Institute of Computer Science

CMSC 22: Object-Oriented Programming

CHECKPOINT JOURNAL 03

Instructions: Accomplish* this journal every checkpoint so we can monitor your progress and improve everyone's learning experience. Answer and submit as Google Doc (PDF is only for those who have limitations in working online.)

**Accomplish this when you are done (or almost done) with the lecture and lab requirements for the week.*

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Student Number: **2020-03670** Date: **March 18, 2023**

1. What problem/confusion did you encounter about the lesson/s or requirement/s?

   Explain the specifics of the problem (Minimum of **2** sentences).

   *Note that even If no problem was encountered in understanding the lesson, it's certain that at least a minor issue will be faced while doing the requirements, especially the **lab exercise**. Discuss at least one challenge faced.*

   I became so confused as to how the "this" keyword in Object-oriented programming work. That part of the lesson just confused me the most especially when one need to use it on defining relationships between classes. Since the laboratory exercise mostly needed the "this" keyword, I struggled to understand its concept quite clearly as it does have many usages like invoking a class method, passing an argument etc.

2. How did you solve it and what became your solution? **Explain the specific solution found.**

   Include **references** and **code snippets** when applicable (Minimum of **3** sentences).

   I browsed online for possible clearer explanations about the "this" keyword. Going through different sites, reading some articles about it has slowly helped me understand the concept behind it. This article from javapoint <https://www.javatpoint.com/this-keyword> made the biggest impact for me to understand the purposes of the "this" keyword more. Its usages have become quite clear to me because of this article. Here, I learned that the "this" keyword can be used to: (1) refer current class instance variable; (2) invoke current class constructor; (3) invoke current class method; (4) return the current class instance from a method; and (5) be passed as an argument in the method call or constructor call.

   Additional concept understood: We can access the class attributes and class methods [those that have the static (shared across all instances of the class) keyword on their declarations] by simply using the class Name or instance name followed by a period and the class attribute or class method (ex. Baby.population or gilbertine.population → population is a class attribute declared with static int data type).

3. Choose at least one of the things discussed that you understood the most. Imagine explaining it to a classmate. **Explain it in your own words** (Minimum of **4** sentences - can be 2 sentences for each of the week's topics).

I learned that class specification (in OOP) is a document that serves as a blueprint design that dictates how to create a new instance of an object of a particular class. It comprises package declaration, import statement/s, and class definition/s. The package declaration and import statement/s in the class specification are your typical way of declaring the package name where your class is included and importing methods/functions from other packages that would be necessary for you sometimes while working with your program. The class definition then consists of attribute/s, constructor/s, and method/s. Attributes and methods also pertain to class features. These would tell the characteristics and behavior of a particular software object. On the other hand, a constructor is used to create an instance of the class. It initializes the state of the newly created instance. Once an object is created using the class specification, it is guaranteed to have unique features. It will also have the attributes and methods that are specified in the class specification. Lastly, it would automatically become a member of the class.

Please communicate urgent concerns to your instructor via Discord. Do not write them down here so that they can be addressed immediately. (Ex: Installation problems, health concerns).