

Homework Assignment #2 – Chapters 1 ~ 3

Chapter 1:

- 1) Discuss each of the following terms:
 - a. Data
 - b. Database
 - c. database management system
 - d. database application program
 - e. data independence
 - f. security
 - g. integrity
 - h. views
- 2) Discuss the roles of the following personnel in the database environment:
 - a. data administrator
 - b. database administrator
 - c. logical database designer
 - d. physical database designer
 - e. application developer
 - f. end-users

Chapter 2:

- 1) To address the issue of data independence, the ANSI-SPARC three-level architecture was proposed. Compare and contrast the three levels of this model.
- 2) Name three record-based data models. Discuss the main differences between these data models.
- 3) What is concurrency control and why does a DBMS need a concurrency control facility?

Chapter 3:

- 1) What is meant by the term 'client-server architecture' and what are the advantages of this approach? Compare the client-server architecture with two other architectures.
- 2) Compare and contrast the two-tier client-server architecture for traditional DBMSs with the three-tier client-server architecture. Why is the latter architecture more appropriate for the Web?
- 3) What is a distributed DBMSs? What is the fundamental principle of distributed DBMSs?