Accounting Information Systems, 2e **(Kay/Ovlia)**
Chapter 2   Accounting Databases

Objective 1

1) One of the disadvantages of a relational database is that we can enter data once into the database, and then reuse that data in various locations where it is needed.
Answer: FALSE
Diff: 1
Objective: Q2.1 What role does the database play in an accounting system?

2) According to the Pareto Principle, if you spend 80% of the time designing a database, you will spend 20% of your time maintaining the database.
Answer: TRUE
Diff: 1
Objective: Q2.1 What role does the database play in an accounting system?

3) Database management system (DBMS) software transfers data from the accounting software to the database.
Answer: TRUE
Diff: 1
Objective: Q2.1 What role does the database play in an accounting system?

4) Dirty data occurs when errors are entered into a system.
Answer: TRUE
Diff: 1
Objective: Q2.1 What role does the database play in an accounting system?

5) Entering data _____ reduces the change of entering errors.
Answer: once
Diff: 2
Objective: Q2.1 What role does the database play in an accounting system?

6) Nearly all accounting information today is stored in _____.
Answer: databases
Diff: 3
Objective: Q2.1 What role does the database play in an accounting system?

7) The _____ inserts, updates, and deletes data in the database.
Answer: DBMS
Diff: 2
Objective: Q2.1 What role does the database play in an accounting system?

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8) Nancy Smith comes in to EspressoCoffee to provide her new address and you make the appropriate updates. When preparing a sales receipt for her a week later you notice Nancy's old address appears on receipt. What does this indicate about the database?
A) The database is working correctly.
B) Nancy Smith's order was entered incorrectly.
C) The same customer was entered into the database multiple times.
D) The address information was updated for the wrong Nancy Smith.
Answer: C
Diff: 2
Objective: Q2.1 What role does the database play in an accounting system?

9) While auditing the Accounts Payable records, the auditor discovers an entry for Coffee Emporium with an address of 809 Main St., St. Louis MO and another entry for Coffee Emporium with an address of 809 Main Street, St. Louis MO. Each entry has a different vendor number. Which of the following statements is false?
A) Data was entered into the database incorrectly.
B) The onscreen form for entering vendor information correctly performed data validation.
C) The database views these as two separate accounts.
D) The data needs scrubbing.
Answer: B
Diff: 2
Objective: Q2.1 What role does the database play in an accounting system?

10) Which of the following statements is NOT a benefit associated with entering data once into a database?
A) Reentering the same data again and again increases the chances of entering erroneous data, such as misspellings and transpositions.
B) It increase the opportunity to enter data incorrectly.
C) When you need to update the customer's address, you only need to update it once. This eliminates the possibility of updating some, but not all, of the other entries.
D) It is more efficient. You do not spend non-value-added time reentering the same information again and again.
Answer: B
Diff: 1
Objective: Q2.1 What role does the database play in an accounting system?

11) Which of the following is NOT a tier in the accounting system architecture?
A) Report tier
B) Database tier
C) User tier
D) Application tier
Answer: A
Diff: 1
Objective: Q2.1 What role does the database play in an accounting system?

12) Which tier in the accounting system architecture that consists of onscreen forms?
A) User tier
B) Application tier
C) Database tier
D) Accounting tier
Answer: A
Diff: 1
Objective: Q2.1 What role does the database play in an accounting system?

13) When using an accounting database system, such as QuickBooks, what happens when an existing customer name is entered on an onscreen invoice form?
A) The DBMS retrieves tax information and inserts it into the invoice.
B) The DBMS retrieves address and contact information and inserts it into the invoice.
C) The DBMS prompts you to enter the address and contact information.
D) The DBMS retrieves inventory information and inserts it into the form.
Answer: B
Diff: 3
Objective: Q2.1 What role does the database play in an accounting system?

14) What does the DBMS software do?
Answer: The DBMS software does the following.
1. creates database tables
2. transfers data from the accounting software to the database
3. updates data in the database
4. deletes data from the database
5. sorts database tables
6. runs queries
Diff: 2
Objective: Q2.1 What role does the database play in an accounting system?

15) What is the Pareto Principle? How does this principle apply to accounting database design?
Answer: The Pareto Principle is also called the 80/20 rule. When designing an accounting database, if you spend 80 percent of time and energy planning and design stages then just 20 percent of time will be spent on maintaining and updating the database. If just 20 percent of time and energy is spent on the planning and design stages, then 80 percent of time will be spent on maintaining and updating the database.
Diff: 3
Objective: Q2.1 What role does the database play in an accounting system?

16) You are an intern in a large company. The company would like to improve the communications between the accountants and IT. Because of your background in AIS, you are asked to train the accountants. Your assignment is to describe to your colleagues how data flows through the accounting system architecture when a new customer is entered in the accounting software.
Answer: The answer should include the following information.

The customer address and contact information is entered into the system using the onscreen forms (user interface tier).
This data is passed to the accounting software (application tier).
The accounting software passes the data to the DBMS software.
The DBMS inserts the data into the appropriate table in the database. (The DBMS and database are part of the database tier).
Diff: 2
Objective: Q2.1 What role does the database play in an accounting system?

17) You are an intern in a large company. The company would like to improve the communications between the accountants and IT. Because of your background in AIS, you are asked to train the accountants. Your assignment is to describe how data flows through the accounting system architecture when a report is run against the database. Start with requesting the report.
Answer: The answer should include the following information.

The report type is entered into or selected from an onscreen form/accounting interface (user interface tier).
The report type is passed to the accounting software (application tier).
The accounting software passes the data to the DBMS software.
The DBMS software retrieves the appropriate data from the various database tables in the database (the DBMS and database are part of the database tier).
The DBMS passes the data to the accounting software.
The accounting software passes the data accounting interface.
The accounting interface presents the data in the appropriate report format.
Diff: 3
Objective: Q2.1 What role does the database play in an accounting system?

Objective 2

1) Data stored in a data warehouse is used for routine business activities.
Answer: FALSE
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

2) The _____ is responsible for managing the enterprise's databases.
Answer: database administrator (DBA)
Diff: 1
Objective: Q2.2 What is the role of the database in the enterprise?

3) Data stored in a _____ may be current data, historical data, or future estimates.
Answer: data warehouse
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

4) In a _____ database structure, a parent record can have many child records and each child record can have only one parent record.
Answer: hierarchical
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

5) In a _____ database structure, a parent record can have many child records and a child record can have many parent records.
Answer: network
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

Match the database type to the corresponding structure.

A) Multiple Tables
B) One Parent and Multiple Children
C) Multiple Parents and Multiple Children

6) Hierarchical Database
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

7) Network Database
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

8) Relational Database
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

Answers: 6) B 7) C 8) A

9) Who are the people responsible for establishing policies for database security?
A) Internal auditors and security personnel
B) Database administrators and security personnel
C) Database administrators and system users
D) Internal auditors and database administrators
Answer: D
Diff: 1
Objective: Q2.2 What is the role of the database in the enterprise?

10) When retrieving data from a relational database, which of the following is true?
A) You need to know the record address of the data.
B) You need to understand the database structure.
C) You need to know how the tables are related.
D) You need to understand the parent/child record relationship.
Answer: C
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

11) Which type of data is NOT stored in a data warehouse?
A) Historical data
B) Current data
C) Future estimates
D) Data that is used for routine business activities
Answer: D
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

12) What is an operational database and a data warehouse? How are they different?
Answer: An operational database stores data related to operating a business. The data is collected from enterprise accounting transactions, such as vendor transactions, customer transactions, and employee payroll. It also includes data about people, for example customers, vendors, and employees. The data is stored with primary keys so specific data may be retrieved.

A data warehouse stores data from a variety of sources. The data may be current, historical, or future estimates.

The difference is the data in an operational database is used for routine business activities. The data in a data warehouse is used for business intelligence to improve management decision making.
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

13) What are the structures of a relational database, hierarchical database, and a network database? How is data retrieved from each of these types of databases?
Answer: A relational database is structured as tables. A record is a row in one of the tables. The tables are related to each other by including common fields in two or more tables. The common fields are called primary key and foreign key. Data is retrieved by using the relationships between the tables.

A hierarchical database is structured in a hierarchy. Records are categorized as parent or child records. In this type of database a parent record may have many child records but a child record can have only one parent record. Data is retrieved by using record addresses.

A network database is structured as a network, or multi-dimensional web. Records are categorized as parent or child records. In this type of database, a parent record may have many child records and a child record may have many parent records. Data is retrieved by using record addresses.
Diff: 3
Objective: Q2.2 What is the role of the database in the enterprise?

14) What is the difference between a relational database and a network database?
Answer: A relational database stores data in multiple database tables. These tables are related to each other using common fields in two different tables. These common fields are referred to as the primary key and the foreign key. Data is retrieved by using the relationship between tables.

A network database stores data in records that are not grouped into database tables. Records are categorized as parent or child records. In this type of database, a parent record may have many child records and a child record may have many parent records. Data is retrieved by using record addresses.
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

15) What is the difference between a relational database and a hierarchial database?
Answer: A relational database stores data in multiple database tables. These tables are related to each other using common fields in two different tables. These common fields are referred to as the primary key and the foreign key. Data is retrieved by using the relationship between tables.

Hierarchical databases stores data in records that are not grouped into database tables. Records are categorized as parent or child records. In this type of database a parent record may have many child records but a child record can have only one parent record. Data is retrieved by using record addresses.
Diff: 2
Objective: Q2.2 What is the role of the database in the enterprise?

Objective 3

1) Database fields are pieces of information about event, people, and objects.
Answer: TRUE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

2) To retrieve data stored in a relational database, each record must have one or more unique identifier.
Answer: TRUE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

3) What IT professionals call people or things, accounting professionals call objects.
Answer: FALSE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

4) A database table that stores data about items a business sells is used in the Sales cycle and the Purchasing cycle.
Answer: TRUE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

5) In a relational database, the database tables should not have any connections to other tables in the database.
Answer: FALSE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

6) An intersection table transforms a many-to-many relationship to two one-to-many relationships.
Answer: TRUE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

7) In a one-to-one relationship, for each record in one database table there are many records in a related table.
Answer: FALSE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

8) The intersection table's primary key is a composite primary key.
Answer: TRUE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

9) In the design phase of SDLC, the design for a new accounting database model is created that satisfies user requirements.
Answer: TRUE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

10) In the Database Builder Realm database programmers work with the database users to identify user requirements.
Answer: FALSE
Diff: 1
Objective: Q2.3 How do I build an accounting database?

Match the database table to the appropriate transaction cycle.

A) Banking Cycle
B) Sales Cycle
C) Purchasing Cycle
D) Financial Cycle
E) Payroll Cycle

11) General Ledger
Diff: 1
Objective: Q2.3 How do I build an accounting database?

12) Account Transactions
Diff: 1
Objective: Q2.3 How do I build an accounting database?

13) Time Worked
Diff: 1
Objective: Q2.3 How do I build an accounting database?

14) Employee
Diff: 1
Objective: Q2.3 How do I build an accounting database?

15) Purchase Order
Diff: 1
Objective: Q2.3 How do I build an accounting database?

16) Cash Receipts
Diff: 1
Objective: Q2.3 How do I build an accounting database?

17) Customer
Diff: 1
Objective: Q2.3 How do I build an accounting database?

Answers: 11) D 12) D 13) E 14) E 15) C 16) B 17) B

18) Database _____ store pieces of information about people, events, and objects.
Answer: fields
Diff: 1
Objective: Q2.3 How do I build an accounting database?

19) Database _____ are used to search the database and retrieve specific data from one or more database tables.
Answer: queries
Diff: 2
Objective: Q2.3 How do I build an accounting database?

20) _____ tables are placed between two tables with many-to-many relationship to create two one-to-many relationships.
Answer: Intersection
Diff: 2
Objective: Q2.3 How do I build an accounting database?

21) An intersection table's primary key is a(n) _____.
Answer: composite key
Diff: 2
Objective: Q2.3 How do I build an accounting database?

22) Generally, the relationship between a table that stores customer data and table that stores sales order data is _____.
Answer: one-to-many
Diff: 2
Objective: Q2.3 How do I build an accounting database?

23) Generally, the relationship between a table that stores sales order data and a table that stores inventory data is _____.
Answer: many-to-many
Diff: 2
Objective: Q2.3 How do I build an accounting database?

24) Database fields are
A) A collection of related tables
B) A collection of related records
C) Pieces of information about people, events, and objects
D) A way to input data into a database
Answer: C
Diff: 1
Objective: Q2.3 How do I build an accounting database?

25) Database forms are
A) A way to input data into the database
B) Tools for searching and extracting data from a database
C) Output of database queries
D) None of the above
Answer: A
Diff: 2
Objective: Q2.3 How do I build an accounting database?

26) To create a relational database based on the payroll cycle, which types of data should be recorded in the database?
A) Number of hours worked and inventory information
B) Number of hours worked and purchase orders
C) Employee information and number of hours worked
D) Employee information and sales invoices
Answer: C
Diff: 2
Objective: Q2.3 How do I build an accounting database?

27) To create a relational database based on the purchasing cycle, which types of data should be recorded in the database?
A) Customers, purchase orders, invoices
B) Vendors, inventory items, invoices
C) Inventory items, purchase orders, invoices
D) Vendors, inventory items, purchase orders
Answer: D
Diff: 2
Objective: Q2.3 How do I build an accounting database?

28) Which statement is true regarding a one-to-many relationship?
A) One-to-many relationships are the most common type of relationships in a relational database.
B) Many records in one table relate to many records in a related table.
C) This type of relationship is problematic when building a database and must be eliminated using an intersection table.
D) For each record type in one database table there one record in the related table.
Answer: A
Diff: 1
Objective: Q2.3 How do I build an accounting database?

Use the database tables below to answer the following questions.

CUSTOMERS	SALES ORDERS	ITEMS	SO LINE
Customer ID	SO No	Item No	SO No
Customer First Name	SO Date	Item Name	Item NO
Customer Last Name	Item No	Item Desc	
Street Address	Shipping	Sales Price	
City	Customer ID		
State			
ZIP			
Country			

29) Which field in the SALES ORDERS table is a foreign key?
A) SO No
B) SO Date
C) Shipping
D) Customer ID
Answer: D
Diff: 2
Objective: Q2.3 How do I build an accounting database?

30) Which table's primary key has a composite primary key?
A) CUSTOMERS
B) SALES ORDERS
C) ITEMS
D) SO LINE
Answer: D
Diff: 1
Objective: Q2.3 How do I build an accounting database?

31) Which of the relationships below is a many-to-many relationship?
A) CUSTOMERS, SALES ORDERS
B) SALES ORDERS, ITEMS
C) ITEMS, SO LINE
D) SO LINE, CUSTOMERS
Answer: B
Diff: 1
Objective: Q2.3 How do I build an accounting database?

32) The _____ table is an intersection table.
A) CUSTOMERS
B) SALES ORDERS
C) ITEMS
D) SO LINE
Answer: D
Diff: 1
Objective: Q2.3 How do I build an accounting database?

33) By using an intersection table, which field can be removed from the SALES ORDERS table?
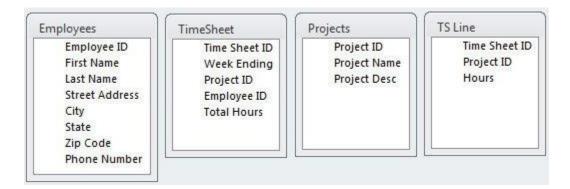A) SO No
B) SO Date
C) Item No
D) Shipping
Answer: C
Diff: 1
Objective: Q2.3 How do I build an accounting database?

Use the database tables below to answer the following questions.

Employees	TimeSheet	Projects	TS Line
Employee ID	Time Sheet ID	Project ID	Time Sheet ID
First Name	Week Ending	Project Name	Project ID
Last Name	Project ID	Project Desc	Hours
Street Address	Employee ID		
City	Total Hours		
State			
Zip Code			
Phone Number			

34) Which field in the TimeSheet table is a foreign key?
A) Time Sheet ID
B) Total Hours
C) Week Ending
D) Employee ID
Answer: D
Diff: 3
Objective: Q2.3 How do I build an accounting database?

35) Which table's primary key has a composite primary key?
A) Projects
B) TimeSheet
C) TS Line
D) Employees
Answer: C
Diff: 3
Objective: Q2.3 How do I build an accounting database?

36) Which of the relationships below is a many-to-many relationship?
A) Projects, TS Line
B) TimeSheets, Projects
C) Employee, Timesheets
D) TimeSheets, TS Line
Answer: B
Diff: 3
Objective: Q2.3 How do I build an accounting database?

37) Which table is an intersection table?
A) Projects
B) TS Line
C) Timesheets
D) Employees
Answer: B
Diff: 1
Objective: Q2.3 How do I build an accounting database?

38) By using an intersection table, which field can be removed from the TimeSheet table?
A) Total Hours
B) Week Ending
C) Project ID
D) EmployeeID
Answer: C
Diff: 1
Objective: Q2.3 How do I build an accounting database?

39) All the following statements about intersection tables are true EXCEPT
A) Only one field in an intersect table is needed to uniquely identify a record
B) The primary key for the intersection table includes the foreign keys of the tables
C) Intersection tables remove many-to-many relationships
D) An intersection table's primary key is a composite key
Answer: A
Diff: 2
Objective: Q2.3 How do I build an accounting database?

40) In which phase of the SDLC is the database documented using entity relationship diagrams?
A) Install phase
B) Analysis phase
C) Design phase
D) Build/Buy phase
Answer: C
Diff: 2
Objective: Q2.3 How do I build an accounting database?

41) In which database realm is associated with the deploy phase of the SDLC?
A) Database application realm
B) Database user realm
C) Database designer realm
D) Database builder realm
Answer: B
Diff: 1
Objective: Q2.3 How do I build an accounting database?

42) When designing accounting database tables, how can we ensure the database will support the data needed by the enterprise? How can this information be collected?
Answer: By using business transactions to identify accounting database tables, we ensure that the database will support data needed by the enterprise. You can collect information about a specific enterprise's business transactions by reviewing source documents, interviewing users, and observing procedures and operations.
Diff: 1
Objective: Q2.3 How do I build an accounting database?

43) What is the purpose of a foreign key? Provide an example.
Answer: A foreign key is a primary key in one table that appears in a second table to connect or relate the two tables. For, example in Customer table the primary key is Customer ID. This field will also be in the Sales Order table. The primary key of the Sales Order table is Order Number. By including the primary key in of Customer table in the Sales Order table the two table are connected (related) and each sales order is associated with a customer.
Diff: 2
Objective: Q2.3 How do I build an accounting database?

44) Describe the types of relationships possible between tables in a relational database. Indicate whether each relationship is desirable in a relational database.
Answer: One-to-one: In this relationship, for each record in one table there is one record in the related table. This is a desirable relationship in a relational database.

One-to-many: In this relationship, for each record in one table there are multiple records in the related table. This is a desirable relationship in a relational database.

Many-to-many: In this relationship, multiple records in one table relate to multiple records in the related table. This is an undesirable relationship in a relational database.
Diff: 2
Objective: Q2.3 How do I build an accounting database?

45) Why are calculated amounts NOT stored in a database?
Answer: Calculated amounts would be redundant data. In general, calculated amounts are not stored in database fields to avoid overlooking updating the calculated field, which would result in inconsistent data. Instead, database queries perform the calculations.
Diff: 2
Objective: Q2.3 How do I build an accounting database?

46) How are database tables connected? Please provide an example.
Answer: First, identify a relationship between two tables, (for example, customer places an order). Second, build the relationship between the tables using one or more fields common to the two tables.

For example, a Customer table and Sales Order table may be related through a field that is common to both tables, the Customer No. field. (The student may provide a different example.)
Diff: 2
Objective: Q2.3 How do I build an accounting database?

47) Describe the possible types of database issues or anomalies.
Answer: Deletion problem: This occurs when deleting record, such a customer, vendor, or inventory item, will result in the deletion of other records contain data vital to future activities or reports.

Update problem: This occurs when updating a record requires making the same changes to other records or when the database does not store important data.

Insertion problem: This occurs when a unique identifer but that piece of data has not been created. For example, requiring a invoice number to add a customer record, however, customer has not purchased anything yet.
Diff: 2
Objective: Q2.3 How do I build an accounting database?

Objective 4

1) Database anomalies are limited to databases using a network structure.
Answer: FALSE
Diff: 1
Objective: Q2.4 What is database integrity?

2) Intersection tables do not remove duplicate records from tables that have a many-to-many relationships.
Answer: FALSE
Diff: 1
Objective: Q2.4 What is database integrity?

3) To maintain primary key integrity, a relational database designer will not allow a primary key to have a null (empty) value.
Answer: TRUE
Diff: 1
Objective: Q2.4 What is database integrity?

4) Referential integrity ensures data is consistent throughout the database.
Answer: TRUE
Diff: 1
Objective: Q2.4 What is database integrity?

5) Database anomalies can be removed by the process of _____.
Answer: normalization
Diff: 1
Objective: Q2.4 What is database integrity?

To answer the following questions, refer to the database below.

VENDOR ORDERS
- 🔑 VENDOR ID
- VENDOR NAME
- STREET ADDRESS
- CITY
- STATE
- PHONE
- 🔑 PO NO
- PO DATE
- PO BALANCE
- 🔑 ITEM NO
- ITEM NAME
- QUANTITY
- ITEM COST

6) The following statements regarding the Vendor Orders table above are true EXCEPT
A) The database requires entering the same vendor contact information multiple times
B) The database does not break the referential integrity rule
C) The database requires a PO number and and item number to add a vendor record
D) Deleting a vendor will also delete inventory information
Answer: B
Diff: 2
Objective: Q2.4 What is database integrity?

7) To add a vendor to the Vendor Orders table, the following information is required EXCEPT
A) PO Number
B) Vendor ID
C) Item Number
D) Vendor name
Answer: D
Diff: 1
Objective: Q2.4 What is database integrity?

8) The Vendor Orders table contains the following database anomalies EXCEPT
A) Normalization problem
B) Update problem
C) Deletion problem
D) Insertion problem
Answer: A
Diff: 1
Objective: Q2.4 What is database integrity?

9) Separating the database into related tables instead of using just one large table helps to eliminate
A) Deletion, update, and normalization problems
B) Update, insertion, and creation problems
C) Insertion, update, and authorization problems
D) Deletion, update, and insertion problems
Answer: D
Diff: 2
Objective: Q2.4 What is database integrity?

10) Normalization is an optimization process that minimizes which of the following?
A) Database integrity
B) Unauthorized access
C) Database access
D) Redundancy
Answer: D
Diff: 1
Objective: Q2.4 What is database integrity?

11) When a database has been normalized, which of the following is true?
A) The database has an increased chance of inconsistencies.
B) The database requires the user to enter data twice.
C) The database tables do not have a many-to-many relationship.
D) The database has an increased chance of redundancies.
Answer: C
Diff: 1
Objective: Q2.4 What is database integrity?

12) Which database integrity rule ensures each record may be retrieved from the database using a unique identifier?
A) Entity integrity
B) Referential integrity
C) Domain integrity
D) Primary key integrity
Answer: A
Diff: 2
Objective: Q2.4 What is database integrity?

13) When requiring a user to select from a list to enter data, such as the state in an address, the database is conforming to which database integrity rule?
A) Entity integrity
B) Referential integrity
C) Domain integrity
D) Primary key integrity
Answer: C
Diff: 2
Objective: Q2.4 What is database integrity?

Use the database table below to answer the following questions.

14) You are an accountant at a small company and you are reviewing the vendor database table. Identify the database anomalies shown and explain how they impact this database.
Answer: This database contains the deletion anomaly, update anomaly, and the insertion anomaly.

The deletion anomaly in this database prevents the deletion of a vendor. If a vendor was deleted, the information for a purchase order would also be deleted, deleting the purchase order information which is needed for various management and financial reports.

The update anomaly in this database means if the phone number for a vendor changes, additional records would need to be updated to reflect that change.

The insertion anomaly in this database means a new vendor cannot be added to the database until the company submits a purchase order to the vendor.
Diff: 3
Objective: Q2.4 What is database integrity?

15) What suggestions would you give the database designer? How should the database be created to eliminate the database anomalies? (Be specific.)
Answer: The single table should be divided into 4 tables. One table for vendor information, one table for item information, one table for purchase order information, and one intersect table. The graphic below provides field names and primary keys.
Diff: 3
Objective: Q2.4 What is database integrity?

16) An audit of customer records in the accounting database reveals data in the state field was entered inconsistently. Some customers' states were entered using the two letter abbreviation (MO, CA, or IA) and others were spelled out (Missouri, California, or Iowa). Which database integrity rule is NOT being followed? What type of controls can be implemented to prevent this in the future?
Answer: The database integrity rule 3: domain integrity is not being followed.

To prevent this in the future, the state field in the onscreen entry form should be changed to a list of the states. The user selects the appropriate state for the customer.
Diff: 2
Objective: Q2.4 What is database integrity?

17) What are the three types of database anomalies? Define each type.
Answer: A deletion anomaly occurs when deleting a record, such as a customer record, will also delete additional records.

An update anomaly occurs when updating information, such as a customer address, must be updated multiple times or information, such as ZIP code, can not be stored.

An insertion anomaly occurs when adding a unique record requires data that does not exist, such as a sales order.
Diff: 1
Objective: Q2.4 What is database integrity?

18) What is primary key integrity? What happens when a database does NOT have or enforce primary key integrity?
Answer: Primary key integrity is the database integrity rule number 2. It states that the primary key value cannot be null (empty). Each record must have a value for the primary key field.

If a database does not enforce primary key integrity, the database may have insertion problems (data may be entered without a unique identifier). This results in data redundancy, and increases the risk of not being able to retrieve that data.
Diff: 1
Objective: Q2.4 What is database integrity?

19) What is referential integrity? What happens when a database does NOT have or enforce referential integrity?
Answer: Referential integrity is the database integrity rule number 4. It states that data referenced and stored in related tables must be consistent across the database. For example, a customer address should be the same in any table in which it is referenced. Referential integrity is improved when the customer address, for example, is stored in one location only, eliminating the possibility of the address differing from table to table.

If a database does not enforce referential integrity, the database may have deletion problems (not deleting all the data) and update problems (required to update multiple records).
Diff: 1
Objective: Q2.4 What is database integrity?

Objective 5

1) The bookkeeper at the retail store Cycle Bikes enters adjusting entries using an onscreen journal. This indicates that Cycle Bikes has a manual accounting system.
Answer: FALSE
Diff: 1
Objective: Q2.5 What are the differences between a manual accounting system and a database accounting system?

2) In a database accounting system, the following is true EXCEPT
A) Transactions are entered using onscreen database forms
B) Adjustments are made using an onscreen journal
C) Closing entries are made manually with debits and credits
D) Account information is stored in database tables
Answer: C
Diff: 1
Objective: Q2.5 What are the differences between a manual accounting system and a database accounting system?