



Sheet #1

Introduction to Database and DBS Architecture

1. Define the following terms: data, database, DBMS, database system, database catalog, data model, database schema, database state, internal schema, conceptual schema, external schema, program-data independence, user view, DDL, DML, SDL, VDL, query language.
2. What are the different types of database end users? Discuss the main activities of each then explain the responsibilities of the DBA and the database designers?
3. Briefly discuss each then Discuss the main characteristics of the database approach and how it differs from traditional file systems.
4. Discuss the advantages of DBMS, and when not to use DBMS.
5. What is the difference between logical data independence and physical data independence? Which one is harder to achieve? Why?
6. What is the difference between the two-tier and three-tier client/server architectures?



Multiple Choice Questions

1. What is the full form of DBMS?
 - a) Data of Binary Management System
 - b) Database Management System
 - c) Database Management Service
 - d) Data Backup Management System
2. What is a database?
 - a) Organized collection of information that cannot be accessed, updated, and managed
 - b) Collection of data or information without organizing
 - c) Organized collection of data or information that can be accessed, updated, and managed
 - d) Organized collection of data that cannot be updated
3. What is DBMS?
 - a) DBMS is a collection of queries
 - b) DBMS is a high-level language
 - c) DBMS is a programming language
 - d) DBMS stores, modifies and retrieves data
4. Which type of data can be stored in the database?
 - a) Image oriented data
 - b) Text, files containing data
 - c) Data in the form of audio or video
 - d) All of the above
5. In which of the following formats data is stored in the database management system?
 - a) Image
 - b) Text
 - c) Table
 - d) Graph
6. Which of the following is not an example of DBMS?
 - a) MySQL
 - b) Microsoft Access
 - c) IBM DB2
 - d) Google



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7. Which of the following is a function of the DBMS?
 - a) Storing data
 - b) Providing multi-users access control
 - c) Data Integrity
 - d) All of the above
 8. Which of the following is a component of the DBMS?
 - a) Data
 - b) Data Languages
 - c) Data Manager
 - d) All of the above
 9. What is information about data called?
 - a) Hyper data
 - b) Tera data
 - c) Meta data
 - d) Relations
 10. The ability to query data, as well as insert, delete, and alter tuples, is offered by
 - a) TCL (Transaction Control Language)
 - b) DCL (Data Control Language)
 - c) DDL (Data Definition Language)
 - d) DML (Data Manipulation Language)
 11. The DBMS acts as an interface between _____ and _____ of an enterprise-class system.
 - a) Data and the DBMS
 - b) Application and SQL
 - c) The user and the database
 - d) The user and the software



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