Patrick Buhmbi CST 239 Activity 1 2/3/2024

Research Questions: For traditional ground students, in a Microsoft Word document, answer the following questions: a. Your text discusses a relationship between classes called “association.” Think about the class project you are currently designing. What associations exist between the Salable and the Shopping Cart class? What is the multiplicity of these associations? b. What is meant by the statement “class abstraction is the separation of class implementation from the use of a class”? Illustrate your answer with a Java class.

In our class project where we're dealing with Salable and Shopping Cart classes, there's a key connection between them. The Shopping Cart class is linked with instances of Salable items, showing that a shopping cart can hold several items for sale at once. This connection can be seen as a simple idea: for every shopping cart, there can be many salable items. So, we call this relationship a "one-to-many" relationship, meaning one shopping cart can have multiple salable items.

b. When we talk about "class abstraction," we're basically talking about keeping the inner workings of a class hidden while providing a neat and simple way for others to use it. Think of it like this: you don't need to know how your car's engine works to drive it; you just need to know how to use the steering wheel, brakes, and accelerator. In Java, we often use something called an interface to illustrate this idea. It's like giving someone a set of instructions on how to use a tool without needing to know how the tool was made or how it works internally.