Binary Search

Doing linear search and checking each record one after another is not efficient with respect to time. For example, if you are searching a sorted database with millions of records, binary search will be way faster.

You are provided with a boilerplate code for Binary Search. Your task is to complete the Binary Search method. This method searches the array against a value. This method takes an integer sorted python list, beginning of the list (0th index), length of list, and a target value as input.

If the element is found, return the index position of the element else return -1.

Test Case - 1
1 2 3 4 5 6
4
Element is present at index 3

Test Case - 2
11 23 43 51 67 78
4
Element is not present in list.

Test Case - 3
1 20 37 41 52 60
40
Element is not present in list.

Test Case - 4
1 20 37 41 52 60
52
Element is present at index 4

Explanation:
First line in the test case is the list of integers separated by space. Line # 2 represents the target value given by the user.
Last line of each test case is the output line.

Note:

1. Do not accept more than 50 values as elements of the list.
2. Enter the elements in sorted order only.