



**TECNOLOGIA EM ANÁLISES E
DESENVOLVIMENTO DE SISTEMAS – TADS
2º SEMESTRE**

4º ADO – APII
Busca Binária Recursiva

Discente: Anna Paula Frassom da Silva Magaton - **Matrícula:** 1142282751

Docente: Marcos Monteiro

São Paulo

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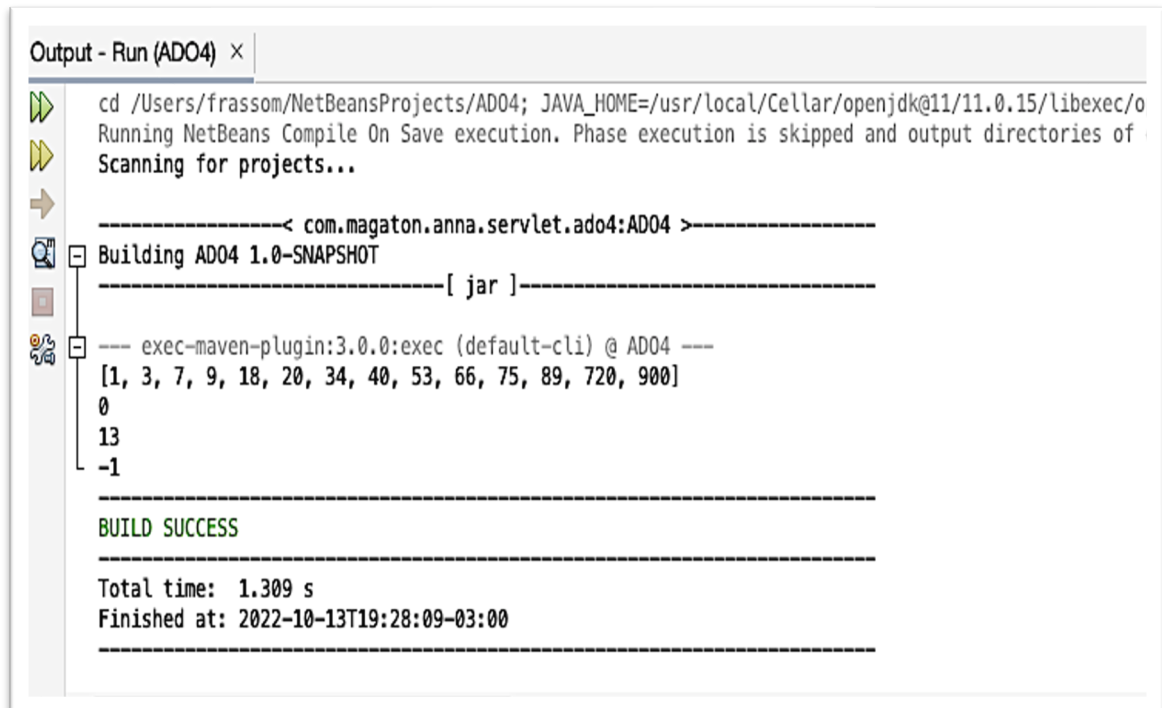
Código realizado na IDE – NetBeans.

```
Source History
12
13 package com.magaton.anna.servlet.ado4;
14
15 import java.util.Arrays;
16
17 public class AD04 {
18
19     public static void main(String[] args) {
20
21         int[] vetor = {3, 20, 34, 89, 9, 7, 75, 18, 53, 40, 900, 66, 720, 1};
22         Arrays.sort(vetor);
23         System.out.println(Arrays.toString(vetor));
24         System.out.println(loc(vetor, 1));
25         System.out.println(loc(vetor, 900));
26         System.out.println(loc(vetor, 5));
27     }
28
29     public static int loc(int[] vetor, int master) {
30         return locBinarioRecursivo(vetor, 0, vetor.length - 1, master);
31     }
32
33     public static int locBinarioRecursivo(int[] vetor, int small, int big, int master) {
34         int avg = (big + small) / 2;
35         int valueMid = vetor[avg];
36
37         if (small > big) {
38             return -1;
39         } else if (valueMid == master) {
40             return avg;
41         } else if (valueMid < master) {
42             return locBinarioRecursivo(vetor, avg + 1, big, master);
43         } else {
44             return locBinarioRecursivo(vetor, small, avg - 1, master);
45         }
46     }
47 }
48
```

Continuação



Compilando código – Resultado:



```
Output - Run (AD04) x
cd /Users/frassom/NetBeansProjects/AD04; JAVA_HOME=/usr/local/Cellar/openjdk@11/11.0.15/libexec/o
Running NetBeans Compile On Save execution. Phase execution is skipped and output directories of
Scanning for projects...

-----< com.magaton.anna.servlet.ado4:AD04 >-----
Building AD04 1.0-SNAPSHOT
-----[ jar ]-----

--- exec-maven-plugin:3.0.0:exec (default-cli) @ AD04 ---
[1, 3, 7, 9, 18, 20, 34, 40, 53, 66, 75, 89, 720, 900]
0
13
-1

BUILD SUCCESS

Total time: 1.309 s
Finished at: 2022-10-13T19:28:09-03:00
```

Fim do código.