

scenario describes a specific sequence of events, for example what happened when Annie successfully issued a bike to a customer (see Figure 3.3). Depending on the stage they have reached, system developers can use scenarios to describe what did actually happen (or might typically have happened) on one occasion or how they want things to happen in the new system. A careful study of scenarios depicting both typical and exceptional uses of the system is a very good way to understand what the system does and how it is used. It's a bottom up approach to understanding a system. You start by looking at the details of how the system is used and from this work out what the overall aims and objectives are and from this what the use cases are.

Each use case represents a group of scenarios. Scenarios belonging to the same use case have a common goal – each scenario in the group describes a different sequence of events involved in achieving (or failing to achieve) the use case goal. Figures 3.3 and 3.4 describe scenarios belonging to the 'Issue bike' use case; in both cases Annie is trying to issue a bike to a customer.

- Stephanie arrives at the shop at 9.00am one Saturday and chooses a mountain bike
- Annie sees that its number is 468
- Annie enters this number into the system
- The system confirms that this is a woman's mountain bike and displays the daily rate (£2) and the deposit (£60)
- Stephanie says she wants to hire the bike for a week
- Annie enters this and the system displays the total cost  $\text{£}14 + \text{£}60 = \text{£}74$
- Stephanie agrees this
- Annie enters Stephanie's name, address and telephone number into the system
- Stephanie pays the £74
- Annie records this on the system and the system prints out a receipt
- Stephanie agrees to bring the bike back by 9.00am on the following Saturday.

Figure 3.3 Successful scenario for the use case 'Issue bike'

- Michael arrives at the shop at 12.00 on Friday
- He selects a man's racer
- Annie see the number is 658
- She enters this number into the system
- The system confirms that it is a man's racer and displays the daily rate (£2) and the deposit (£55)
- Michael says this is too much and leaves the shop without hiring the bike.

Figure 3.4 Scenario for 'Issue bike' where the use case goal is not achieved