

## Problem Statement

*Designing and applying the linear search algorithm.*

## Definition

*The linear search algorithm involves designing a single dimension integer array and populating it with values. Then a “search value” is entered and using a  $(0 \rightarrow n/n \rightarrow 0)$  method, the entire array is scanned for a match. If a match is found, then a message is displayed with the element’s current position. If not, then a suitable error message is displayed.*

## Possible Program Output

Linear Search using a single dimension integer array

Enter the integer values into the array below:

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
0	1	2	3	4	5	6	7	8	9

Enter the value to be searched:

This is the space where the message(s) are displayed

## Validations/Verifications

- Users should not leave any array element empty. If they do, then a suitable message should be displayed.
- The message should display the element’s position too when it is found.