



Figure 8.10 Modified activity diagram for the 'Handle bike return' use case, showing responsibilities for different activities through the addition of swimlanes

As we can see from the example, swimlanes are very useful for showing who does what in a workflow or use case, and how the processing in an operation is divided up between objects. However, the responsibilities of different objects can be seen more clearly in sequence and collaboration diagrams (see Chapter 6) and it is often better to omit extra details such as swimlanes from an activity diagram so that there is less risk of clutter. As with all diagrams, it is important to make sure that an activity diagram is easy to read.

### Using activity diagrams in system development

Activity diagrams are a relatively recent addition to the UML, and many people dislike using them because they are process-based, rather than object-oriented. However, the diagrams are a useful and effective modelling tool that can be used throughout the system development process. They help to visualize the functionality of the system at different levels of detail, and aid communication between developers and clients. UML does provide text-based alternatives to activity diagrams, such as use case and