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ITSE 1450

Module 6 Discussion 1

Transitioning to an Object-Oriented (O-O) approach without prior experience in the field might seem daunting, but it is a valuable step towards creating flexible and scalable systems. To embark on this journey, it's vital to first immerse yourself in the foundational concepts of O-O design, such as understanding classes, objects, and core principles like inheritance and polymorphism. Resources such as online tutorials, textbooks, and workshops can be instrumental in this phase.

With foundational knowledge in place, the next step is to deeply understand the client’s business—specifically, the real estate brokerage's operations. This understanding is crucial for identifying the real-world entities that will be represented as objects in your O-O design. Once these objects are identified, you'll need to define their attributes, behaviors, and the relationships between them, which is a marked departure from the process-driven focus of structured analysis. These objects will likely include representations of listings, clients, and agents, each with their own attributes and methods.

In O-O design, you will develop use cases to model user interactions with the system, a contrast to structured analysis, which emphasizes data flow and control procedures. The iterative nature of O-O development allows for building the system in stages, refining with stakeholder feedback, and adjusting as necessary—a more flexible approach compared to the more rigid, sequential process of structured analysis.

The shift to O-O design also brings a new perspective on system modularity, where functionality is encapsulated within self-sufficient objects, unlike the functional decomposition of structured analysis. This encapsulation enhances modularity and change management, as alterations to one part of the system tend to have minimal impact on others. Reusability is another significant benefit, with the definition of classes enabling the instantiation of numerous objects without redundancy, an advantage not as inherent in structured systems.

Understanding these differences is vital as you navigate from a traditional, process-centric approach to one that is object-centric, focusing on the entities and their interactions within the system's architecture. This paradigm shift, while challenging, can lead to a robust, adaptable, and future-proof system for the real estate brokerage.