Experiment 6: Array

6.1. WAP 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.

Ans-:

```
#include <stdio.h>

int main() {
   printf("Name - Aryan kamboj\nSAP ID - 590025526\ncourse - BCA\nBatch - 6");
   printf("\n----------------------\n");
   int n;

   printf("Enter the number of elements: ");
   scanf("%d", &n);

   int arr[n];

   // Read array elements
   printf("Enter %d integers:\n", n);
   for (int i = 0; i < n; i++) {
      scanf("%d", &arr[i]);
   }

   int largest, secondLargest;

   // Initialize largest and second largest
   if (arr[0] > arr[1]) {
      largest = arr[0];
      secondLargest = arr[1];
   } else {
      largest = arr[1];
      secondLargest = arr[0];
   }

   // Find second largest
   for (int i = 2; i < n; i++) {
      if (arr[i] > largest) {
         secondLargest = largest;
         largest = arr[i];
      } else if (arr[i] > secondLargest && arr[i] != largest) {
         secondLargest = arr[i];
      }
   }
```

```
    printf("The second largest number is: %d\n", secondLargest);

    return 0;
}
```

Output: