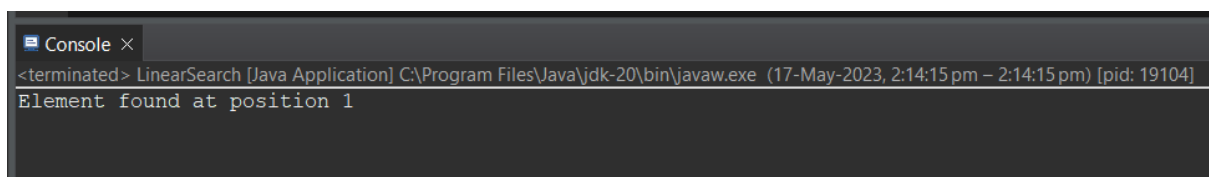


## PHASE 1 PRACTICE ASSISTED PROJECT

### 1. Writing a program in Java implementing the linear search algorithm

```
2. package Main;
3.
4. public class LinearSearch {
5.     // This function returns index of element x in arr[]
6.     static int search(int arr[], int n, int x)
7.     {
8.         for (int i = 0; i < n; i++) {
9.             // Return the index of the element if the element
10.            // is found
11.            if (arr[i] == x)
12.                return i;
13.        }
14.
15.        // return -1 if the element is not found
16.        return -1;
17.    }
18.
19.    public static void main(String[] args)
20.    {
21.        int[] arr = { 3, 4, 1, 7, 5 };
22.        int n = arr.length;
23.
24.        int x = 4;
25.
26.        int index = search(arr, n, x);
27.        if (index == -1)
28.            System.out.println("Element is not present in
29.            the array");
30.        else
31.            System.out.println("Element found at position
32.            " + index);
33.    }
34.
35.
```

OUTPUT –



The screenshot shows a console window titled "Console x" with the following text: "<terminated> LinearSearch [Java Application] C:\Program Files\Java\jdk-20\bin\javaw.exe (17-May-2023, 2:14:15 pm – 2:14:15 pm) [pid: 19104]". Below this, the output of the program is displayed: "Element found at position 1".