

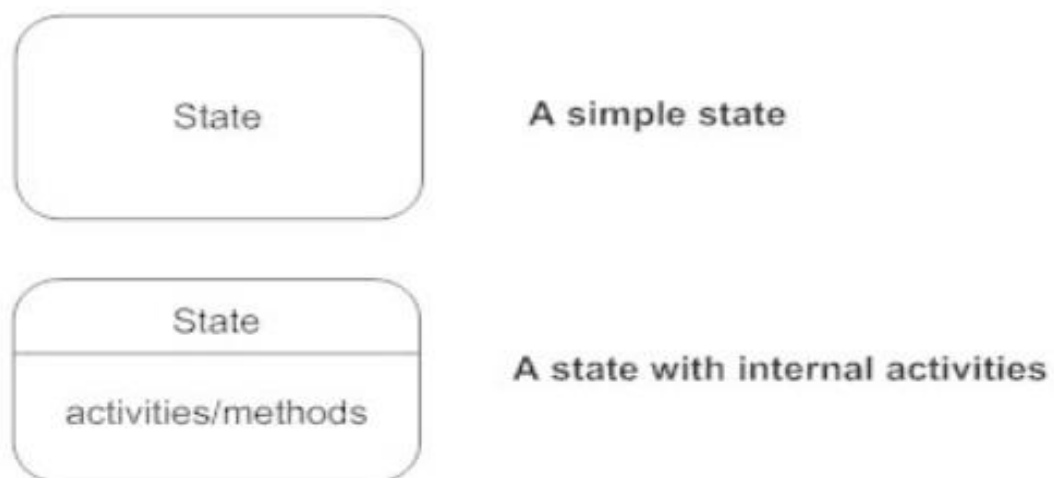
State Diagram

A state diagram shows the behavior of classes in response to external stimuli. Specifically a state diagram describes the behavior of a single object in response to a series of events in a system. Sometimes its also known as a Harel state chart or a state machine diagram. This UML diagram models the dynamic flow of control from state to state of a particular object within a system.

Basic State Chart Diagram Symbols and Notations:

States

States represent situations during the life of an object. You can easily illustrate a state in SmartDraw by using a rectangle with rounded corners.



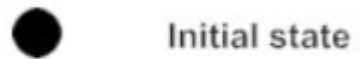
Transition

A solid arrow represents the path between different states of an object. Label the transition with the event that triggered it and the action that results from it. A state can have a transition that points back to itself.



Initial State

A filled circle followed by an arrow represents the objects initial state



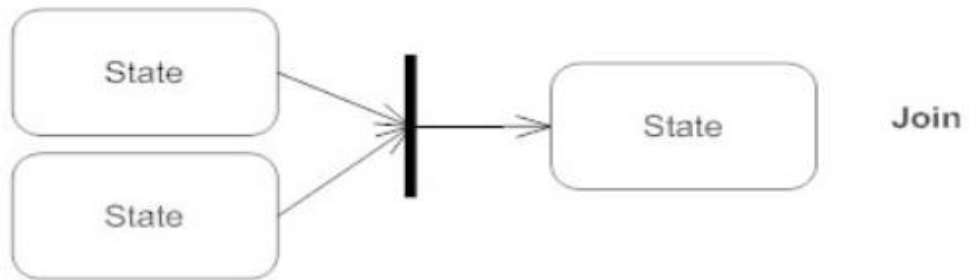
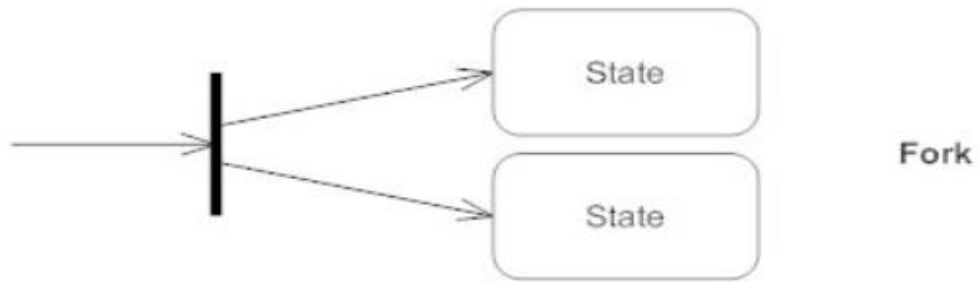
Final State

An arrow pointing to a filled circle nested inside another circle represents the objects final state.



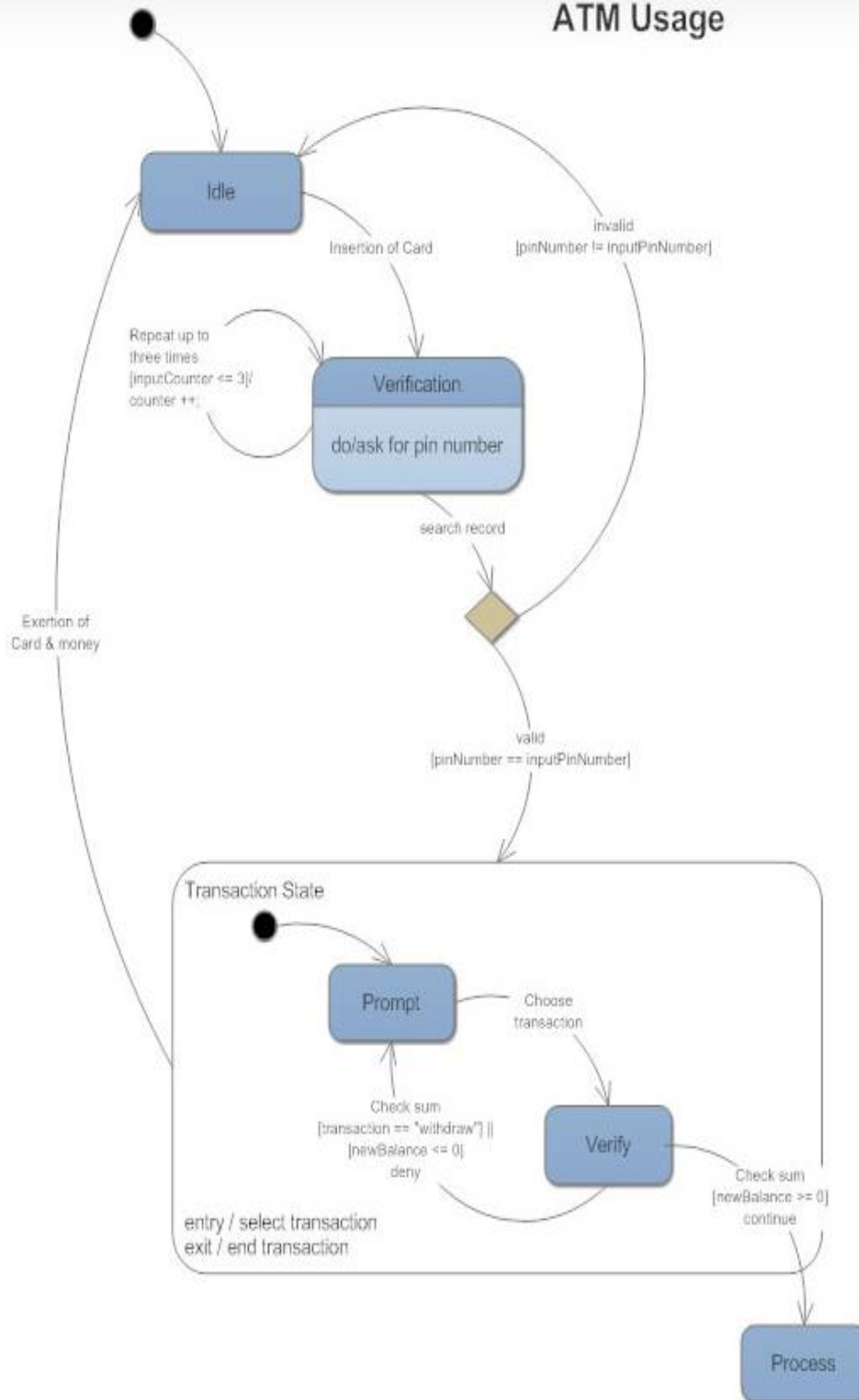
Synchronization and Splitting of Control

A Short heavy bar with two transitions entering it represents a synchronization of control. This first bar is often called a fork where a single transition splits into concurrent multiple transitions. The second bar is called a join, where the concurrent transitions reduce back to one.



State Diagram Examples:

ATM Usage



Chess game

