



ONLINE CONTENT

Answers to selected Review Questions and Problems for this chapter are contained in the Premium Website for this book.

REVIEW QUESTIONS

1. What is an information system? What is its purpose?
2. How do systems analysis and systems development fit into a discussion about information systems?
3. What does the acronym SDLC mean, and what does an SDLC portray?
4. What does the acronym DBLC mean, and what does a DBLC portray?
5. Discuss the distinction between centralized and decentralized conceptual database design.
6. What is the minimal data rule in conceptual design? Why is it important?
7. Discuss the distinction between top-down and bottom-up approaches in database design.
8. What are business rules? Why are they important to a database designer?
9. What is the data dictionary's function in database design?
10. What steps are required in the development of an ER diagram? (*Hint: See Table 9.3.*)
11. List and briefly explain the activities involved in the verification of an ER model.
12. What factors are important in a DBMS software selection?
13. List and briefly explain the four steps performed during the logical design stage.
14. List and briefly explain the three steps performed during the physical design stage.
15. What three levels of backup may be used in database recovery management? Briefly describe what each of those three backup levels does.

PROBLEMS

1. The ABC Car Service & Repair Centers are owned by the SILENT car dealer; ABC services and repairs only SILENT cars. Three ABC Car Service & Repair Centers provide service and repair for the entire state. Each of the three centers is independently managed and operated by a shop manager, a receptionist, and at least eight mechanics. Each center maintains a fully stocked parts inventory. Each center also maintains a manual file system in which each car's maintenance history is kept: repairs made, parts used, costs, service dates, owner, and so on. Files are also kept to track inventory, purchasing, billing, maintenance hours, and payroll.