

Chapter 01: Database Systems

True / False

1. Data and information are essentially the same thing.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Easy

REFERENCES: 1-2 Data versus Information

LEARNING OBJECTIVES: 01.01 - Define the difference between data and information

2. Data processing can be as simple as organizing data to reveal patterns.

- a. True
- b. False

ANSWER: True

DIFFICULTY: Easy

REFERENCES: 1-2 Data versus Information

LEARNING OBJECTIVES: 01.01 - Define the difference between data and information

3. Data is the result of processing raw facts to reveal its meaning.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Easy

REFERENCES: 1-2 Data versus Information

LEARNING OBJECTIVES: 01.01 - Define the difference between data and information

4. When data are entered into a form and saved, they are placed in the underlying database as knowledge.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Moderate

REFERENCES: 1-2 Data versus Information

LEARNING OBJECTIVES: 01.01 - Define the difference between data and information

5. Data constitute the building blocks of information.

- a. True
- b. False

ANSWER: True

DIFFICULTY: Easy

REFERENCES: 1-2 Data versus Information

LEARNING OBJECTIVES: 01.01 - Define the difference between data and information

6. Metadata describe the data characteristics and the set of relationships that links the data found within the database.

- a. True
- b. False

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ANSWER: True

DIFFICULTY: Easy

REFERENCES: 1-3 Introducing the Database

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

7. The only way to access the data in a database is through the DBMS.

- a. True
- b. False

ANSWER: True

DIFFICULTY: Moderate

REFERENCES: 1-3a Role and Advantages of the DBMS

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

8. Database programming languages receive all application requests and translate them into the complex operations required to fulfill those requests.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Moderate

REFERENCES: 1-3a Role and Advantages of the DBMS

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

9. The DBMS reveals much of the database's internal complexity to the application programs and users.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Moderate

REFERENCES: 1-3a Role and Advantages of the DBMS

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

10. One disadvantage of the DBMS is that it increases the risk of data security breaches.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Easy

REFERENCES: 1-3a Role and Advantages of the DBMS

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

11. An operational database is sometimes referred to as an enterprise database.

- a. True
- b. False

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ANSWER: False

DIFFICULTY: Easy

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

12. A data warehouse can store data derived from many sources.

- a. True
- b. False

ANSWER: True

DIFFICULTY: Easy

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

13. Structure is based on the type of processing to be performed on the data.

- a. True
- b. False

ANSWER: True

DIFFICULTY: Moderate

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

14. Corporations use only structured data.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Moderate

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

15. Field refers to a collection of related records.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Easy

REFERENCES: 1-5b Computerized File Systems

LEARNING OBJECTIVES: 01.04 - See how modern databases evolved from file systems

16. Structural dependence exists when it is possible to make changes in the file structure without affecting the application program's ability to access the data.

- a. True
- b. False

ANSWER: False

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DIFFICULTY: Moderate

REFERENCES: 1-6a Structural and Data Dependence

LEARNING OBJECTIVES: 01.05 - Understand flaws in file system data management

17. One disadvantage of a database system over previous data management approaches is increased costs.

- a. True
- b. False

ANSWER: True

DIFFICULTY: Easy

REFERENCES: 1-7c Managing the Database System: A Shift in Focus

LEARNING OBJECTIVES: 01.05 - Understand flaws in file system data management

18. Data anomaly is defined as the condition in which all of the data in the database are consistent with the real-world events and conditions.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Easy

REFERENCES: 1-6b Data Redundancy

LEARNING OBJECTIVES: 01.05 - Understand flaws in file system data management

19. An advantage of database systems is that you needn't perform frequent updates and apply latest patches.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Moderate

REFERENCES: 1-7c Managing the Database System: A Shift in Focus

LEARNING OBJECTIVES: 01.06 - Outline the main components of the database system

20. One advantage of a database system over previous data management approaches is that the database system is considerably less complex.

- a. True
- b. False

ANSWER: False

DIFFICULTY: Moderate

REFERENCES: 1-7c Managing the Database System: A Shift in Focus

LEARNING OBJECTIVES: 01.06 - Outline the main components of the database system

Multiple Choice

21. _____ is the result of revealing the meaning of raw facts.

- a. End-user data
- b. An encoded sample
- c. An encrypted bit
- d. Information

ANSWER: d

DIFFICULTY: Easy

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REFERENCES: 1-2 Data versus Information

LEARNING OBJECTIVES: 01.01 - Define the difference between data and information

22. _____ is the body of information and facts about a specific subject.

- a. Validation
- b. A format
- c. Knowledge
- d. A database

ANSWER: c

DIFFICULTY: Easy

REFERENCES: 1-2 Data versus Information

LEARNING OBJECTIVES: 01.01 - Define the difference between data and information

23. Accurate, relevant, and timely information is the key to _____.

- a. data management
- b. good decision making
- c. knowledge
- d. understanding

ANSWER: b

DIFFICULTY: Moderate

REFERENCES: 1-2 Data versus Information

LEARNING OBJECTIVES: 01.01 - Define the difference between data and information

24. End-user data is _____.

- a. knowledge about the end users
- b. raw facts of interest to the end user
- c. information about a specific subject
- d. accurate, relevant and timely information

ANSWER: b

DIFFICULTY: Easy

REFERENCES: 1-3 Introducing the Database

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

25. _____ provide a description of the data characteristics and the set of relationships that link the data found within the database.

- a. Queries
- b. End-user data
- c. Metadata
- d. Schemas

ANSWER: c

DIFFICULTY: Easy

REFERENCES: 1-3 Introducing the Database

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

26. _____ serve as the intermediary between the user and the database.

- a. DBMSs
- b. Metadata
- c. End-user data
- d. Programming languages

ANSWER: a

DIFFICULTY: Easy

REFERENCES: 1-3a Role and Advantages of the DBMS

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

27. The database structure in a DBMS is stored as a _____.
a. single file b. collection of files
c. set of key/value pairs d. collection of queries

ANSWER: b

DIFFICULTY: Easy

REFERENCES: 1-3a Role and Advantages of the DBMS

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

28. A(n) _____ might be written by a programmer or it might be created through a DBMS utility program.
a. query b. operating system
c. database management system d. application

ANSWER: d

DIFFICULTY: Easy

REFERENCES: 1-3a Role and Advantages of the DBMS

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

29. _____ exists when different versions of the same data appear in different places.
a. Data inconsistency b. Poor data security
c. Structural dependence d. Conceptual dependence

ANSWER: a

DIFFICULTY: Easy

REFERENCES: 1-3a Role and Advantages of the DBMS

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

30. The response of the DBMS to a query is the _____.
a. ad hoc query b. ad hoc response
c. query result set d. integrated view of the data

ANSWER: c

DIFFICULTY: Easy

REFERENCES: 1-3a Role and Advantages of the DBMS

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

31. A(n) _____ database is used by an organization and supports many users across many departments.
a. desktop b. workgroup
c. enterprise d. transactional

ANSWER: c

DIFFICULTY: Easy

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

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32. A(n) _____ database supports a relatively small number of users (usually fewer than 50) or a specific department within an organization.

- a. desktop
- b. workgroup
- c. enterprise
- d. transactional

ANSWER: b

DIFFICULTY: Easy

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

33. A workgroup database is a(n) _____ database.

- a. single-user
- b. multiuser
- c. desktop
- d. distributed

ANSWER: b

DIFFICULTY: Easy

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

34. A desktop database is a _____ database.

- a. single-user
- b. multiuser
- c. workgroup
- d. distributed

ANSWER: a

DIFFICULTY: Easy

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

35. A data warehouse contains historical data obtained from the _____.

- a. operational databases
- b. desktop database
- c. enterprise databases
- d. workgroup databases

ANSWER: a

DIFFICULTY: Easy

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making

36. _____ data exist in the format in which they were collected.

- a. Structured
- b. Semistructured
- c. Unstructured
- d. Historical

ANSWER: c

DIFFICULTY: Easy

REFERENCES: 1-3b Types of Databases

LEARNING OBJECTIVES: 01.02 - Describe what a database is, the various types of databases, and why they are valuable assets for decision making