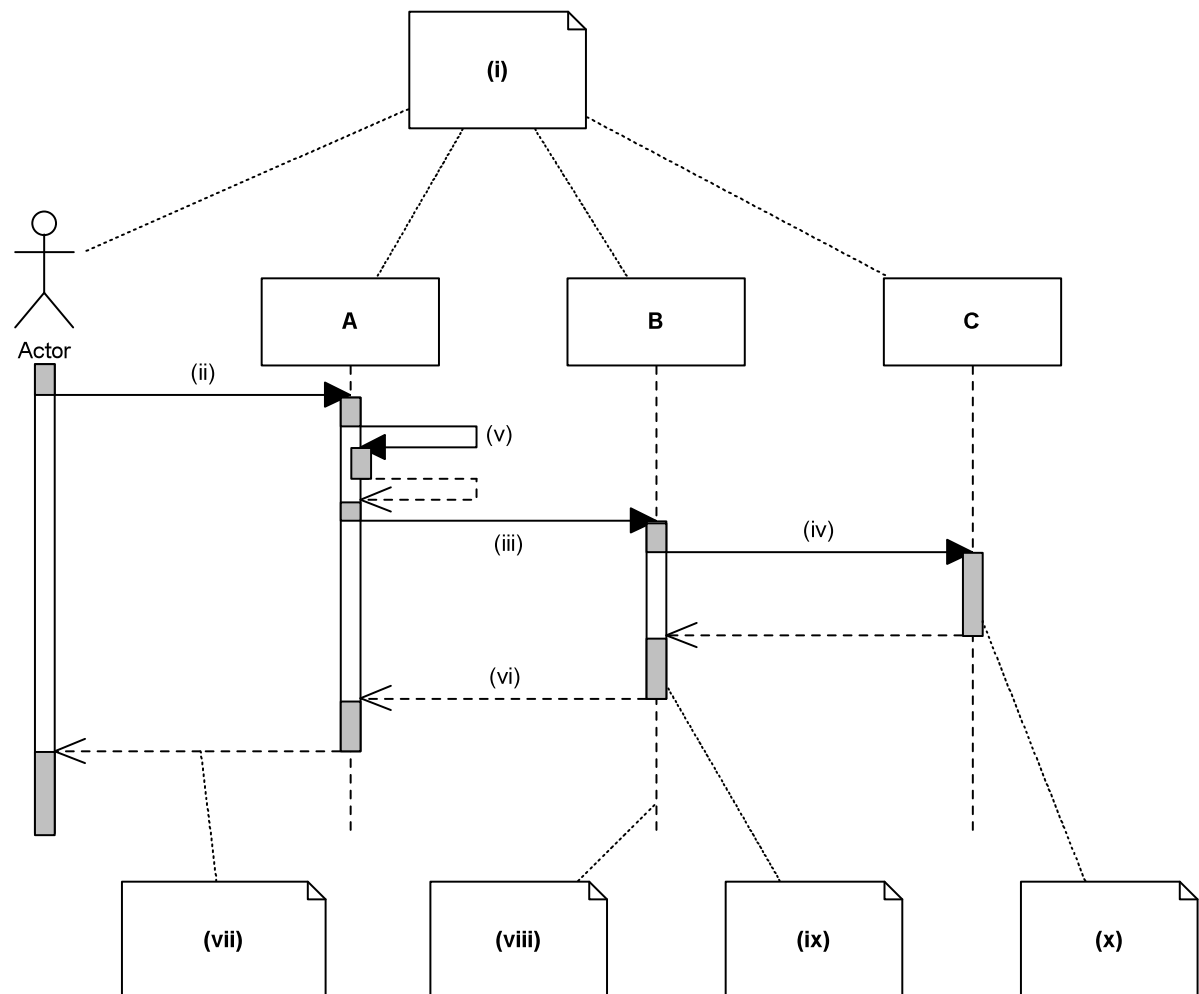


Sequence Diagrams

Consider the UML diagram shown below and answer the questions that follow it.



- What kind of diagram is this and what are such diagrams usually used to represent?
- Does this diagram represent the structure or the behaviour of a system?
- What are the elements labelled (i)?
- What do the arrows labelled (ii), (iii) and (iv) represent?
- Which happens first: (ii), (iii) or (iv)?
- Explain the difference between a synchronous and an asynchronous message.
- Does this diagram contain synchronous or asynchronous messages?
- What does the arrow labelled (vii) represent?
- What does the dashed line labelled (viii) represent?
- What do the thin vertical rectangles labelled (ix) and (x) represent?
- Does the diagram represent a concurrent or a procedural interaction?

- (l) If (vi) were replaced with a label, what would that label represent?
- (m) What does the arrow labelled (v) represent and what would this correspond to if A was an object in an object-oriented system?
- (n) What does the grey shading represent on the thin vertical rectangle labelled (ix)? Why is only part of the rectangle shaded?
- (o) If A and C represent objects, is there necessarily an association in the class model for this system between the classes to which A and C belong? Explain your answer.