

# UML

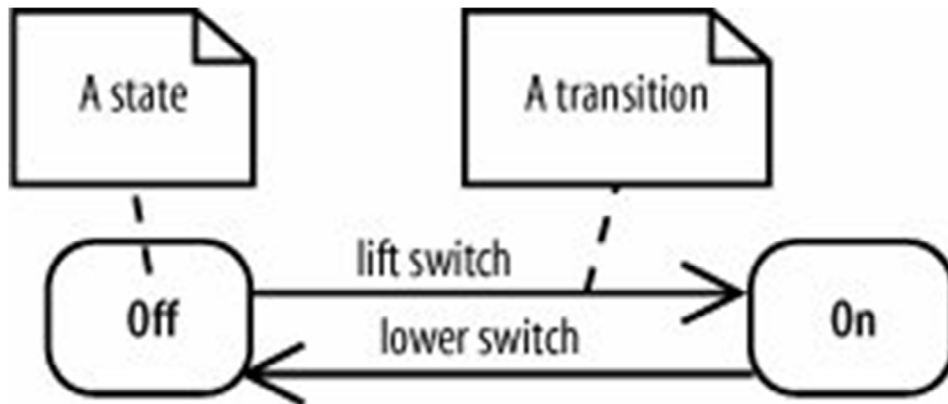
## State Diagram

25-Jan-23 4:14 PM

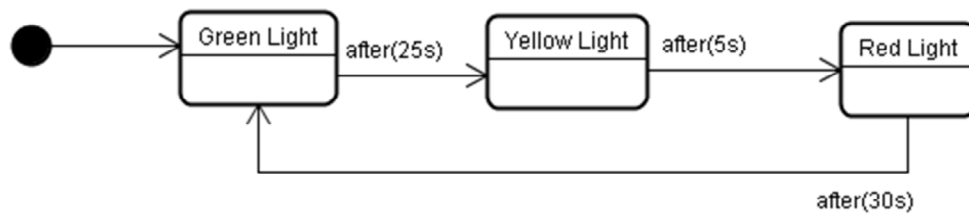
By Vijay – [caretrainings.co.in](https://caretrainings.co.in)

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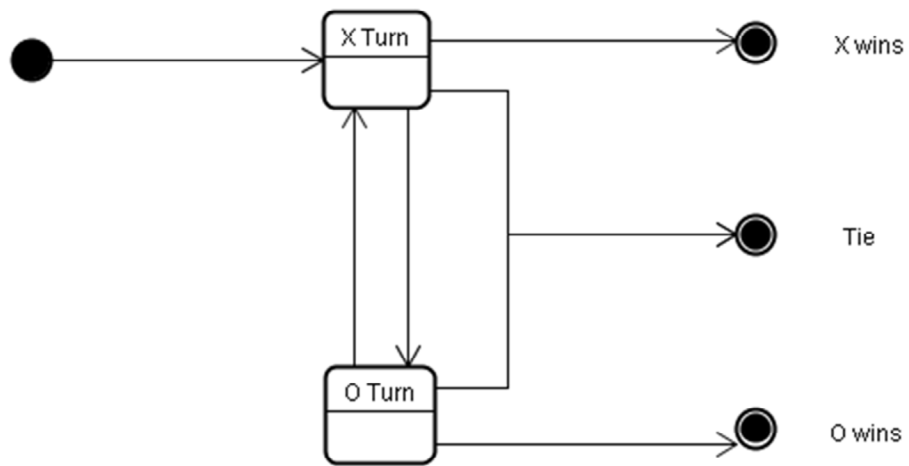
# A light switch



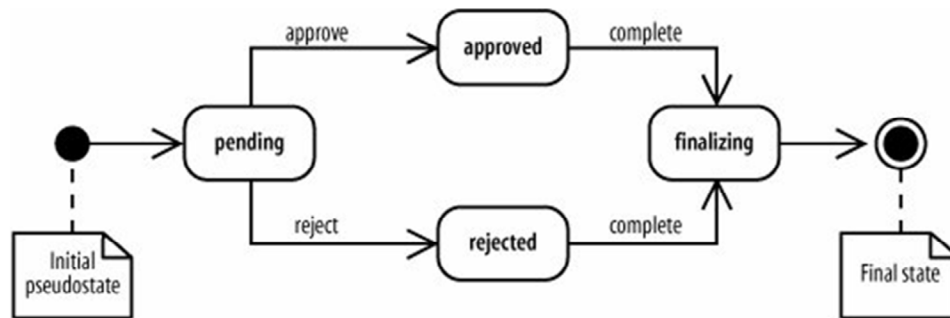
# A traffic signal



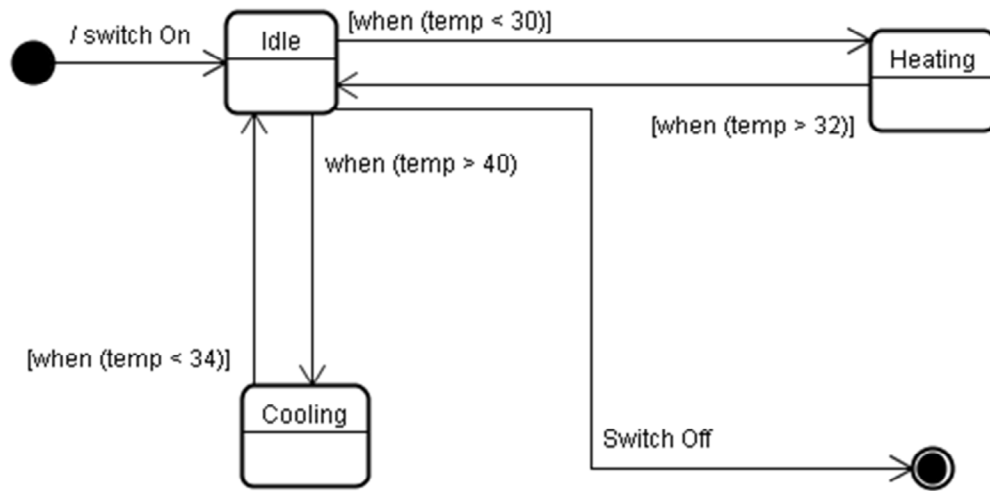
# Tic-Tac-Toe Game



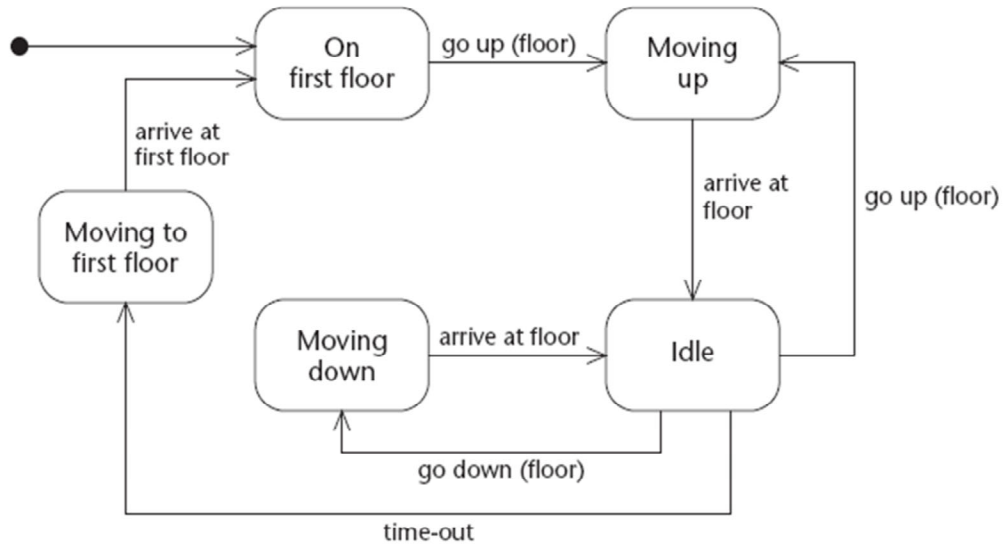
# An Account Application



# AC



# Elevator

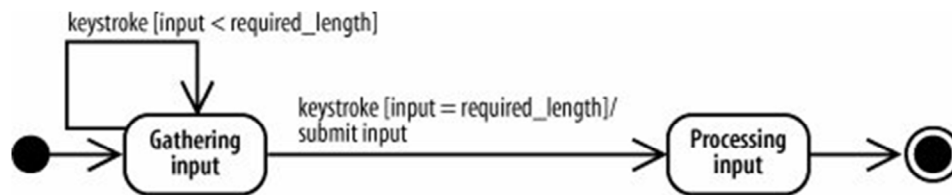


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# Transitions



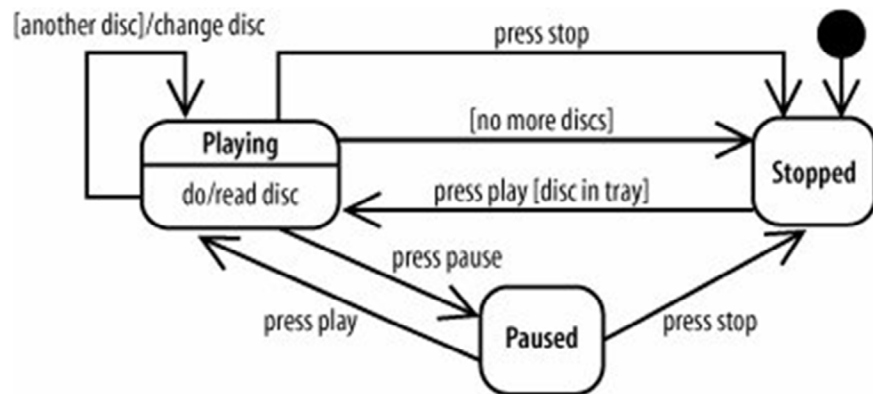
Each transition has a label that comes in three parts:

**trigger-signature** **[guard]**/**activity**

All the parts are optional.



# CD Player

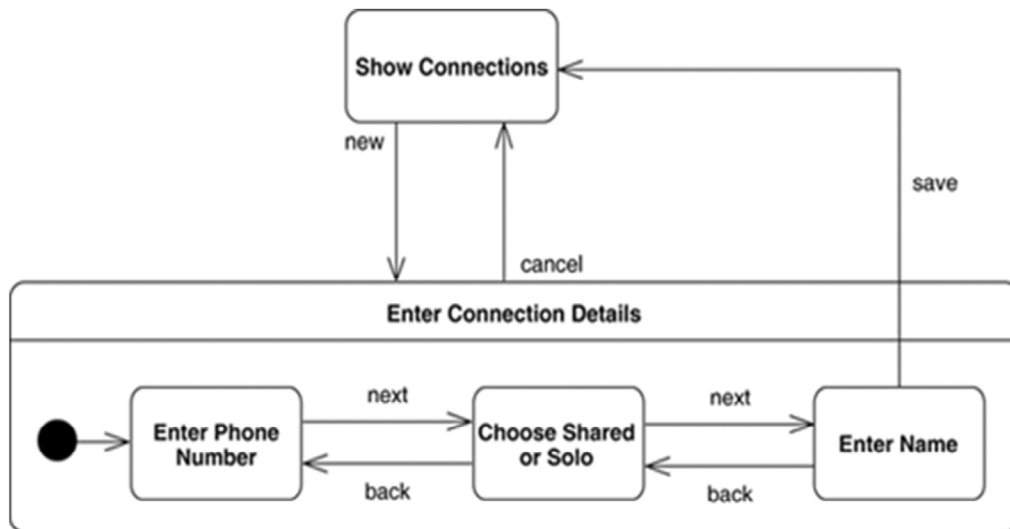


# Internal Activities

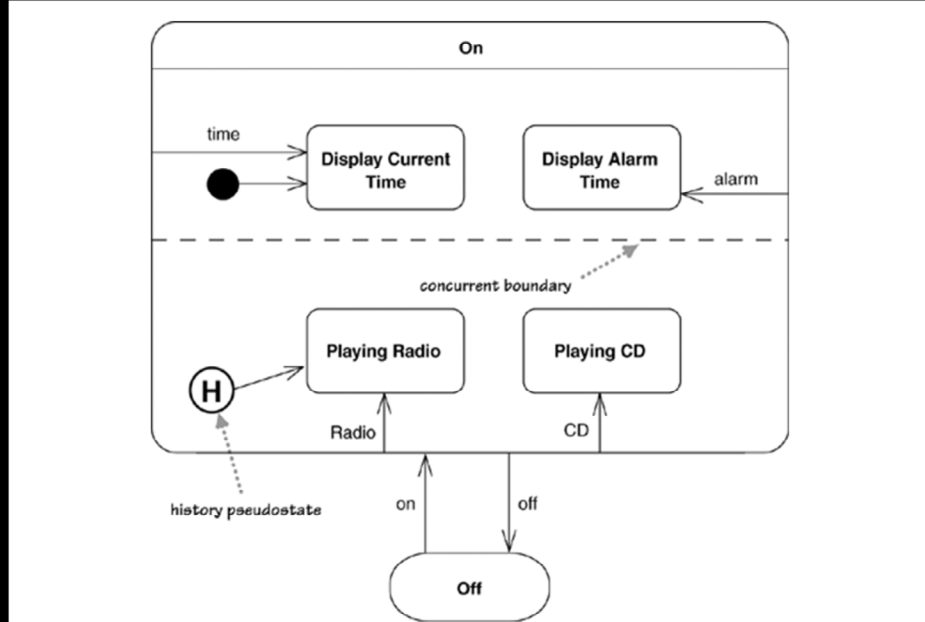
## Typing

entry/highlight all  
exit/ update field  
character/ handle character  
help [verbose]/ open help page  
help [quiet]/ update status bar

# Super state



# Concurrent States



## State Diagrams



- When you model an entity in a system, the object representing the entity can be in various states over a period of time.
- At a particular moment, an object can be in a particular state, defined by the value of its attributes.
- An object's lifecycle extends from the initial state to its final state. The state of an object can change as events occur.
- The change of state of an object from a source state to a target state is called a state transition.

## State Diagrams (Cont'd)



- Steps to create a state diagram are as follows:
  - Start by creating a region and mark the initial state in it. You can give the initial state a name.
  - Identify the various actions happening related to the object and identify its states, by referring to the:
    - Use case
    - Domain model
    - Activity diagrams
  - Define the transition between the objects.

## Discussion Time

Discuss the differences between state diagrams and activity diagrams.

