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Course Title: Database System

Q1) What is metacatalog in Database
= Given 1 example?

Ans

'Metacatalog Database'

metacatalog is simply defined as data about data. The data that is used to represent other data is known as metacatalog. For example, the index of a book serves as a metacatalog for the contents in the book. In other words we can say that metacatalog is the summarized data that leads us to detailed data.

Q2) List down the components of database environment?

Ans) Below is a list of components within the database and its environment.

Software: This is the set of programs used to control and manage the overall database.

: Hardware

: Data

: Procedures

: Database Access Language

: Query Processor

: Run Time Database Manager

: Data Manager

: Database Engine

: Data Dictionary

: Report Writer

Q3 Give 4 example of database management system.

4 DBMS example are MySQL, Oracle, eBase, and Fox pro, since there are so many database management system available, it is important for there to be a way for them to communicate with each other.

Q4 What is a data warehouse?

Ans A data warehouse (DW or DWH)

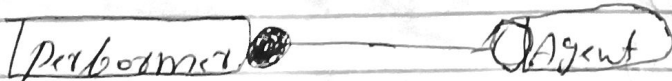
- also known as an enterprise data warehouse (EDW) is a system used for reporting and data analysis, and considered a core component of business intelligence. DWHs are central repositories of integrated data from one or more disparate sources.

Q5 How are the following represented using ER Diagram: mandatory one, mandatory many, optional one, optional many.

Ans mandatory many is represented as follow in one to one relation.



Mandatory one is represented in one to one relation ship as follow.



optional one is represented in one to one.



Q6 What are case tools on Database Environment?

Ans Case (Computer-Aided Software Engineering)

= Packages are software packages that include many tools that can be helpful when it comes to database design. The main goal of these packages is to give designers a way of representing systems that are too complex to understand in their source code or scheme-based forms.

Diagramming Tools: It helps in diagrammatic and graphical system representation processes.

(i) Repository - centralized storehouse of metadata.

(2) Database management system.

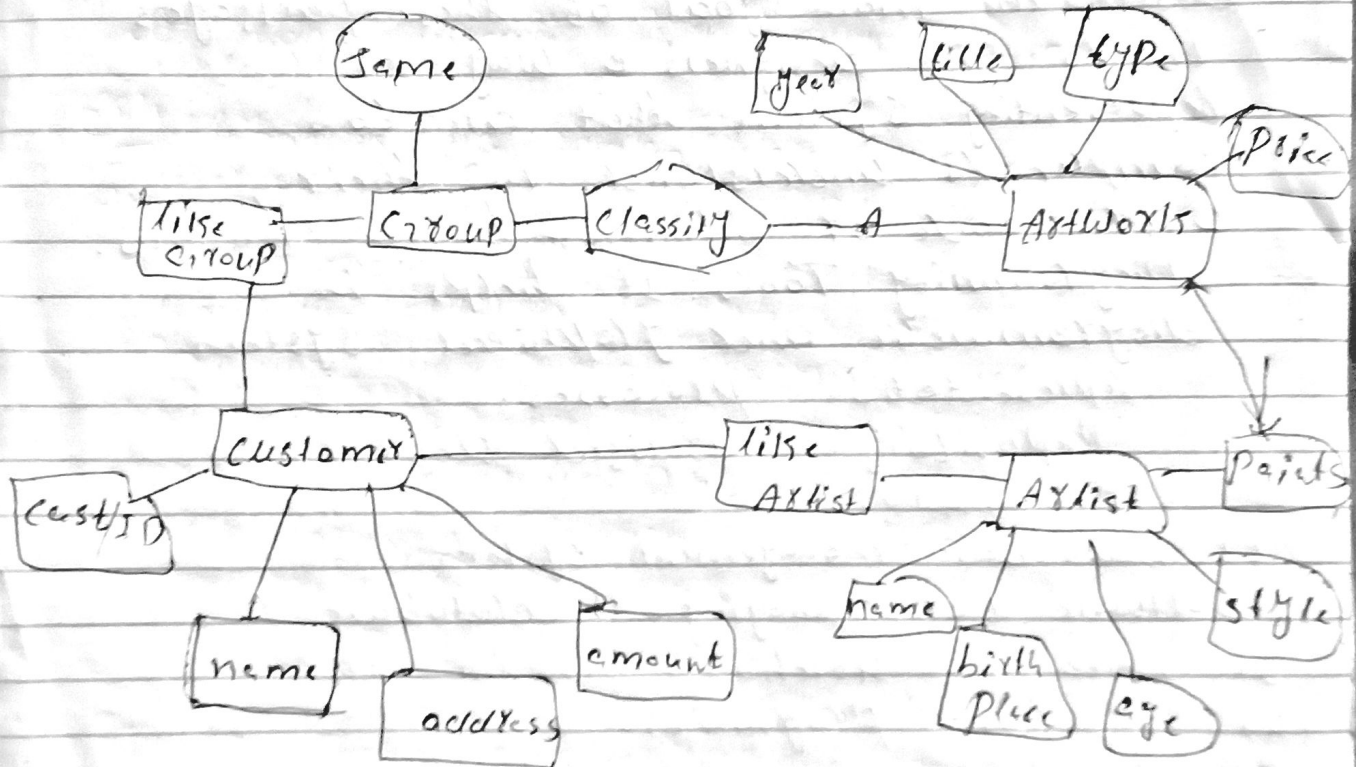
Software for managing the database.

(3) Database - storehouse of the data.

(4) Application programmes.

Software using the data.

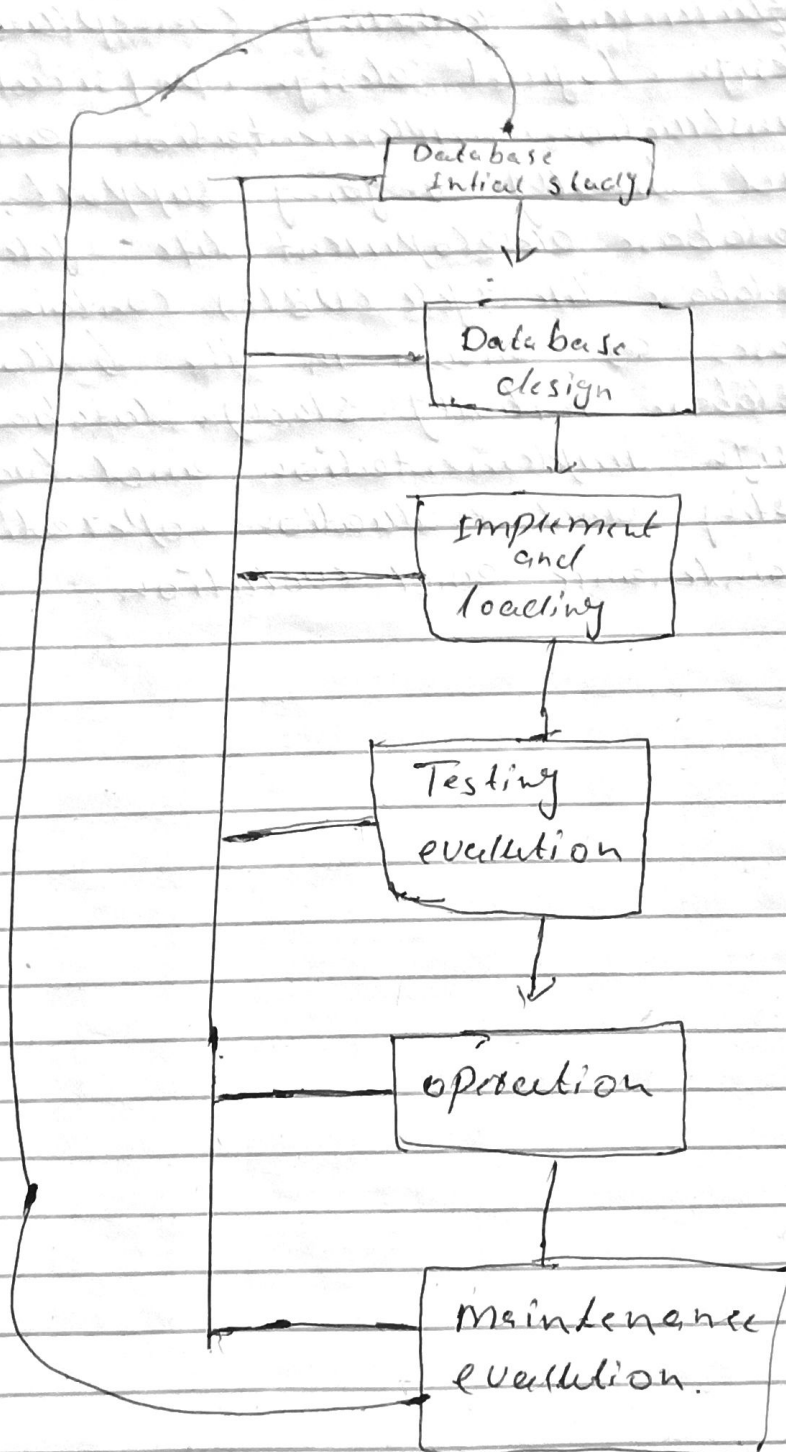
(Q) Draw an ERD from the following business rules: Use proper notation for the type of attributes.



Q3 (A) Draw the flow of Phases in Database Development life cycle?

ANS The Database life cycle (DBLC)

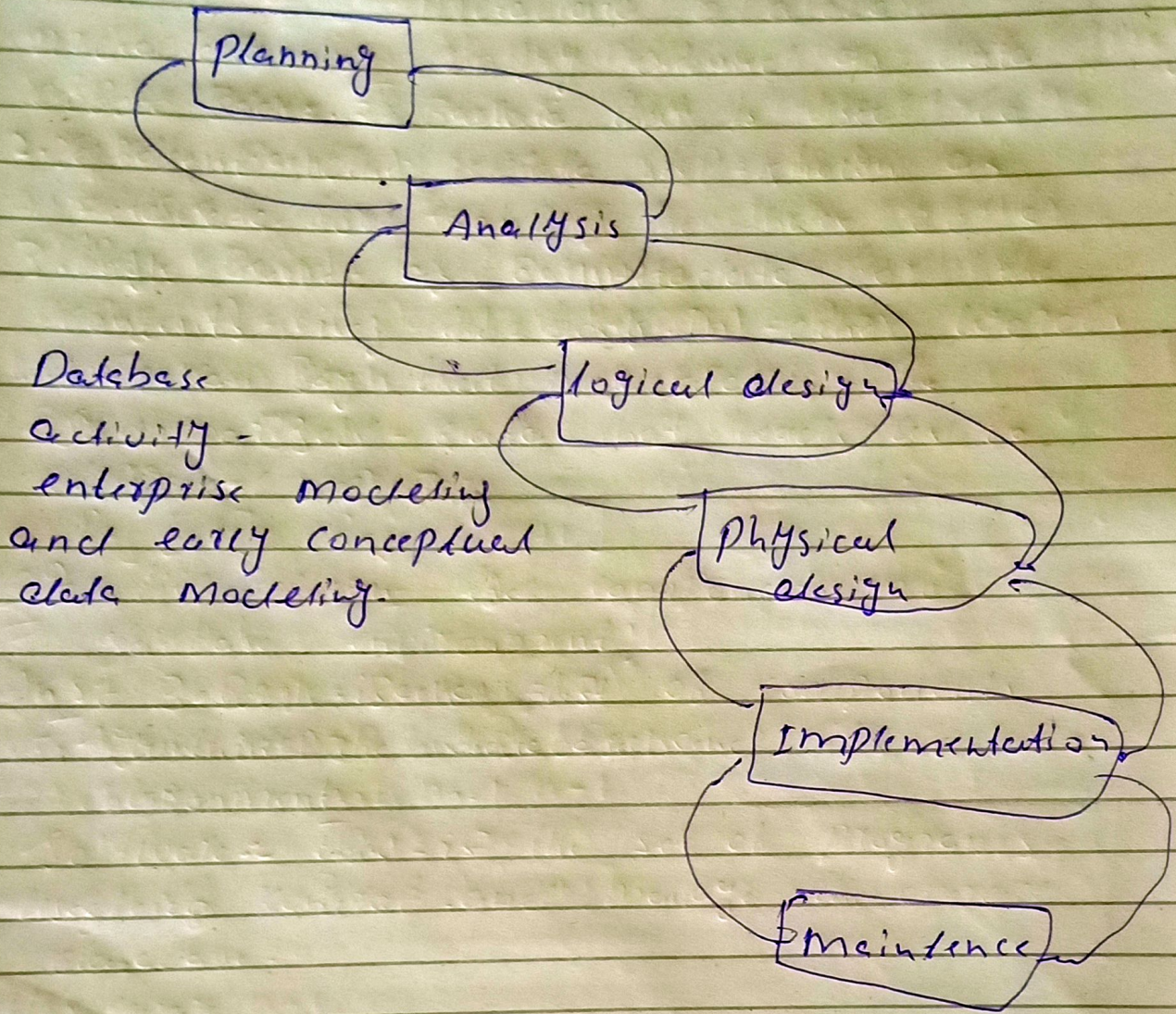
→ Contains six Phases, as shown in the following database initial study, database design, implementation and loading, testing and evaluation, operation, and maintenance and evolution.



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2nd diagram

System Development
life cycle is,



(Q3(B)) Conceptual and Relational models are created in which Phase of Database development life cycle.

Ans The database development life cycle includes eight steps that help guide us through the creation of a new database. The steps are planning, requirement gathering, conceptual design, logical design, physical design, construction, implementation and rollout and finally ongoing support.

Database development life cycle. The Database life cycle (DBLC) contains six phases, as shown in the following database initially study, database design implementation and testing, testing and evaluation, operation, and maintenance and evolution.