CS 101: Introduction to Computer Science

Project Five - Doing the Loopdy-Loop

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Abstract

This application tests our ability to use event-driven loops and smart branches for classifying the number. The following is example output provided by the professor so that we may understand how the application works.

```
Integers:
3
3       positive, single digit
67
67      positive
123
123     positive, more than 100
0
0       zero
-233
-233    negative, less than -100
```

Introduction

The application was originally supposed to loop until control+z was pressed. However due to control+z being ignored by Netbeans and being a command in bash, we were instructed to loop until a non-integer was entered. I also created a method for classifying the integers so that my driver code could be cleaner.

Screenshots

Application output to stdout:

```
[exec:exec]
Please enter some integers:
3 67 123 0 -233
3 is positive, single digit
67 is positive
123 is positive, greater than 100
0 is zero
-233 is negative, less than -100
9
9 is positive, single digit
exit on non int
------------------------------------------------------------------------
BUILD SUCCESS
------------------------------------------------------------------------
```

Code

File: App.java

```
package edu.bridgeport.uniproject5;

import java.util.Scanner;

public class App {

    public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        int cur;
        String classification;

        System.out.println("Please enter some integers:");

        while (in.hasNextInt()) {
            cur = in.nextInt();
            classification = classifyValue(cur);

            // made it blue text to separate from user input
            System.out.println("\033[1;34m" + cur + " is " +
classification + "\033[0m");
        }
    }
```

```
    private static String classifyValue(int cur) {
        String temp = "";

        if (cur == 0) {
            temp += "zero, ";
        } else if (cur > 0) {
            temp += "positive, ";
        } else {
            temp += "negative, ";
        }

        if (10 > cur && cur > -10 && cur != 0) {
            temp += "single digit, ";
        }

        if (cur > 100) {
            temp += "greater than 100, ";
        } else if (-100 > cur) {
            temp += "less than -100, ";
        }

        return temp.substring(0, temp.length() - 2);
    }
}
```

Conclusion

Application five was the first Java application that I've programmed since learning Objective-C. I learned just how high-level Java is with no header files, cleaner syntax, and variable management. I now have a stronger feeling on the pros and cons of low-level vs. high-level languages.

Works Used

None