UML Sequence Diagrams

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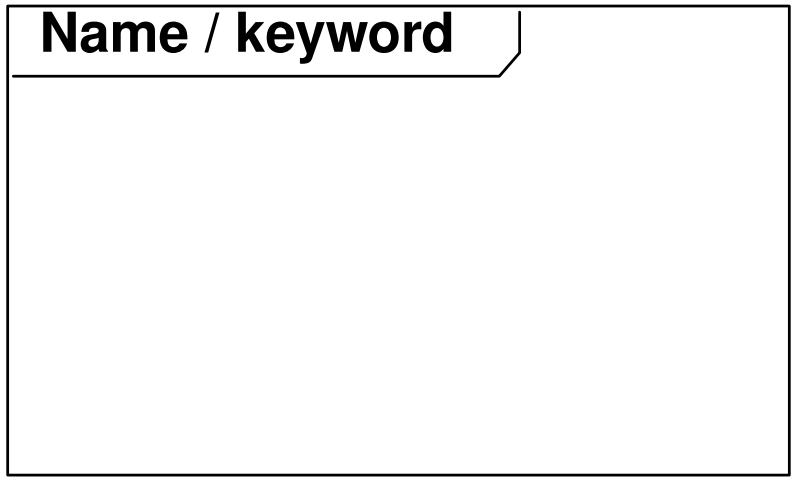
UML 2.0 Interaction diagrams.

- sequence diagrams
- communication diagrams
- interaction overview diagrams
- timing diagrams

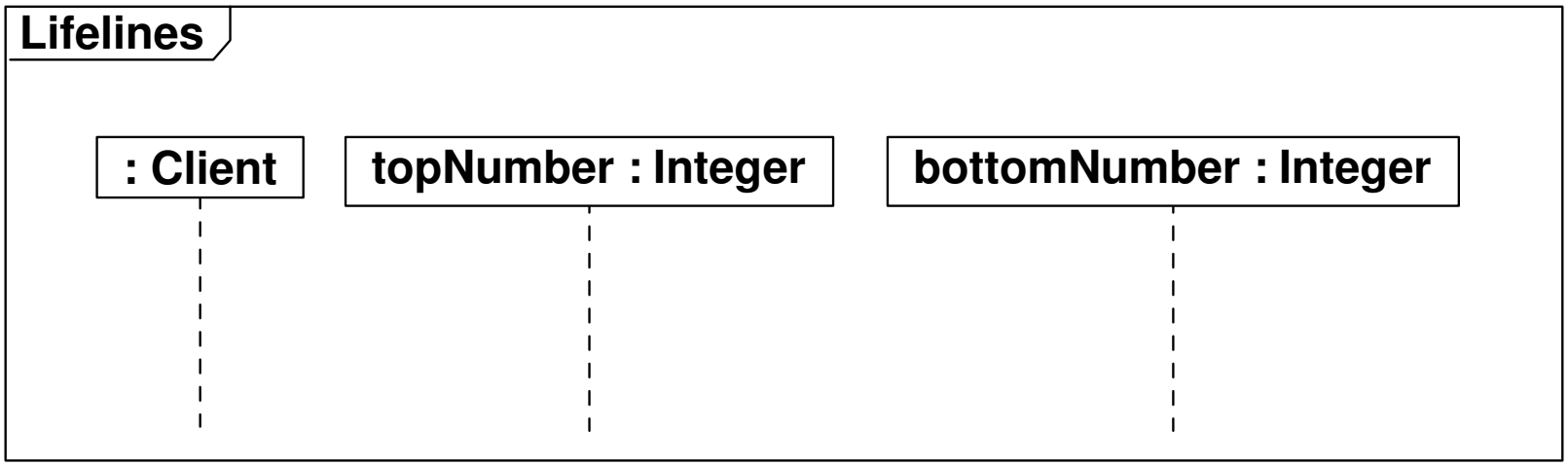
All interaction diagrams model how objects interact with one another in terms of the messages they pass to one another. Sequence diagrams emphasise the order of the messages over time.

A Frame



- A frame may be used to delineate scope
- A heading give a descriptive name to the interaction being modeled

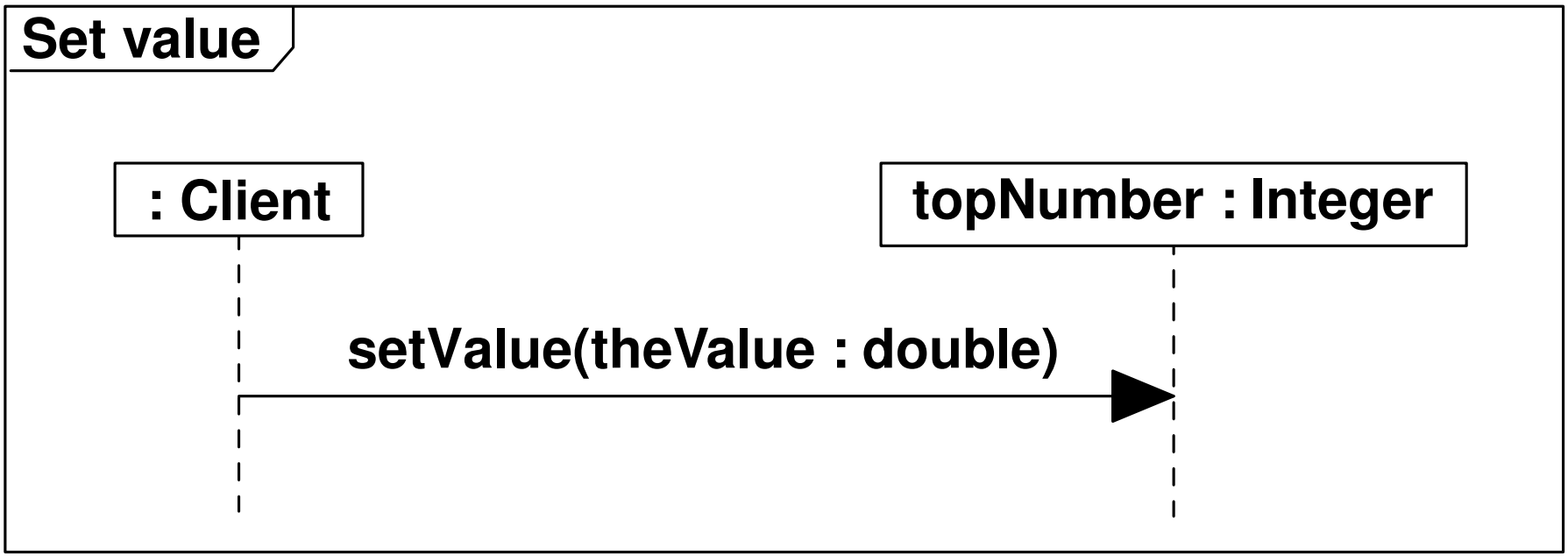
Lifeline notation



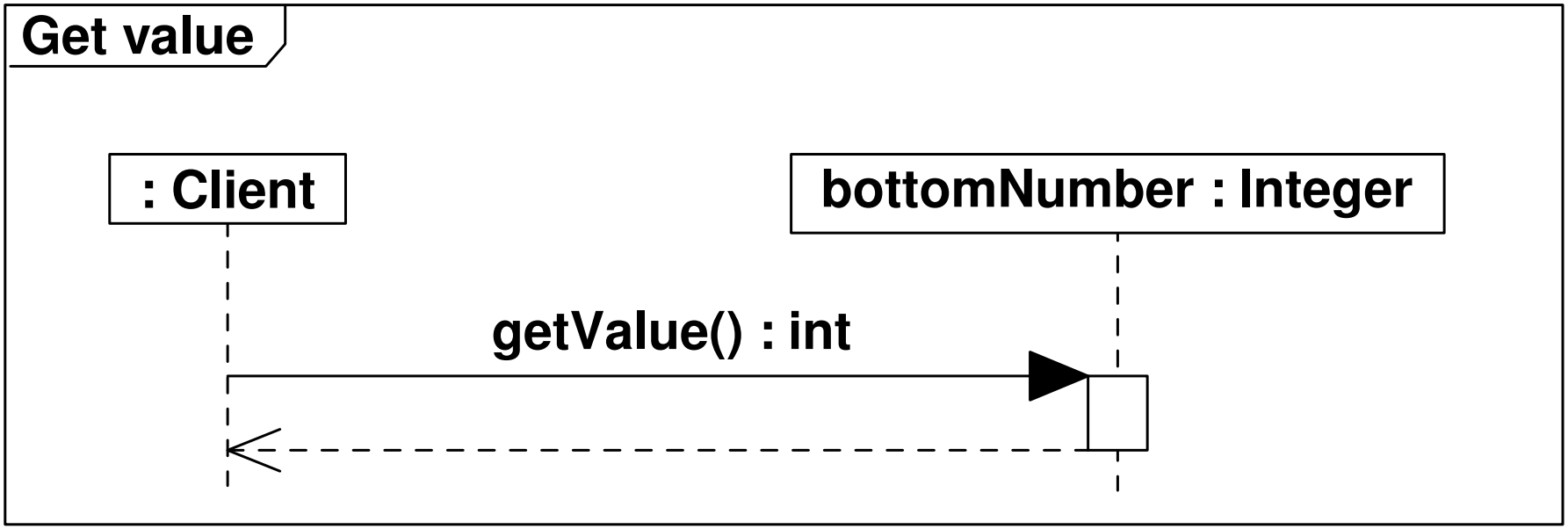
A sequence diagram model objects

The syntax is the same as in object diagrams

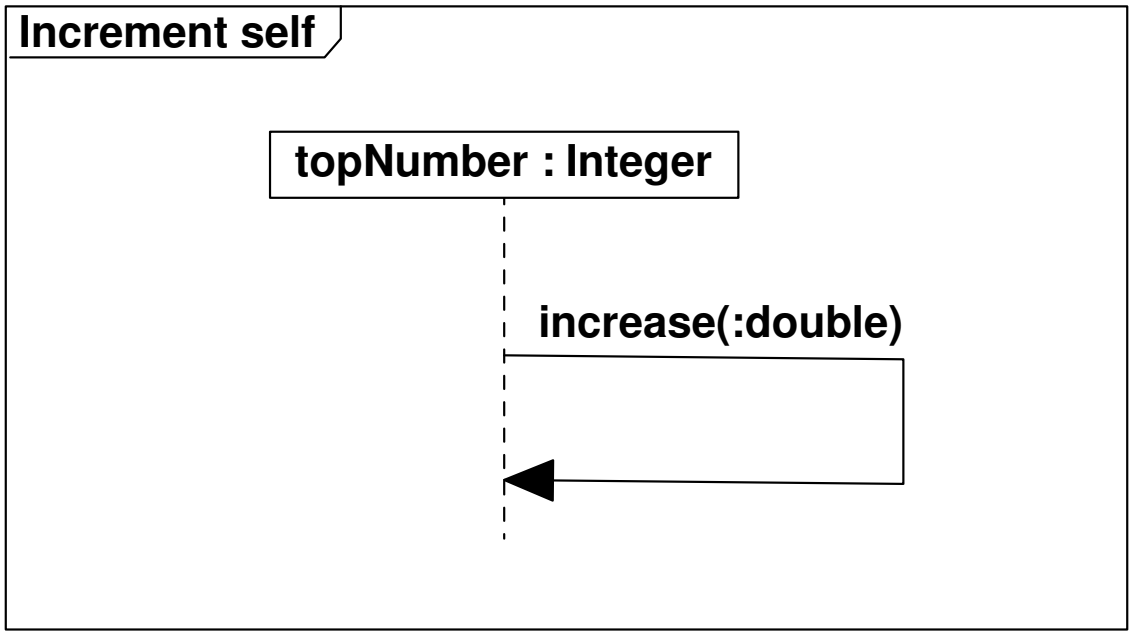
Message call without return value



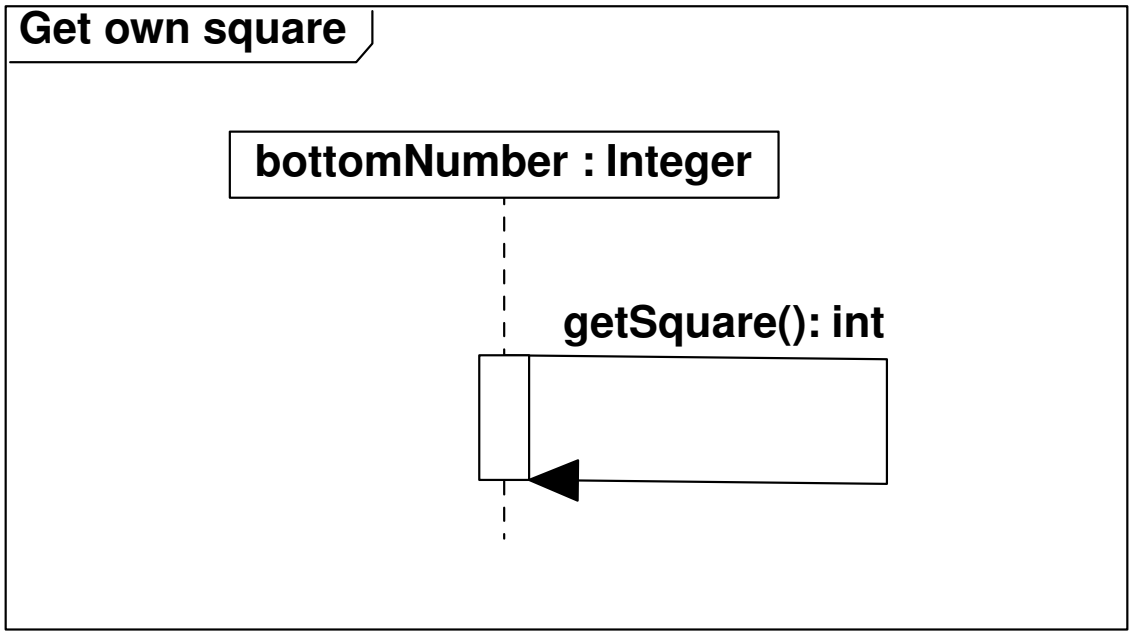
Message call with a return value



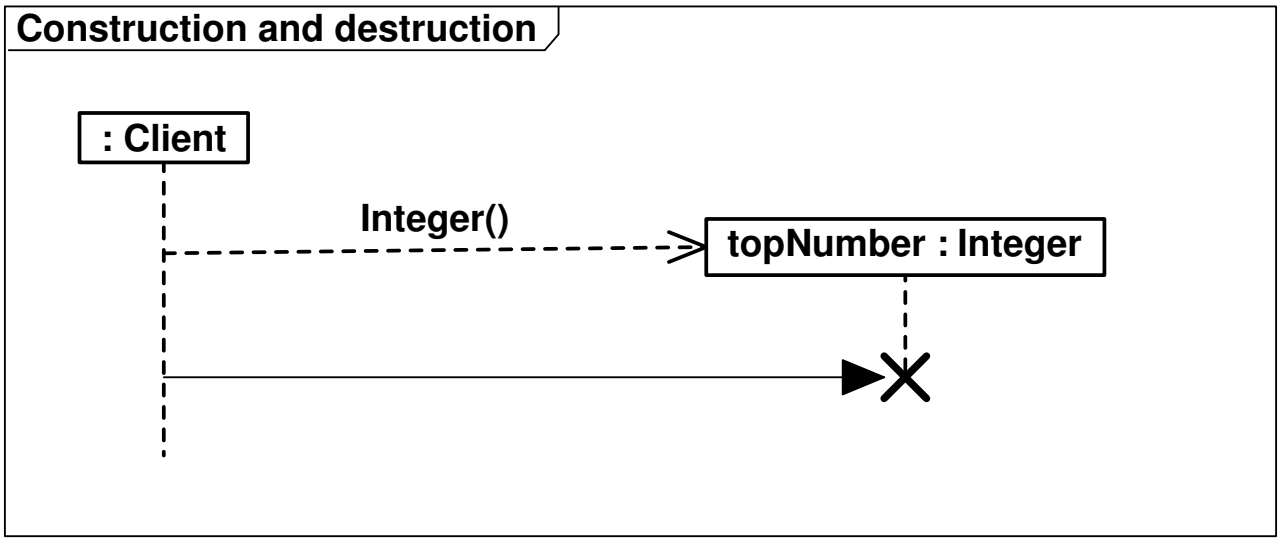
Reflexive message call without a return value



Reflexive message call with a return value

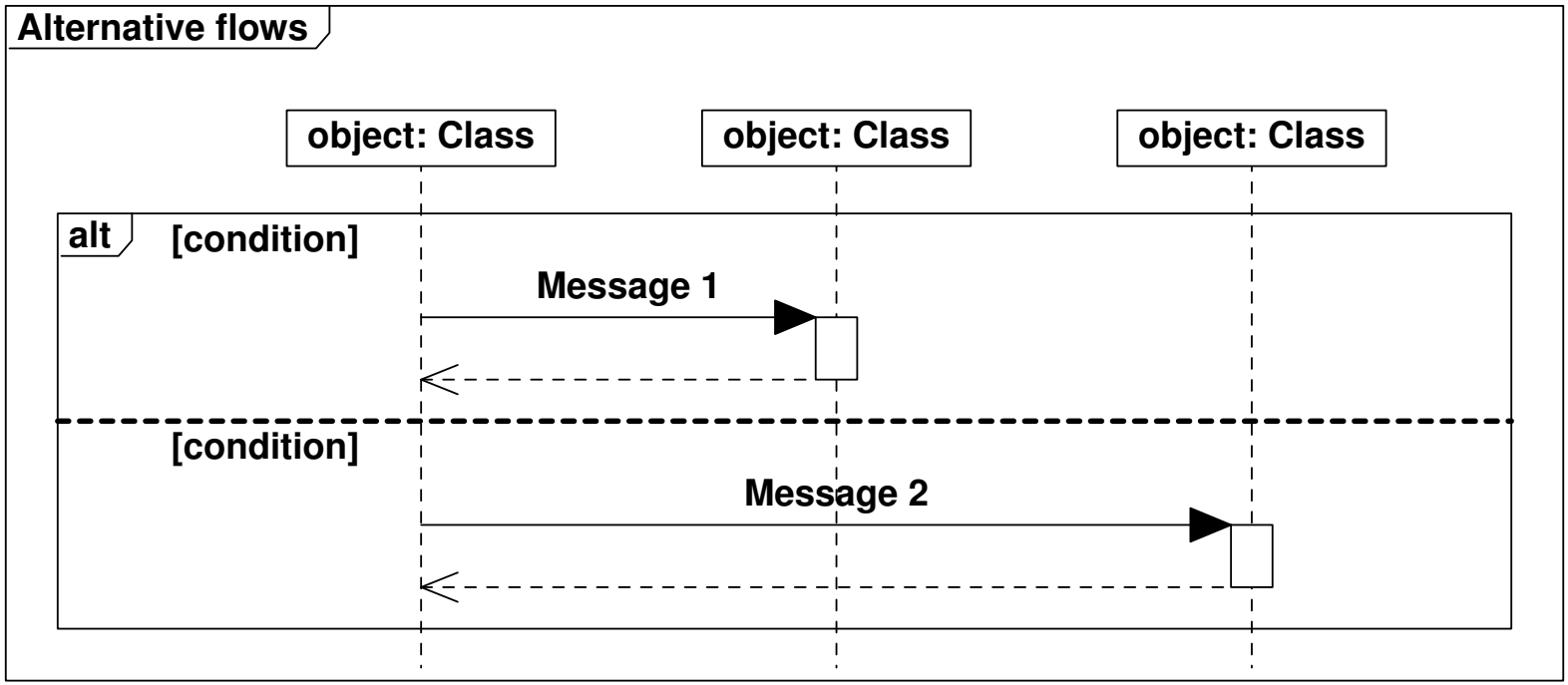


Creation and deletion

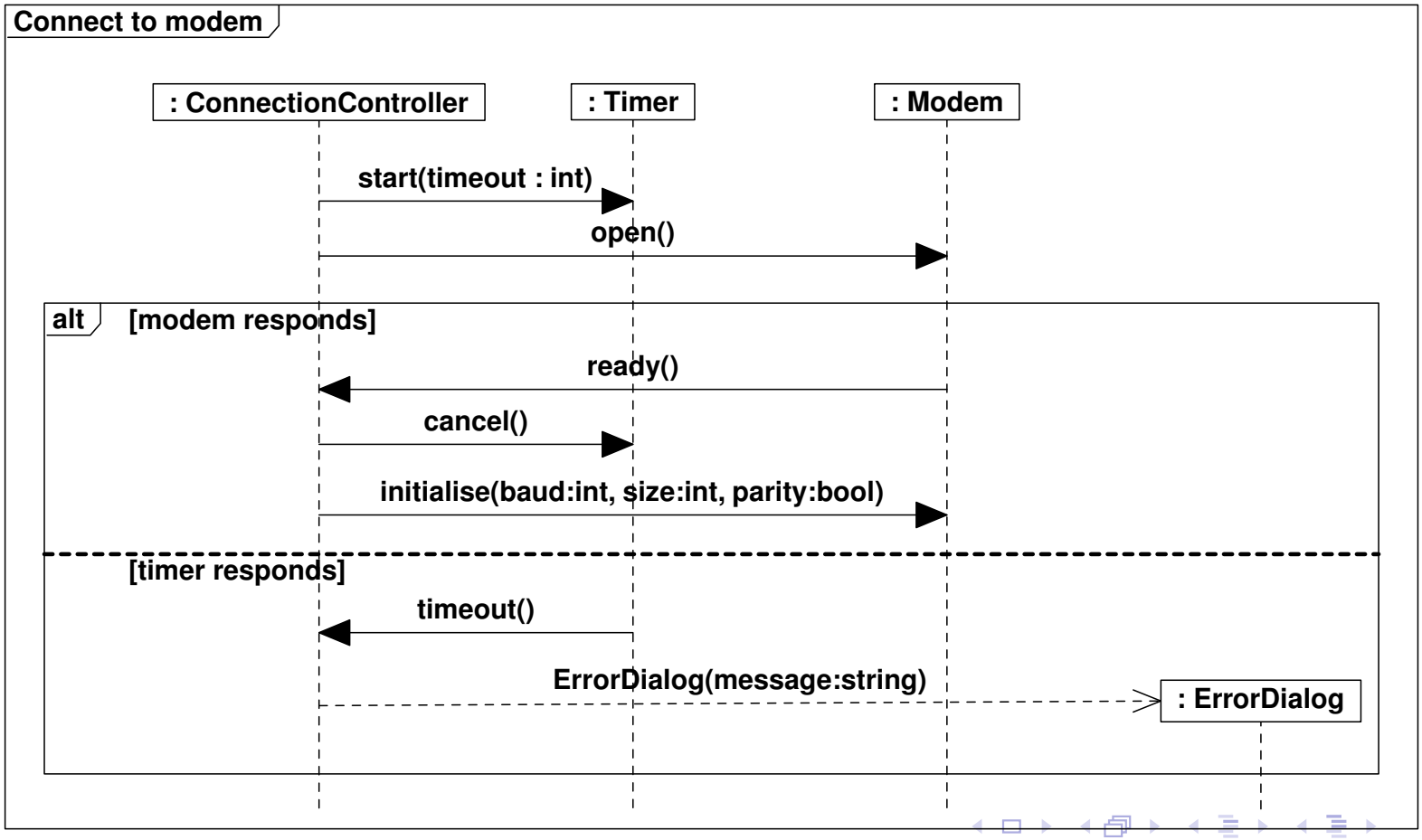



```
topNumber = new Integer();
delete topNumber;
```

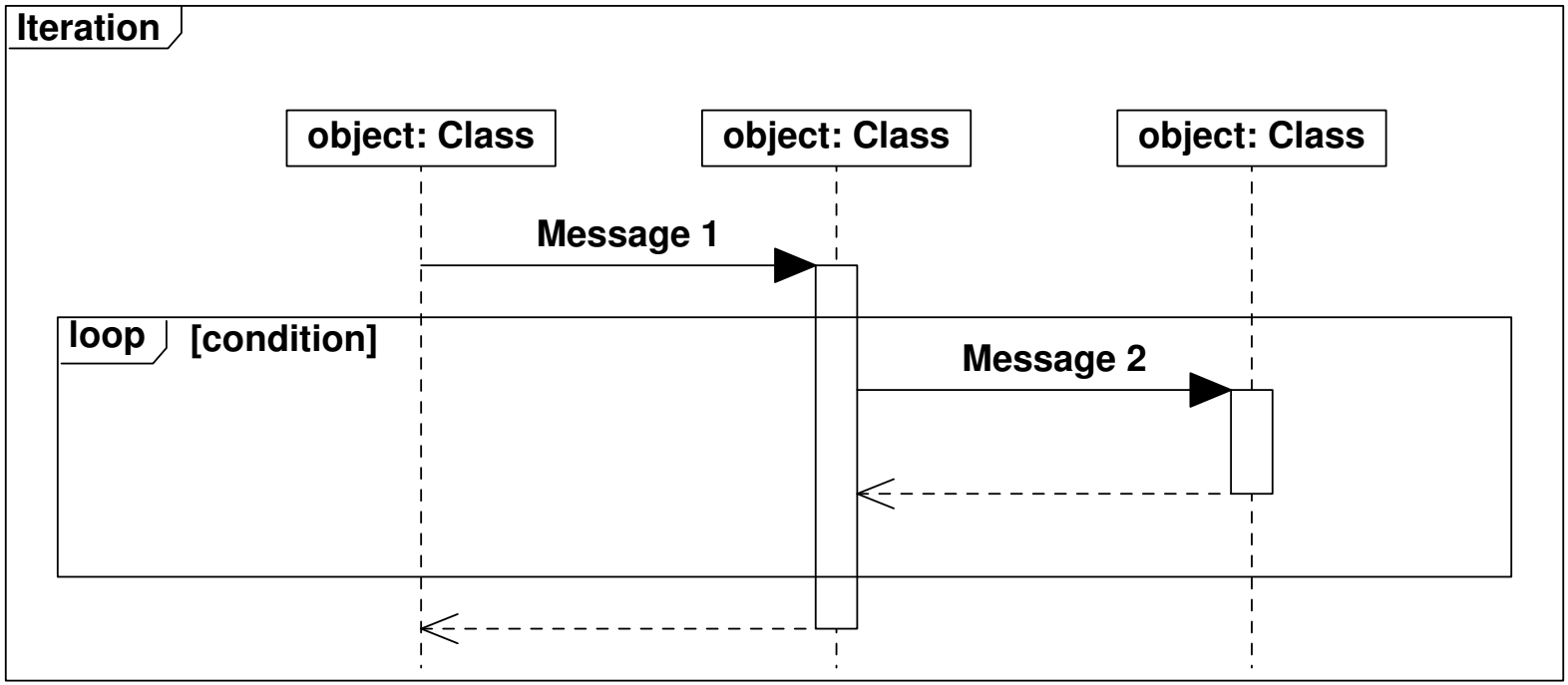
Syntax for alternate flows



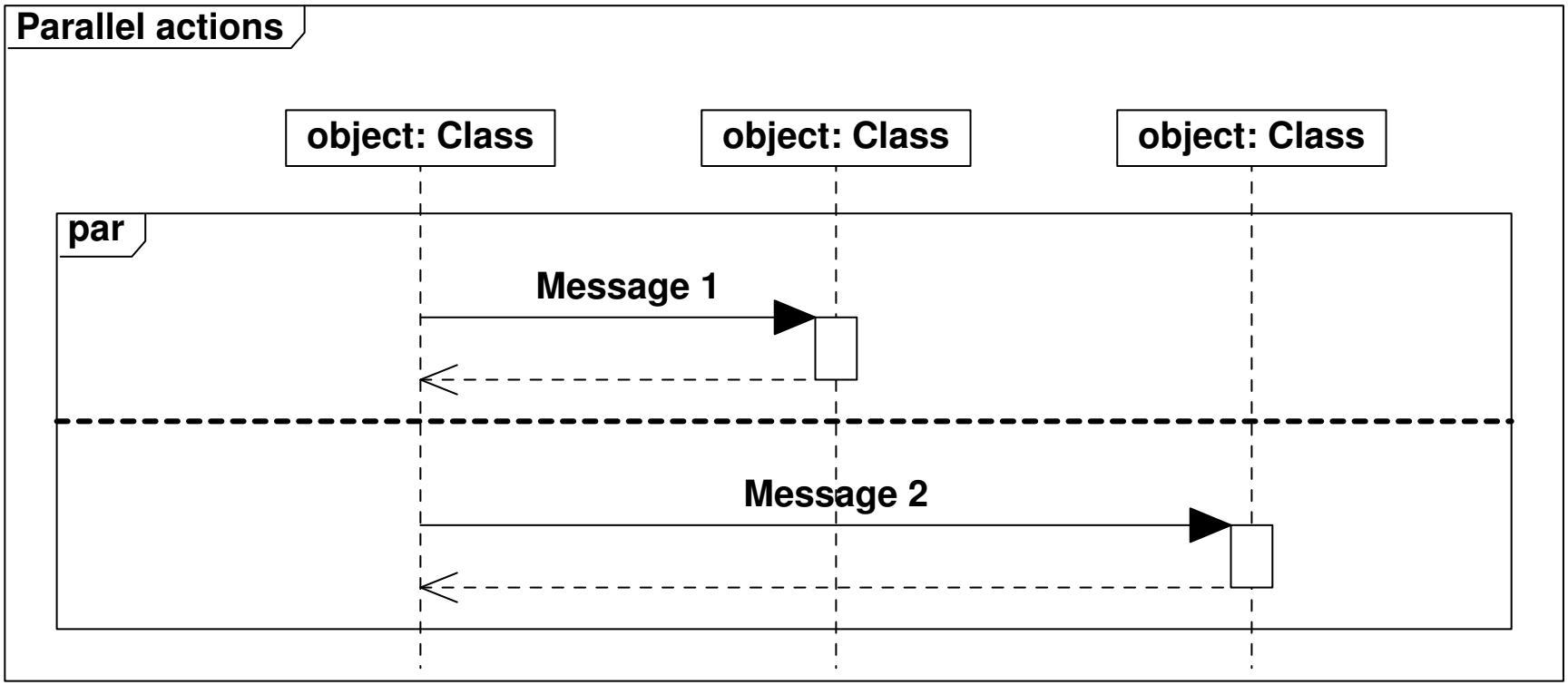
Connection to a modem with alternate flows



Syntax for a loop structure



Syntax for parallel actions



- Draw a UML sequence diagram of given C++ code
- Write the C++ implementation of a given UML sequence diagram
- Answer questions about a given UML sequence diagram