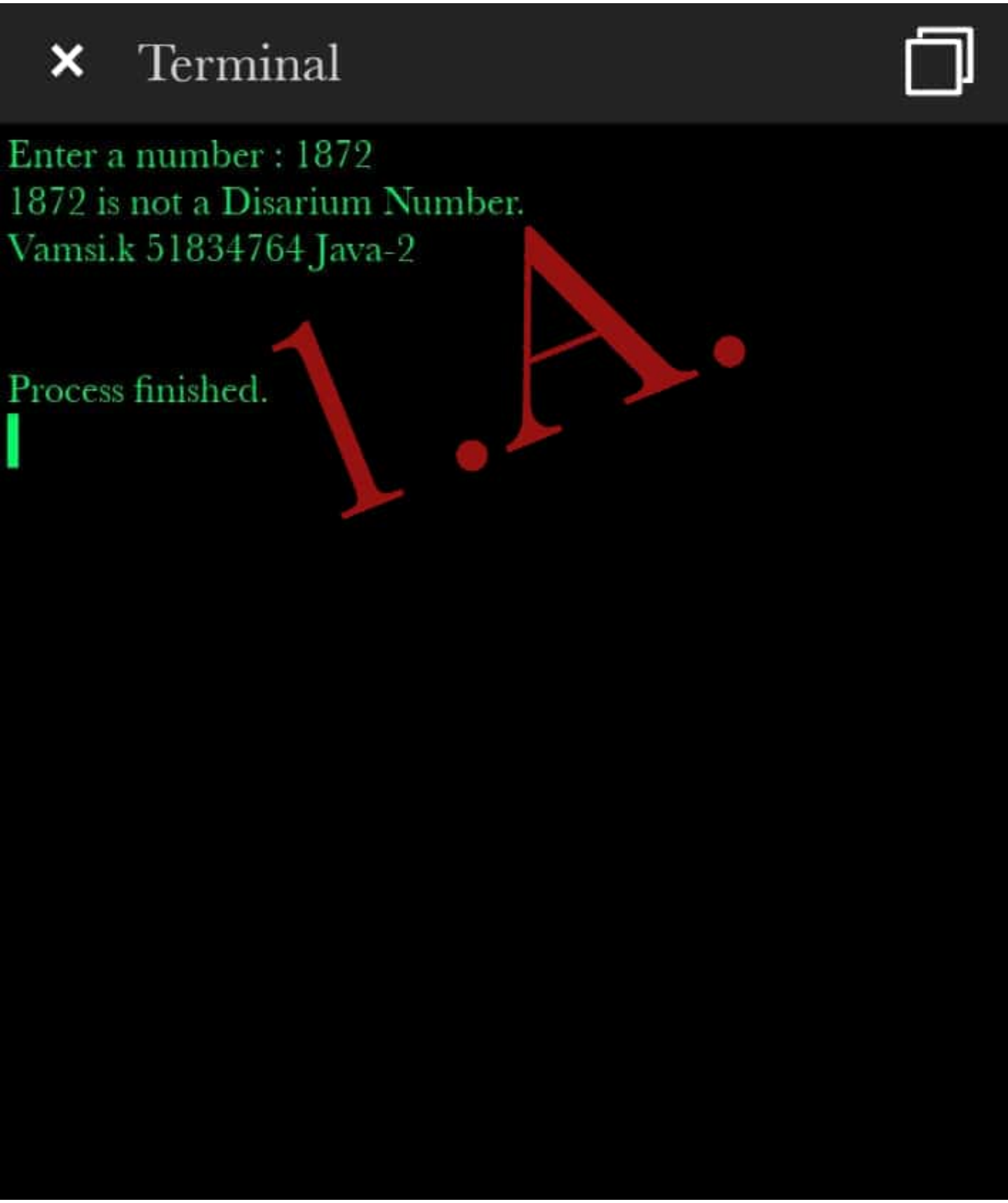
```
// title :
// Description :
// tags :

import java.io.*;
public class Main
    {
    public static void main(String[] args)throws IOException
        {
            BufferedReader br=new BufferedReader (new InputStreamI
            System.out.print("Enter a number : ");
            int n = Integer.parseInt(br.readLine());
            int copy = n, a = 0, sum = 0;
            String b = Integer.toString(n);
            int len = b.length();

            while(copy>0)
            {
                a = copy % 10;
                sum = sum + (int)Math.pow(a,len);
                len--;
                copy = copy / 10;
            }

            if(sum == n){
                System.out.println(n+" is a Disarium Number.");
                }
            else{
                System.out.println(n+" is not a Disarium Number.");
                }
                System.out.println("Vamsi.k 51834764 Java-2");
        }
    }
```

1.



```java
import java.util.Arrays;

public class Main
{
  private static void sortBinaryArray(int[] inputArray)
  {
    int zeroCount = 0;
    System.out.println("Input Array Before Sorting : "+Arrays.toStrin
    for (int n = 0; n < inputArray.length; n++)
    {
      if (inputArray[n] == 0)
      {
        zeroCount++;
      }
    }
    for (int n = 0; n < zeroCount; n++)
    {
      inputArray[n] = 0;
    }
    for (int n = zeroCount; n < inputArray.length; n++)
    {
      inputArray[n] = 1;
    }
    System.out.println("Input Array After Sorting : "+Arrays.toString(
  }
  public static void main(String[] args)
  {
    sortBinaryArray(new int[] {0, 1, 1, 0, 0, 1, 1, 0});
    System.out.println("Vamsi.k 51834764 Java-2");
  }
}
```

2.

```
Input Array Before Sorting : [0, 1, 1, 0, 0, 1, 1, 0]
Input Array After Sorting : [0, 0, 0, 0, 1, 1, 1, 1]
Vamsi.k 51834764 Java-2


Process finished.
```

2.A.

```java
import java.util.*;
import java.lang.*;
// Java program to replace a digit
// with other in a given number.
class GFG
{
static int replaceDigit(int x, int d1,
                        int d2)
{
    int result = 0, multiply = 1;

    while (x % 10 > 0)
    {
        int remainder = x % 10;
        // check whether it is equal
        if (remainder == d1){
            result = result + d2 * multiply;
            }
        else {// else remain as such
            result = result + remainder * multiply;
   }
        multiply *= 10;
        x = x / 10; // update the value
    }
    return result;
}
// Driver code
public static void main(String[] args)
{
  Scanner sc=new Scanner(System.in);
  System.out.println("Enter a number:");
    int x =sc.nextInt();
  System.out.println("enter which no you replace:");
   int  d1 =sc.nextInt();
```

3.

```
Enter a number:
168
enter which no you replace:
2
enter the number which number you want:
2
168
Vamsi.k 51834764 Java-2


Process finished.
```

3.A.

```java
public class Main
{
	public static int binarySearch(int[] M, int left, int right, int n)
	{
		if (left > right) {
			return -1;
		}
		int mid = (left + right) / 2;

		if (n == M[mid]) {
			return mid;
		}
		else if (n < M[mid]) {
			return binarySearch(M, left, mid - 1, n);
		}

		else {
			return binarySearch(M, mid + 1, right, n);
		}
	}
	public static void main(String[] args)
	{
		int[] M = { 3, 7, 11, 5, 9, 11};
		int key = 4;
		int left = 0;
		int right = M.length - 1;
		int index = binarySearch(M, left, right, key);
		if (index != -1) {
			System.out.println("Element found at index " + index
		} else {
			System.out.println("Element not found in the array");
		}
		System.out.println("Vamsi.k 51834864 Java-2");
	}
}
```

5.