Databases Illuminated 4th edition Ricardo Test Bank

SKU: 9781284231588-TEST-BANK

Import Settings:
Base Settings: Brownstone Default
Information Field: Complexity
Information Field: Ahead
Information Field: Subject
Information Field: Title
Highest Answer Letter: D
Multiple Keywords in Same Paragraph: No
NAS ISBN13: 9781284236354, add to Ahead, Title tags

Chapter: Chapter 01 – Quiz

Multiple Choice

1. The technology that uses distributed peer-to-peer computing to securely manage transactions using distributed ledgers is called:
A) cloud computing.
B) blockchain.
C) object-oriented.
D) the Internet of Things.
Ans: B
Complexity: Easy
Ahead: Uses of Databases
Subject: Chapter 1
Title: Introductory Database Concepts

2. In a database system, a question such as "Find the names of all students who take class ENG210" is called a:
A) report.
B) form.
C) statement.
D) query.
Ans: D
Complexity: Easy
Ahead: A Sample Database
Subject: Chapter 1
Title: Introductory Database Concepts

3. The software that controls the database is called the:
A) DBMS.
B) DBA.
C) file controller.
D) MIS.
Ans: A
Complexity: Easy
Ahead: The Integrated Database Environment

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Databases Illuminated 4th edition Ricardo Test Bank

Subject: Chapter 1
Title: Introductory Database Concepts

4. All of the following are functions performed by a DBMS *except*:
A) performing updates.
B) spell checking.
C) formatting data for users.
D) controlling concurrency.
Ans: B
Complexity: Moderate
Ahead: The Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

5. Information about the structure of database records and the logical connections between the data items and records is called:
A) big data.
B) traffic data.
C) enterprise data.
D) metadata.
Ans: D
Complexity: Moderate
Ahead: The Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

6. Since database data items are stored in compatible formats and logical connections among them are also stored, we describe database data as:
A) independent.
B) integrated.
C) redundant.
D) isolated.
Ans: B
Complexity: Moderate
Ahead: The Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

7. Database users who enter their own queries are called:
A) casual users.
B) naïve users.
C) programmers.
D) DBAs.
Ans: A
Complexity: Easy
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

8. Database users who access data only through application programs are called:
A) casual users.
B) naïve users.
C) programmers.
D) DBAs.
Ans: B
Complexity: Easy
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

9. The person who designs, creates, and manages the database is the:
A) end user.
B) sophisticated user.
C) DBMS.
D) DBA.
Ans: D
Complexity: Easy
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

10. All of the following are responsibilities of the database administrator except:
A) designing the database.
B) creating the database.
C) writing application programs for the database.
D) maintaining the database.
Ans: C
Complexity: Moderate
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

11. Data professionals who work with DBAs to create data pipelines are called:
A) data engineers.
B) data managers.
C) information specialists.
D) systems programmers.
Ans: A
Complexity: Easy
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

12. Automated processes for moving data between databases are called:

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

A) data streams.
B) data pipelines.
C) data lakes.
D) data warehouses.
Ans: B
Complexity: Easy
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

13. The portion of the database that a user is authorized to see is called a:
A) table.
B) subdatabase.
C) tree.
D) view.
Ans: D
Complexity: Easy
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

14. In a bank, all of the following are examples of end users *except* a:
A) loan administrator.
B) database administrator.
C) teller.
D) bank manager.
Ans: B
Complexity: Moderate
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

15. Sophisticated users are also called:
A) naïve users.
B) casual users.
C) programmers.
D) clerks.
Ans: B
Complexity: Easy
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

16. Which of the following is an advantage of a database compared to a file processing system?
A) Fast processing of sequential data
B) Lower cost
C) Sharing of data
D) Simpler recovery

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Ans: C
Complexity: Moderate
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

17. All of the following are potential advantages of using a database except:
A) control of redundancy.
B) improved data integrity.
C) lower cost.
D) better data consistency.
Ans: C
Complexity: Moderate
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

18. Having multiple copies of the same data is called:
A) data redundancy.
B) data integrity.
C) data consistency.
D) data standards.
Ans: A
Complexity: Easy
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

19. Database access by two or more users at the same time is described as:
A) concurrent.
B) independent.
C) dependent.
D) serial.
Ans: A
Complexity: Easy
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

20. All of the following are examples of data standards *except*:
A) data naming conventions.
B) update procedures.
C) documentation rules.
D) query optimization.
Ans: D
Complexity: Moderate
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Title: Introductory Database Concepts

21. Protecting the database from unauthorized access or modification is called:
A) data security.
B) user authorization.
C) data backup.
D) data recovery.
Ans: A
Complexity: Easy
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

22. Data consistency means:
A) all users see exactly the same data.
B) all data is shared.
C) all occurrences of the same data item agree.
D) there is no redundancy of data.
Ans: C
Complexity: Moderate
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

23. Having consistency rules that the database must obey is called:
A) data integrity.
B) data standards.
C) data backup.
D) data security.
Ans: A
Complexity: Moderate
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

24. All of the following are data security techniques *except*:
A) passwords.
B) data encryption.
C) views.
D) windows.
Ans: D
Complexity: Moderate
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Databases Illuminated 4th edition Ricardo Test Bank

25. Faster development of new applications is often possible in a database environment because:
A) no file creation phase is needed.
B) new applications are independent of old ones.
C) no program planning is required.
D) the database administrator does all programming.
Ans: A
Complexity: Easy
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

26. A copy of the database made to be used in case of failure is called a:
A) recovery log.
B) security system.
C) transaction log.
D) backup.
Ans: D
Complexity: Easy
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

27. The data storage technology used in the 1890 census was:
A) punched cards.
B) punched paper tape.
C) magnetic tape.
D) magnetic disk.
Ans: A
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

28. The Census Bureau employee who proposed the use of punched cards for data storage was:
A) Thomas Watson.
B) Thomas Edison.
C) John von Neumann.
D) Herman Hollerith.
Ans: D
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

29. Prior to their use for processing data, punched cards were used in which of the following fields?
A) Education
B) Weaving
C) Agriculture

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

D) Astronomy
Ans: B
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

30. The old master/new master system of processing is described as:
A) interactive.
B) concurrent.
C) batch.
D) direct.
Ans: C
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

31. Which of the following storage technologies first offered direct access to stored records?
A) Paper tape
B) Magnetic tape
C) Magnetic disk
D) Punched cards
Ans: C
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

32. The IMS database management system from IBM used which of the following data models?
A) Hierarchical
B) Network
C) Functional
D) Relational
Ans: A
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

33. The IDS database management system developed by Charles Bachman used which of the following data models?
A) Hierarchical
B) Network
C) Functional
D) Relational
Ans: B
Complexity: Easy

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

34. The CODASYL DBTG recommended which data model?
A) Hierarchical
B) Network
C) Relational
D) Object-Oriented
Ans: B
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

35. A relational database stores data in the form of:
A) objects.
B) indexes.
C) tables.
D) windows.
Ans: C
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

36. All of the following used the relational data model *except*:
A) System R.
B) Ingres.
C) Oracle.
D) IDS.
Ans: D
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

37. Which of the following is an example of a semantic model?
A) Network
B) Hierarchical
C) Entity-relationship
D) Structured
Ans: C
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

38. Analyzing data stored in a data warehouse to find trends is called:
A) data reporting.
B) data mining.
C) data querying.
D) batch processing.
Ans: B
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

39. A data model that can handle complex data such as that needed for multimedia is the:
A) relational.
B) object-oriented.
C) network.
D) hierarchical.
Ans: B
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

40. A large data store that stores historical data about an organization using a data model such as a relational or multidimensional model is called a:
A) data mine.
B) data mart.
C) data warehouse.
D) database management system.
Ans: C
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

41. A data repository that stores raw data in its natural format is called a:
A) data warehouse.
B) data mart.
C) data silo.
D) data lake.
Ans: D
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

42. Which of the following is a language that is a standard for data exchange between diverse data

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

sources?
A) XML
B) SQL
C) OQL
D) SML
Ans: A
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

43. Databases that use tables but are also able to store complex objects are described as:
A) object-relational.
B) object-oriented.
C) relational.
D) entity-relational.
Ans: A
Complexity: Moderate
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

44. The entity-relationship model was proposed by:
A) Bachman.
B) Codd.
C) Peterlee.
D) Chen.
Ans: D
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

45. The early microcomputer-based database management systems used the:
A) hierarchical model.
B) relational model.
C) network model.
D) entity-relationship model.
Ans: B
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

46. Which of the following is *not* usually identified as one of the five Vs of big data technology?
A) Volume
B) Versatility
C) Velocity

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

D) Variety
Ans: B
Complexity: Easy
Ahead: Big Data
Subject: Chapter 1
Title: Introductory Database Concepts

47. The programming model for batch-oriented, parallel computation on Hadoop is called:
A) MapReduce.
B) HDFS.
C) YARN.
D) Spark.
Ans: A
Complexity: Easy
Ahead: Big Data
Subject: Chapter 1
Title: Introductory Database Concepts

48. The ability of NoSQL systems to use additional servers to expand to handle more volume is described as:
A) Database as a Service (DBaaS).
B) HDFS.
C) horizontal scaling.
D) blockchaining.
Ans: C
Complexity: Easy
Ahead: Big Data
Subject: Chapter 1
Title: Introductory Database Concepts

49. An append-only data log that is used to record transactions among the peers in a network is called a:
A) distributed ledger.
B) recovery log.
C) backup.
D) commodity log.
Ans: A
Complexity: Easy
Ahead: Big Data
Subject: Chapter 1
Title: Introductory Database Concepts

50. Which of the following is an advantage of an integrated database?
A) Eliminating multiple copies of the same data
B) Protecting the data from unauthorized access
C) Allowing many users to share access to the data
D) All of these are correct.
Ans: D
Complexity: Easy

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

51. A semistructured data model is used for describing:
A) only part of the data in a relational database.
B) data in differently structured or unstructured data stores.
C) data in network or hierarchical databases.
D) data stored on magnetic tape.
Ans: B
Complexity: Moderate
Ahead: Database Models
Subject: Chapter 1
Title: Introductory Database Concepts

True/False

1. True or False? Performing data analytics requires a data warehouse.
Ans: False
Complexity: Moderate
Ahead: Uses of Databases
Subject: Chapter 1
Title: Introductory Database Concepts

2. True or False? A database can contain records with different structures.
Ans: True
Complexity: Moderate
Ahead: The Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

3. True or False? Writing the commands to create a database structure is normally the responsibility of the database administrator.
Ans: True
Complexity: Moderate
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

4. True or False? Batch processing requires a direct access storage device.
Ans: False
Complexity: Moderate
Ahead: Historical Developments in Information Systems
Subject: Chapter 1

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Title: Introductory Database Concepts

5. True or False? To prevent errors, database users are never allowed to access the database simultaneously.
Ans: False
Complexity: Moderate
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

6. True or False? Repetition of data should never be allowed in a database.
Ans: False
Complexity: Easy
Ahead: Advantages of the Integrated Database Approach
Subject: Chapter 1
Title: Introductory Database Concepts

7. True or False? Unified Modeling Language (UML) was originally developed as a modeling language for software engineering.
Ans: True
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

8. True or False? NoSQL systems do not permit the use of SQL in the user interface.
Ans: False
Complexity: Moderate
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

9. True or False? The use of punched cards in data processing was inspired by their use in looms for weaving.
Ans: True
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

10. True or False? The Hadoop Distributed File System divides data into blocks, each of which is assigned to only one cluster.
Ans: False
Complexity: Moderate

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Databases Illuminated 4th edition Ricardo Test Bank

Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

11. True or False? NoSQL systems are designed to provide real-time query processing.
Ans: True
Complexity: Easy
Ahead: Big Data
Subject: Chapter 1
Title: Introductory Database Concepts

12. True or False? UML was originally created as a tool for database modeling.
Ans: False
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

13. True or False? The hierarchical model is usually categorized as a semantic model.
Ans: False
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

14. True or False? Hadoop supports only batch processing.
Ans: False
Complexity: Easy
Ahead: Big Data
Subject: Chapter 1
Title: Introductory Database Concepts

15. True or False? Database-as-a-Service (DBaaS) users do not need their own DBMS software.
Ans: True
Complexity: Easy
Ahead: Big Data
Subject: Chapter 1
Title: Introductory Database Concepts

16. True or False? The location where a database is stored is referred to as a data silo.
Ans: False
Complexity: Easy
Ahead: The Integrated Database Environment
Subject: Chapter 1

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Title: Introductory Database Concepts

17. True or False? JSON is a type of semistructured data model used for data exchange on the internet.
Ans: True
Complexity: Easy
Ahead: Historical Developments in Information Systems.2
Subject: Chapter 1
Title: Introductory Database Concepts

Short Answer

1. The network of physical recording and monitoring devices such as security cameras, mobile telephones, and traffic control systems is called _____.
Ans: The Internet of Things
Alternate ans: IoT
Complexity: Easy
Ahead: Uses of Databases
Subject: Chapter 1
Title: Introductory Database Concepts

2. The most important development in the database field during the past decade is the development of _____.
Ans: big data
Complexity: Moderate
Ahead: Uses of Databases
Subject: Chapter 1
Title: Introductory Database Concepts

3. The technology that uses distributed computing in peer-to-peer environments to manage distributed ledgers is called _____.
Ans: blockchain
Complexity: Moderate
Ahead: Uses of Databases
Subject: Chapter 1
Title: Introductory Database Concepts

4. The process of studying the data in data warehouses to uncover and exploit the information they contain is called _____.
Ans: data analytics
Complexity: Moderate
Ahead: Uses of Databases
Subject: Chapter 1
Title: Introductory Database Concepts

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Databases Illuminated 4th edition Ricardo Test Bank

5. Isolated collections of data that are inaccessible to other departments within an organization are called _____.
Ans: data silos
Complexity: Easy
Ahead: The Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

6. A(n) _____ is a professional who analyzes large amounts of data using queries and analytical tools to identify patterns, relationships, and trends in the data.
Ans: data scientist
Complexity: Easy
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

7. Automated processes that move data within and between databases are called _____.
Ans: pipelines
Complexity: Easy
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

8. The storage technology that first made direct access of records possible was _____.
Ans: magnetic disk
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

9. The data model developed by Peter Chen is the _____ model.
Ans: entity-relationship
Alternate ans: ER
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

10. A data model is referred to as _____ if it is used to describe data that is relatively unstructured and has no separate metadata.
Ans: semistructured
Complexity: Moderate
Ahead: Historical Developments in Information Systems
Subject: Chapter 1

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Databases Illuminated 4th edition Ricardo Test Bank

Title: Introductory Database Concepts

Essay

1. What are the major responsibilities of a database administrator?
Ans: The DBA designs, creates, and maintains the database.
Complexity: Moderate
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

2. List four functions of the DBMS.
Ans: Any four of the following: sets up storage structures, loads data, keeps data secure, provides access for programs and interactive users, formats retrieved data, hides certain data, performs updates, controls concurrency, and provides backup and recovery for the database
Complexity: Moderate
Ahead: The Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

3. How does a casual user differ from a naive user of a database?
Ans: The casual user can write queries, while the naive user just runs programs.
Complexity: Moderate
Ahead: Roles in the Integrated Database Environment
Subject: Chapter 1
Title: Introductory Database Concepts

4. Name four storage technologies that have been used in information systems.
Ans: Any four of the following: punched cards, paper tape, magnetic tape, magnetic disk, optical disk, solid state devices
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

5. Explain two advantages of magnetic disk over magnetic tape.
Ans: Programs no longer required that the order of access match the physical order of the records. Updates could be made to the disk, without rewriting the entire file.
Complexity: Moderate
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Databases Illuminated 4th edition Ricardo Test Bank

6. Name four database models.
Ans: Any four of the following: hierarchical, network, relational, object-oriented, entity-relationship, semi-structured, object-relational, document, graph, key-value
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

7. Explain why object-oriented models were developed.
Ans: Earlier models could not store and manipulate complex data, and programming languages were switching to using the object-oriented paradigm.
Complexity: Easy
Ahead: Historical Developments in Information Systems
Subject: Chapter 1
Title: Introductory Database Concepts

8. What is data mining?
Ans: Analyzing data in a data warehouse or data lake to spot trends and other information.
Complexity: Easy
Ahead: Uses of Databases
Subject: Chapter 1
Title: Introductory Database Concepts

9. Name the 5 Vs of big data.
Ans: Volume, velocity, variety, veracity, value
Complexity: Easy
Ahead: Big Data
Subject: Chapter 1
Title: Introductory Database Concepts

10. Non-relational big data technologies designed to process large amounts of data in real time are collectively known as _____.
Ans: NoSQL
Complexity: Easy
Ahead: Big Data
Subject: Chapter 1
Title: Introductory Database Concepts

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

Databases Illuminated 4th edition Ricardo Test Bank