

Oracle Bullshit

A novel by Steve McQueeney

Revision 2

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Quiz 1

Chapter one: Descent into madness.

The advantages of an object-oriented data model are:

Reduced Maintenance & Real-World Modeling

A flat file may contain many fields, often, with duplicate data that are prone to data corruption.

True

A network database comprises of a collection of records connected to one another through links.

True

In a hierarchical database model the data is stored as records that are connected to one another through _____.

links

Business rules help you understand the standardization procedure an organization follows when handling huge data.

True

Business rules are important because_____.

They allow the developer to understand the relationship and constraints of the participating entities

The reason or drive for using databases rather than files has been ...

- Reduced redundancy of data
- Availability of data to a diverse set of users
- Integration of data for easier access and modification for complex transactions

Documenting Business Requirements helps developers control the scope of the system and prevents users from claiming that the new system does not meet their business requirements. True or False?

True

If information requirements are clearly communicated during conceptual modeling the following will result:

A well designed conceptual model

Today, all industries have a need for database systems. True or False?

True

A DBMS comprises of the following elements:

- Memory and Storage Management
- Query language
- Data Dictionary

A database is a centralized and structured set of data stored on a computer system and provides facilities for retrieving, adding, modifying, and deleting the data when required.

True

DBMS stands for:

Database Management System

A _____ model describes a database in terms of tables, columns, and joins between tables.

Relational

Which of the following is not a stage in the Database Development Process?

Reporting

Which one of the following is not a goal of this course:

Database performance tuning.

The main subject areas taught by the Oracle Academy are:

Data Modeling, SQL, and PL/SQL (*)

What is the difference between "information" and "data"?

Data turns into useful information. It is stored in a database and accessed by systems and users. (*)

Which transformation in computing allows for storage and delivery of applications and data over the internet?

Cloud Computing

Select the business or industry that would not have a need for a database.

All these businesses could benefit from using a database.

Business _____ are used to understand business processes, and the nature, role, and scope of the data.

Rules

Once you have learned how to write programs and build systems, you no longer need any input or involvement from any users as you are perfectly capable of delivering the systems that businesses need and want.

False. Business requirements can and will change. For instance new legal requirements may arise.

Three reasons or drives for using databases rather than files has been

1. Availability of data to a diverse set of users
2. Reduced redundancy of data
3. Integration of data for easier access and modification for complex transactions

Using a database solution instead of a flat file system does not prevent the following issue:

Incorrect data

Information is the result of combining, comparing and performing calculations on data

True

The transformations that have occurred in the computer world progressing in this order

Mainframe, desktop, client/server, grid

Which is the first step in the database development process?

Strategy and analysis

In a ... database model the data is organized into a tree-like structure and to receive data the whole tree needs to be traversed starting from the root node.

Hierarchical

The main subject areas taught by oracle academy are

Data modeling, SQL, and PL/SQL

The technical software requirements for this course include all of the following

Oracle SQL developer data modeler, Microsoft Access, and Oracle APEX application

All business rules can be modeled

False

When completing the conceptual modeling process we must take into account the following

- Business Rules
- Assumptions
- Problems

Which of the following transformations in computing led to the increase in graphical user interface (GUI) applications?

Desktop Computing

A database interacts with the data and provides the following facilities

- Retrieving data
- Inserting data
- Deleting data

The reason or drive for using databases other than files has been

- Reduced redundancy of data
- Integration of data for easier access and modification for complex transactions
- Availability of data to a diverse set of users

In a relational database model, each table name must be unique. The column names in the table must be unique too. You can have two different tables that have column names that are the same.

True

Quiz 2

Chapter 2: The chapter where Oracle tries to brainwash you into believing all you need is Oracle.

To identify an attribute as part of a unique identifier on an ER diagram, the # symbol goes in front of it. True or False?

True

Which of the following are suitable Entity names? (Choose Two)

They always have to be in the singular form. Incorrect answers have been kept in there for reference purposes.

DOG

ANIMAL

ANIMALS

DOGS

Entity names are always singular. True or False?

True

In an ERD, optionality is depicted using _____.
solid or dashed lines

One-to-Many relationships have cardinality of one or more in both directions. True or False?

False

In a business that sells pet food, choose the best relationship name between FOOD TYPE and ANIMAL (e.g. dog, horse, or cat). (Choose Two)

Each FOOD TYPE must be suitable for one or more ANIMALs.

Each FOOD TYPE may be given to one or more ANIMALs.

An ERD is an example of a _____ Model.

Conceptual

The logical model becomes the blueprint for designing the _____ model

Physical

ERDish includes the following except:

Data Values.

Data modeling is performed for the following reasons: (Choose Two)

It helps discussions and reviews.

The ERD becomes a blueprint for designing the actual system.

Which of the following statements about entity relationship diagrams (ERD) is true?

Used to communicate the logical structure of the database to users. (*)

A table must have a primary key. True or False?

True

By defining _____ and _____ keys, you can ensure that the integrity of the data in a table is maintained.

primary, foreign

All entities must be given a new artificial UID. True or False?

False

Primary keys can contain null values.

False

If a relationship is mandatory there must be at least one instance of the corresponding entity related to it.

True

Candidate UIDs must be made up of only one attribute

False

Primary UIDs are:

Mandatory in data modeling

A row is called a record.

True

A model is considered to be implementation-free if it can be implemented using _____ of the database software models such as hierarchical, network or relational.

Any

The conceptual model does all of the following except:

(does not) Documents type of operating systems to be used.

ERDish is a language used to create database structures in SQL

False

Which of the following statements about attributes are true?

- They describe, qualify, quantify, classify or specify an entity
- They are often adjectives

A/An _____ is a piece of information that in some way describes an entity.

Attribute

An entity may have which of the following?

Instances

Which of the following are reasons we create conceptual models?

- It facilitates discussion
- It forms important ideal system documentation
- It takes into account government regulations and laws
- It forms a sound basis for physical database design

An ERD is an example of a ____ model
Conceptual

The cardinality of a relationship can be:

- One and only one
- One or more

A Foreign Key is a column or combination of columns in one table that uniquely identifies a row of another table.

True

A ____ is a type of database that stores data in a single table.

Flat File

When creating entities in a logical model you must follow these rules

- Include attributes
- Name them in singular

When mapping a relationship for an ERD diagram both sides of the relationship have to be mapped.

True

An ERD created using ERDish is a ____ representation of entities and their relationship to each other.

Graphical

Unique Identifiers...

Distinguish one instance of an entity from all other instances of that entity

All entities must be given a new artificial UID

False

Quiz 3

Chapter three: At this point you're starting to wonder if you're ever going to see or use SQL again.

Which of the following would be a logical constraint when modeling time for a City entity?

Cities may (*not*) change their names and/or country association if the borders of a country change.

A _____ is frequently used to track information about a relationship that changes over time

intersection entity

When is an entity in 2nd Normal Form?

When all non-UID attributes are dependent upon the entire UID.

According to _____, an attribute must be dependent on its entity's entire unique identifier.

2nd normal form

An entity without repeated values is said to be in _____.

1st normal form

Would it be a good idea to model age as an attribute of STUDENT?

No - it is a volatile attribute

A business rule such as "We only ship goods after customers have completely paid any outstanding balances on their account" is best enforced by:

Hiring a programmer to create additional programming code to verify no goods are shipped until the account has been settled in full.

Which of the following pairs of entities is most likely to be modeled as a M:M relationship?

TEACHER and SUBJECT AREA

Another name for a "barred relationship" is _____.

Identifying Relationship

The UIDs for a set of hierarchical entities can be propagated through multiple _____ relationships.

barred

Transferable relationships can only be mandatory, not optional. True or False?

False

A non-transferable relationship means the detail _____ be changed to point to a new master.

can not

The transformation from an ER diagram to a physical design involves changing terminology. Secondary Unique Identifiers become ____.

Unique Constraints

Table names can contain all of the following except:

Spaces

When mapping entities containing supertypes and subtypes a _____ table implementation is used when most of the attributes and relationships are shared at the supertype level.

single-table

An entity name is converted to a table name by making it plural.

True

The transformation from an ER diagram to a physical design involves changing terminology. Primary Unique Identifiers in the ER diagram become _____ and relationships become _____.

Primary keys, Foreign keys

When mapping arcs a _____ constraint can be written to enforce mutual exclusivity.

check

Which of the following scenarios should be modeled so that historical data is kept?

- CUSTOMER and ORDERS
- CUSTOMER and PAYMENTS

A _____ on a relationship line indicates the Relationship as Non-Transferable.

Diamond

A _____ relationship is created when the UID for an entity includes the relationship with another entity.

barred

All relationships participating in an arc must be mandatory. True or False?

False

You can only create relationships to a Supertype, not to a Subtype. True or False?

False

A recursive relationship _____ mandatory at both ends. Markeren voor nakijken may be

Can all constraints be modeled on an ER diagram?

No, and those that cannot be modeled should be listed on a separate document to be handled programmatically

When data is only stored in one place in a database, the database conforms to the rules of _____.

Normalization

Sources of business rules include all of the following except:

Word of mouth

Attribute names are converted to column named by

Replacing spaces with underscores

In a physical data model, an attribute is represented as a/an

Column

Arcs are used to visually represent _____ between two or more relationships in an ERD

Exclusivity

How many subtypes can a supertype have?

Any number

A new system would have a mixture of both procedural and structural business rules as part of the documentation of that new system.

True

Business rules are important to data modelers

True

Which of the following is not true regarding normalization

It does not impact the performance of the database.