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DEP: BS(SE)

SUBJECT: DATABASE

SUBMITTED TO: Rimsha Khan

QUESTION:01

Q1:

What is metadata in Database? Give 1 example

ANSWER:

Metadata is defined as the data providing information about one or more aspects of the data, it is used to summarize basic information about data which can make tracking and working with specific data easier.

Some examples include:

Means of creation of the data.

Purpose of the data.

Time and date of creation.

Q:2

List down the components of database environment?

ANSWE:

CASE Tools : computer-aided software engineering. These tools providing automated support for systems development

Repository : centralized storehouse of metadata

Database Management System (DBMS) : software for managing the database

Database : storehouse of the data

Application Programs : software using the data.

Q :3

Give 4 examples of database Management System (DBMS).

ANSWER

Some DBMS examples include

MySQL

PostgreSQL

Microsoft Access

SQL Server

FileMaker

There are so many database management systems available, it is important for there to be a way for them to communicate with each other.

Q:4

What is a Data warehouse?

ANSWER

Integrated decision support system derived from various operational databases .Data warehousing is the electronic storage of a large amount of information by a business or organization. A data warehouse is designed to run query and analysis

on historical data derived from transactional sources for business intelligence and data mining purposes.

Q:05

How are the following represented using ER Diagram: Mandatory one, Mandatory many, Optional

one, Optional Many?

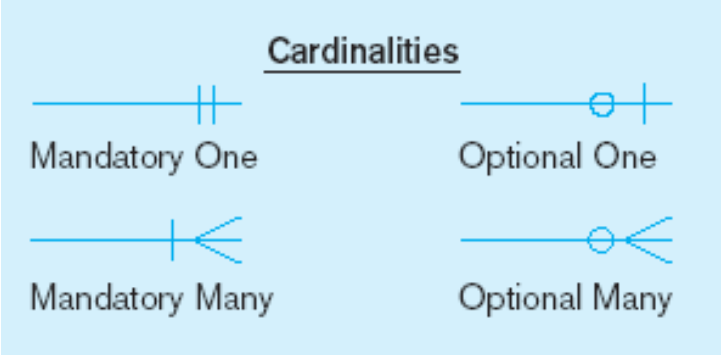
ANSWER

Minimum Cardinality : If zero, then optional

If one or more, then mandatory

Maximum Cardinality

The maximum number.



Q:6

What are CASE tools on Database Environment?

ANSWER

CASE (Computer-Aided Software Engineering) packages are software packages that include many tools that can be helpful when it comes to database design.

CASE: software tools providing automated support for systems development

Three database features:

Data modeling : drawing entity-relationship diagrams

Code generation : SQL code for table creation

Repositories : knowledge base of enterprise information.

QUESTION: 02

Draw an ERD from the following business rules: Use proper notations for the type of attributes

(Marks 9)

A schema needs to capture all the information that An Art gallery need to maintain.

 The database shall keep information about Artists, their names (which are unique), birthplace,

age, and style of art.

 For each piece of artwork, the artist, the year it was made, its unique title, its type of art (e.g.

painting lithography, sculpture, photograph), and its price must be stored.

 Pieces of artwork are also classified into groups of various kinds for example, potraits, still lifes,

works by Picasso, or works of the 19th century.

 A given piece may belong to more than one group.

 Each group identified by a name that describes the group.

 Finally galleries keep the Customer's unique name, address, total amount of dollars spent in the

gallery and the artist and groups of the art that the customer tends to like Draw an ERD from the following business rules: Use proper notations for the type of attributes

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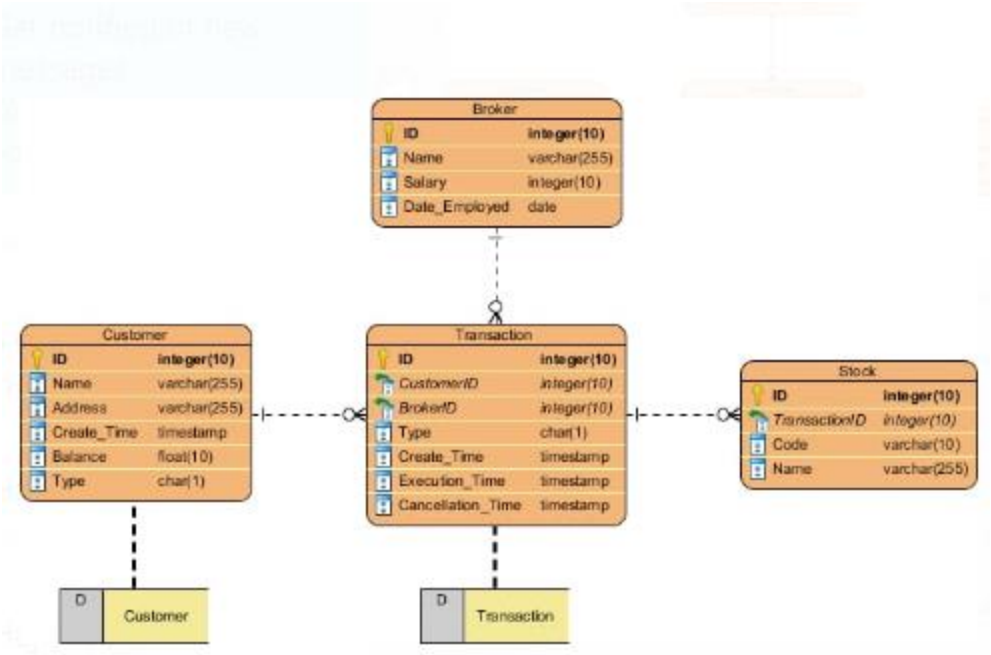
ANSWER

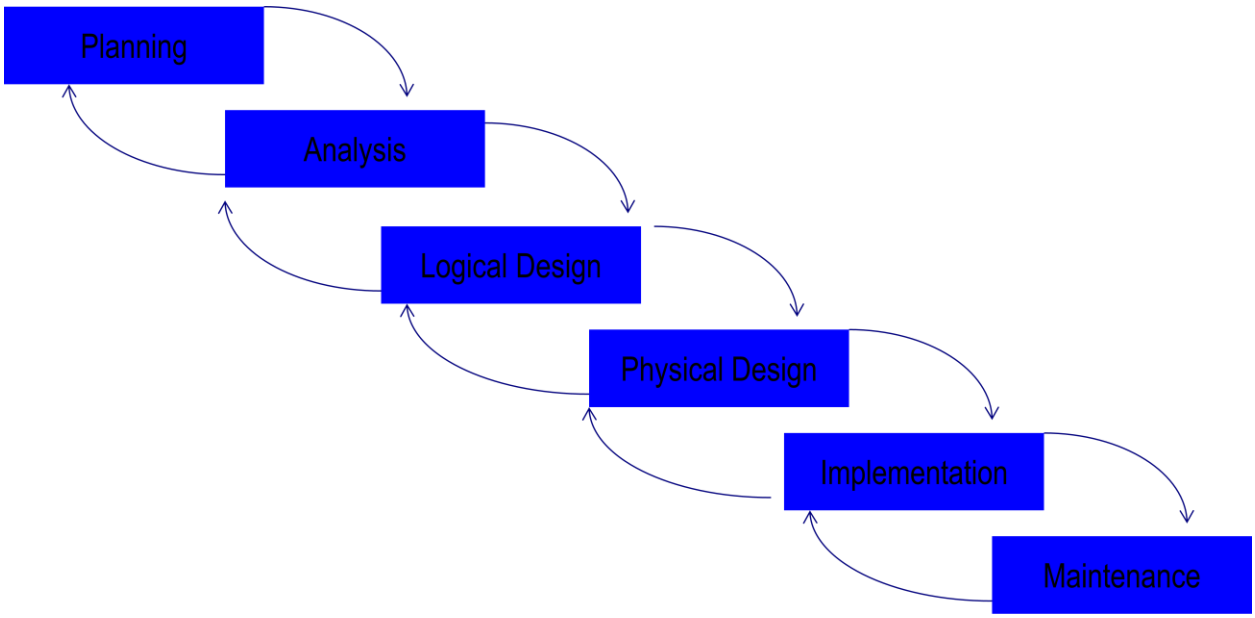


QUESTION : 03

1) Draw the flow of phases in Database Development Life Cycle.

ANSWER:

1. Planning
2. Analysis
3. Logical design
4. Physical design
5. Implemantion
6. Mantainance



b) Conceptual and Realtional Models are created in which phase of Database Development Life Cycle?

ANSWER:

Conceptual and reational models are created in analysis phase of database development life cycle.