

HATFD1025

FIND THE SECOND LARGEST ELEMENT IN THE ARRAY

CODE:

```
package main

import "fmt"

func main() {
    var n int
    fmt.Print("Enter the number of elements: ")
    fmt.Scanln(&n)

    arr := make([]int, n)
    for i := 0; i < n; i++ {
        fmt.Printf("Enter element %d: ", i+1)
        fmt.Scanln(&arr[i])
    }

    max := arr[0]
    secondMax := arr[0]

    for i := 1; i < n; i++ {
        if arr[i] > max {
            secondMax = max
            max = arr[i]
        } else if arr[i] > secondMax && arr[i] != max {
            secondMax = arr[i]
        }
    }

    if secondMax == max {
        fmt.Println("No second largest element")
    } else {
        fmt.Println("Second largest element:", secondMax)
    }
}
```

TEST CASES:

Test case 1)

Input

9,6,8,93,67

Ouput

67

```
package main

import "fmt"

func main() {
    var n int
    fmt.Print("Enter the number of elements: ")
    fmt.Scanln(&n)

    arr := make([]int, n)
    for i := 0; i < n; i++ {
        fmt.Printf("Enter element %d: ", i+1)
        fmt.Scanln(&arr[i])
    }

    max := arr[0]
    secondMax := arr[0]

    for i := 1; i < n; i++ {
        if arr[i] > max {
            secondMax = max
            max = arr[i]
        } else if arr[i] > secondMax && arr[i] != max {
            secondMax = arr[i]
        }
    }

    if secondMax == max {
        fmt.Println("No second largest element")
    } else {
        fmt.Println("Second largest element:", secondMax)
    }
}
```

```
go run /tmp/g80J8izzqy.go
Enter the number of elements: 5
Enter element 1: 9
Enter element 2: 6
Enter element 3: 8
Enter element 4: 93
Enter element 5: 67
Second largest element: 67
```

Test case 2)

Input

43634,76745,977523,565432

Ouput

565432

```

package main

import "fmt"

func main() {
    var n int
    fmt.Print("Enter the number of elements: ")
    fmt.Scanln(&n)

    arr := make([]int, n)
    for i := 0; i < n; i++ {
        fmt.Printf("Enter element %d: ", i+1)
        fmt.Scanln(&arr[i])
    }

    max := arr[0]
    secondMax := arr[0]

    for i := 1; i < n; i++ {
        if arr[i] > max {
            secondMax = max
            max = arr[i]
        } else if arr[i] > secondMax && arr[i] != max {
            secondMax = arr[i]
        }
    }

    if secondMax == max {
        fmt.Println("No second largest element")
    } else {
        fmt.Println("Second largest element:", secondMax)
    }
}

```

```

go run /tmp/tkNKqIuvR.go
Enter the number of elements: 4
Enter element 1: 43634
Enter element 2: 76745
Enter element 3: 977523
Enter element 4: 565432
Second largest element: 565432

```

Test case 2)

Input

546,87675,4324,75,79

Ouput

4324

```

package main

import "fmt"

func main() {
    var n int
    fmt.Print("Enter the number of elements: ")
    fmt.Scanln(&n)

    arr := make([]int, n)
    for i := 0; i < n; i++ {
        fmt.Printf("Enter element %d: ", i+1)
        fmt.Scanln(&arr[i])
    }

    max := arr[0]
    secondMax := arr[0]

    for i := 1; i < n; i++ {
        if arr[i] > max {
            secondMax = max
            max = arr[i]
        } else if arr[i] > secondMax && arr[i] != max {
            secondMax = arr[i]
        }
    }

    if secondMax == max {
        fmt.Println("No second largest element")
    } else {
        fmt.Println("Second largest element:", secondMax)
    }
}

```

```

go run /tmp/r8HTA9YrCS.go
Enter the number of elements: 5
Enter element 1: 546
Enter element 2: 87675
Enter element 3: 4324
Enter element 4: 75
Enter element 5: 79
Second largest element: 4324

```