

# CEN360

## ALGORITHMS DESIGN AND ANALYSIS

### Fall – 2018

#### Lab 1: Basic Algorithms

**1. Find Max Element:** Write a program which creates a random integer with the input size N, and then prints out the whole array and prints out the maximum of them. Firstly, your program should read the input size N from the user, then generate and print random integer array, then find maximum.

**Example:**

INPUT	OUTPUT
4	1. 122 2. 52 3. 311 4. 13 Max of the array is: 311

**2. Element Uniqueness Problem:** Write a program which creates a random integer with the input size N, and then determine whether all the elements in the given array are distinct. Firstly, your program should read the input size N from the user, then generate and print random integer array, then determine whether all elements are distinct or not.

**Example:**

INPUT	OUTPUT
6	1. -123 2. 456 3. 12 4. 87 5. 2 6. 1567 All elements in the given array are distinct!
3	1. 24 2. 12356 3. 24 All elements in the given array are NOT distinct!