

- He says he cannot let Tony borrow any more videos until he returns those still out.
- b Based on his observations, James produces the use case diagram shown in Figure E.12 on page 361. Ten days after his original visit he returns to View Us, this time accompanied by Caitlin. While James discusses his model with Kim, Caitlin notices a customer complaining to Phil that all of the copies of the video he wants to borrow are out on loan. Phil says that he can reserve that video for the customer. On further enquiry she finds that reserving videos is quite common. What happens is that a video is marked on the system as reserved, then as soon as any copy of that video is returned it is put under the counter and a postcard sent to the member who reserved it. When the reserving member comes in he presents the postcard and is issued with the video in the normal way.

Kim and Phil also remember that another thing they use the system for is to respond to customer enquiries about what videos they stock. Usually customers know the title of the video they want to borrow but sometimes these enquiries take the form of questions like 'Have you got a video of that film with Leonardo DiCaprio and Kate Winslet in it?'; 'Which films have you got starring Brad Pitt?'; or even 'Have you got any videos about the sea?'

Redraw your use case diagram incorporating this extra information.

- c Caitlin comes up with the revised diagram shown in Figure E.13 on page 361. She and James study the diagram and decide that there is probably some duplicated functionality in the use cases. To test this theory they need use case descriptions for the use cases 'Find video details', 'Loan a video' and 'Reserve video'. Write high-level use case descriptions for these use cases.
- d Caitlin and James write the use case descriptions reproduced in Figure E.14 on page 362. As they suspected, there is some duplication. Redraw the use case diagram shown in Figure E.13 on page 361 to avoid having duplicated functionality in the use cases.
- e James is having trouble with Caitlin's diagram (Figure E.13); he is not sure what is implied by the «extend» relationship between the use cases 'Print ready card' and 'Return a video'. Write expanded use case descriptions for these two use cases.