CSE20 : Lab #9 - While Loop

Overview

This week we are going to learn to use While-loop to do repetitive tasks so our programs can handle different inputs easily. We will solve similar problems to the ones in the previous lab, but this time we won't need to copy and paste the same code over and over.

While-loop Syntax :

One statement form for a while-loop is as follows:

```
while (booleanExpr)
      statement;
```

General form for a while-loop has a block statement as the body:

```
while (booleanExpr) {
      statement 1;
      statement 2;
   …
      statement n;
}
```

(Reading) Chapter 4.1 & 4.2

- Answer Participation Activity 4.1.2
- Answer Participation Activities 4.2.2, 4.2.3, 4.2.5

Getting started

After starting Eclipse, create a new project called Lab 9. Import from the assignment page AllNumWhile.java. This program should ask the user for the maximum number to print out to and then print each number starting from 0 to the maximum. All the exercises should use While-Loop to solve the problem.

(Exercise) Create – EvenNum.java

This program should ask the user for the maximum number to print out to and then print each **even** number starting from 0 to the maximum. You may want to use **%** operator which gives you the remainder. Some results of the operator is as follows:

- 0 % 2 = 0
- 1 % 2 = 1

- 2 % 2 = 0
- 3 % 2 = 1
- 4 % 2 = 0

(Exercise) Create – SumAll.java

This program should ask the user for the maximum number to print out to and then print each number starting from 0 to the maximum. It will also print out the sum of all the numbers like this:

```
Please enter the max number:5
Number 0
Number 1
Number 2
Number 3
Number 4
Number 5
Sum of All is 15


Please enter the max number:10
Number 0
Number 1
Number 2
Number 3
Number 4
Number 5
Number 6
Number 7
Number 8
Number 9
Number 10
Sum of All is 55
```

(Exercise) Create AnyAverage.java

Program asks the user to input any number (similar to TenAverage.java from Lab 8 but not limited to 0-10)

- Ask the # to average from 0 to whatever number chosen
- Print out the average of the numbers

What to hand in

When you are done with this lab assignment, you are ready to submit your work. Make sure you have done the following **_before_** you press Submit:

Include answers to Activities 4.1.2, 4.2.2, 4.2.3, & 4.2.5
Attach created EvenNum.java, SumAll.java and AnyAverage.java
List of Collaborators