A1

ⓘ This is a preview of the published version of the quiz

Started: Jan 26 at 9:34am

Quiz Instructions

This test has a time limit of 75 mins.

This test will save and submit automatically when the time expires.

Access Code: **A1**

Once started, this test must be completed in one sitting. Do not leave the test before clicking Submit.

Assignment 1 preview-.pdf

premiere.sql

Question 1 — 3 pts

Match each of the following terms:

A character or a group of characters (numeric or alphanumeric) that describes a specific characteristic.	[Choose]
Raw facts from which the required information is derived.	[Choose]
A collection of related records that contain information of interest to the end user.	[Choose]

A logically connected set of one or more fields that describes a person, place, event, or thing. [Choose]

Question 2 — 3 pts

What is data redundancy?

- [ ] Single point of storage of the same basic information.
- [ ] The same data are stored unnecessarily at different places.
- [ ] Ponds of information in a centralized data location.
- [ ] Because data stored in different locations will probably not be updated consistently, the islands of information often contain different versions of the same data.

Question 3 — 2 pts

What is data independence?

- ◯ Access to a file is dependent on its own structure
- ◯ Data access changes when data storage characteristics change
- ◯ Data storage characteristics do not affect data access
- ◯ Change file structure without affecting data access

Question 4

3 pts

What is a DBMS, and what are its functions?

- [ ] The DBMS cannot perform ad hoc queries.
- [ ] The DBMS creates the complex structures required for data storage.
- [ ] The DBMS transforms entered data to conform to the data structures.
- [ ] The DBMS stores the definitions of data and their relationships (metadata) in a data dictionary; any changes made are automatically recorded in the data dictionary.

Question 5

3 pts

What is structural independence?

- [ ] Changing file structure without affecting data access
- [ ] Access to a file is dependent on its own structure
- [ ] Data access changes when data storage characteristics change
- [ ] Data storage characteristics do not affect data access

Question 6

3 pts

Explain the difference between data and information.

- [ ] Information is processed data to reveal the meaning behind the facts.
- [ ] Data is produced by processing information.
- [ ] Data are raw facts.
- [ ] Information constitute the building blocks of data.

Question 7

3 pts

What is the role of a DBMS, and what are its advantages? What are its disadvantages?

- [ ] Advantage: improved decision making
- [ ] Advantage: improved data access
- [ ] Advantage: vendor dependence
- [ ] Disadvantage: increased end-user productivity
- [ ] A database management system (DBMS) is a collection of programs that manages the database structure and controls access to the data stored in the database.

Question 8

3 pts

List and describe the different (general) types of databases.

- [ ] Database use (operational/transactional vs. data warehouse)
- [ ] Database vendor
- [ ] Number of users
- [ ] Database site location (centralized vs. distributed)

Question 9

5 pts

What are the main components of a database system?

- [ ] Procedure
- [ ] Data
- [ ] Hardware
- [ ] Software
- [ ] People

Question 10

3 pts

What are metadata?

- [ ] Defines data characteristics such as the data type (e.g., character or numeric)
- [ ] Data about data
- [ ] Relationships that link the data
- [ ] Actual data values

Question 11

3 pts

Explain why database design is important.

- [ ] The existence of a DBMS does not guarantee good data management, nor does it ensure that the database will be able to generate correct and timely information.
- [ ] Design does not refer to how the database structure will be used to store and manage end-user data.
- [ ] Good applications can't overcome bad database designs.
- [ ] Ultimately, the end user and the designer decide what data will be stored in the database.

Question 12

3 pts

Discuss the importance of data modeling.

- [ ] The data model's main function is to help us understand the complexities of the real-world environment.
- [ ] A good data model is a communications device that helps eliminate (or at least substantially reduce) discrepancies between the database design's components and the real-world data environment.
- [ ] It is important because different users need to view the data in the same way.
- [ ] A data model is a relatively simple representation, usually graphical, of a more complex real-world object event.

Question 13

3 pts

What is a business rule, and what is its purpose in data modeling?

- ◯ Business rules are not meant to establish entities, attributes, relationships, and constraints
- ◯ To be effective, only specifically assigned persons in an organization should have access to its business rules.
- ◯ A business rule is a brief, precise, and unambigous description of a policy, procedure, or principle within a specific organization's environment.
- ◯ End users are a more reliable source in specifying business rules.

Question 14

3 pts

How do you translate business rules into data model components?

- ◯ A noun in a business rule will translate into an entity in the model

- ◯ A verb in a business rule will translate into an entity in the model
- ◯ A verb in a business rule will translate into an attribute in the model
- ◯ A noun in a business rule will translate into a relationship in the model

Question 15

1 pts

Describe the basic features of the relational data model and discuss their importance to the end user and the designer.

- ☐ A relational database is a single data repository that provides both structural and data independence.
- ☐ Weak and inflexible query language.
- ☐ Designers find it easier to deal with conceptual data representation (i.e., an ERD).
- ☐ How the data are physically stored in the database is of great concern to the user.
- ☐ End users find it easier to visualize their data as a collection of data organized as a matrix.

Question 16

3 pts

Explain how the entity relationship (ER) model helped produce a more structured relational database design environment.

- ◯ An entity relationship model, also known as an ERD, helps identify the database's metadata and its associated applications
- ◯ An entity relationship model, also known as an ERM, helps identify the database's data and its structure

- ◯ An entity relationship model, also known as an ERM, helps identify the database's main attributes and their relationships
- ◯ An entity relationship model, also known as an ERM, helps identify the database's main entities and their relationships

Question 17

8 pts

Use the scenario described by “A customer can make many payments, but each payment is made by only one customer” as the basis for an entity relationship diagram.

*Please submit a screenshot of your ERD as an image file. (please don't upload the whole model!)

Upload Choose a File

Question 18

3 pts

The dominant database model is _____ —all current major DBMS products are based on it.

- ◯ the relational database model
- ◯ Object- Oriented atabase
- ◯ Network database model
- ◯ NoSQL database

Question 19

3 pts

Describe the basic characteristics of a NoSQL database.

- [ ] Handle limited amounts of data.
- [ ] Highly scalable and fault tolerant.
- [ ] SimpleDB(Google) is an example.
- [ ] Not based on the traditional relational database model.

Question 20

5 pts

A relationship describes an association among entities. What are three types of relationships?

- [ ] Many-to-many (M:N or *..*)
- [ ] Zero-to-zero(0:0 or 0..0)
- [ ] One-to-one (1:1 or 1..1)
- [ ] All-for-one (~:1 or ~..1)
- [ ] Ten-to-twenty (10:20 or 10..20)
- [ ] One-to-many (1:M or 1..*)

Question 21

6 pts

Match each example with one of the relationships types.

a STUDENT has only one STUDENT ID#	[Choose]
a PAINTER paints many PAINTINGs	[Choose]
a STUDENT will take several CLASSES and CLASSES will enroll several STUDENTS at a time.	[Choose]

Question 22

3 pts

Write the business rule(s) that governs the relationship between AGENT and CUSTOMER (Chapter 2 Problem 1, also figure 2.1).

- [ ] Each customer has only one agent.
- [ ] One customer can have many agents.
- [ ] Each agent has only one customer.
- [ ] There is a 1:M relationship between AGENT and CUSTOMER.

- [ ] One agent can have many customers.
- [ ] There is a M:N relationship between AGENT and CUSTOMER.
- [ ] There is a 1:1 relationship between AGENT and CUSTOMER.

Question 23

8 pts

Given the business rule(s) in Chapter 2, Problem 1 (one agent serves many customers, one customer must be served by only one agent).

*Please submit a screenshot of your ERD as an image file (**please don't upload the whole model**!)

Upload Choose a File

Question 24

2 pts

Use the Premiere database schema in Database Resources, to answer the questions below.

To list all the contents (rows or records) of the PART table, you would use ____.

- ○ SELECT * FROM PART;
- ○ LIST * FROM PART;
- ○ SELECT ALL FROM PART;

○ DISPLAY * FROM PART;

Question 25

2 pts

select customer_number as cus_num
from customer
where customer_number=256;

Here, ***cus_num*** is

○ an added table attribute

○ an original table column name

○ a data type used for reporting purposes

○ an alias, that is, an alternate name given to a column or table.

Question 26

3 pts

The query used to list the part number, part description, and part price from the **part** table in ascending order by part price is ____.

○ SELECT PART_NUMBER, PART_DESCRIPTION, UNIT_PRICE

FROM part

ORDER BY UNIT_PRICE ASC;

- SELECT PART_NUMBER, PART_DESCRIPTION, UNIT_PRICE
  FROM part
  ORDER BY UNIT_PRICE ASCENDING;
- SELECT PART_NUMBER, PART_DESCRIPTION, PART_PRICE
  FROM part
  ORDER BY PART_PRICE ASCENDING;
- SELECT PART_NUMBER, PART_DESCRIPTION, PART_PRICE
  FROM part
  ORDER BY PART_PRICE;

Question 27

2 pts

When you issue the following command: DELETE FROM ORDERS;

- all rows will be deleted
- only the first row will be deleted
- only the last row will be deleted
- no rows will be deleted (an incorrect command)

Question 28

2 pts

UPDATE customer
SET first='Beth', slsrep_number=12
WHERE customer_number=256;

The above command

- ◯ will only update one attribute value
- ◯ will update all records in the customer table
- ◯ will modify the first name and sale's rep number for customer number 256
- ◯ will modify all records in the customer table

Question 29

4 pts

Which statement(s) is/are correct for adding two records to the customer table:

- ☐
```
INSERT INTO customer
(customer_number, last, first, street, city, state, zip_code, balance, credit_limit, slsrep_number)
VALUES
('999', 'Jane','Doe', '456 Elm Ave.', 'Panama City', 'FL', '32445', 700.00, 900.00, '12');
('888','Baby','Doe','789 Forest Ct.','Tallahassee','FL','32305',800.00,9500.00,'03');
```

- ☐
```
INSERT INTO customer
(customer_number, last, first, street, city, state, zip_code, balance, credit_limit, slsrep_number)
VALUES
('999','Jane','Doe','456 Elm Ave.','Panama City','FL','32445',700.00,900.00,'12'),
('888','Baby','Doe','789 Forest Ct.','Tallahassee','FL','32305',800.00,9500.00,'03');
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('888','Baby','Doe','789 Forest Ct.','Tallahassee','FL','32305',800.00,9500.00,'03');
```

Question 30

2 pts

A table (i.e., both, its data and structure) can be deleted from the database by using the ____ command.

- MODIFY TABLE mytable;
- ERASE TABLE mytable;
- DROP TABLE mytable;
- DELETE TABLE mytable;