Discussion-4: Object-Oriented Design: Abstract Classes and Interfaces

Discussion Topic:

As we approach mid-term, share your thoughts on your learning experience in this course so far. What is going well? What have you found most interesting and challenging in learning Java? Have you had any "aha" moments or is there something you need more help in understanding?

Please also include interesting material, videos, or articles from the current module.

My Post:

Hello class,

The class is going well, I enjoy coding and anything related to computer science, so this course is extremely interesting to me.
What I have found most interesting so far is actually this module, "Object-Oriented Design: Abstract Classes and Interfaces." I was familiar with Object-Oriented Programming concepts; however, I had a difficult time fully grasping the concepts of abstraction and interfaces, probably due to a lack of knowledge.
My "aha" moment came when I fully (better) understood how abstract classes and interfaces work and are implemented in Java.
I also found it challenging and rewarding to implement Graphic User Interfaces (GUIs). However, I found it challenging and frustrating to go through all the steps required to implement the JavaFX library in the Eclipse IDE every time I started a new project; however, it is easier than implementing libraries for c++ or c applications using Visual Studio.
I am looking forward to utilizing Unified Modeling Language (UML) and Class Responsibility Collaborator (CRC) to develop my future coding projects. The more advanced my programming classes become the larger my coding projects are getting. Thus, fully understanding concepts such as object-oriented programming, object-oriented design, or object-oriented is crucial, and using tools such as UML and CRC is essential for the success of my future computer science assignments projects.

I found the following video about UML, very informative.
If you are planning to use UML for your computer science projects, I encourage you to watch (0:09:39) Class Diagram section in the video.
Video: UML Diagrams Full Course (Unified Modeling Language) (Free Code Camp, 2021)
The video describes how to use UML diagrams to visualize the design of databases or systems. It describes the most widely used Unified Modeling Language diagrams, their basic notation, and applications. UML diagrams are frequently used in software development.

-Alex

References:

Free Code Camp (2021, April 21). *UML diagrams full course (Unified Modeling Language)* [Video]. Youtube. https://www.youtube.com/watch?v=WnMQ8HlmeXc