

useful contribution to a system development project, there is no alternative but to get stuck in and do the exercises.

There are a number of extra sections at the end of the book. Appendix A collects together all the material relating to the Wheels bike hire case study, and Appendix B contains introductory information about a second case study, which can be used as a vehicle for practising all the techniques covered in the book. There is also a bibliography for readers who want to find out about some of the topics in more detail, and a glossary of terms, giving definitions of all the key words used in the book. Finally answers are provided to all the practical exercises.

There are two websites for the book, one for students which can be found at <http://books.elsevier.com/companions/0750661232> and one for lecturers at <http://books.elsevier.com/manualsprotected/0750661232>. These sites contain further models for the second case study, a complete set of lecture slides, electronic copy of the code and multiple choice questions for topics covered in the book. There is also a revision notes section that will be helpful as an aide-mémoire for students who are studying for exams.

The system life cycle

When undertaking any large project, it is important to have some kind of framework in order to help identify milestones, structure activities and monitor deliverables. The development of a software system is no different from any other kind of project in needing some kind of framework within which the developers can work together.

An agreed framework for development brings many advantages, and the larger and more complex the project, the more evident these advantages become. First, a framework provides an overall picture of the development process; this picture is not cluttered by detail of what goes on at any stage in the process, but is useful as a high-level view of the major areas of activity, milestones and project deliverables. A framework provides a basis for development and ensures a certain level of consistency in how the work is approached. Consistency of approach is important when a large number of developers are involved, and is helpful for new staff joining the project after it has started. A framework plays a significant role in ensuring quality, both of the development process and of the final system, by providing a structure for project management – planning, monitoring and controlling the development project.

In software system development, a framework has traditionally been known as a system life cycle model. Although life cycle models have been around for a long time, there is still no general