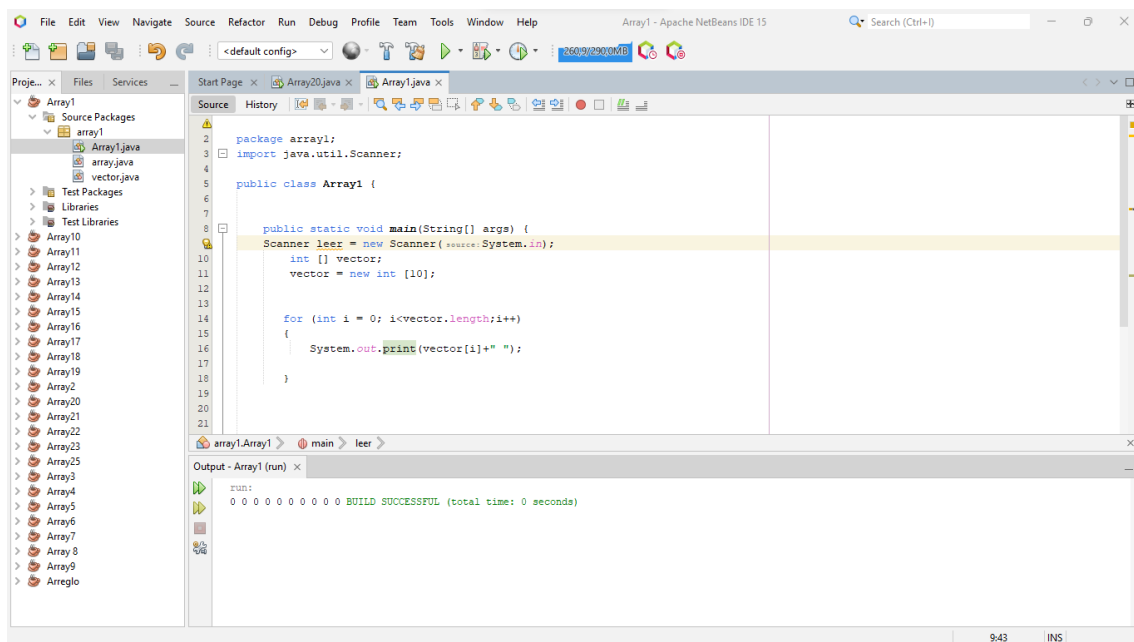   for (int i = 0; i<vector.length;i++)

   {

    System.out.print(vector[i]+" ");

   }

  }

}

- **Array 2**

package array2;

import java.util.Scanner;

```java
public class Array2 {

    public static void main(String[] args) {

        int [] numero;

        numero = new int [20];

        int n1=0;

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

        {

          numero [i] = n1;

          n1 = n1+1;

          System.out.println(numero[i]);

        }

    }

}
```
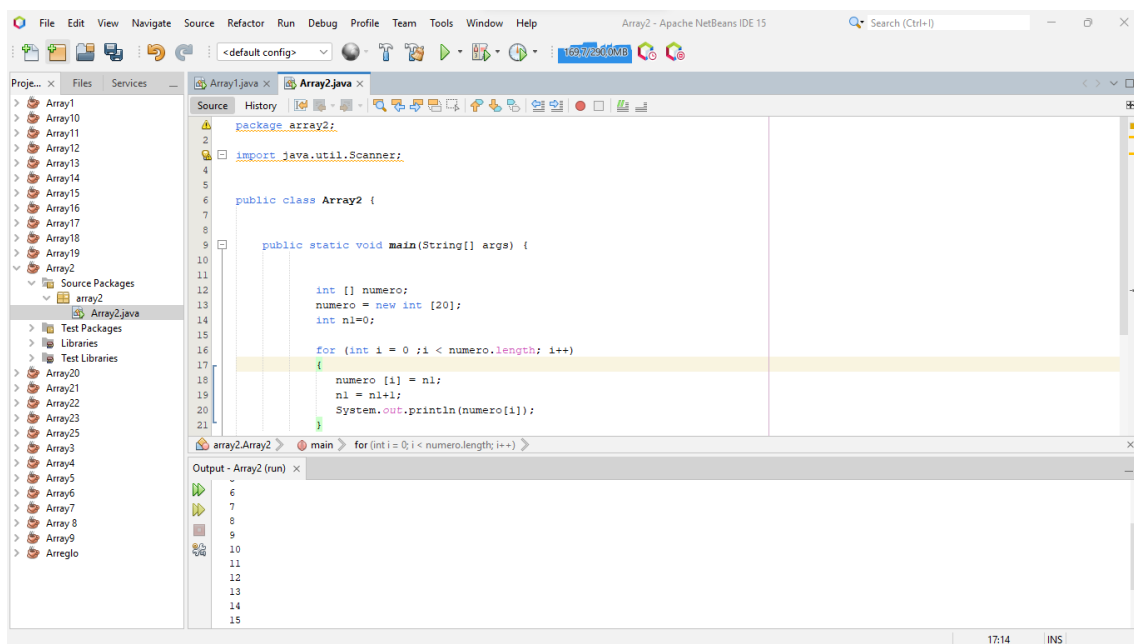

- **Array 3**

```java
package array3;

import java.util.Scanner;

public class Array3 {

    public static void main(String[] args) {
```

```java
        int numero [] = new int[5];

        Scanner reader = new Scanner(System.in);

        int conp = 0;

        int conn = 0;

        int conc = 0;

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

        {

            System.out.println("Ingrese un numero: ");

            numero[i] = reader.nextInt();

        }

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

        {

            if (numero[i] > 0)

            {

                conp++;

            }

            else if (numero[i] < 0)

            {

                conn++;

            }

            else

            {

                conc++;

            }

        }

        System.out.println("Ingreso "+conp+" positivos");

        System.out.println("Ingreso "+conn+ " negativos");

        System.out.println("Ingreso "+conc+ " numero 0");

    }

}
```
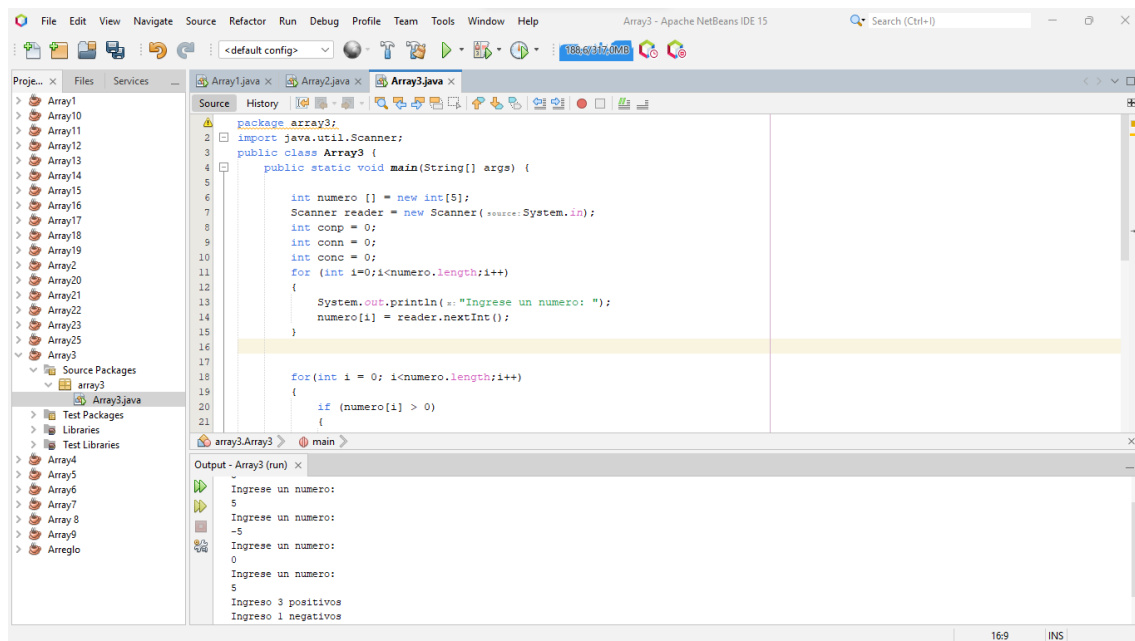
Array 4

package array4;

import java.util.Scanner;

public class Array4 {

   public static void main(String[] args) {

     int tabla [] = new int[5];

     Scanner reader = new Scanner(System.in);

     int numero;

     int cont=0;

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

     {

       System.out.println ("Ingresa un valor: ");

       tabla [i] = reader.nextInt();

     }

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

     {

     if (tabla [i] > 0)

     {

       if (tabla [i] % 2 == 0)

       {

```
                cont++;

            }

        }

    }

    System.out.println ("Totla de numero postivos y pares son: "+cont);

    }

}
```
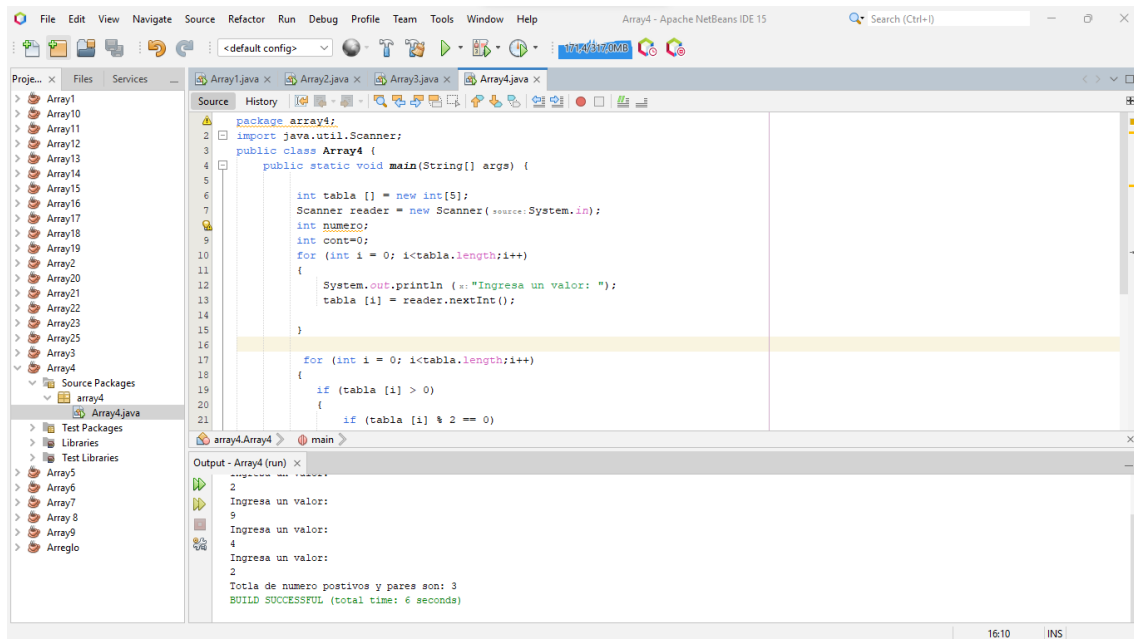

- **Array 5**

```java
package array5;

import java.util.Scanner;

public class Array5 {

    public static void main(String[] args) {

        int vector [] = new int[5];

        Scanner reader = new Scanner(System.in);

        int num;

        int num1;

        int i ;

        int sum = 0;

        for( i = 0; i < vector.length;i++)

        {
```

```java
        System.out.println("Ingrese un numero: ");

        vector[i] = reader.nextInt();

    }


    System.out.println("Cuantos valores quiere sumar: ");

    num = reader.nextInt();

    for( i = 0; i < num; i++)

    {

        num1 = vector[i];

        sum+=num1;

    }

    System.out.println("Respuesta "+sum);

    }

}
```
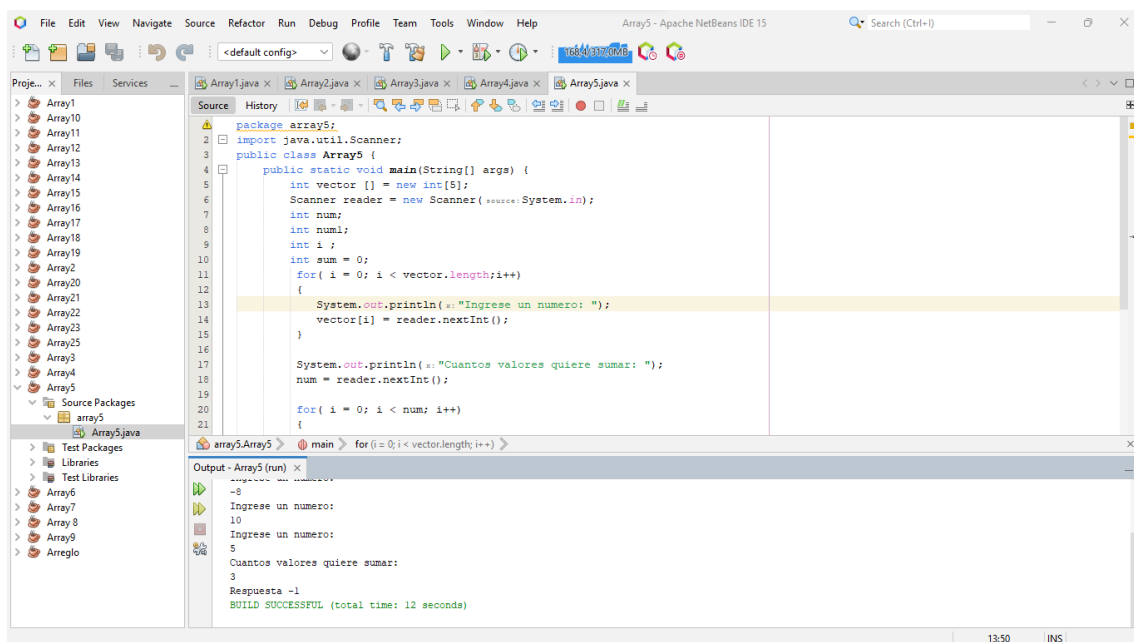

- **Array 6**

```java
package array6;

import java.util.Scanner;

public class Array6 {

    public static void main(String[] args) {

        int array [] = new int[5];
```

```java
Scanner reader = new Scanner(System.in);

int i;

int pos = -1;

for (i=0; i<array.length;i++)

{

   System.out.println("Ingrese caulquier tipo de valores");

   array[i]= reader.nextInt();

}

for (i=0; i<array.length;i++)

{

   if ( array[i] > 30)

   {

    pos = i;

    System.out.println("El valor "+array[i]+ " esta guardado en el espacio numero: "+pos);

   }

   else

   {

    System.out.println("LOS ELEMENTOS GUARDADOS EN LA ARRAY SON MENORES DE 30
SON" );


   }

  }

  }

}
```
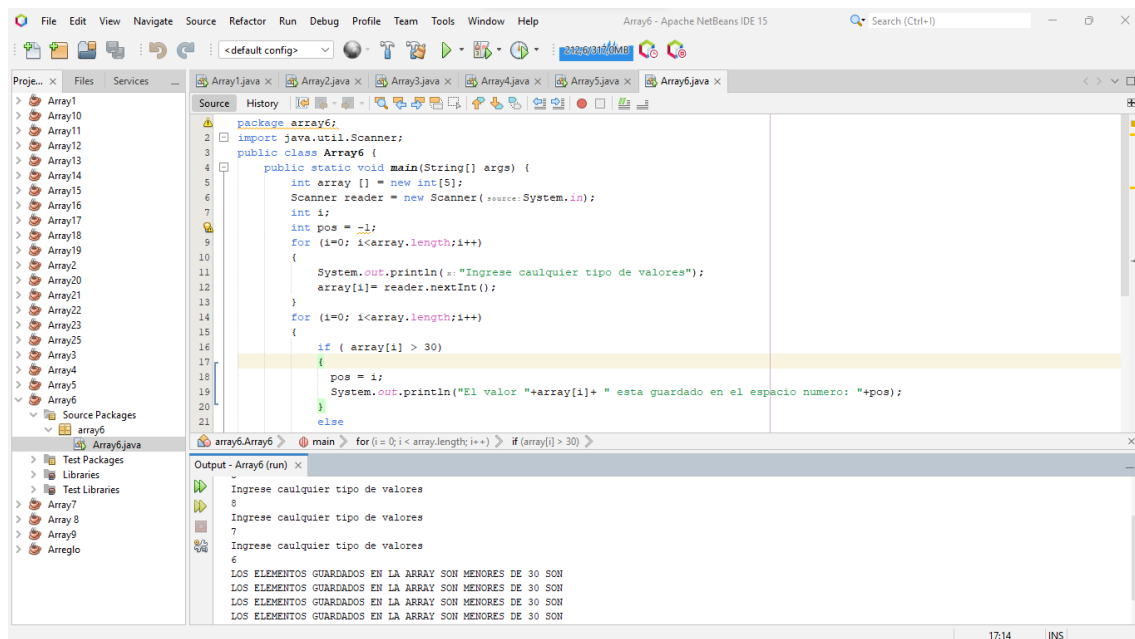
- **Array 7**

```java
package array7;

import java.util.Scanner;

public class Array7 {

    public static void main(String[] args) {

        int origen [] = {10,25,26,40,37,45,90,76,78,81,58,32};

        int destino[] = new int [origen.length];

        int i;

        System.out.print("Valores de la array original \n");

        for (i = 0; i < destino.length ; i++)

        {

            destino[i] = origen [i];

            System.out.print( +destino[i]+"-");

        }


        System.out.println("\nLos valores superiores a 25 son:" );


        for (i = 0; i < destino.length ; i++)

        {
```
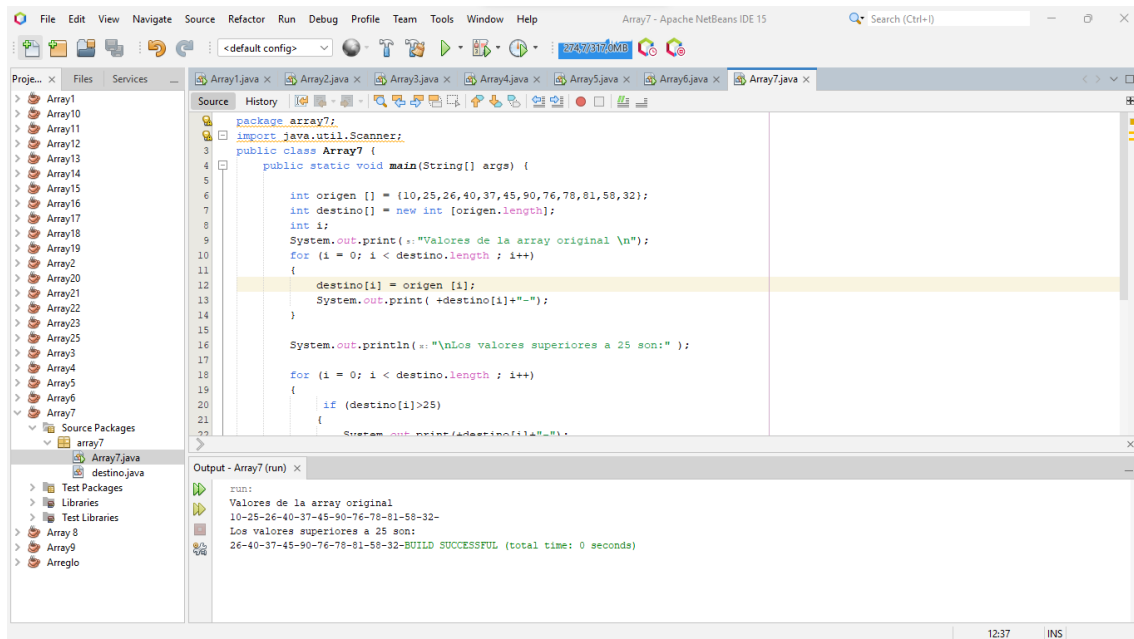
```
        if (destino[i]>25)

      {

          System.out.print(+destino[i]+"-");

      }

    }

  }

}
```


- **Array 8**

```
package array.pkg8;

import java.util.Scanner;

public class Array8 {

    public static void main(String[] args) {

        float notas [] = new float [10] ;

        Scanner reader = new Scanner(System.in);

        int i;

        float cont=0;

        float prom=0;


        for (i=0;i<notas.length;i++)

        {
```

```java
        System.out.println("Ingresa la nota de una asignatura: ");

        notas[i] = reader.nextFloat();

    }


    for (i=0;i<notas.length;i++)

    {

        if (notas [i]<=10 && notas [i]> 0)

        {

            cont=cont+notas [i];

            prom = cont/10;


        }

        else

        {

            System.out.println("La nota "+notas[i]+" es invalida");

        }

    }

    System.out.println("La nota media es");

    System.out.println(+prom);

    }

}
```
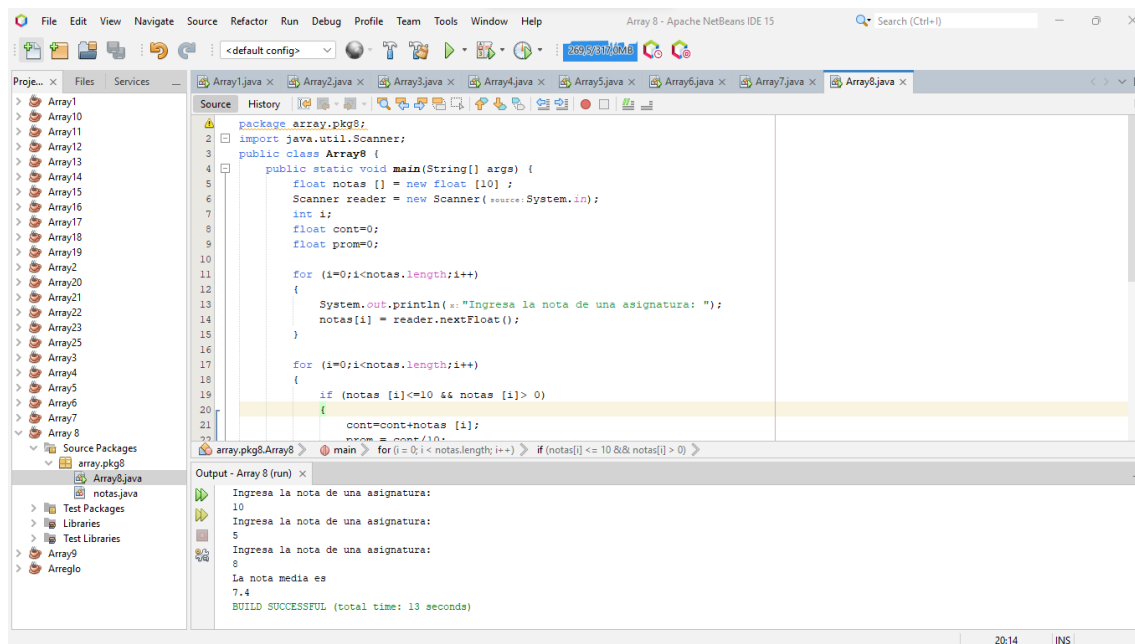
- **Array 9**

```
package array9;

public class Array9 {

    public static void main(String[] args) {

        int numeros [] = new int [15];

        int i;

        int n1=1;

        System.out.println("Secuencia primaria");

        for(i=0; i<numeros.length;i++)

        {

            numeros [i]= n1;

            n1=n1+1;

            System.out.print(+numeros [i]+"-");

        }

        System.out.println("\nSecuencia invetida");


        for ( i = numeros.length - 1; i >=0 ; i--)

        {


            System.out.print(+numeros[i]+"-");
```
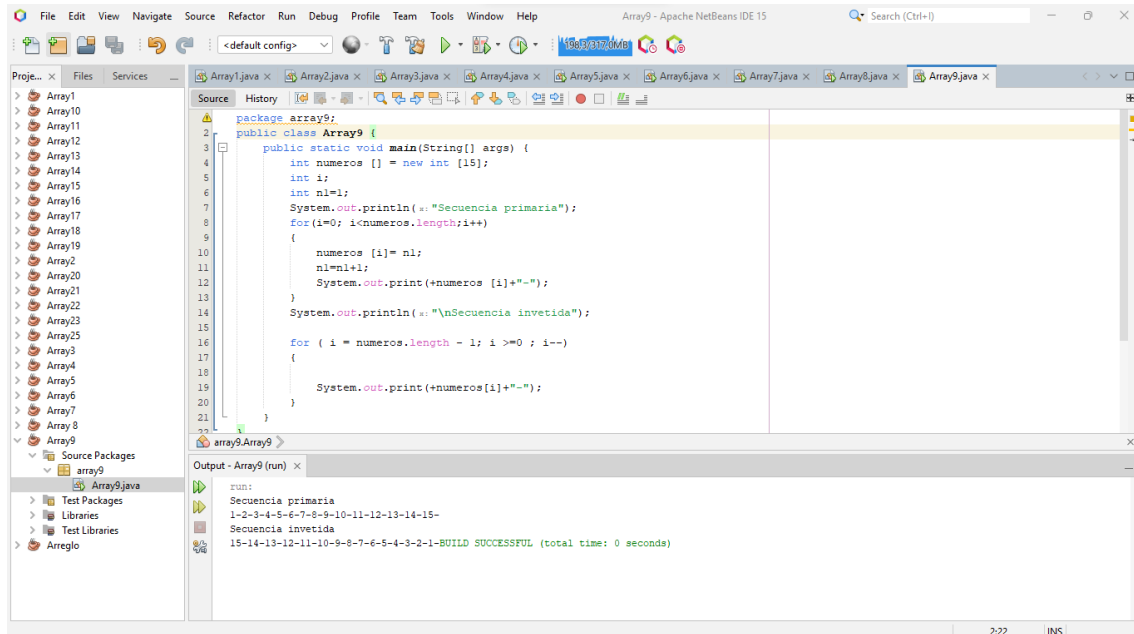
```
        }
    }
}
```


- **Array 10**

package array10;

import java.util.Scanner;

public class Array10 {

    public static void main(String[] args) {

        int respuesta [] = new int [10];

        int positivos [] = new int [respuesta.length];

        int negativos [] = new int [respuesta.length];

        Scanner reader = new Scanner(System.in);

        int i;

        for (i=0;i<respuesta.length;i++)

        {

            System.out.println("Ingresa un valor");

            respuesta[i] = reader.nextInt();

            positivos [i] = respuesta [i];

            negativos [i] = respuesta [i];

        }

```java
System.out.println("Los valores positivos son positivos");


    for (i=0;i<positivos.length;i++)

    {

      if (  positivos[i] > 1)

      {

          System.out.println(+positivos[i]);

      }

    }

    System.out.println("Los valores negativos son ");

    for (i=0;i<negativos.length;i++)

    {

      if ( negativos[i]< 0)

      {

          System.out.println(+negativos [i]);

      }

    }

  }

}
```
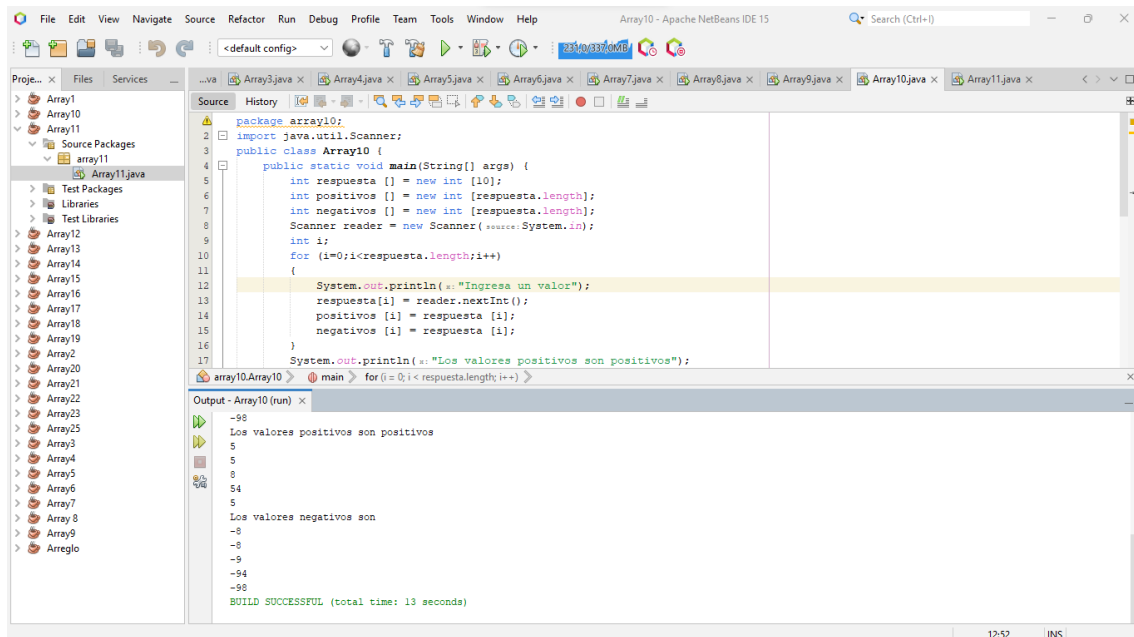
- **Array 11**

```java
package array11;

import java.util.Scanner;

public class Array11 {

    public static void main(String[] args) {

        float numeros [] = new float [5];
        Scanner leer = new Scanner(System.in);

        int i;
        float pos = numeros [0];
        float numeromayor = numeros [0]  ;

        for( i=0;i<numeros.length;i++)
        {
            System.out.print("Ingresa un valor: ");
            numeros[i] = leer.nextFloat();
        }

        for( i=0;i<numeros.length;i++)
        {
            pos=i;
            System.out.println("El valor de la componenete "+pos+": "+numeros[i]);

        }

        for( i=0;i<numeros.length;i++)
        {
            if(numeros[i] > numeromayor)
            {
```
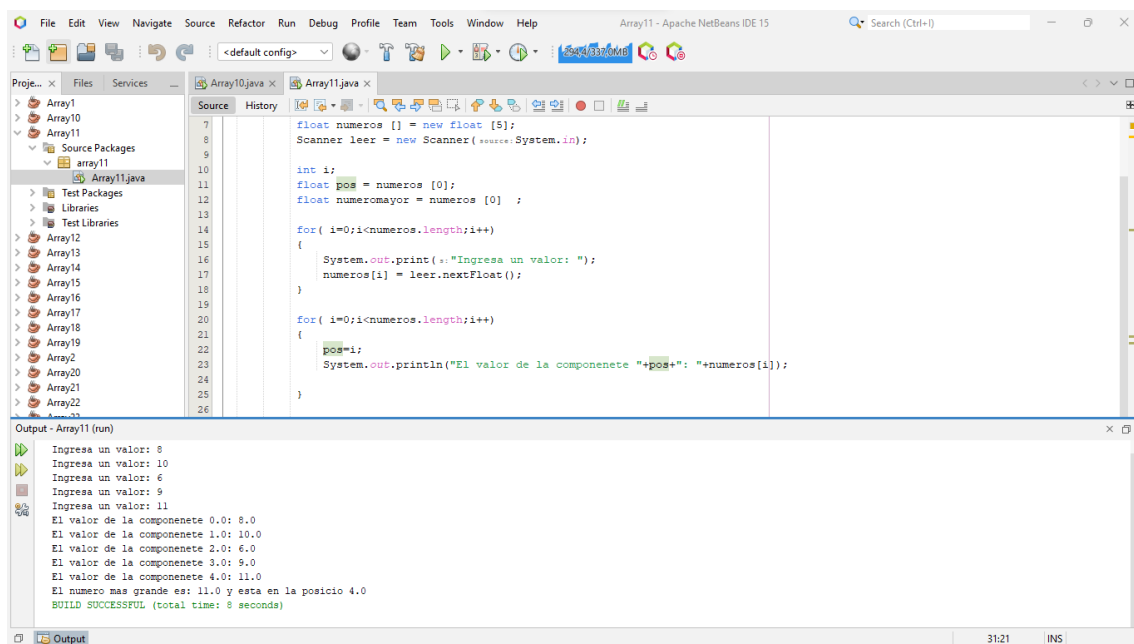
```
        pos = i;

        numeromayor = numeros[i];



    }

  }

  System.out.println("El numero mas grande es: "+numeromayor+ " y esta en la posicio "+pos);

 }

}
```


- **Array 12**

```
package array12;



public class Array12 {



    public static void main(String[] args) {

        int[][] matriz = new int[10][10];
```

```java
        for (int i = 0; i < matriz.length; i++) {

            for (int j = 0; j < matriz[i].length; j++) {

                if (i % 2 == 1)

                {

                    matriz[i][j] = 1;

                }

            }

        }




        System.out.println("Matriz bidimensional:");

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

        for (int j = 0; j < matriz[i].length; j++) {

                System.out.print(matriz[i][j] + " ");

        }

        System.out.println();

        }

    }

}
```

- **Array 13**

```java
package array13;
public class Array13 {

    public static void main(String[] args) {

        int[][] datos = new int [10][10];

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

        for (int i = 0; i< datos.length;i++)
        {
            for(int j = 0; j < datos[i].length; j++)
            {
                System.out.print( datos[i][j]+" ");
            }
            System.out.println ();
        }
    }
}
```
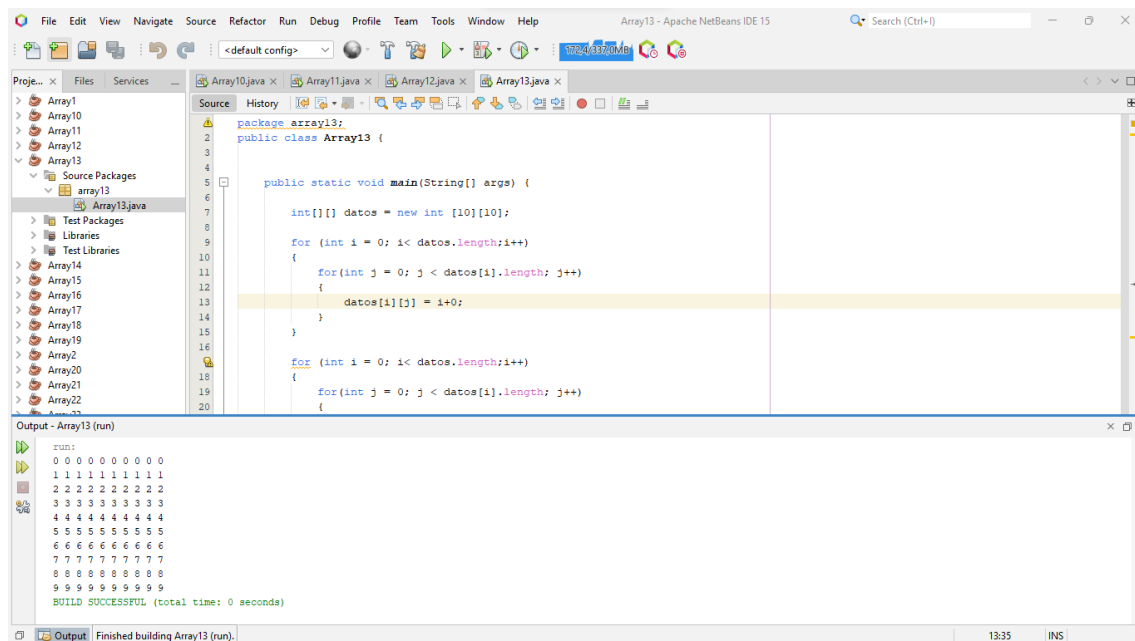
- **Array 14**

```java
package array14;

public class Array14 {

    public static void main(String[] args) {

        int[][] datos = new int [10][10];

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

        {

            for(int j = 0; j < datos[i].length; j++)

            {

                if (i + j == datos.length - 1)

                {

                    datos[i][j] = 1;

                }

            }

        }

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

        {

            for(int j = 0; j < datos[i].length; j++)

            {

                System.out.print( datos[i][j]+" ");
```

```
                }
        System.out.println ();
            }
        }
}
```
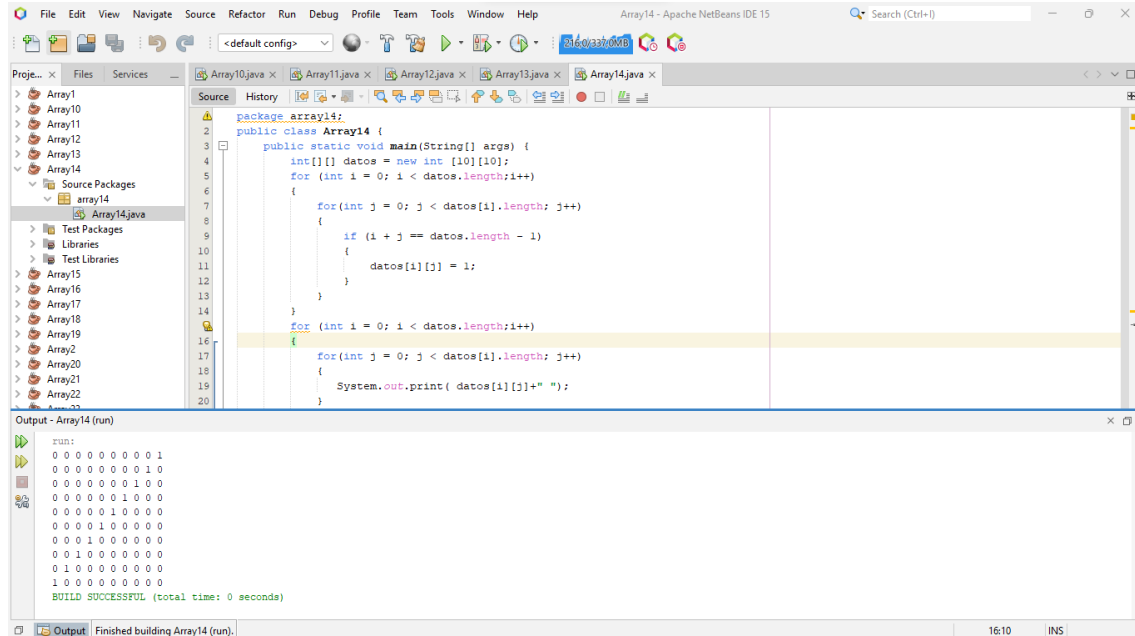

- **Array 15**

```
package array15;

import java.util.Scanner;

public class Array15 {

    public static void main(String[] args) {


        int[][] datos = new int [10][10];

        Scanner reader = new Scanner(System.in);

        int sumafi = 0;

        int sumaco = 0;

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

        {

            for(int j = 0; j < datos[i].length; j++)

            {

                datos [i][j] = j;
```

```java
        }
    }


    System.out.println ("\nEstos valores son los que escribio en la array\n");


    for (int i = 0; i < datos.length;i++)
    {
        for(int j = 0; j < datos[i].length; j++)
        {
            System.out.print( "{"+datos[i][j]+"}");
        }
     System.out.println ();
    }



    //suma de fila //
    System.out.println("\nLos resultados de las sumas de las filas es\n");
     for (int i = 0; i < datos.length;i++)
    {
        for(int j = 0; j < datos[i].length; j++)
        {
            sumafi = sumafi + datos [i][j];
        }
        System.out.print("La suma de la fila es: "+sumafi);
        sumafi = 0;
        System.out.println ();
    }


    // suma de columnas
    System.out.println("\nLos resultados de las sumas de las columnas es\n");
     for (int i = 0; i < datos.length;i++)
```

```
        {

            for(int j = 0; j < datos[i].length; j++)

            {

                sumaco = sumaco + datos [j][i];

            }

            System.out.print("La suma de las columnas es: "+sumaco);

            sumaco = 0;

            System.out.println ();

        }

    }


}
```

Ejercicios extras

- **Array 16**

package array16;

import java.util.Scanner;

```java
public class Array16 {


    public static void main(String[] args) {


        int[][] numeros = new int [3][3];
        Scanner reader = new Scanner(System.in);



        System.out.println ("Ingresa los valores dentro de la array");
        for (int i = 0; i < numeros.length;i++)
        {
            for(int j = 0; j < numeros[i].length; j++)
            {
                numeros [i][j] = reader.nextInt();
            }
        }

        System.out.println ("\nLos valores ingresados son pares\n");


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

```
        }

    }


    System.out.println ("\n\nLos valores ingresados son impares\n");


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

    {

        for(int j = 0; j < numeros[i].length; j++)

        {

            if ( numeros [i][j] % 2 == 1)

            {

                System.out.print (+numeros [i][j]+" ");

            }

        }

    }


    }


}
```
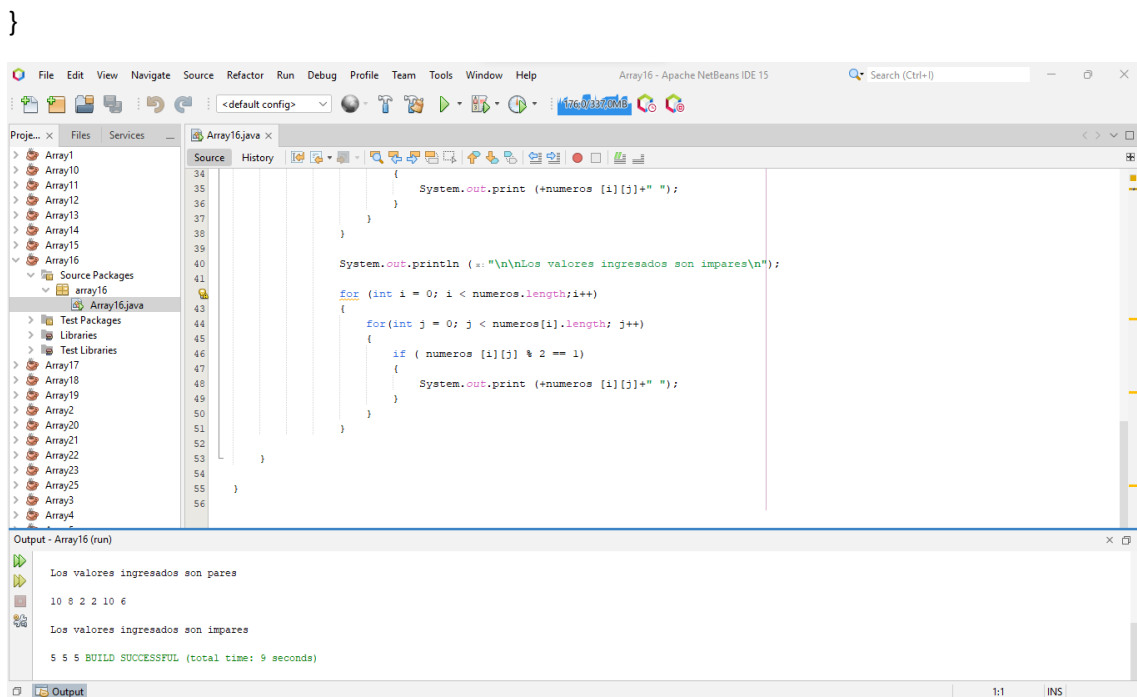
- **Array 17**

```java
package array17;

import java.util.Scanner;

public class Array17 {



    public static void main(String[] args) {



        int [] numero = new int [2];

        Scanner reader = new Scanner(System.in);

        int pos;

        int mult = 0;



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

        {

            pos=i;

            System.out.println("Ingresa un numero "+pos);

            numero[i] = reader.nextInt();



            mult = numero[0]* numero[1];

        }



        System.out.println("El producto de los 2 numeros es: "+mult);

    }

}
```
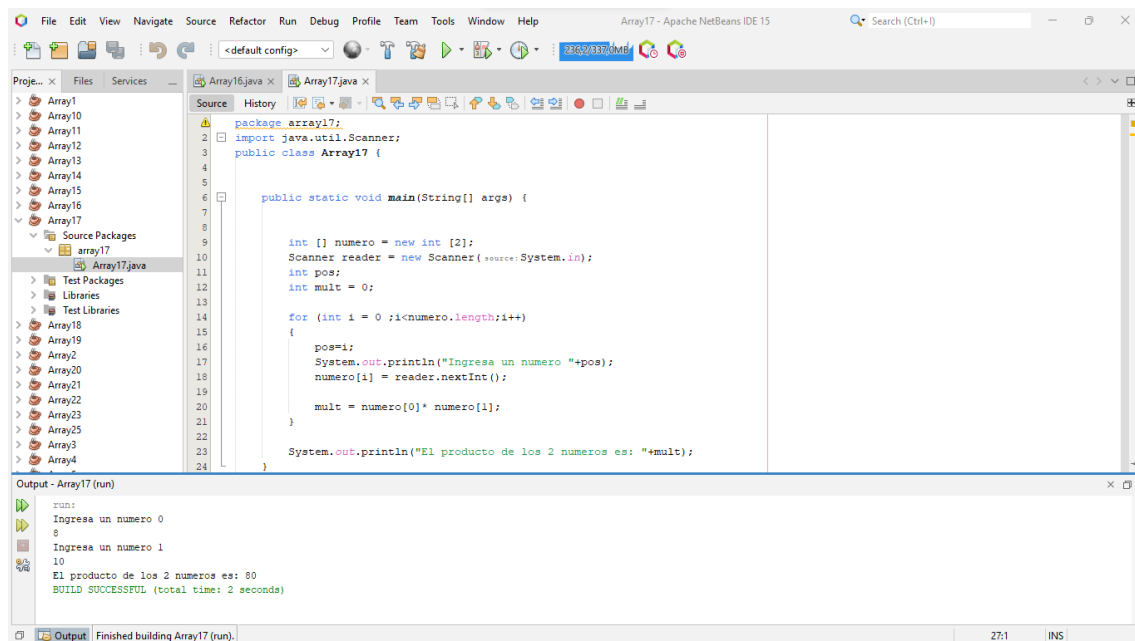
- **Array 18**

```java
package array18;

import java.util.Scanner;

public class Array18 {

    public static void main(String[] args) {

        int num [] = new int [2];
        Scanner reader = new Scanner(System.in);
        int mayor = 0;

        for (int i = 0; i<num.length;i++)
        {
            int pos = i;
            System.out.println("Ingresa un valor "+pos);
```

```java
        num [i] = reader.nextInt();

    }

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

    {

        if (num [i] > mayor)

        {

            mayor = num [i];

        }

    }


        System.out.println("El numero mayor es: "+mayor);

    }

}
```
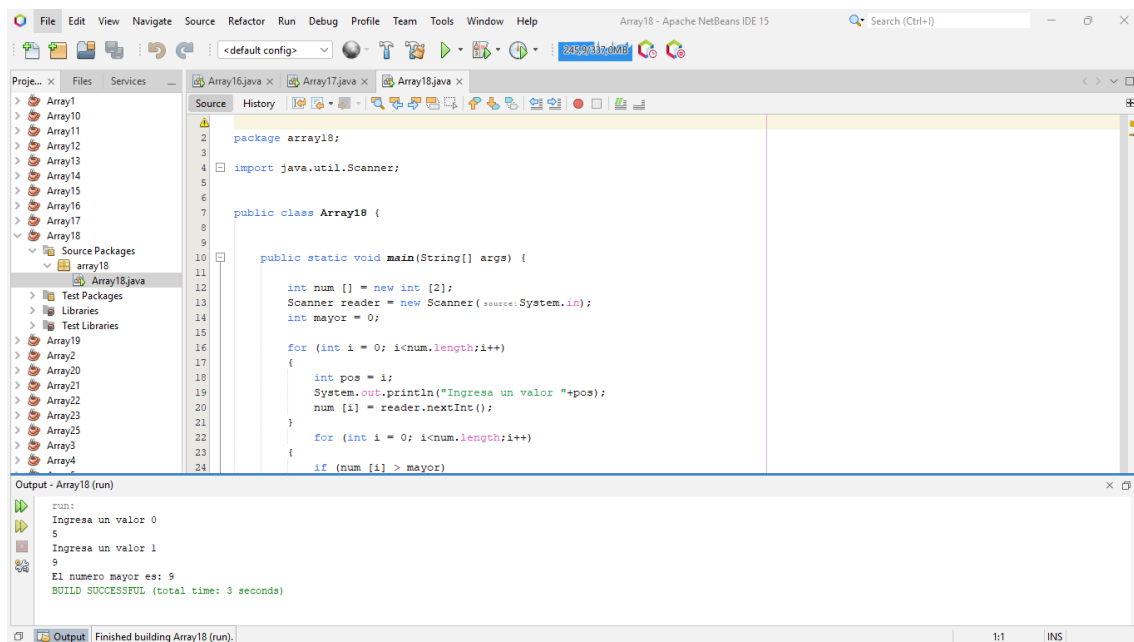

- **Array 19**

```java
package array19;


import java.util.Scanner;
```

```java
public class Array19 {


    public static void main(String[] args) {
        int num [] = new int [3];
        Scanner reader = new Scanner(System.in);
        int mayor = 0;
        for (int i = 0; i<num.length;i++)
        {
            int pos = i;
            System.out.println("Ingresa un valor "+pos);
            num [i] = reader.nextInt();
        }


        for (int i = 0; i<num.length;i++)
        {
            if (num [i] > mayor)
            {
                mayor = num [i];
            }
        }


        System.out.println("El numero mayor es: "+mayor);
    }
}
```
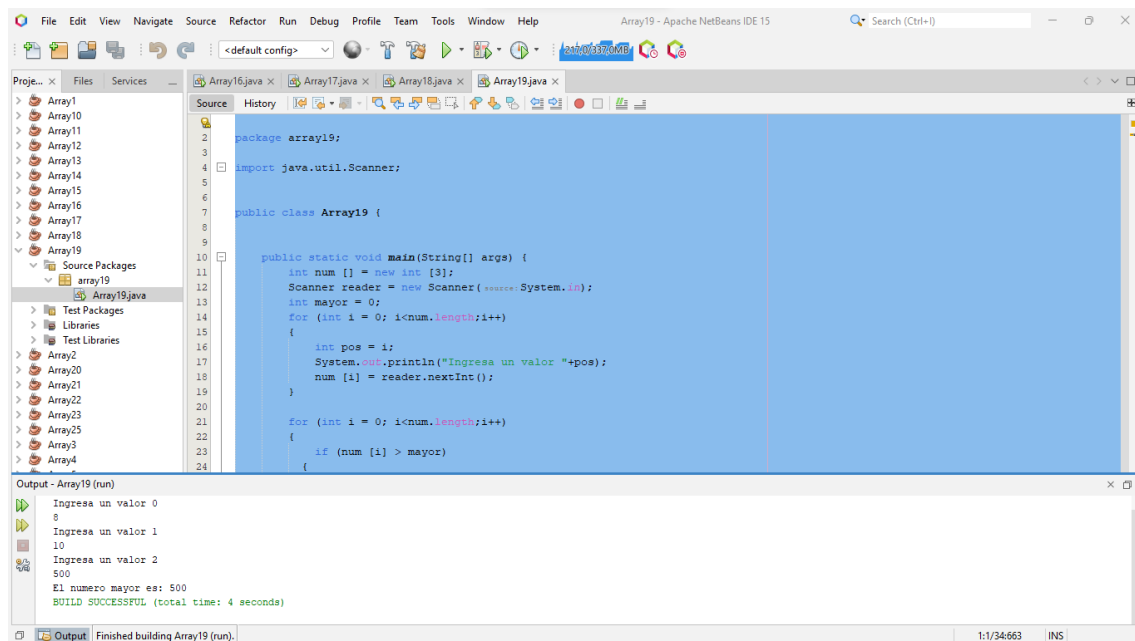
- **Array 20**

```java
package array20;

import java.util.Scanner;

public class Array20 {

    public static void main(String[] args) {

        int [] num = new int [1];
        Scanner reader = new Scanner(System.in);
        int mult =0;

        System.out.println("INGRESE EL NUMERO QUE DESEA SABER SU TABLA DE MULTIPLICAR");
        for (int i=0; i < num.length ; i++)
        {
            num [i]= reader.nextInt();
```

```java
        System.out.println("La tabla de multiplicar del "+num [i]+" es:");

        for (int j = 1; j < 11; j++)

        {

            mult = num [i] * j;


            System.out.println(+num [i]+"*" +j+ "=" +mult);

        }

    }

  }

}
```
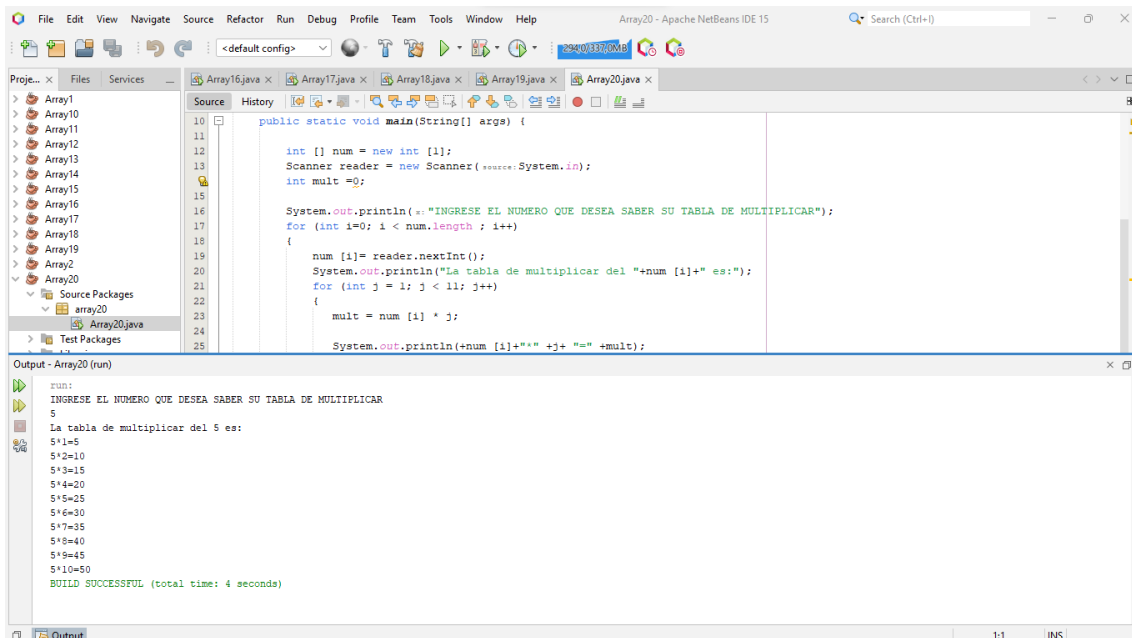

- **Array 21**

package array21;

import java.util.Scanner;

public class Array21 {

    public static void main(String[] args) {

```java
    int [] num = new int [30];

    int suma = 0;

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

    {

        num[i] = i;

        suma = suma + i;

        System.out.println(""+ num[i]);


    }

    System.out.println("La suma de todos los numeros es: "+ suma);

  }

}
```
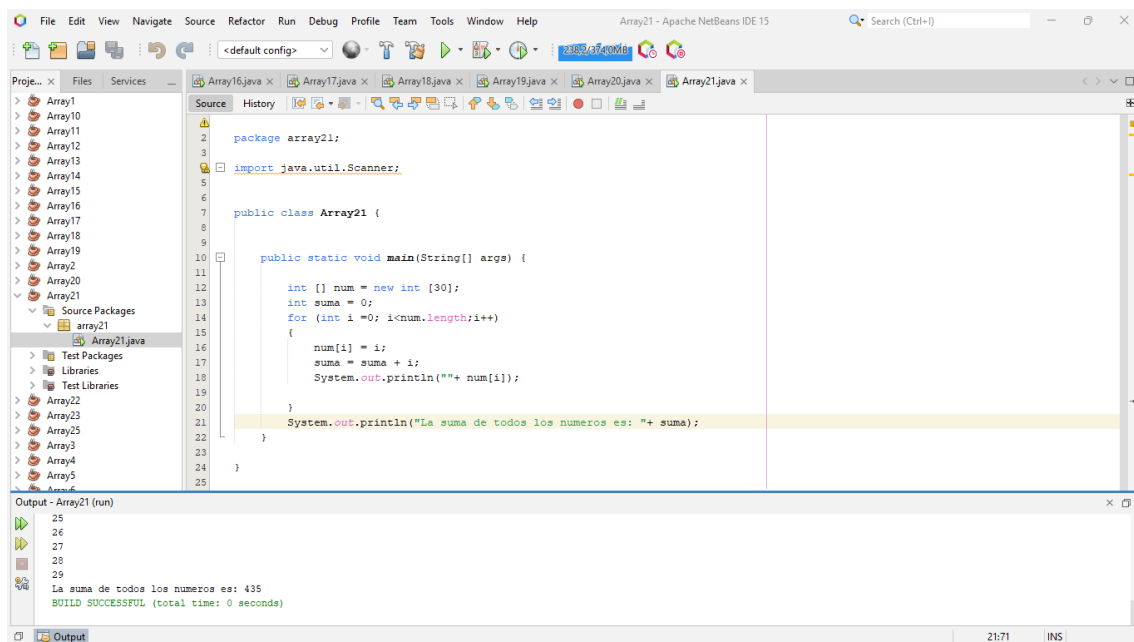

- **Array 22**

package array22;

import java.util.Scanner;

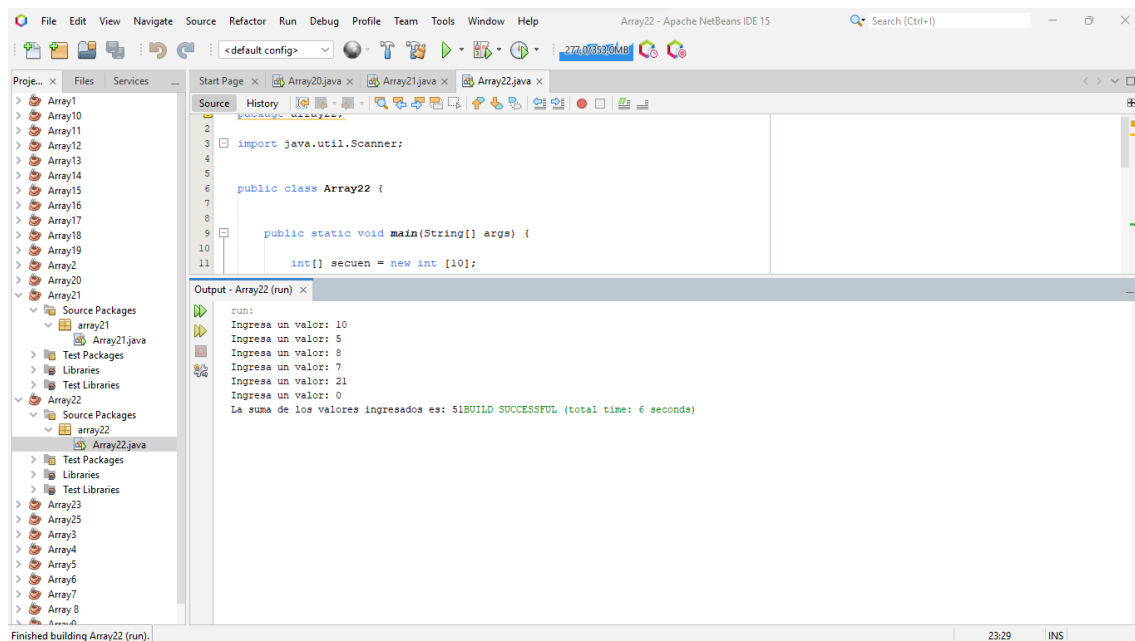public class Array22 {

```java
public static void main(String[] args) {

    int[] secuen = new int [10];
    Scanner reader = new Scanner(System.in);
    int i = 0;
    int suma = 0;
    do
    {
        System.out.print("Ingresa un valor: ");
        secuen[i] = reader.nextInt();
        if (secuen[i] > 0)
        {
            suma = suma + secuen[i];
        }
    }while (secuen[i] > 0);

    System.out.print("La suma de los valores ingresados es: "+suma);

}

}
```

- **Array 23**

```java
package array23;

import java.util.Scanner;

public class Array23 {

    public static void main(String[] args) {

        int [] num = new int [2];

        Scanner reader = new Scanner(System.in);

        int valor = 0;

        int suma = 0;


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

        {

            System.out.println("Ingrese su primer valor");

            num[i] = reader.nextInt();

            valor = num[0];

        }


        for (int i = 0; i < num [1];i++)

        {

            suma = suma + valor;
```

```
        }

        System.out.println("El resultado de tu producto mediante suma es: "+suma);

    }

}
```