

```

int[] anArray = new int[10];
public void accept()throws IOException
{
    int num;
    String str;
    BufferedReader bReader = new BufferedReader(new InputStreamReader(System.in));
    System.out.println("Enter a number and press return");
    for(int i = 0; i < anArray.length; i++)
    {
        str = bReader.readLine();
        num = Integer.parseInt(str);
        anArray[i] = num;
    }
    for(i = 0; i < anArray.length; i++)
    {
        System.out.println("Element" + (i + 1) "is :" + anArray[i]);
    }
}
}

```

80. Write a program that finds the average marks of students stored in stu Array.

Ans. import java.io.*;

public class ArrayDemo

{

int[] anArray = new int[10];

```
}
```

```
}
```

83. Write a program to initialise an array of 5 names and initialise another array with their respective telephone numbers. Search for a name input by the users, in the list. If found display "Search successful" and print the name along with the telephone number, otherwise display "Search unsuccessful. Name not enlisted".

Ans. `import java.io.*;`

```
public class test
```

```
{
```

```
    public static void main(String args[]) throws IOException
```

```
    {
```

```
        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
```

```
        String nm[] = {"Harish", "Dev", "Rakesh", "Sudheer", "Nishant"};
```

```
        String telno[] = {"9897605811", "9412163232", "9891102002", "9837000144", "9893299877"};
```

```
        String s;
```

```
        boolean found = false;
```

```
        System.out.println("Enter Name to search");
```

```
        s = br.readLine();
```

```
        for(int i = 0; i <= 4; i++)
```

```
        {
```

```
            if(s.equals(nm[i]))
```

```
            {
```

```
                found = true;
```

```

        System.out.println("Search Successful ! The telephone number of " + s + " Is " + telno);
        break;
    }
}
if(found == false)
    System.out.println("Search Unsuccessful. Name not enlisted");
}
}

```

84. Assume that marks have already been entered in array stuArray. Write a method to find the maximum and minimum marks.

Ans. public void check()

```

{
    int min = max = 0;
    min = stuArray[0];
    for(int i = 0; i < stuArray.length; i++)
    {
        if(max < stuArray[i])
            max = stuArray[i];
        if(min > stuArray[i])
            min = stuArray[i];
    }
    System.out.println("The maximum is : " + max);
    System.out.println("The minimum is : " + min);
}

```

85. Write a method that reverses the characters in a character array.

Ans. public void string()

```

{
    char[] array = {'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j'};
    for(int last = array.length; last > 0; last--)
    {
        System.out.print(array[last]);
    }
}

```

86. Write a method that reads a character array and stores the reverse of the array in another array.

Ans. public void stringrev()

```

{
    char[] array = {'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j'};
    int len = array.length;
    char[] reverse = new char[len];
    for(int last = len, ctr = 0; last > 0; last--, ctr++)
    {
        reverse[ctr] = array[last];
    }
}

```

87. Write a program that reads a character array and checks if it is a palindrome.

Ans. import java.io.*;

public class Palindrome

```

{
    char[] array = {'a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j'};
    int flag = 0;

```

```

public void demo()
{
    int len = array.length;
    int ctr = 0;
    for(int last = len; last > 0 && ctr < len; last --, ctr++)
    {
        if(array[ctr] == array[last])
        {
            continue;
        }
        else
        {
            flag = 1;
            break;
        }
    }
    if(flag == 1)
        System.out.println("It is not a palindrome");
    else
        System.out.println("It is a palindrome");
}
}

```

88. Write a program which accepts an integer array as parameter and doubles all the elements of the array. Also, write another method to pass an array to the method and display the original array.

Ans. public class Arrdemo

```

{
    public void Array(int[] arr)
    {
        for(int ctr = 0; ctr < arr.length; ctr++)
            arr[ctr] = arr[ctr] + arr[ctr];
    }
    public void display(int[] arr1)
    {
        for(int ctr = 0; ctr < arr1.length; ctr++)
            System.out.print(arr1[ctr] + " ");
    }
}
}

```

89. Write a program to search an element in an array using linear search.

Ans. import java.io.*;
import java.util.*;
public class LinearSearch
{
public static void main(String args[]) throws IOException
{
int i;
int array[] = new int[80];
int number = 0;
int pos = 0;
Scanner sc = new Scanner(System.in);
int n = sc.nextInt();

```

System.out.print("Enter numbers in an array =");
for(i=0; i<n; i++)
{
System.out.print("Enter number =" + (i+1) + " :");
}
System.out.print("Enter number to be searched =");
number = sc.nextInt();
for(i=0; i<n; i++)
{
if(array[i] == number)
pos = i+1;
}
if(pos > 0)
System.out.println("The required number" + number + "Found at Location no." + pos);
else
System.out.println("The required number" + number + "Not Found !");
}
}

```

90. Write a program which accepts 10 names and displays them in uppercase.

Ans. import java.io.*;
public class Arrdemo

```

{
String[] Name = new String[10];
String str;
public void accept()
{
BufferedReader bReader = new BufferedReader(new InputStreamReader(System.in));
for(int i = 0; i < anArray.length; i++)
{
System.out.print("Enter a number and press return");
Str = bReader.readLine();
anArray[i] = str;
}
for(int j = 0; j < anArray.length; j++)
{
if(anArray[j] != null)
System.out.println("Name" + j + ";" + anArray[j].toUpperCase());
else
System.out.println("Name" + j + "empty");
}
}
}
}

```

91. Suppose a 10-element array A contains the values a₁, a₂, ..., a₁₀. Find the values in A after each loop.

- (i) for(i = 0; i < 9; i++)
A[i + 1] = A[i];
(ii) for(i = 8; i >= 0; i--)
A[i + 1] = A[i];

Ans. (i) In the first loop, the A[0] element is assigned to the A[1], A[1] to A[2] and so on.
(ii) In the second Loop A[8] element is assigned to A[9], A[7] to A[8] and so on.

92. Write a Java program to find the largest and smallest elements in a vector.

```

import java.io.DataInputStream;
public class Array1
{
    public static void main(String args[]) throws IOException
    {
        DataInputStream in = new DataInputStream(System.in);
        final int size = 25;
        int i, n = 0, large, small;
        int v[] = new int[size];
        System.out.println("Enter how many elements(max 25) :");
        n = Integer.parseInt(in.readLine());
        System.out.println("Enter elements of a vector -->");
        for(i = 0; i < n; i++)
        {
            v[i] = Integer.parseInt(in.readLine());
        }
        large = v[0];
        small = v[0];
        for(i = 0; i < n; i++)
        {
            if(v[i] > large)
                large = v[i];
            if(v[i] < small)
                small = v[i];
        }
        System.out.println("Largest element : " + large);
        System.out.println("Smallest element : " + small);
    }
}

```

93. Define a class with a method to sort an array by bubble sort method.

```

Ans. import java.io.*;
public class test
{
    public void sort(int A[])
    {
        int a, b, c;
        for(a = 0; a < A.length - 1; a++)
        {
            for(b = a + 1; b < A.length; b++)

```