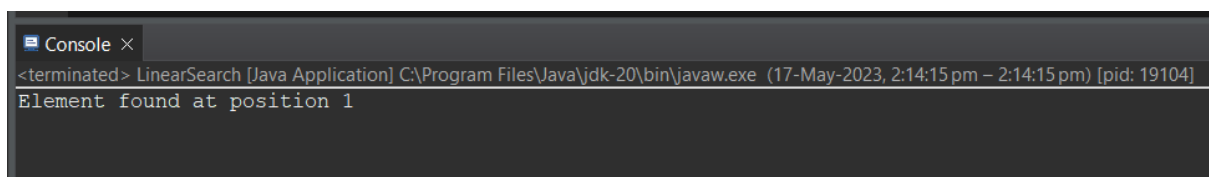# PHASE 1 PRACTICE ASSISTED PROJECT

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
    the array");
29.             else
30.                 System.out.println("Element found at position
    " + index);
31.         }
32.     }
33.
34.
35.
```
OUTPUT –