

HATFD1025

Find the Second Largest Element in an Array

Write a program to find the second-largest element in an array of integers without using any sorting algorithms or built-in array functions.

Instructions: Traverse the array manually to find both the largest and second-largest elements

PROGRAM:

```
function SecondLargest(tech) {
  if (tech.length < 2) {
    return "No Element Found";
  }

  let firstoccur = -Infinity;
  let secondoccur = -Infinity;

  for (let nums of tech) {
    if (nums > firstoccur) {
      secondoccur = firstoccur;
      firstoccur = nums;
    } else if (nums > secondoccur && nums !== firstoccur) {
      secondoccur = nums;
    }
  }

  return secondoccur === -Infinity ? " No second largest element found!!" : secondoccur;
}

let input = prompt("Enter the elements:");
let tech = input.split(" ").map(Number);

let element = SecondLargest(tech);
alert("Second largest element in the given array is: " + element);
```

SAMPLE INPUT 1: Enter the elements:-10 -9 0 -20 6

SAMPLE OUTPUT 1: Second largest element in the given array is: 0

SAMPLE INPUT 2: Enter the elements:-7

SAMPLE OUTPUT 2: Second largest element in the given array is: No Element Found

SAMPLE INPUT 3: Enter the elements:50 20 60 80

SAMPLE OUTPUT 3:Second largest element in the given array is: 60

SAMPLE INPUT 3: Enter the elements:2 2 2 2 2 2

SAMPLE OUTPUT 3:Second largest element in the given array is: No second largest element found!!