

## Experiment - 5

Q.1 WpP to read a list of integers and store it in a single dimensional array. Write a C program to print the second largest integer in a list of integers.

#include <stdio.h>

```

int main() {
    int n, largest, second;
    printf("Enter number of elements: ");
    scanf("%d", &n);
    int arr[n];
    for (i=0; i<n; i++) {
        scanf("%d", &arr[i]);
    }
    largest = arr[0];
    for (i=1; i<n; i++) {
        if (arr[i] > largest) {
            second = largest;
            largest = arr[i];
        } else if (arr[i] > second) && arr[i] != largest {
            second = arr[i];
        }
    }
    if (second == -2147483648)
        printf("No second largest element /n");
    else

```

Remarks:

Teacher's Signature \_\_\_\_\_

main.c

```
12 int arr[n];
13
14 printf("Enter %d integers:\n", n);
15 for (i = 0; i < n; i++) {
16     scanf("%d", &arr[i]);
17 }
18
19 largest = INT_MIN;
20 second = INT_MIN;
21
22 for (i = 0; i < n; i++) {
23     if (arr[i] > largest) {
24         second = largest;
25         largest = arr[i];
26     } else if (arr[i] > second && arr[i] != largest) {
27         second = arr[i];
28     }
29 }
30
31 if (second == INT_MIN) {
32     printf("No second largest element or all elements are the
33         same.\n");
34 } else {
35     printf("The second largest element is: %d\n", second);
36 }
```

Run

Output

```
Enter number of elements: 5
Enter 5 integers:
10
50
20
40
50
The second largest element is: 40
==== Code Exited With Errors ===
```

The image shows a Mac OS X desktop with a terminal window open. The terminal window has tabs for "main.c" and "Output". The "Output" tab is active, displaying the following text:  
Enter number of elements: 5  
Enter 5 integers:  
10  
50  
20  
40  
50  
The second largest element is: 40  
==== Code Exited With Errors ====  
Below the terminal window, the Mac OS X Dock is visible, showing various application icons.