

C++ Programming Assignment (#06)

Date: Apr. 14, 2016

Instructor: Yoo, Younghwan

Due date: Apr. 27, 2016

Programming Projects

1. Define a class `Random` that generates as many random numbers as a user wants. Analyzing the following code, complete the entire program. **The class `Random` must have at least one constructor.**

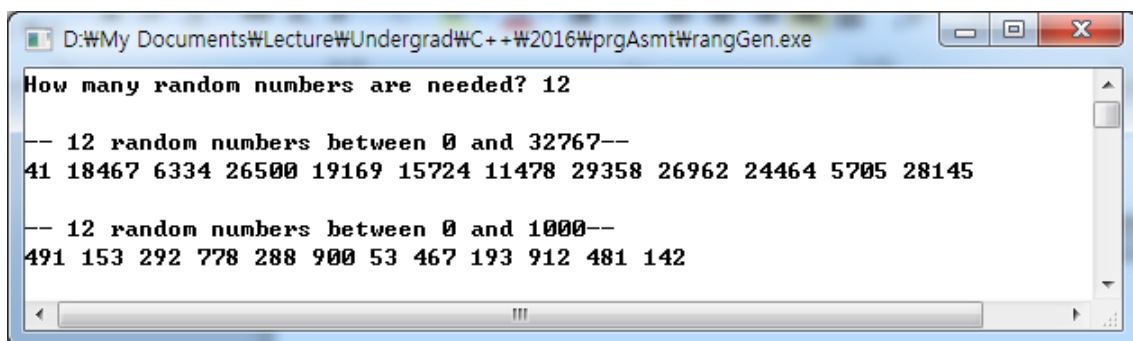


```
int main()
{
    Random r1, r2(1000);
    int num;

    cout << "How many random numbers are needed? ";
    cin >> num;

    r1.generate(num); // random numbers between 0 and RAND_MAX(32767)
    r2.generate(num); // random numbers between 0 and 1000

    return 0;
}
```



2. This project requires you to first complete Programming Project 2 from the programming assignment in the last week, which is an implementation of an IceCreamSundae class. **Add an Order class that contains a private vector of type IceCreamSundae.**

This class represents a customer's entire order, where the order may consist of multiple sundaes. Include appropriate functions so that a user of the Order class can add sundaes to order (type is strawberry, vanilla, or mint; size is small, medium, or large; number of toppings). Write a function that outputs everything in the order along with the total price. The same rules are applied for the cost of each ice cream sundae as the project in the last week. **[Modified from Project 6, Chapter 7, Absolute C++ 5ed.]**



The sample dialogue:

Welcome to PNU Ice Cream!!

Which flavor? (0. Strawberry 1. Vanilla 2. Mint) **0**

What size? (0. Small 1. Medium 2. Large): **2**

Number of toppings? **2**

Another sundae? (y/n) **y**

Which flavor? (0. Strawberry 1. Vanilla 2. Mint) **1**

What size? (0. Small 1. Medium 2. Large): **1**

Number of toppings? **1**

Another sundae? (y/n) **n**

1. Large Strawberry ice cream sundae with 2 topping(s)

2. Medium Vanilla ice cream sundae with 1 topping(s)

Total Price: \$37

Continue? (y/n) **n**

Thank you!!