Greg Tropino

Challenge 2 video response

Section 0:

.1) The purpose behind object oriented design is to be able to organize your program in a clearer, more precise manner to avoid bugs, avoid dead ends, avoiding issues that could have been easily thought about and navigated around if planned more thoroughly.

.2) It is advantageous because once everything is planned out and designed it will be overall much quicker to do the programming since you will have a better understanding as to what is expected, and what needs to be done.

.3) The difference between the waterfall approach and agile is that there is much more flexibility with the agile approach since things are typically not static when it comes to software development, as things change or need to keep developing afterwards. Waterfall design is much more firm in the steps, where you must complete each part before you move on to the next, where as you are combining all the steps in the agile development to be more receptive to change at each step. Iterative is an incremental cycle, each including analysis, design and programming, where it is in weeks, not months. We use it in a manner that is not perfect, as it shouldn’t be, but to be flexible, and to try to have oversight as to what we are doing at each step.

Section 1:

1.1) There are numerous types of programming languages, some of them include Logic programming like Prolog, Functional programming language like Haskell, procedural programming and Object oriented programming like Java, objective c among many others

1.2) You will typically see several different properties in a computer object, such as the object having an identity, where it can be independent from other objects, attributes, where it describes anywhere from the size or contents and behavior where it will be determined as to how it will act.

1.3) Classes are very similar to blueprints in the same that you use both of them as frameworks to create objects as described by the class or the blueprint. Classes will determine as to what the attributes, behaviors and name of the object is, but the class is not the object itself, however the class can create as many objects as it wants.

1.4) Abstraction is the ability to conceptualize a simple idea and focus on the idea of it, not the irrelevant details.

1.5) It prevents modification of data unless its done through the appropriate method, it helps ensure tracking and ease of future development of the program in case certain structures are modified since encapsulation helps maintain fewer paths for methods to modify data

1.6) Inheritance is when a class takes the same abilities another class already has. It is useful when you are creating multiple classes that all have some fundamental similarities between each other.

1.7) The idea behind polymorphism is to get the program to take the correct action/behavior when it could take several different forms or paths . When classes inherit from another polymorphism helps us know how to do baseline interactions between numerous objects when we are unsure as to which class it was created from.

Section 2:

2.1)

What are the steps of analysis that come before writing code for an application? Why do you think these steps make writing code easier?