# CSC 2111 Lab 04

## Objectives:

1. Learn how to write a function to search an array.
2. Learn how to generate an array of *n* random values.
3. Learn how to sort an array (using selection sort)

First, write a program to create an array and fill it up with 20 randomly generated integers (range 0–10) and output the array. (Hint: Check the provided PowerPoint file regarding the random number generator code.)

## Part 1:

Write a function to implement following function prototype:

```
void search(int array[], int length, int key);
```

The function takes input an integer array, the size of the array, and a key to search. The function outputs the key value and a message whether the key exists in the array or not. If the key exists, function outputs the number of occurrence of the key in the array.

## Part 2:

Write a function to sort the array in **Descending order (from largest to smallest)** and output the result. You should implement the following function prototype and use the selection sort provided in the text book.

```
void selectionSort(int list[], int length);
```

Submit a single cpp file for both questions. You should get the similar output as below.

## Output: