

# Linear Search

03 May 2023 15:13

Key = element to search

Key = 22

Arr[9]

[0]	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
33	55	88	77	44	11	66	22	99

Accept the key from the user.

Key = 33 best time complexity ->  $O(1)$

Start the traversal from the first element [0th index].

Key = 99 worst time complexity ->  $O(n)$

Key = 100 worst time complexity ->  $O(n)$

Compare each element with the key sequentially till match is found or till the last index.

Key = 22 Average time complexity ->  $O(n)$

If match found return the index of that element.