

Database Management System – cs422 DE

Assignment 1 – Week 1

This assignment is based on lecture 1 (chapter 1).

- Submit your *own work* on time. No credit will be given if the assignment is submitted after the due date.
 - Note that the completed assignment should be submitted in .doc, .docx, .rtf or .pdf format only.
 - In MCQs, if you think that your answer needs explanation to get credit then please write it down.
 - You are encouraged to discuss these questions in the Sakai forum.
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(1) List two examples of database systems other than those listed in Section 1.1 of the book.

ANS: 1. Package-tracking for logistics companies. 2. Employee timekeeping system

(2) Explain what is meant by a database management system, and contrast it with a File Management System.

ANS: DBMS is a system that enables users to define, create, maintain and control access to the database. File Management System: Apps read/write their own files directly; data definitions live inside programs. Contrasts:

- Centralized & Data independence
- Query language & views vs. fixed reports/proliferation of programs.
- Built-in security, concurrency, recovery and little/none by default.
- Reduced redundancy control and duplication and inconsistencies

(3) Discuss advantages and disadvantages of DBMSs in short.

ANS:

- Advantages: redundancy control, better consistency, data sharing, security, arbitrary query and response, higher productivity, data independence, concurrency control, backup & restore, standards, economies of scale.
- Disadvantages: complexity, large size, licensing and maintenance costs, additional hardware needs, migration costs, some performance overhead compared to custom file systems, greater impact when the central database management system fails.

(4) What are the 5 major components of the DBMS environment?

ANS: Hardware, software, Data, Procedures, People

(5) A database management System (DBMS) is

- A. Collection of interrelated data
- B. Collection of programs to access data
- C. Collection of data describing one particular enterprise
- D. All of the above

ANS: D

(6) The DBMS provides uncontrolled access to the database.

- A. True
- B. False

ANS: B

(7) Disadvantages of File systems to store data is:

- A. Data redundancy and inconsistency
- B. Difficulty in accessing data
- C. Data isolation

D. All of the above

ANS: D

(8) The Database Administrator (DBA) is responsible for the management of the data resource including database planning, development and maintenance of standards, policies and procedures, and conceptual/logical database design.

A. True

B. False

ANS: A

(9) Data Manipulation language enables users to

- A. Retrieval of information stored in database
- B. Insertion of new information into the database
- C. Deletion of information from the database
- D. All of the above

ANS: D

(10) Which of the following is Database language?

- A. Data Definition Language
- B. Data Manipulation Language
- C. Query Language
- D. All of the above

ANS: D

MUM-DBMS