

# CS 200 Sections 02 & 04 Spring 2013

## Week #6: Top 3 Lessons Learned

1. When working in groups, **always listen to the ideas of the other members in your group.** Don't ever assume your way is the only way. You just may learn how to do something a simpler way than you have been doing it.
2. **Always focus on one process at a time.** I noticed during the challenge on Thursday night that focusing on too many things at once can slow you down in the flow charting process.
3. As you flow chart more and more, it gets easier. I noticed that every flowchart we did Thursday night got a little easier. **Practice is key.** I am going to commit to doing at least one flowchart problem a day.

T. Blanchard

- 1) The `charAt()` method can be used to find a single character at a specified index of the string. Example: `firstChar = userEntry.charAt(0);` can be used to find the first character of the string that the user of the program typed in. In detail, `firstChar` is the char variable that will store one character, `userEntry` is the string that the user entered.
- 2) The `Math.ceil()` method is used to round up a number to the nearest integer. Example: `newNum = Math.ceil(originalNum);` If `originalNum` is 2.6, then `newNum` will be 3. Also if `originalNum` is 2.1, then `newNum` will be 3.
- 3) The `JOptionPane` can be used to show a pop up window. It has to be imported first as such: `import javax.swing.JOptionPane;` Then we can write: `JOptionPane.showMessageDialog(null, "Freedom to all.");` in the main method. This will display the pop up window with the text: `Freedom to all.` Don't forget to write `System.exit(0);` in the main method because it will close the program after you close the pop up window.

D. Starostka

Only one lesson learned but I'm improving, I think

1- Typecasting of double variable to integer : With this code you can type cast a double variable value to integer.

In example, If The double value is 420.5, the application prints out the integer value of 420

I really liked enjoy to work with J.H. and R.K. from Gold Team, from them, I now know that the comments are very important for my own comprehension.

J. Konan

Three things to remember about java.lang.Math Methods:

Rounding to the nearest integer.

```
System.out.println(x + " is approximately " + Math.round(x));
```

The 'ceiling' of a number is the smallest integer greater than or equal to the number.

```
System.out.println("The ceiling of " + x + " is " + Math.ceil(x));
```

The 'floor' of a number is the largest integer less than or equal to the number.

```
System.out.println("The floor of " + x + " is " + Math.floor(x));
```

EXAMPLES on double testOne = 3213.321;

```
System.out.println("This is a test Math.round(): " + Math.round(testOne));
```

```
System.out.println("This is a test Math.floor(): " + Math.floor(testOne));
```

```
System.out.println("This is a test Math.ceil(): " + Math.ceil(testOne));
```

```
/*-----OUTPUT-----
```

```
This is a test Math.round(): 3213
```

```
This is a test Math.floor(): 3213.0
```

```
This is a test Math.ceil(): 3214.0
```

```
*/ -----
```

Also, how to convert base 2 to base 10:

i.e. 1101 (base 2):

$$1 \times 2^0 = 1$$

$$0 \times 2^1 = 0$$

$$1 \times 2^2 = 4$$

$$1 \times 2^3 = 8$$

$$1 + 0 + 4 + 8 = 13 \text{ (base 10)}$$

**And always put what kind of base you are using!**

Sooo easy, that I cannot stop converting.

**Find/Replace function in jGrasp is located under Edit menu.**

M. Mardosz