

## Activity No. 4.2

### Assignment 4.2: Bubble Sort

Course Code: CPE007

Program: Computer Engineering

Course Title: Programming Logic and Design

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#### 6. Output

1. Working Bubble Sort Implementation Code and Output
2. A comprehensive discussion of how bubble sort works

```
1  #include <iostream>
2
3  int main () {
4
5      int scores[10] = {37, 15, 22, 40, 87, 71, 24, 67, 400, 62 };
6      int temp = scores[0];
7      int n = 10;
8      for (int i = 0; i < n - 1; i++) {
9          for (int j = 0; j < n - i - 1; j++) {
10             if (scores [j] > scores [ j + 1 ]) {
11
12                 temp = scores [j];
13                 scores[j] = scores[j+1];
14                 scores[j+1] = temp;
15             }
16         }
17     }
18
19     std::cout << "Scores in ascending order: " ;
20     for (int i = 0; i < n; i++) {
21         std::cout << scores[i] << " ";
22     }
23
24     std::cout << std::endl;
25
26     return 0;
27 }
28
29
```

Scores in ascending order: 15 22 24 37 40 62 67 71 87 400

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Process exited after 0.1785 seconds with return value 0  
Press any key to continue . . . |

The Bubble Sort works to arrange the numbers, the data, in ascending form, or which order you designed them. In this case, I arranged them where the biggest number will be in the last number. So even if my data is mixed up, on random order, Bubble Sort can be a solution to chance and order the data.

## **7. Supplementary Activity**

## **8. Conclusion**

I am to retrieve what I learned last meeting, where our teacher teaches us how to use the Bubble Sort. What I learned in using Bubble Sort, is its basic use, it is made to sort the data in where the data is randomly mixed and being ordered by the code. It is ordered by how you designed it, in which, I designed mine to the smallest number to its biggest. Only this time I didn't search, for this time, my reference for the activity helps.

## **9. Assessment Rubric**