

# CSCI 1301 – Lab 11

September 18, 2019

## 1 Solution to Project #1

You can find a possible solution to the first project<sup>1</sup> in this archive<sup>2</sup>.

## 2 Example for Marker Class

You can find in this archive<sup>3</sup> the code we studied during lab.

## 3 Milestone #2

Since Milestone #1 (Lab 06<sup>4</sup>), you have learned a lot. Hopefully, you learned how to write your own study guide thanks to my definitive study guide<sup>5</sup> (printable version<sup>6</sup>), and you should note that *most of our faculty members in the School of Computer & Cyber Sciences do not provide study guides.*

However, if I were to write one, I would probably write something like the following...

### 3.1 Academic Life

- You now hopefully have a clear picture what this class is about, and what a CS / IT / Cybersecurity (Engineering) degree can bring you and asks from you.
- Not having all the time straight A's as you (maybe) used to do in High-School is common in College.
- That, indeed, this class was constantly re-using what you had studied before, and constructing on top of what you studied the week before.

### 3.2 The Concept of Class

- That the implementation of a class was taking place in a different file, that uses the `class` keyword,
- What a member of a class is, that attributes represent what an object *is*, and methods what it *does* (or how it can be acted upon),
- That, in all the scenario that we looked at, attributes were private, so that application programs would have to use methods to access them (to *get* or *set* their values),
- How an object could be created, or instantiated, and that every object had their own instance variables,
- How UML diagrams were a useful abstraction to design classes.

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<sup>1</sup>../shared/project01/

<sup>2</sup>project\_01\_solution.zip

<sup>3</sup>MarkerExample.zip

<sup>4</sup>../06/#milestone-1

<sup>5</sup>[http://spots.augusta.edu/caubert/teaching/general/study\\_guide/](http://spots.augusta.edu/caubert/teaching/general/study_guide/)

<sup>6</sup>[spots.augusta.edu/caubert/teaching/general/study\\_guide/index.pdf](http://spots.augusta.edu/caubert/teaching/general/study_guide/index.pdf)

### 3.3 Scopes and Conventions

- That a variable was accessible at a particular time and place,
- That renaming had to be uniform in the scope of a variable or a method name,
- That multiple conventions existed regarding the naming of attributes and methods,
- That attributes had default values, that could be changed if needed.

### 3.4 Methods

- The difference between arguments and parameters,
- The importance of constructors, the difference between default and custom constructors, and how to write your own,
- The definition of the signature of a method,
- What overloading means,
- The importance of the `ToString` method,
- That a method can call other methods.

### 3.5 Various

- How and when to use constant values,
- How to use and navigate in the `Math` class,
- What was the benefits of using format specifiers.

### 3.6 Using Softwares

- How to have 2 `.cs` files open in one project in VS,
- How to “undo” things, using `CTRL + z`,
- How to compress, extract, download and upload `zip` files.