Seatwork 4.1	
Arrays	
Course Code: CPE007	**Program:** Computer Engineering
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6. Output

```cpp
#include <iostream>

using namespace std;

int main (){
    int scores[10] = {90,85,78,88,92,80,75,80,89,91};

    cout << "The score at the 1st position is: " << scores[0] << endl;

    // changing of the first score
    scores[0] = 95;

    cout << "The new score at the 1st position is: " << scores[0] << endl;

    cout << endl;
    cout << "--------------------------------" << endl;
//  printing the whole array

    cout << "|" ;
    for (int n = 0; n < 10; n++){
        cout << scores[n] << "|" ;
    }

    cout << endl;
    cout << "--------------------------------" << endl;
    cout << endl;

    // swaping values of 2 variables
    int var1 = 10;
    int var2 = 20;
    int x = var1;
    var1 = var2;
    var2 = x;
    cout << var1 << endl;
    cout << endl;
    cout << "--------------------------------" << endl;
    //swapping element positons
    int n1 = scores[0];
    scores[0] = scores[9];
    scores[9] = n1;

    cout << "|" ;
    for (int n = 0; n < 10; n++){
        cout << scores[n] << "|" ;
      }

    cout << endl;
    cout << "--------------------------------" << endl;

    //Sorting
    int n = 10;
    int temp = 0;
    for (int i = 0; i < n - 1; i++){
        for (int j = 0; j < n - i - 1; j++){
            if (scores[j] > scores[j+i]){
            //swaping scores j and j+i
            temp = scores[j];
            scores[j] = scores[j+i];
            scores[j+i] = temp;
            }
        }
    }

    for (int i = 0; i < n - 1; i++){
        for (int j = 0; j < n - i - 1; j++){
            if (scores[j] > scores[j+i]){
            //swaping scores j and j+i
            temp = scores[j];
            scores[j] = scores[j+i];
            scores[j+i] = temp;
```

```
73              }
74          }
75      }
76
77      cout << endl;
78      cout << "The scores in ascending order:" << endl;
79      cout << "------------------------------" << endl;
80      S
81      // Print Sorted Array
82      cout << "|" ;
83      for (int n = 0; n < 10; n++){
84          cout << scores[n] << "|" ;
85        }
86
87      return 0;
88  }
```

Output:

```
The score at the 1st position is: 90
The new score at the 1st position is: 95

--------------------------------
|95|85|78|88|92|80|75|80|89|91|
--------------------------------

20
10

--------------------------------
|91|85|78|88|92|80|75|80|89|95|
--------------------------------

The scores in ascending order:
--------------------------------
|75|78|80|80|85|88|89|91|92|95|
--------------------------------
Process exited after 0.01754 seconds with return value 0
Press any key to continue . . .
```

7. Supplementary Activity

8. Conclusion

Today during this seatwork I have learnt the different parts of an array like the element data type, the array name and the array size.

I have also learnt that arrays can be used to remove redundant code and reduce clutter which can allow for a cleaner and smoother running code.

and lastly I have learnt how to switch the position of two elements in an array using temporary variable to swap their positions.

9. Assessment Rubric