

TEST BANK



**DATABASE
CONCEPTS**
THIRD EDITION



DAVID M. KROENKE · DAVID J. AUER

TRUE/FALSE. Write 'T' if the statement is true and 'F' if the statement is false.

- 1) While the relational model for databases appears to hold much promise, few commercial databases have implemented it. 1) _____
Answer: True False
- 2) Every table is a relation, but not every relation is a table. 2) _____
Answer: True False
- 3) Every relation is a table, but not every table is a relation. 3) _____
Answer: True False
- 4) Every cell in a relation can hold only a single value. 4) _____
Answer: True False
- 5) In the relational model, each row of a table contains data that represents an attribute of the entity. 5) _____
Answer: True False
- 6) A key must be unique. 6) _____
Answer: True False
- 7) To be considered a composite key, a key must contain at least two attributes. 7) _____
Answer: True False
- 8) Candidate keys may or may not be unique. 8) _____
Answer: True False
- 9) The primary key is used both to identify unique rows in a relation and to represent rows in relationships. 9) _____
Answer: True False
- 10) To represent a relationship in the relational model, the primary key of one relation is placed into a second relation. 10) _____
Answer: True False
- 11) When used to represent a relationship, the primary key must have the same name as the corresponding foreign key. 11) _____
Answer: True False
- 12) Surrogate key values have no meaning to the users. 12) _____
Answer: True False
- 13) Since surrogate keys are used to uniquely identify rows, their values are normally displayed prominently on all forms and reports for the users to see. 13) _____
Answer: True False
- 14) The use of surrogate keys usually complicates application programming since most DBMS products require the application program to generate surrogate key values. 14) _____
Answer: True False
- 15) Null values can cause problems because they are ambiguous. 15) _____

Answer: True False

16) If the condition exists such that knowing the value of attribute X determines the value attribute Y, then attribute Y is functionally dependent on attribute X. 16) _____

Answer: True False

17) Given the functional dependency for the attributes of ENTITY1, $X \rightarrow (A, B, C)$, X is a candidate key for the relation ENTITY1 (A, B, C, X). 17) _____

Answer: True False

18) Normalization is the process of removing all functional dependencies from a relation. 18) _____

Answer: True False

19) To create a well-formed relation through normalization, every determinant must be a candidate key. 19) _____

Answer: True False

20) Any table that meets the definition of a relation is said to be in second normal form. 20) _____

Answer: True False

21) The first step of the normalization process is to identify all the candidate keys of a relation. 21) _____

Answer: True False

22) In the normalization process, it is not necessary to identify all the functional dependencies in a relation. 22) _____

Answer: True False

23) In the normalization process, it is necessary to identify all the determinants in a relation. 23) _____

Answer: True False

24) In the normalization process, if you find a candidate key that is not a primary key then you have determined that the relation needs to be broken into two or more other relations. 24) _____

Answer: True False

25) In the normalization process, if you find that every determinant in a relation is a candidate key then you have determined that the relation is well formed. 25) _____

Answer: True False

26) Since Microsoft Access is a personal database, it is not subject to the modification problems that occur in other relational databases. 26) _____

Answer: True False

27) In Microsoft Access, relationships between tables are created in the Relationships window. 27) _____

Answer: True False

28) In Microsoft Access, foreign keys are designated by using the Foreign Key button in the toolbar. 28) _____

Answer: True False

29) In Microsoft Access, a relationship is created by dragging a foreign key column and dropping it on top of the corresponding primary key. 29) _____

Answer: True False

30) Microsoft Access forms can only contain data from one table. 30) _____

Answer: True False

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

31) Which of the following is not true about a relation? 31) _____

- A) A relation is a two-dimensional table.
- B) A relation may not have duplicate rows.
- C) The order of the rows of a relation is insignificant.
- D) The cells of a relation must hold a single value.
- E) A relation may have duplicate column names.

Answer: E

32) Which of the following is true about a relation? 32) _____

- A) All entries in any column must be of the same kind.
- B) A relation may have multiple names.
- C) A relation may have duplicate rows.
- D) A relation may have duplicate column names.
- E) The order of the columns in a relation must go from largest to smallest.

Answer: A

33) Which of the following terms is synonymous with "tuple"? 33) _____

- A) Row
- B) Attribute
- C) Relation
- D) Table
- E) Field

Answer: A

34) Which of the following terms is synonymous with "relation"? 34) _____

- A) Table
- B) Row
- C) Attribute
- D) Tuple
- E) Record

Answer: A

35) Which of the following is true about a key? 35) _____

- A) It may be unique.
- B) It may identify more than one row.
- C) It may be non-unique.
- D) Both A and B
- E) All of the above

Answer: C

36) A key that contains more than one attribute is called a(n): 36) _____

- A) complex key.
- B) multi-key.
- C) n-key.
- D) composite key.
- E) candidate key.

Answer: D

37) A primary key is: 37) _____

- A) a candidate key.
- B) used to represent rows in relationships.
- C) used to identify unique rows.
- D) required to be unique.
- E) All of the above

Answer: E

38) A candidate key is: 38) _____
A) required to be unique.
B) used to represent rows in relationships.
C) a candidate to be the primary key.
D) Both A and B
E) Both A and C
Answer: E

39) When the primary key of one relation is placed into a second relation, it is called a: 39) _____
A) field key.
B) foreign key.
C) referential integrity.
D) relocated key.
E) candidate key.
Answer: B

40) **STUDENT (SID, StudentName, Major, AdvisorID)** 40) _____
ADVISOR (AdvisorID, AdvisorName, Office, Phone)

Given the relations above such that each student is assigned to one advisor, which of the following is true?

- A) AdvisorID is a foreign key.
- B) Major is a candidate key.
- C) AdvisorName is a determinant.
- D) SID is both a primary key and a foreign key.
- E) Phone is a candidate key.

Answer: A

41) A rule that requires that the values in a foreign key must have a matching value in the primary key to which the foreign key corresponds is called: 41) _____
A) a functional dependency.
B) synchronization.
C) normalization.
D) a key matching constraint.
E) a referential integrity constraint.
Answer: E

42) A surrogate key may be appropriate under which of the following circumstances? 42) _____
A) The candidate keys available would produce a lot of data duplication when representing relationships.
B) The candidate keys available have little meaning to the users.
C) The candidate keys available would be prone to typographical errors.
D) The primary key is numeric.
E) Both A and C
Answer: E

43) Which of the following is not true of surrogate keys? 43) _____
A) They are unique.
B) They are numeric.
C) They are meaningful to the users.
D) They are usually hidden on forms and reports.
E) They are usually generated by the DBMS.

Answer: C

- 44) In SQL Server, the starting value of a surrogate key is called the: 44) _____
- A) Identity.
 - B) Identity Increment.
 - C) Identity Seed.
 - D) Identity Property.
 - E) Identity Start.

Answer: C

- 45) Which of the following is not true about null values? 45) _____
- A) A null value is ambiguous.
 - B) A null value can mean that the value is known to be blank.
 - C) A null value can mean that no value for the field is appropriate.
 - D) Null values cannot be avoided.
 - E) A null value can mean that the value is unknown.

Answer: D

- 46) **MedicineCode** → (**MedicineName, ShelfLife, Manufacturer, Dosage**) 46) _____

Given the above functional dependency, which of the following statement is not known to be true?

- A) MedicineCode is a determinant.
- B) MedicineCode is a candidate key of the relation MEDICINE (MedicineName, ShelfLife, Manufacturer, Dosage, MedicineCode).
- C) ShelfLife is functionally dependent on MedicineCode.
- D) MedicineName is a determinant.
- E) Manufacturer is functionally dependent on MedicineCode.

Answer: D

- 47) Which of the following functional dependency diagrams accurately represents the following situation: 47) _____

- A campus has many buildings.
- Each building has a unique name.
- Each building has many rooms.
- All rooms in any given building are numbered sequentially starting at "101".
- Each room has a certain capacity although many rooms in the same building or different buildings may have the same capacity.
- Each room is assigned to a single department.
- A department may have many rooms in one or more buildings, each with the same or different capacities.

- A) (BuildingName, RoomNumber) → (Capacity, Department)
- B) RoomNumber → (BuildingName, Department, Capacity)
- C) (BuildingName, Capacity) → (Department, RoomNumber)
- D) BuildingName → (RoomNumber, Capacity, Department)
- E) (Department, Capacity) → (BuildingName, RoomNumber)

Answer: A

- 48) One important relational design principle is that: 48) _____
- A) every determinant must be functionally dependent on the primary key.
 - B) every determinant must be a candidate key.
 - C) every primary key must be functionally dependent on every determinant.
 - D) every candidate key must not be a determinant.

E) every primary key must be a surrogate key.

Answer: B

- 49) During the normalization process, the remedy for a relation that is not well formed is to: 49) _____
- A) break it into two or more relations that are well formed.
 - B) create a surrogate key.
 - C) convert it into a list.
 - D) create a functional dependency.
 - E) combine it with another relation that is well formed.

Answer: A

- 50) A table that meets the requirements of a relation is said to be in which normal form? 50) _____
- A) Boyce-Codd normal form
 - B) Relational normal form (RNF)
 - C) Domain/key normal form
 - D) First normal form
 - E) Second normal form

Answer: D

- 51) The first step of the normalization process is to: 51) _____
- A) identify all the determinants of a relation.
 - B) identify all the foreign keys of a relation.
 - C) split the relation into two or more new relations.
 - D) identify all the candidate keys of a relation.
 - E) identify all the functional dependencies of a relation.

Answer: D

- 52) In the normalization process, it is not necessary to: 52) _____
- A) identify all the functional dependencies of a relation.
 - B) determine if every determinant is a candidate key.
 - C) identify all the foreign keys of a relation.
 - D) identify all the candidate keys of a relation.
 - E) identify all the determinants of a relation.

Answer: C

- 53) In the normalization process, if you find a candidate key that is not a primary key then you should: 53) _____
- A) make the determinant of the functional dependency the primary key of the new relation.
 - B) place the columns of the functional dependency in a new relation.
 - C) leave a copy of the determinant as a foreign key in the original relation.
 - D) All of the above
 - E) None of the above

Answer: E

- 54) In the normalization process, if you find a candidate key that is not a determinant then you should: 54) _____
- A) leave a copy of the determinant as a foreign key in the original relation.
 - B) make the determinant of the functional dependency the primary key of the new relation.
 - C) place the columns of the functional dependency in a new relation.
 - D) All of the above
 - E) None of the above

Answer: D

- 55) In the normalization process, if you find that every determinant in a relation is a candidate key then you have determined that: 55) _____
- A) the relation needs to be broken into two or more new relations.
 - B) the relation is well formed.
 - C) surrogate keys in the relation may not be correctly linked to other relations.
 - D) the relation needs to have foreign keys added in order to be correctly linked to other relations.
 - E) referential integrity constraints concerning the relation need to be established.
- Answer: B
- 56) Although Microsoft Access is a personal database, it is still subject to the following modification problem(s): 56) _____
- A) problems changing data.
 - B) problems adding data.
 - C) problems deleting data.
 - D) All of the above
 - E) None of the above
- Answer: D
- 57) In Microsoft Access, relationships between tables are created: 57) _____
- A) by the Create | Relationship menu command.
 - B) in the Relationships window.
 - C) by the Tools | Create | Relationship menu command.
 - D) in the Table window of the table containing the foreign key.
 - E) in the Table window of the table containing the primary key.
- Answer: B
- 58) In Microsoft Access, and relationship between two tables is created: 58) _____
- A) by entering the name of the foreign key in the appropriate table in Design View.
 - B) by dragging the foreign key column of one table onto the primary key column of the other table in the Relationships window.
 - C) by entering the name of the primary key in the appropriate table in Design View.
 - D) by dragging the primary key column of one table onto the primary key column of the other table in the Relationships window.
 - E) by dragging the primary key column of one table onto the foreign key column of the other table in the Relationships window.
- Answer: E
- 59) In Microsoft Access, referential integrity constraints are created: 59) _____
- A) by setting a property value on the primary key in Relationships window.
 - B) by setting a property value on the foreign key in Relationships window.
 - C) by checking the Enforce Referential Integrity check box in Edit Relationships dialog box.
 - D) by setting a property value on the primary key in the table which contains it.
 - E) by setting a property value on the foreign key in the table which contains it.
- Answer: C
- 60) In Microsoft Access, the relationship between two tables is not actually created until: 60) _____
- A) the **Join** button in the Edit Relationships dialog box is clicked.
 - B) the **OK** button in the Create Relationships dialog box is clicked.
 - C) the **OK** button in the Edit Relationships dialog box is clicked.
 - D) the **Create** button in the Edit Relationships dialog box is clicked.

E) the **Create** button in the Create Relationships dialog box is clicked.

Answer: D

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

61) A(n) _____ is one or more columns of a relation that is used to identify a row. 61) _____

Answer: key

62) A key that contains two or more attributes is called a(n) _____ key. 62) _____

Answer: composite

63) The unique keys that are not chosen to be the primary key are called _____ keys. 63) _____

Answer: candidate

64) When the primary key of one relation is placed in a second relation to represent a relationship, the attribute in the second relation is called a(n) _____ key. 64) _____

Answer: foreign

65) A rule that requires every value in a foreign key to match values in the corresponding primary key is called a(n) _____ constraint. 65) _____

Answer: referential integrity

66) A(n) _____ is a unique, numeric value that is appended to the relation to serve as the primary key. 66) _____

Answer: surrogate key

67) The relationship between two attributes that denotes if the value of the first attribute is known, the value of the second attribute can be determined, is called a(n) _____. 67) _____

Answer: functional dependency

68) The key that has been designated the _____ key of a relation functionally determines all the other attributes in the relation. 68) _____

Answer: primary

69) To be a well-formed relation, every _____ in the relation must be a candidate key. 69) _____

Answer: determinant

70) Any table that meets the requirements of a(n) _____ is in first normal form. 70) _____

Answer: relation

71) Although Microsoft Access is a personal database, the database tables in Access are still subject to _____ if they are not well-formed. 71) _____

Answer: modification problems

72) In Microsoft Access, relationships between tables are built in the _____. 72) _____

Answer: Relationships window.

73) In Microsoft Access, the Relationships window is accessed by using the _____ menu command. 73) _____

Answer: Tools | Relationships...

74) To create a relationship in Microsoft Access, we drag and drop the _____ of a table. 74) _____

Answer: primary key

- 75) In Microsoft Access, referential integrity constraints are created in the _____. 75) _____
Answer: Edit Relationships dialog box.

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

- 76) What requirements must a two-dimensional table satisfy in order to be a relation?
Answer: For a table to be considered a relation, it must meet several requirements. First, every cell must contain a single value. Second, there can be no duplicate rows. Third, each column must have a unique name. Fourth, the order of the columns must have no significance. Fifth, all values for a given column must be of the same type. Finally, the order of the rows must have no significance.
- 77) Explain the terms **relation**, **tuple**, and **attribute**.
Answer: The terms **relation**, **tuple**, and **attribute** are used primarily by database theoreticians. These terms are synonymous with the terms **table**, **row**, and **column**, respectively, in regards to a relational database. They are also equivalent to the terms **file**, **record**, and **field**, which tend to be used by many traditional data processing professionals.
- 78) In practice, why would tables that have duplicate rows be allowed?
Answer: It is not uncommon for a table that is returned as the result of a data manipulation operation, such as a query, to contain duplicate rows. This is often tolerated because of the processing time necessary for the DBMS to search the table to find and eliminate duplicate rows. This is especially true if the table is very large. In these cases, it is often acceptable to allow the duplicate rows to exist.
- 79) Distinguish between the primary key and a candidate key.
Answer: Both the primary key and a candidate key can uniquely identify the rows in a table. The primary key is the candidate key that is chosen by the database designer, working with the users, to uniquely identify rows and to represent relationships. Although any candidate key could, by definition, be selected to act as the primary key, the choice of primary key is often based on design decisions such as the amount of foreign key data that would be generated.
- 80) Briefly describe the various tasks of the primary key.
Answer: The primary key is used for four primary tasks. First, it is used to uniquely identify the rows in a table. Second, it is used to represent rows in relationships. Third, most DBMS products use the values of the primary key to organize the storage of the relation. Finally, primary keys are used in indexes and other structures to improve performance for search operations.
- 81) Explain the concept of a foreign key.
Answer: To implement a relationship within a relational database, the primary key of one relation is placed as an attribute in another relation. This attribute is called a foreign key in the second relation because it is the primary key of a relation that is foreign to the table in which the field resides.
- 82) Explain the concept of a surrogate key.
Answer: A surrogate key is an artificial key that is created to act as the primary key for a relation. The surrogate key is a unique, numeric value that is appended to the relation. Surrogate keys are used in situations when no suitable primary key exists within the user data, or when all available primary keys within the data are too cumbersome for an efficient design. Surrogate key values have no meaning to the users and are normally hidden on all forms, reports, and displays. Most DBMS products have the ability to automatically generate values for surrogate keys as needed.
- 83) Explain the possible interpretations of a null value.
Answer: The problem with allowing null values in a table is that the null value is open to three different interpretations. First, a null value in a field may mean that no value is appropriate for the field for the

given record. value may mean that the value of that field is known to be blank for the given record. Third, a null
Second, a null value may mean that the value of that field is not known for the given record.

84) Explain the concept of a functional dependency.

Answer: A functional dependency is a relationship that exists among the attributes of a relation, such that if the value of one attribute, or group of attributes, is known the value of another attribute, or group of attributes, can be determined. In a functional dependency, the attribute(s) whose value determines the value of the other attribute is called the "determinant". The other attribute whose value is determined by the determinant is said to be functionally dependent on the determinant.

85) What is normalization?

Answer: Normalization is a process whereby relations that are not well-formed are modified to become well-formed relations. A relation is considered to be well-formed if the data within it are not subject to unintended negative consequences when it is maintained. Although normalization recognizes several different normal forms, which are categories that the structure of a relation can be classified into based on the types of problems to which it is vulnerable, the basic premises of normalization are that (1) every determinant should be a candidate key, (2) any relation that is not well-formed should be broken into two or more relations that are well formed.

86) What are the basic steps of the normalization process?

Answer: Before starting the normalization process, the relation must be in first normal form, which means that it meets the basic requirements of being a relation. The first step of the normalization process is to identify all the candidate keys in the relation. The second step is to identify all the functional dependencies in the relation. Third, check to see if all the identified determinants are candidate keys. If all determinants are candidate keys, the relation is well-formed and nothing more needs to be done. On the other hand, if any of the determinants is not a candidate key, the relation is not well-formed, and it is necessary to: (1) place the columns of that functional dependency into a new relation, (2) make the determinant of that functional dependency the primary key of the new relation, (3) leave a copy of the determinant in the original relation as a foreign key, and (4) create referential integrity constraint between the original relation and the new relation.

This process should be repeated for every relation until every determinant in a relation is a candidate key of that relation.

87) Explain how to create a relationship in Microsoft Access.

Answer: In Microsoft Access, relationships are created in the **Relationships** window, which is opened by using the **Tools | Relationships...** menu command. Once the Relationships window is open, the needed database tables are displayed using the **Show Table** dialog box. A relationship is initiated by dragging the primary of one table on top and dropping it on top of the corresponding foreign key in the related table. At this point the **Edit Relationships** dialog box is displayed. A referential integrity constraint can be set in this box by checking the **Enforce Referential Integrity** check box. The relationship is actually created by clicking the **Create** button in the Edit Relationship dialog box.

- 1) FALSE
- 2) FALSE
- 3) TRUE
- 4) TRUE
- 5) FALSE
- 6) FALSE
- 7) TRUE
- 8) FALSE
- 9) TRUE
- 10) TRUE
- 11) FALSE
- 12) TRUE
- 13) FALSE
- 14) FALSE
- 15) TRUE
- 16) TRUE
- 17) TRUE
- 18) FALSE
- 19) TRUE
- 20) FALSE
- 21) TRUE
- 22) FALSE
- 23) TRUE
- 24) FALSE
- 25) TRUE
- 26) FALSE
- 27) TRUE
- 28) FALSE
- 29) FALSE
- 30) FALSE
- 31) E
- 32) A
- 33) A
- 34) A
- 35) C
- 36) D
- 37) E
- 38) E
- 39) B
- 40) A
- 41) E
- 42) E
- 43) C
- 44) C
- 45) D
- 46) D
- 47) A
- 48) B
- 49) A
- 50) D
- 51) D

- 52) C
- 53) E
- 54) D
- 55) B
- 56) D
- 57) B
- 58) E
- 59) C
- 60) D
- 61) key
- 62) composite
- 63) candidate
- 64) foreign
- 65) referential integrity
- 66) surrogate key
- 67) functional dependency
- 68) primary
- 69) determinant
- 70) relation
- 71) modification problems
- 72) Relationships window.
- 73) Tools | Relationships...
- 74) primary key
- 75) Edit Relationships dialog box.
- 76) For a table to be considered a relation, it must meet several requirements. First, every cell must contain a single value. Second, there can be no duplicate rows. Third, each column must have a unique name. Fourth, the order of the columns must have no significance. Fifth, all values for a given column must be of the same type. Finally, the order of the rows must have no significance.
- 77) The terms **relation**, **tuple**, and **attribute** are used primarily by database theoreticians. These terms are synonymous with the terms **table**, **row**, and **column**, respectively, in regards to a relational database. They are also equivalent to the terms **file**, **record**, and **field**, which tend to be used by many traditional data processing professionals.
- 78) It is not uncommon for a table that is returned as the result of a data manipulation operation, such as a query, to contain duplicate rows. This is often tolerated because of the processing time necessary for the DBMS to search the table to find and eliminate duplicate rows. This is especially true if the table is very large. In these cases, it is often acceptable to allow the duplicate rows to exist.
- 79) Both the primary key and a candidate key can uniquely identify the rows in a table. The primary key is the candidate key that is chosen by the database designer, working with the users, to uniquely identify rows and to represent relationships. Although any candidate key could, by definition, be selected to act as the primary key, the choice of primary key is often based on design decisions such as the amount of foreign key data that would be generated.
- 80) The primary key is used for four primary tasks. First, it is used to uniquely identify the rows in a table. Second, it is used to represent rows in relationships. Third, most DBMS products use the values of the primary key to organize the storage of the relation. Finally, primary keys are used in indexes and other structures to improve performance for search operations.
- 81) To implement a relationship within a relational database, the primary key of one relation is placed as an attribute in another relation. This attribute is called a foreign key in the second relation because it is the primary key of a relation that is foreign to the table in which the field resides.
- 82) A surrogate key is an artificial key that is created to act as the primary key for a relation. The surrogate key is a unique, numeric value that is appended to the relation. Surrogate keys are used in situations when no suitable primary key exists within the user data, or when all available primary keys within the data are too cumbersome for an efficient design. Surrogate key values have no meaning to the users and are normally hidden on all forms, reports, and displays. Most DBMS products have the ability to automatically generate values for surrogate keys as

need ed.

- 83) The problem with allowing null values in a table is that the null value is open to three different interpretations. First, a null value in a field may mean that no value is appropriate for the field for the given record. Second, a null value may mean that the value of that field is known to be blank for the given record. Third, a null value may mean that the value of that field is not known for the given record.
- 84) A functional dependency is a relationship that exists among the attributes of a relation, such that if the value of one attribute, or group of attributes, is known the value of another attribute, or group of attributes, can be determined. In a functional dependency, the attribute(s) whose value determines the value of the other attribute is called the “determinant”. The other attribute whose value is determined by the determinant is said to be functionally dependent on the determinant.
- 85) Normalization is a process whereby relations that are not well-formed are modified to become well-formed relations. A relation is considered to be well-formed if the data within it are not subject to unintended negative consequences when it is maintained. Although normalization recognizes several different normal forms, which are categories that the structure of a relation can be classified into based on the types of problems to which it is vulnerable, the basic premises of normalization are that (1) every determinant should be a candidate key, (2) any relation that is not well-formed should be broken into two or more relations that are well formed.
- 86) Before starting the normalization process, the relation must be in first normal form, which means that it meets the basic requirements of being a relation. The first step of the normalization process is to identify all the candidate keys in the relation. The second step is to identify all the functional dependencies in the relation. Third, check to see if all the identified determinants are candidate keys. If all determinants are candidate keys, the relation is well-formed and nothing more needs to be done. On the other hand, if any of the determinants is not a candidate key, the relation is not well-formed, and it is necessary to: (1) place the columns of that functional dependency into a new relation, (2) make the determinant of that functional dependency the primary key of the new relation, (3) leave a copy of the determinant in the original relation as a foreign key, and (4) create referential integrity constraint between the original relation and the new relation.

This process should be repeated for every relation until every determinant in a relation is a candidate key of that relation.

- 87) In Microsoft Access, relationships are created in the **Relationships** window, which is opened by using the **Tools | Relationships...** menu command. Once the Relationships window is open, the needed database tables are displayed using the **Show Table** dialog box. A relationship is initiated by dragging the primary of one table on top and dropping it on top of the corresponding foreign key in the related table. At this point the **Edit Relationships** dialog box is displayed. A referential integrity constraint can be set in this box by checking the **Enforce Referential Integrity** check box. The relationship is actually created by clicking the **Create** button in the Edit Relationship dialog box.