

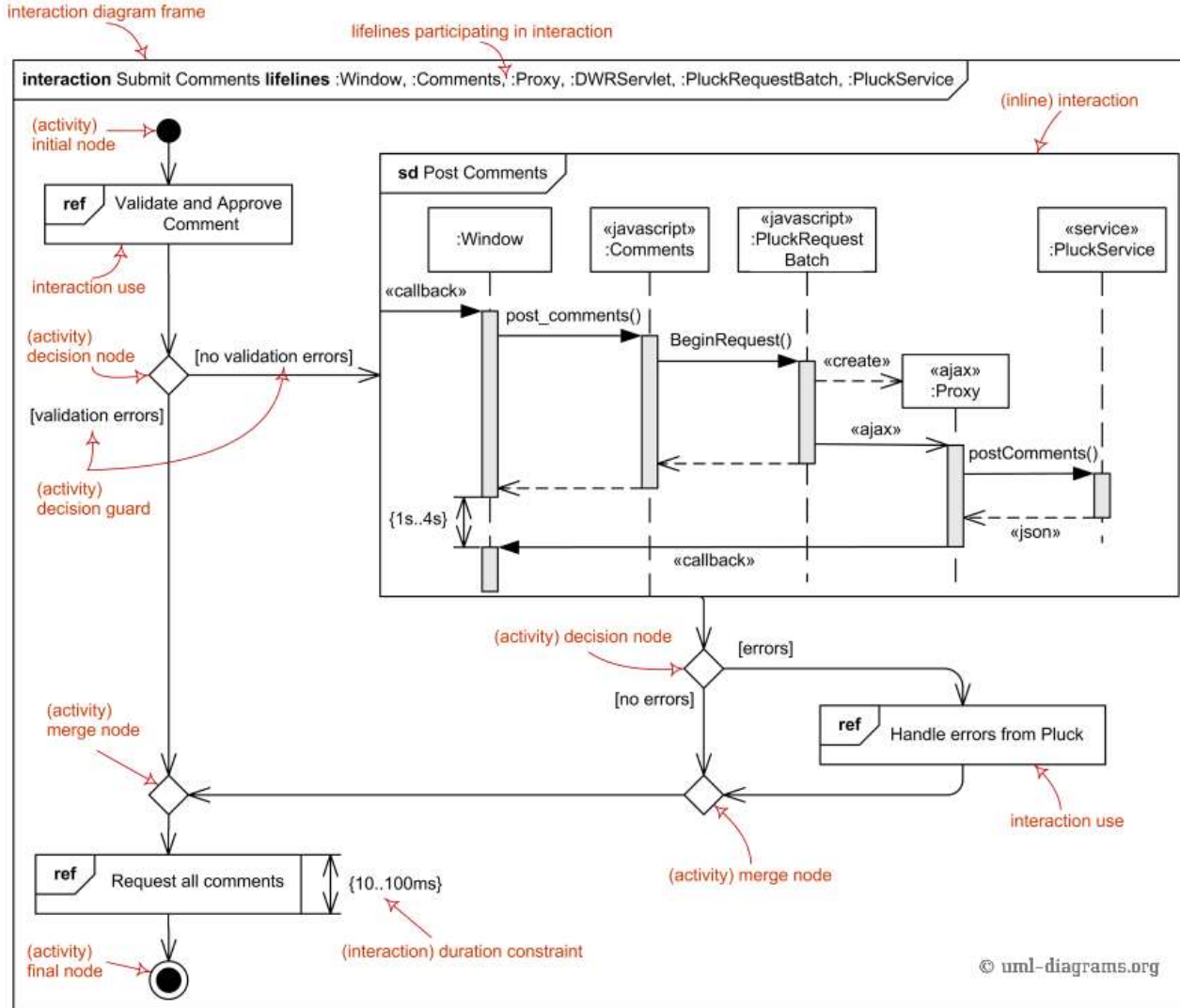
Interaction Overview Diagram

- What are Interaction Overview Diagrams?
 - Frames
 - Elements of Activity Diagram
 - Elements of Interaction
 - Interaction
 - Interaction use
 - Duration constraint
 - Time constraint

What are the interaction diagram?

- Interaction overview diagrams provide overview of the flow of control where nodes of the flow are interactions or interaction uses
- UML interaction overview diagram combines elements from activity and interaction (sequence majorly) diagrams
- The major components of a Interaction overview diagrams Diagram are:
 - Frames
 - Elements of Activity Diagram
 - Elements of Interaction
 - Interaction
 - Interaction use
 - Duration constraint
 - Time constraint

you will find that the major components of the interaction diagram are borrowings from the activity diagram or the elements of different interaction diagram or the sequence diagram to be more precise.



Frames

- Interaction overview diagrams are framed by the same kind of frame that encloses other forms of interaction diagrams
- *Notation: A rectangular frame around the diagram with a name in a compartment in the upper left corner*
Interaction kind is interaction or sd (abbreviated form)



Interaction overview diagram Online Shopping

Elements of Activity Diagram

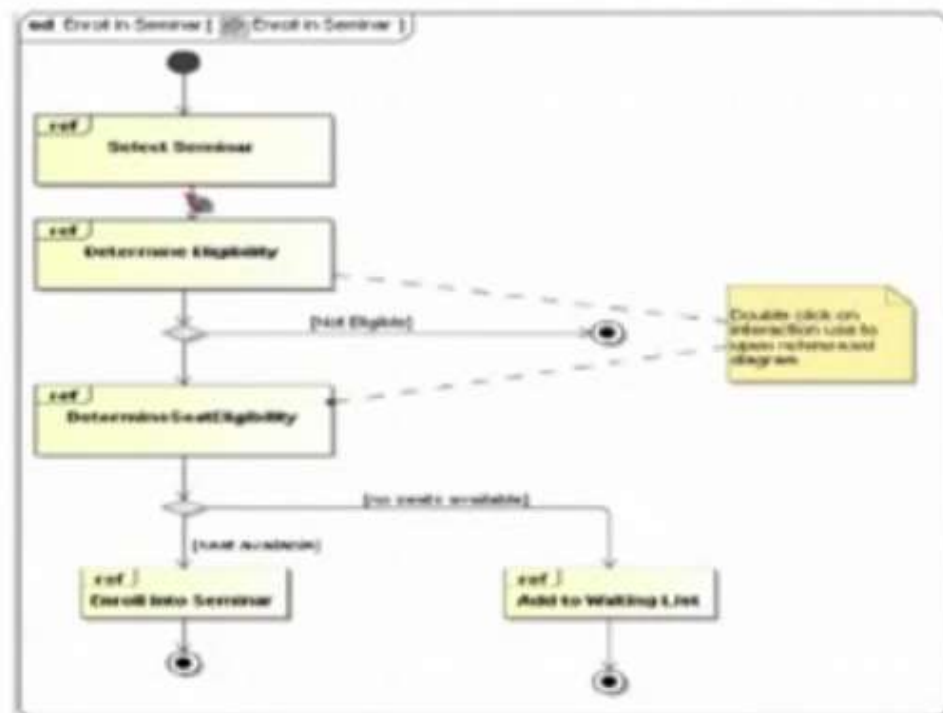
The following elements of the activity diagrams could be used on interaction overview diagrams

- initial node
- flow final node
- activity final node
- decision node
- merge node
- fork node
- join node



Source: *UML 2.5 Diagrams Overview*: <http://www.uml-diagrams.org/uml-25-diagrams.html> (20-Aug-16)

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Interaction Overview Diagram containing elements of Activity Diagram

Source: [url:http://docs.nomagic.com/display/MD183/Interaction+Overview+diagram?](http://docs.nomagic.com/display/MD183/Interaction+Overview+diagram?)

preview=/6130044/6130045/interaction_overview_diagram.png(20-Aug-16)

Elements of Interaction Diagram

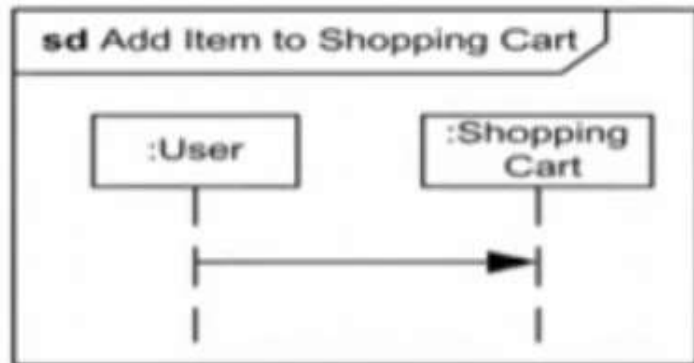
The following elements of the Interaction (majorly Sequence) diagrams could be used on interaction overview diagrams

- interaction /
- interaction use
- duration constraint
- time constraint

Source: *UML 2.5 Diagrams Overview*: <http://www.uml-diagrams.org/uml-25-diagrams.html> (20-Aug-16)

Interaction

- An interaction diagram of any kind may appear inline as an invocation action
- The inline interaction diagrams may be either anonymous or named



Interaction Add Item to Shopping Cart may appear inline on some interaction overview diagram

Interaction Use

- An interaction use may appear as an invocation action



Interaction use Add Item to Shopping Cart may appear on some interaction overview diagram

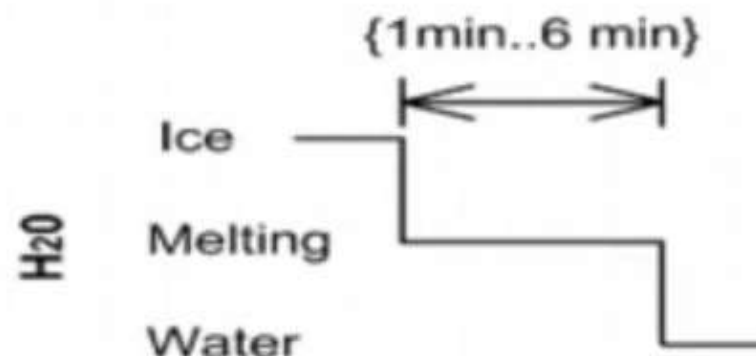
- The inline interaction will have arguments (if any) of the reference replaced with parameters



Source: *UML 2.5 Diagrams Overview*: <http://www.uml-diagrams.org/uml-25-diagrams.html> (20-Aug-16)

Duration Constraint

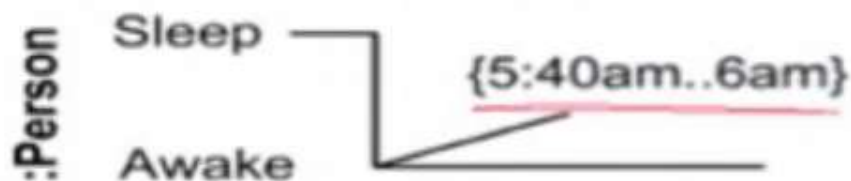
- Duration constraint is an **interval constraint** that refers to a **duration** interval
- The duration interval is duration used to determine whether the constraint is satisfied



Ice should melt into water in 1 to 6 minutes

Time Constraint

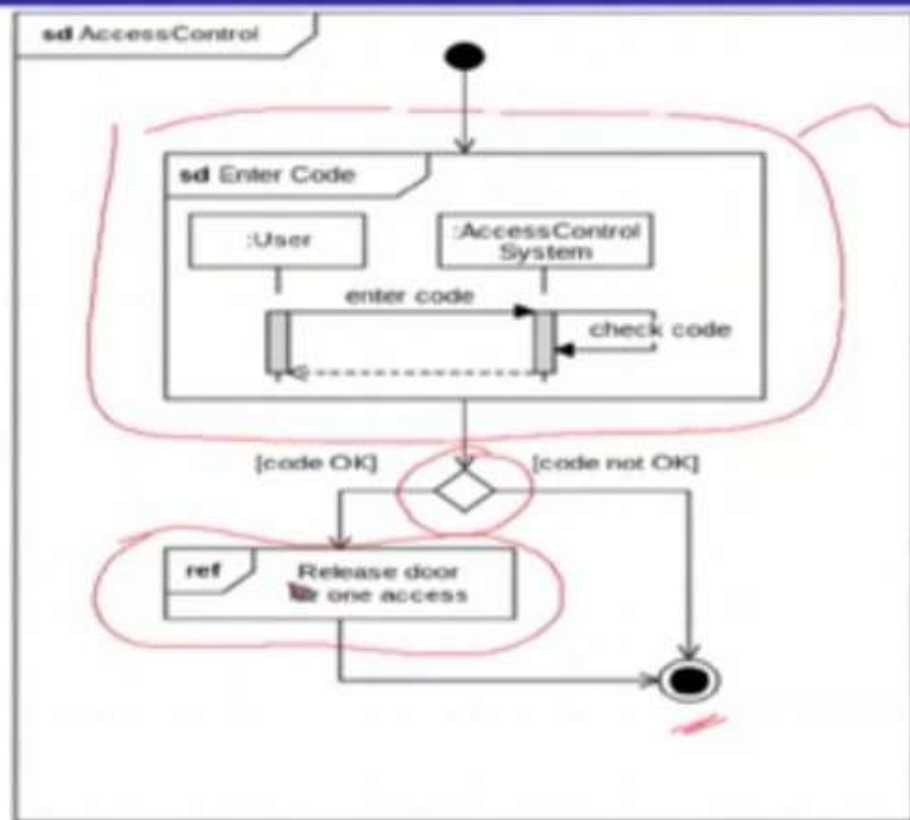
- Time constraint is an **interval constraint** that refers to a **time** interval.
- The time interval is time expression used to determine whether the constraint is satisfied.



Person should wake up between 5:40 am and 6 am

Source: *UML 2.5 Diagrams Overview*: <http://www.uml-diagrams.org/uml-25-diagrams.html> (20-Aug-16)

Access Control: Example



Interaction

Interaction Use