

## 9. Writing a program in Java to verify implementation of arrays

### ALGORITHM

**Step 1:** Start

**Step 2:** Create an array

**Step 3:** Insert elements into array and find its length

**Step 4:** Display array elements

**Step 5:** Create 2d array

**Step 6:** Read row and column from user

**Step 7:** Insert elements

**Step 8:** Start for loop to insert row

**Step 9:** Start another for loop to insert column

**Step 10:** Display array

**Step 11:** Stop

### SOURCE CODE

```
//implementation of arrays
package assistedPracticeProject;
import java.util.*;
public class Practice_Project9
{
    public static void main(String args[])
    {
        //creating integer array
        int even[]; //reference is created
        even=new int[5]; //allocating memory

        //adding elements
```

```

even[0]=2;
even[1]=4;
even[2]=6;
even[3]=8;
even[4]=10;

//displaying 2 nd element
System.out.println("\nSECOND ELEMENT =" + even[1]);

//array length
int len=even.length;

System.out.println("\nLENGTH OF ARRAY =" + len);

//displaying array
System.out.println("\nARRAY ELEMENTS ARE =");

for(int i=0;i<len;i++)
{
    System.out.print(even[i]+" ");
}

//creating two dimensional array
int matrix[][]=new int[2][3];

//input from users
System.out.println("\n\nTWO DIMENSIONAL ARRAY");
System.out.println("\nEnter elemnts of 2D array :");
Scanner sc=new Scanner(System.in);//creating scanner object

//loop for matrix row
for(int i=0;i<2;i++)
{
    //loop for matrix column
    for(int j=0;j<3;j++)
    {
        matrix[i][j]=sc.nextInt();
    }
}

```

```

        }
    }

    //displaying 2D array
    System.out.println("\n--2D MATRIX-- ");
    for (int i = 0; i < 2; i++)
    {
        for (int j = 0; j < 3; j++)
        //prints the array elements
        System.out.print(matrix[i][j] + " ");
        System.out.println();
    }
}
}

```

## OUTPUT

```

<terminated> Practice_Projects [Java Application] C:\Users\hp\AppData\Local\Programs\Java\jdk-11.0.10\bin\java.exe
SECOND ELEMENT =4

LENGTH OF ARRAY =5

ARRAY ELEMENTS ARE =
2 4 6 8 10

TWO DIMENSIONAL ARRAY

Enter elemnts of 2D array :
1
2
3
4
5
6

--2D MATRIX--
1 2 3
4 5 6

```