3/24/2008

- I hope you all enjoyed your spring breaks.
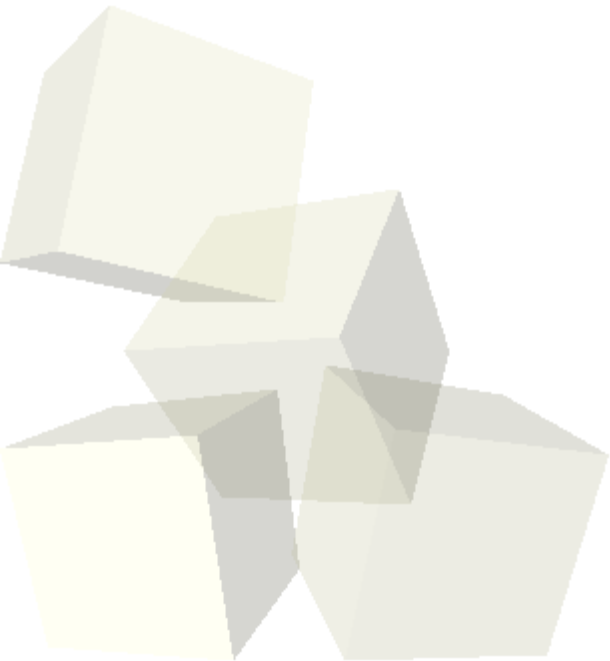- Let's look at solutions to the interclass problem.

- The last thing we learned about before Spring Break was the if statement.
- How does the if statement look in Java? What does it do for us?
- Let's go over the code that we wrote before the break that involves if statments.

- Computers are great for doing math and for doing roughly the same thing over and over again. They don't get bored.
- Being able to do something a variable number of times was also a great benefit as we saw in Alice.
- What constructs did we use in Alice for repeated execution? How did they work?
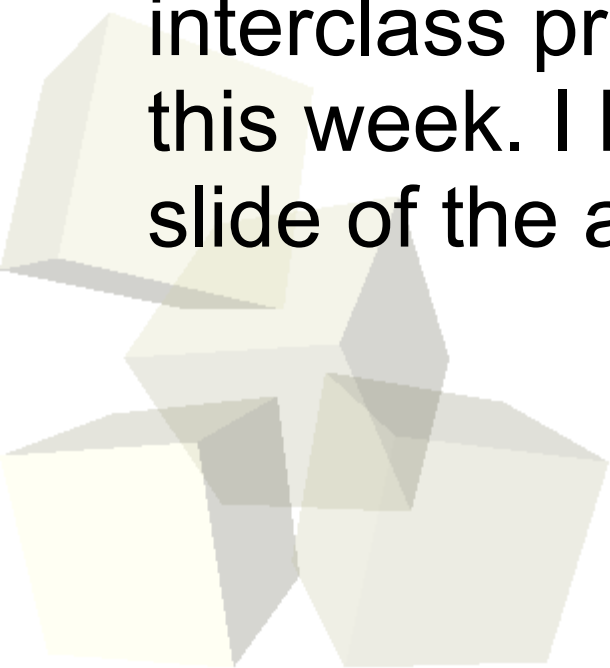
- The first loop that we will deal with in Java is the while loop. It is just like the while loop in Alice. The stuff in it keeps happening while a boolean condition is true.
  - while(booleanExpression) {
    - Statements
  - }
- Let's use this to write a little program that works like a simple calculator.
- We should go through the stages of developing a program to solve this.

- Write code using a while loop to print the numbers from 0 to 9.
- Class Wednesday and Friday is optional, but recommended if you don't feel 100% on top of Java. Mike will be here to work with people and go through solving the interclass problem.
- Interclass Problem – I'm giving a fairly large interclass problem for you to work on the rest of this week. I have a description of it on the last slide of the assignment.

- For the interclass problem I want you to write a program that could be used to do grade in this class. You need a class for a student. It will store the student's name and each of the grades for that student in the class.
  - 6 quizzes, 2 tests, 2 project, interclass total, and class participation total (a total of 12 values)
- The name should be set in a constructor. You should have the following methods.
  - void readQuizzes(Scanner input) – reads quiz grades
  - void readTests(Scanner input) – read test grades
  - void readProjects(Scanner input) – read project grades
  - void readParticipation(Scanner input)
  - void readInterclass(Scanner input)

- You should also have the following methods that will give us back values for a student. (Consider also methods for averages of quizzes, tests, etc.)
  - double calcAverage()
  - char getLetterGrade()
  - String getName()
- The program should ask the user how many students there are, then ask for the names and grades of each student. After the grades are input it should print the student's name, average, and letter grade.
- After all the student's have been precessed it should print the minimum, maximum, and average of the student's grades.