Discussion 5-1: Functional, Structural, and Behavioral Models

Structural modeling describes the structure of the system. Functional modeling provides an external view of the system. Behavioral modeling describes the behavior and relationship of the objects to achieve the processes in the functional model.

Functional models focus on the business processes, gathered from the system’s requirements, and how the information system interacts with its environment. Functional models create use cases and activity diagrams to describe the use cases. They illustrate the flow of events. Structural models build on the methods from the functional model. Structural models use different diagrams to identify the system’s objects, attributes, and relationships, they include class diagrams and object diagrams. Behavioral models take it a step further by describing how the objects in structural models interact and communicate. So, they all work together to describe a whole system.

ATMs have many different functions. If I were creating a functional model of an ATM the use cases for that system would include Check Balances, Withdrawals, Deposits, Authenticate Users, Record Transactions, ATM Help, and Transfer Funds. Based on these use cases some objects that I might need for the ATM system are a card reader, keypad, printing device, screen, audio and visual communication, and error messaging.