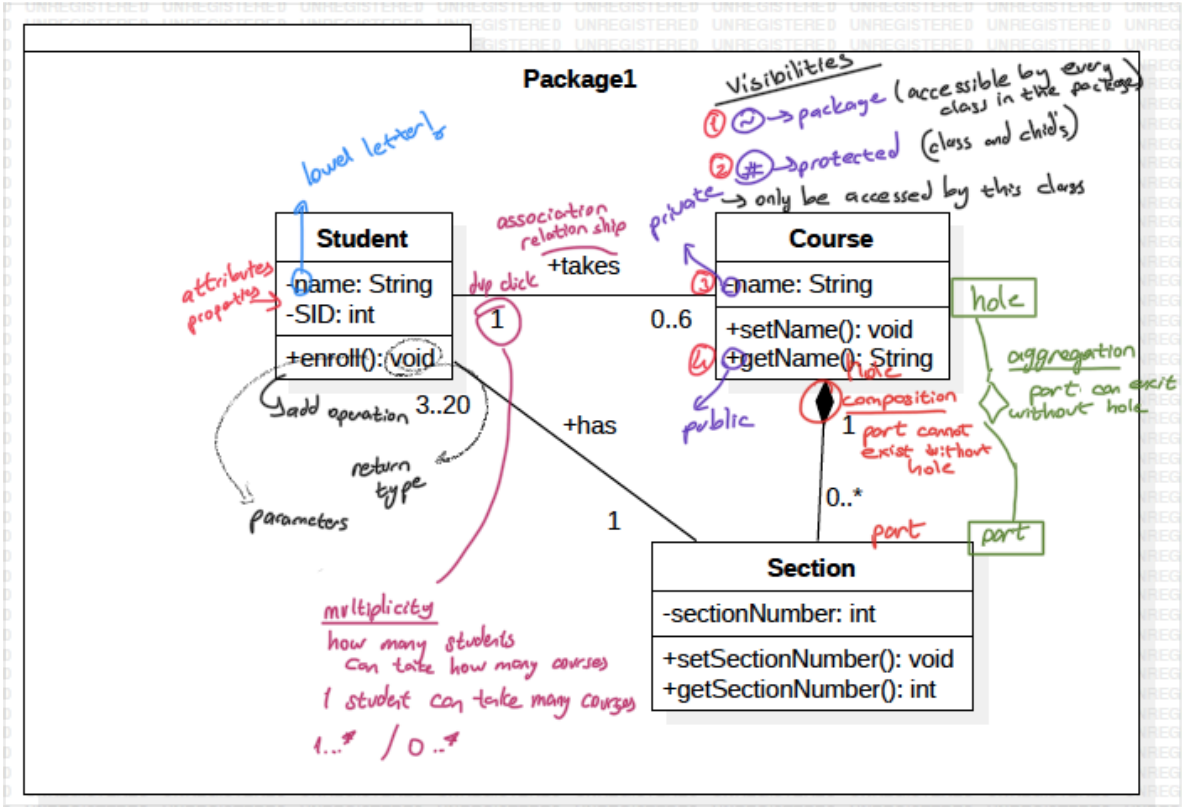
recit -3

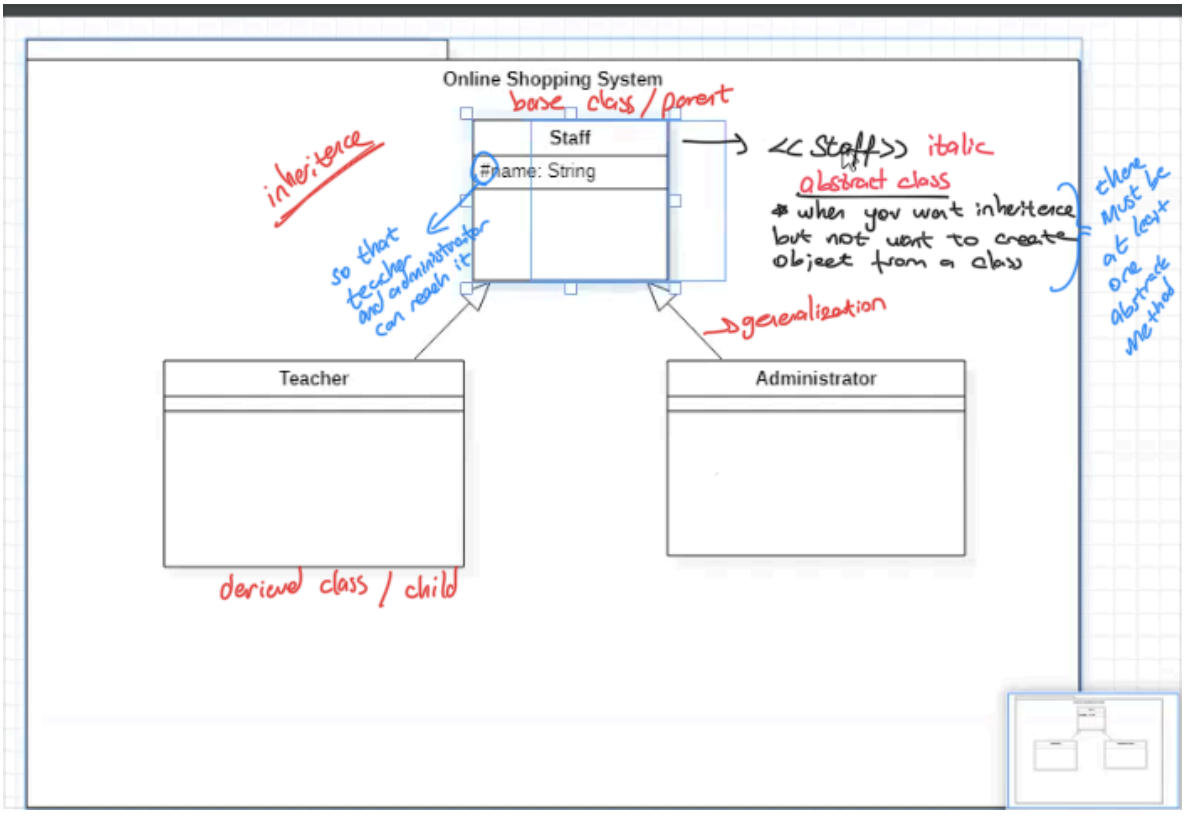
class diagram and state digram

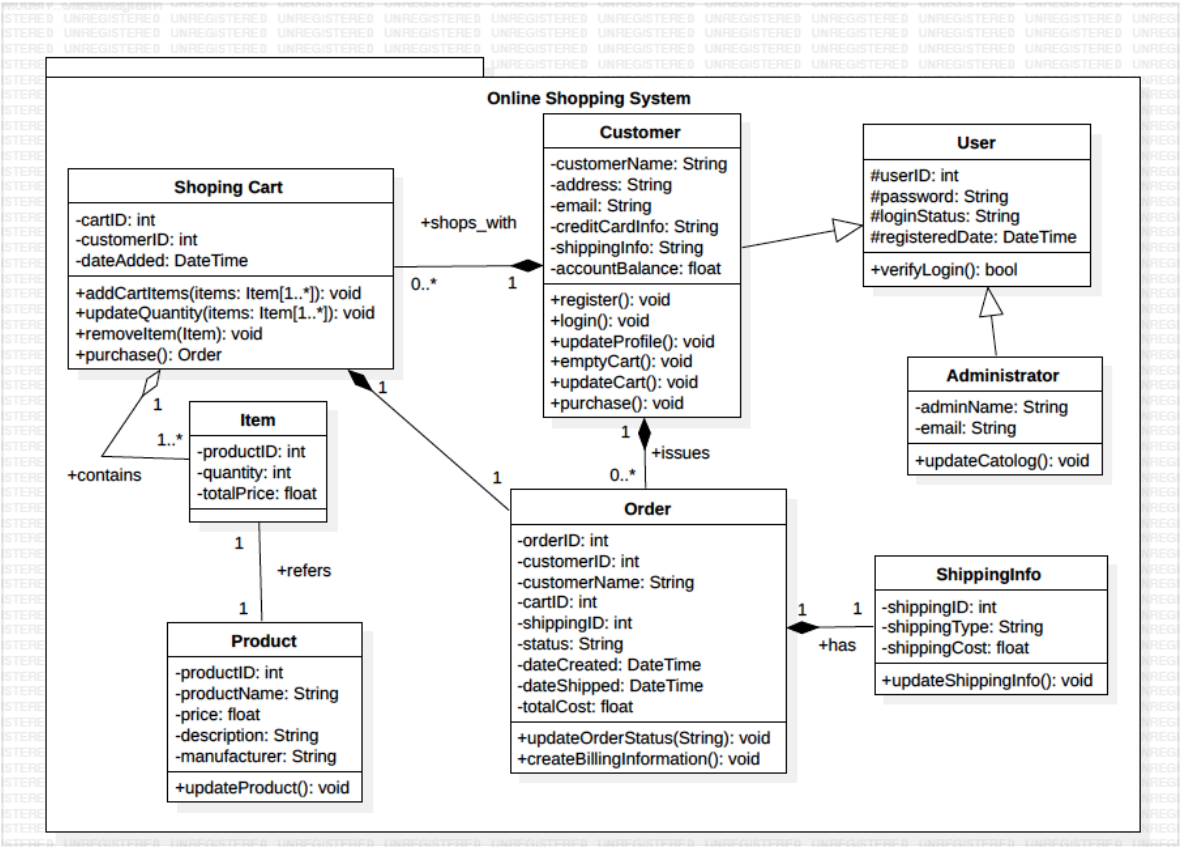
class diagram:

-structural diagram

-attributes & operations of classes

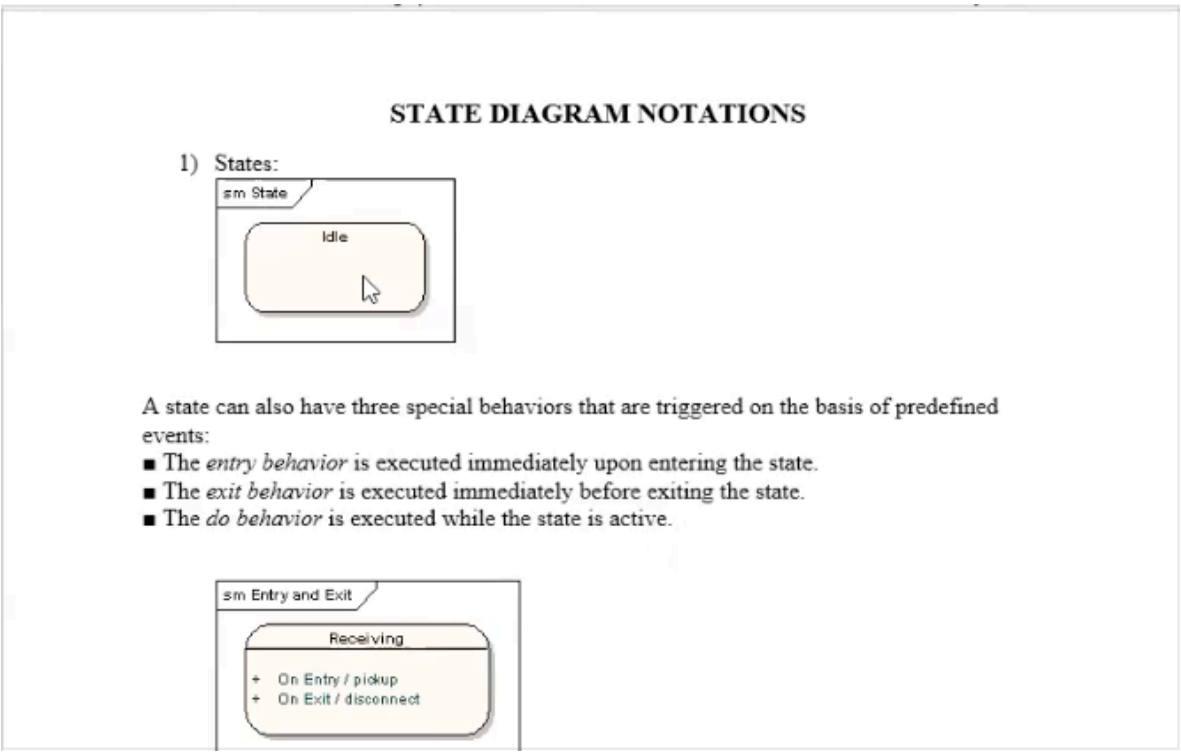






state diagram:

-can be created for all or part of the system
-behavioral
states+state transitions + trigger(what causes the transition)



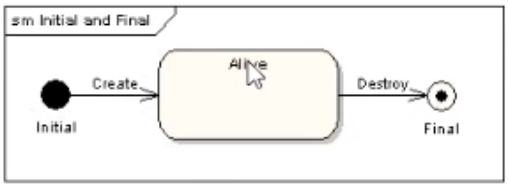
STATE DIAGRAM NOTATIONS

1) States:

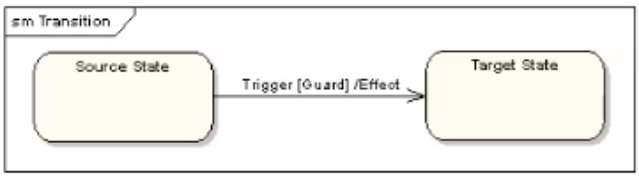
A state can also have three special behaviors that are triggered on the basis of predefined events:

- The *entry behavior* is executed immediately upon entering the state.
- The *exit behavior* is executed immediately before exiting the state.
- The *do behavior* is executed while the state is active.

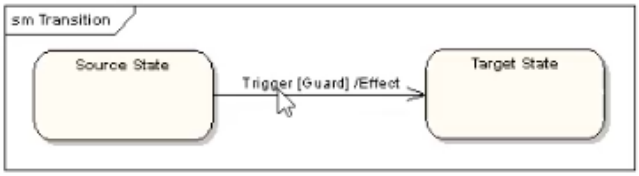
2) Initial and Final States



3) Transitions

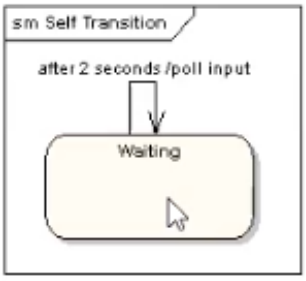


3) Transitions

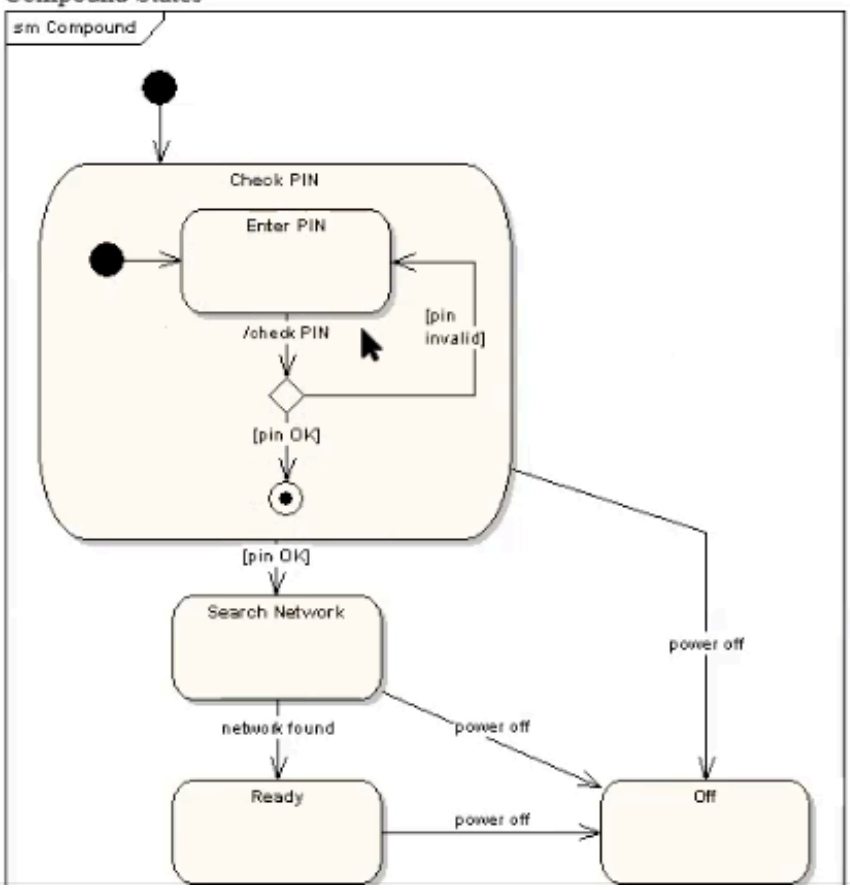


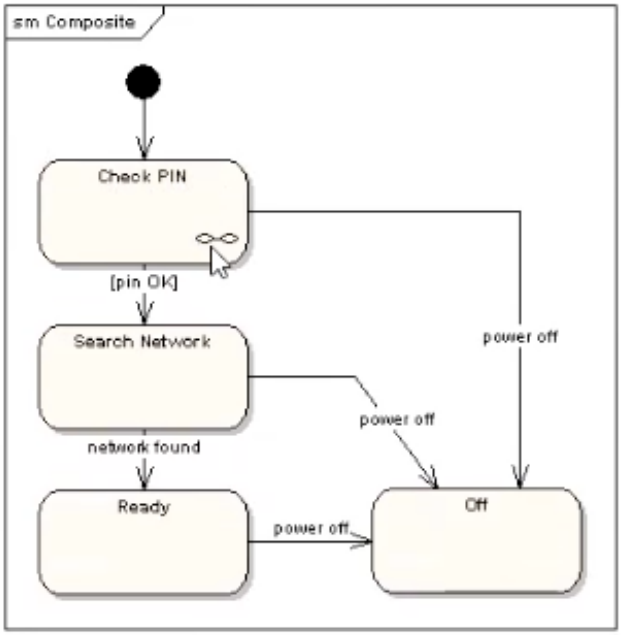
"Trigger" is the cause of the transition, which could be a signal, an event, a change in some condition, or the passage of time. "Guard" is a condition which must be true in order for the trigger to cause the transition. "Effect" is an action which will be invoked directly on the object that owns the state machine as a result of the transition.

4) Self Transitions

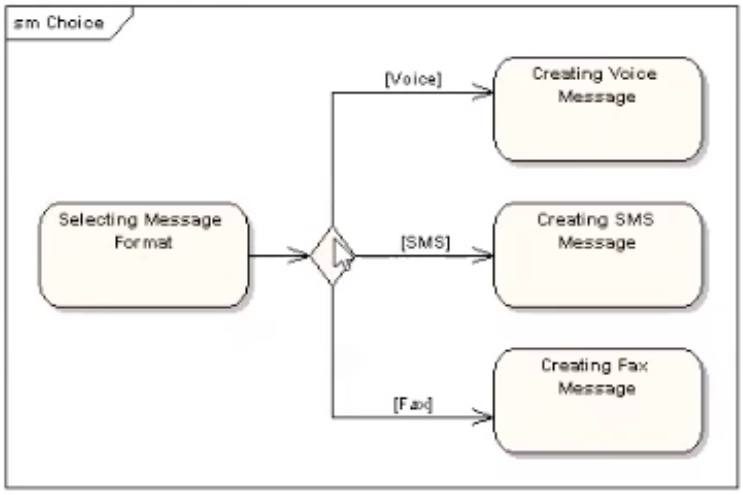


5) Compound States

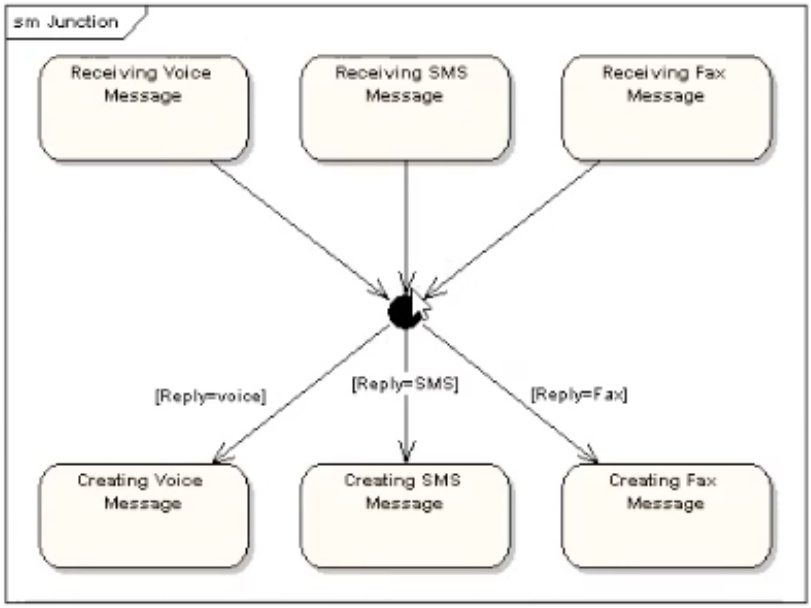




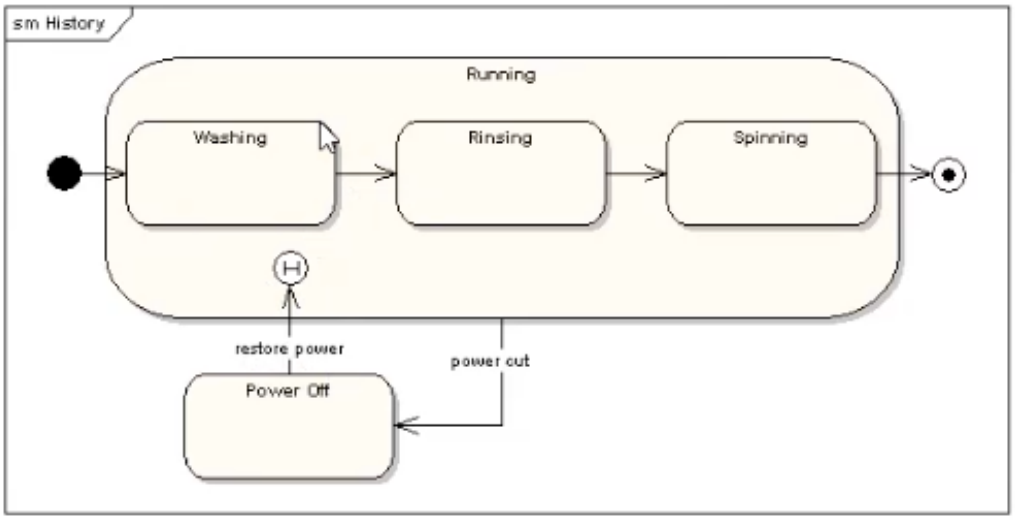
6) Choice Pseudo States



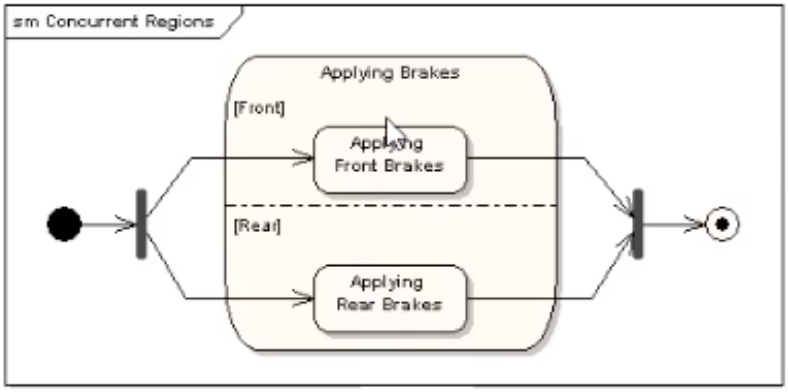
7) Junction Pseudo States



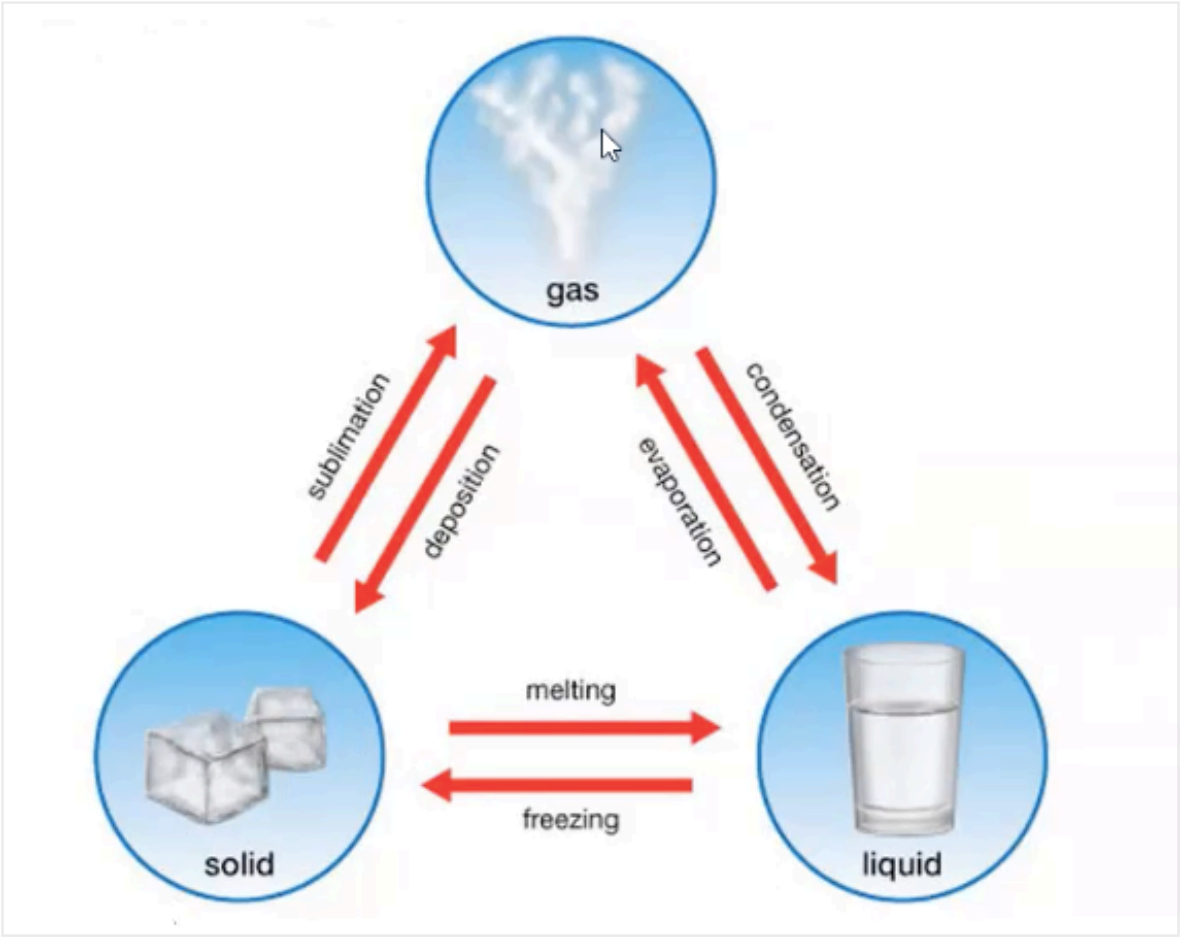
8) History States

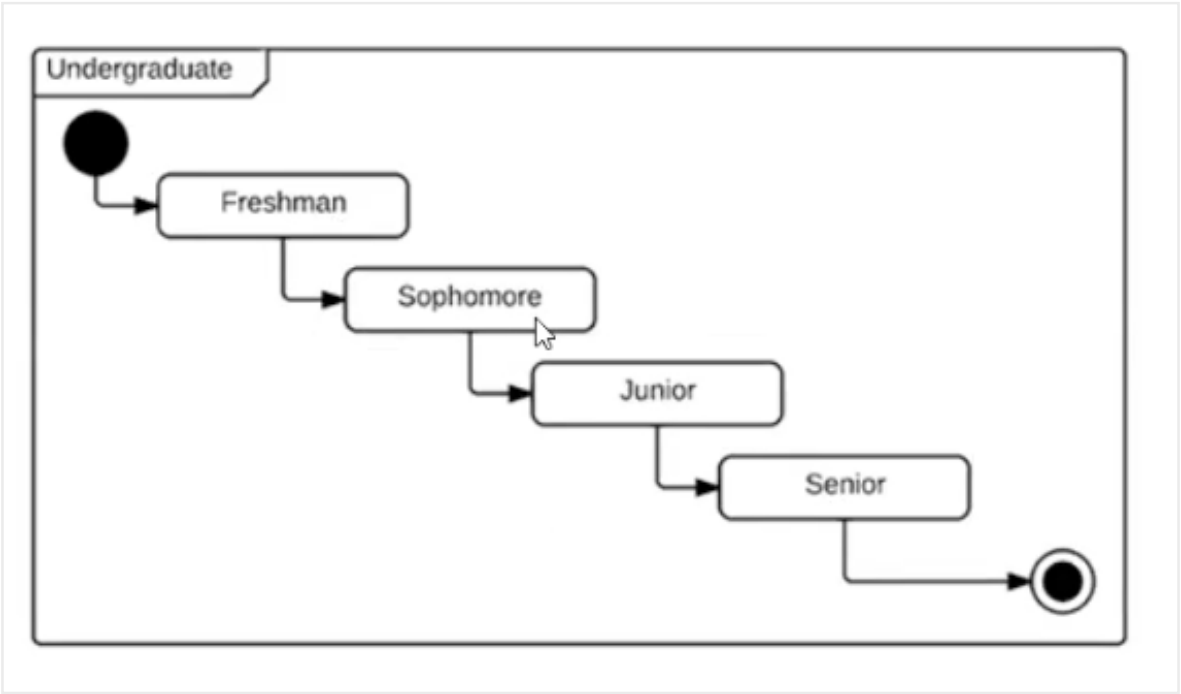


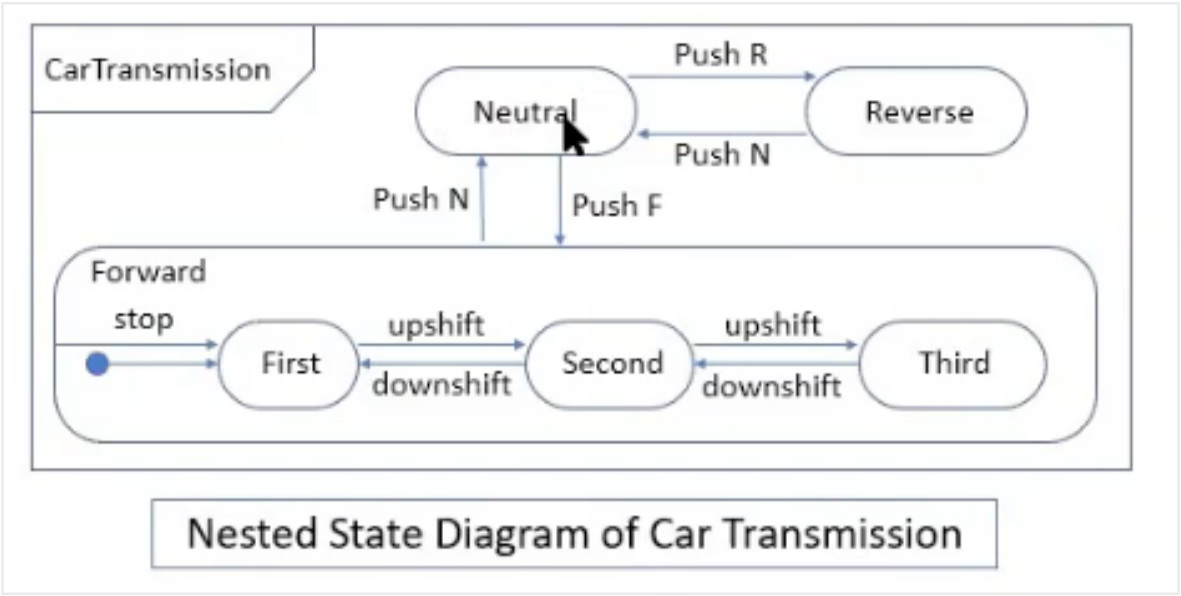
9) Concurrent Regions



examples:


gas
sublimation
deposition
evaporation
condensation
melting
freezing
solid
liquid


Undergraduate
Freshman
Sophomore
Junior
Senior



Nested State Diagram of Car Transmission