Random Number Generation:

These notes are written purely to assist students completing the CAB201 Second Assignment. They are not a comprehensive coverage of the topic Random Number Generators.

Declare a Random variable as follows:

```
Random randomValue = new Random();
```

There are three methods, all named `Next`, which return a random number in a specific range depending upon the parameter(s) provided, see examples below:

```
int number;

number = randomValue.Next(); // 0 <= number < int.MaxValue

number = randomValue.Next(100); // 0 <= number < 100

number = randomValue.Next(1, 100); // 1 <= number < 100
```

Declare the Random variable as a 'global" class variable by placing it below the class heading and before the first method header in your code, for example: assuming Main is first method. Now you can use randomValue in any method within this class.

```
Class Program {

   static Random randomValue = new Random(10);

   static void Main () {
      …
    } //end Main
```

The parameter "10" ensures that the same random sequence of numbers is produced every time the program is run. This enables you to check that the logic of your program is correct using the same data every time.

Once you are confident that your program works correctly, you can delete the "10"

```
   static Random randomValue = new Random();
```

Now every run of your program will produce a different sequence of random numbers (actually pseudo-random), Note that any integer value can be used as the parameter.