```
/ Java program to implement Binary Search for
/ strings

lass BinaryString {

    static int binarySearch(String[] arr, String x)
      {
          int l = 0, r = arr.length - 1;
           while (l <= r) {
              int m = l + (r - l) / 2;
               int res = x.compareTo(arr[m]);

   // Check if x is present at mid
          if (res ==0)
             return m;
    // If x greater, ignore left half
          if (res > 0)
              l = m + 1;
    // If x is smaller, ignore right half
           else
             r = m - 1;
             }
              return -1;
}

 // Driver method to test above
  public static void main(String []args)
  {
    System.out.println("Author:-Likith");
    String[] arr = { "dhoni", "raina", "zakariya",
    "jadeja"};
    String x = "zakariya";
     int result = binarySearch(arr, x);
     if (result == -1)
        System.out.println("Element not present");
     else
     System.out.println("Element found at "

                               + "index " + result);

    }

```

Binarysearch.java

Saved

Terminal

```
Author:-Likith
Element found at index 2

Process finished.
```

disarium.java

Saved

```java
import java.util.Scanner;
public class Disarium{

 public static void main(String args[])
       {
         Scanner sc = new Scanner(System.in);
         System.out.print("Input a number : ");
         int num = sc.nextInt();
         int copy = num, d = 0, sum = 0;
         String s = Integer.toString(num);
         int len = s.length();
         while(copy>0)
            {
             d = copy % 10;
             sum = sum + (int)Math.pow(d,len);
             len--;
              copy = copy / 10;
            }

            if(sum == num)
                System.out.println("Disarium Number
            else
                System.out.println("Not a Disarium
        }
    }
```

Terminal

```
Input a number : 135
Disarium Number.

Process finished.
```

```java
class zeroesOnesSorting{
 // function to segregate 0s and 1s

    static void segregate0and1(int arr[], int n)
    {

        int count = 0; // counts the no of zeros in
        for (int i = 0; i < n; i++) {
            if (arr[i] == 0)
            count++;

        }
        // loop fills the arr with 0 until count

        for (int i = 0; i < count; i++)

            arr[i] = 0;

      // loop fills remaining arr space with 1

        for (int i = count; i < n; i++)

            arr[i] = 1;

    }

       // function to print segregated array
     static void print(int arr[], int n) {
        System.out.print("Array after segregatio
          n is ");
          for (int i = 0; i < n; i++)
               System.out.print(arr[i] + " ");
               }
      // driver function
    public static void main(String[] args)
{
      int arr[] = new int[]{ 0, 1, 0, 1, 1, 1 };
        int n = arr.length;
        segregate0and1(arr, n);
        print(arr, n);
       }
   }
```