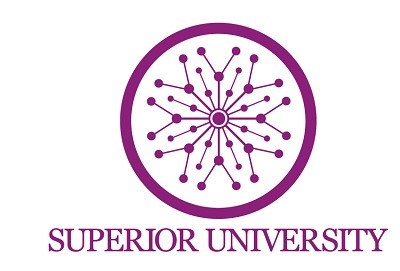
**Lab Tasks**



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Subject:

DSA (Lab)

Class:

BS – Software Engineering

# **Lab # 02**

**Big O Notation (Loops and Arrays)**

This C++ program finds the maximum value in an array using a function. It begins by defining the MaxValue function, which takes an array and its size as input. The function initializes a variable max with the first element of the array and iterates through the array to compare each element with max, updating it whenever a larger value is found. Finally, it returns the maximum value.

In the main function, an integer array is declared with predefined values, and its size is determined using sizeof. The array elements are printed in a formatted way, and the MaxValue function is called to find the largest number. The result is then displayed. The program operates with a time complexity of **O(n)** since it traverses the array only once, making it an efficient way to find the maximum value in an unsorted array.

