

Chapter07

True/False

Indicate whether the statement is true or false.

- ___ 1. The impact of database technology on business can be easily overstated.
- ___ 2. Inaccuracies hurt data integrity.
- ___ 3. Multiple characters make up a record.
- ___ 4. A database itself is a collection of several related files, but DBMSs do all the work—structuring files, storing data, and linking records.
- ___ 5. Data is accessed in a database by sending messages called “protocols,” which request data from specific records and/or fields and direct the computer to display the results.
- ___ 6. To retrieve records from a relational database, or to sort them, you must use a key.
- ___ 7. Sometimes a key is composed of several records so that their combination provides a unique key.
- ___ 8. Usually, a table in a relational database must have a primary key, and most relational DBMSs enforce this rule.
- ___ 9. Object-oriented databases (ODBs) do not store records, but data objects, which is an advantage for quick updates of data sets and the relationships among them.
- ___ 10. One of the most useful manipulations of object-oriented databases (ODBs) is the creation of a new table from two or more other tables.
- ___ 11. A schema describes the structure of the database being designed: the names and types of fields in each record type and the general relationships among different sets of records or files.
- ___ 12. The conceptual blueprint of the database is called an entity relationship diagram (ERD).
- ___ 13. From a technical point of view, online databases that are used with Web browsers are different from other databases.
- ___ 14. A data warehouse is a large, typically relational, database that supports management decision making.
- ___ 15. The larger the data warehouse, the larger the storage capacity, the greater the memory, and the greater the processing power of the computers that are needed.
- ___ 16. There are two phases involved in building a data warehouse from transactional data: extraction and transforming.
- ___ 17. Once the data warehouse is in operation, much of the ETL activity can be automated.

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- ___ 18. There are two overall approaches to maintaining data: the traditional file approach—which has no mechanism for tagging, retrieving, and manipulating data—and the ____, which does have this mechanism.
- a. database approach
 - b. data approach
 - c. datafile approach
 - d. indexed file approach
- ___ 19. The very fact that manipulation of the data requires a programmer is probably the greatest disadvantage of the ____.
- a. information file approach
 - b. file approach
 - c. database approach
 - d. indexed file approach
- ___ 20. Often, the traditional file approach to storing data leads to low ____.
- a. data readability
 - b. data flexibility
 - c. data integrity
 - d. data capacity
- ___ 21. In the database approach, data pieces are organized about ____.
- a. indexes
 - b. characters
 - c. programs
 - d. entities
- ___ 22. A collection of related records, such as all the records of a college's students, is called a(n) ____.
- a. field
 - b. character
 - c. item
 - d. file
- ___ 23. Databases are stored on and processed from ____ storage devices, such as magnetic disks or DVDs.
- a. internal access
 - b. sequential access
 - c. direct access
 - d. main access
- ___ 24. A ____ is the general logical structure in which records are stored within a database and the method used to establish relationships among the records.
- a. database relationship
 - b. database model
 - c. database list
 - d. database catalog
- ___ 25. To design a(n) ____, you need a clear idea of the different entities and how they relate.
- a. relational database
 - b. file database
 - c. model database
 - d. object database
- ___ 26. A(n) ____ is unique if the value (content) in that field appears only in one record.
- a. entity
 - b. key
 - c. object
 - d. item
- ___ 27. A ____ is the field by which records in a table are uniquely identified.
- a. secondary key
 - b. composite key
 - c. primary key
 - d. main key
- ___ 28. To link records from one table with records of another table, the tables must have at least one field in common, and that field must be a ____ field for one of the tables.
- a. composite key
 - b. main key
 - c. foreign key
 - d. primary key
- ___ 29. A ____ can be maintained, for instance, for professors and students in a college database.
- a. one-to-many relationship
 - b. foreign relationship
 - c. composite relationship
 - d. many-to-many relationship

- ___ 30. The combined storage of both data and the procedures that manipulate them is referred to as ____.
- a. compression
 - b. packaging
 - c. encapsulation
 - d. zipping
- ___ 31. A(n) ____ is created “on the fly” as a result of a query and exists only for the duration the user wishes to view it or to create a paper report from it.
- a. join table
 - b. two-way table
 - c. object table
 - d. entity table
- ___ 32. When building a new database, users must first build a schema (from the Greek word for “____”).
- a. plan
 - b. job
 - c. task
 - d. work
- ___ 33. Many ____ also allow a builder to positively indicate when a field is not unique, meaning that the value in that field might be the same for more than one record.
- a. languages
 - b. DBMSs
 - c. models
 - d. structures
- ___ 34. ____ should first be done to decide which data should be collected and how it should be organized.
- a. Report modeling
 - b. Data structuring
 - c. Object structuring
 - d. Data modeling
- ___ 35. Effective ____ and design of each database involves the creation of a conceptual blueprint of the database.
- a. file modeling
 - b. file structuring
 - c. data modeling
 - d. data relating
- ___ 36. All relationships and the various needs for ____ must be taken into account when designing the database.
- a. enquiries
 - b. programs
 - c. communications
 - d. reports
- ___ 37. Many organizations have found that if they accumulate ____, they can use it for important management decisions, such as researching market trends or tracking down fraud.
- a. transaction indexes
 - b. field indexes
 - c. field tables
 - d. transaction data
- ___ 38. ____ do not replace transactional databases, which are updated with daily transactions such as sales, billing, cash receipts, and returns.
- a. Data houses
 - b. Data warehouses
 - c. Data boxes
 - d. Relational databases
- ___ 39. While a transactional database contains current data, which is disposed of after some time, the data in ____ is accumulated and might reflect many years of business activities.
- a. data warehouses
 - b. data carts
 - c. information bases
 - d. information repositories
- ___ 40. If ____ need to be used as one large data warehouse, special software tools can unify them and make them appear as one large data warehouse.
- a. data marts
 - b. data carts
 - c. information marts
 - d. information repositories
- ___ 41. When management decides to build a ____, the IT staff must carefully consider the hardware, software, and data involved in the effort.
- a. network
 - c. database network

55. For some business needs you must use a(n) _____, a combination of two or more fields that together serve as a primary key, because it is impractical to use a single field as a primary key.
56. The ability in object-oriented structures to create a new object automatically by replicating all or some of the characteristics of a previously developed object is called _____.
57. The _____ uses the object-oriented approach to maintaining records.
58. A(n) _____ creates a temporary table that is a subset of the original table or tables.
59. _____ has become the query language of choice for many developers of relational DBMSs.
60. The description of each table structure and types of fields become part of a(n) _____, which is a repository of information about the data and their organization.
61. Analyzing an organization's data and identifying the relationships among the data is called _____.
62. The only way for organizations to conduct some Web-based businesses is to give people outside the organizations access to their _____.
63. Organizations often organize their data warehouse as a collection of _____, smaller collections of data that focus on a particular subject or department.
64. Unlike _____, transactional databases are usually not suitable for business analysis because they contain only current, not historical, data.
65. In the _____ phase of transferring data from a transactional database to a data warehouse, the specialists transfer transformed files to the data warehouse.