Data Base Lab01

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Basic Tasks

a. Entity: Something of the real word.

b. Entity type: Generalization of similar entity.

c. Entity instance: Examples of entity type.

d. Optional: a non-mandatory relationship or attribute.

e. Mandatory: mandatory relationship or attribute.

f. Cardinality: The numerical characteristics of relationships between entities.

3.A data model is an abstraction of data characteristics and serves as a framework for teaching database management.The structural framework used in database systems to provide means for information representation and manipulation.

The importance of data modelling:

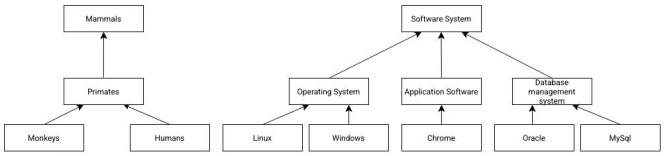
(1)Data modeling can help consolidate scattered data into a clear structure, making it easier to understand and manage.Data modeling can provide a unified view by defining entities, attributes, and relationships, making the organization and connections of data clearer and more visible.

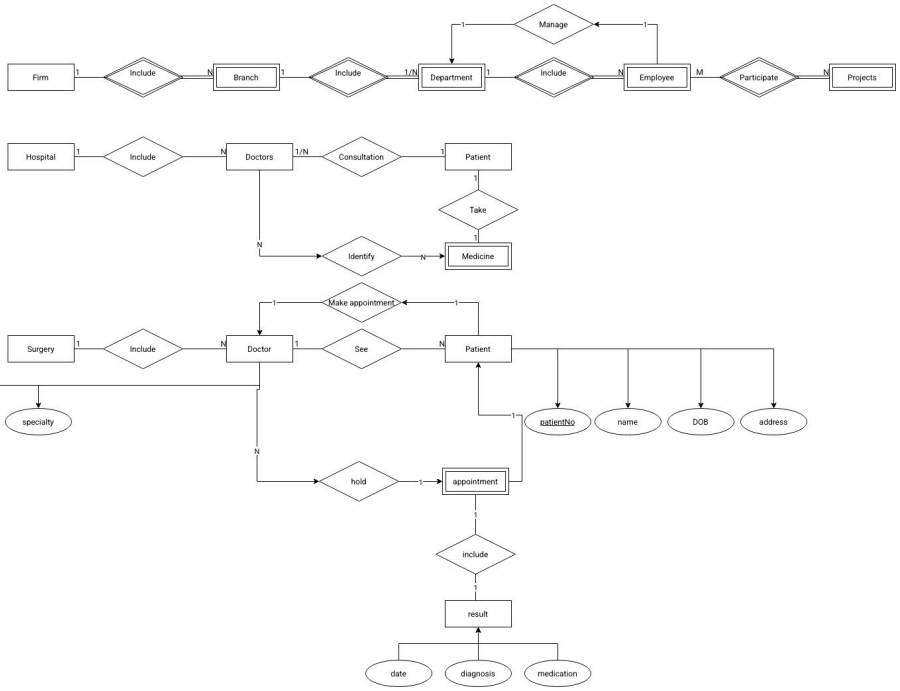
(2)Data modeling can help identify and resolve data quality issues.By defining data standards and constraints, data modeling can ensure the consistency, accuracy, and completeness of the data.It can help identify errors, redundancies, and inconsistencies in the data, and provide corresponding data cleaning and validation rules.

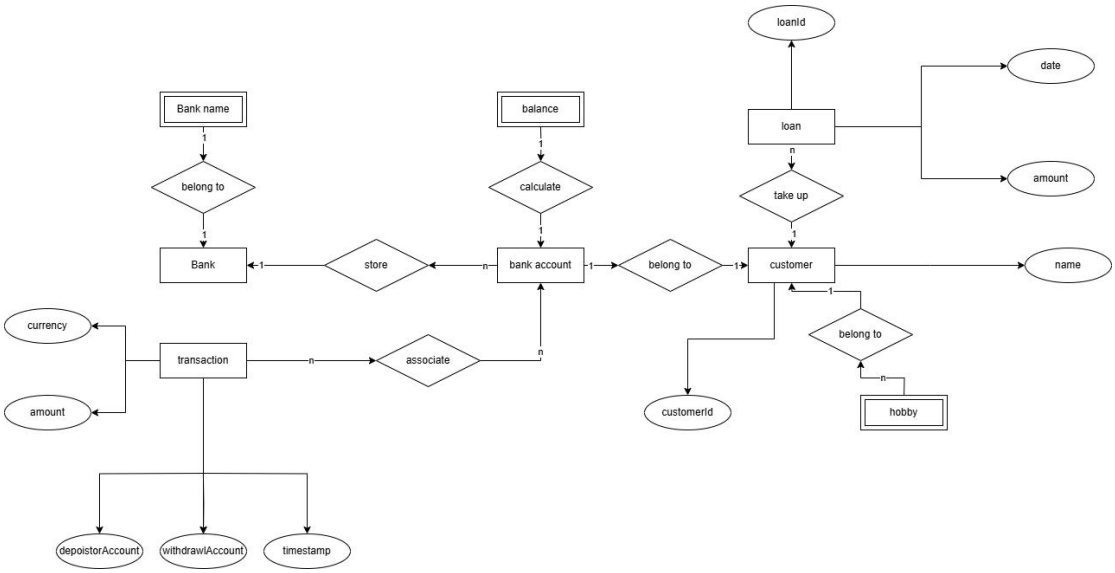
(3)Data modeling provides the foundation for data analysis.By modeling data in a structured form, it becomes easier to apply analytical methods such as statistics and machine learning to extract valuable information and insights.

Medium Tasks

Graph 1/2/4/5/6


Mammals
Primates
Monkeys
Humans
Software System
Operating System
Application Software
Database management system
Linux
Windows
Chrome
Oracle
MySql


Manage
Firm
Include
Branch
Include
Department
Include
Employee
Participate
Projects
Hospital
Include
Doctors
Consultation
Patient
Take
Identify
Medicine
Make appointment
Surgery
Include
Doctor
See
Patient
doctorId
attributes name
specialty
patientNo
name
DOB
address
hold
appointment
include
result
date
diagnosis
medication


loanId
date
Bank name
balance
loan
belong to
calculate
take up
amount
Bank
store
bank account
belong to
customer
name
currency
transaction
associate
belong to
amount
customerId
hobby
depoistorAccount
withdrawlAccount
timestamp

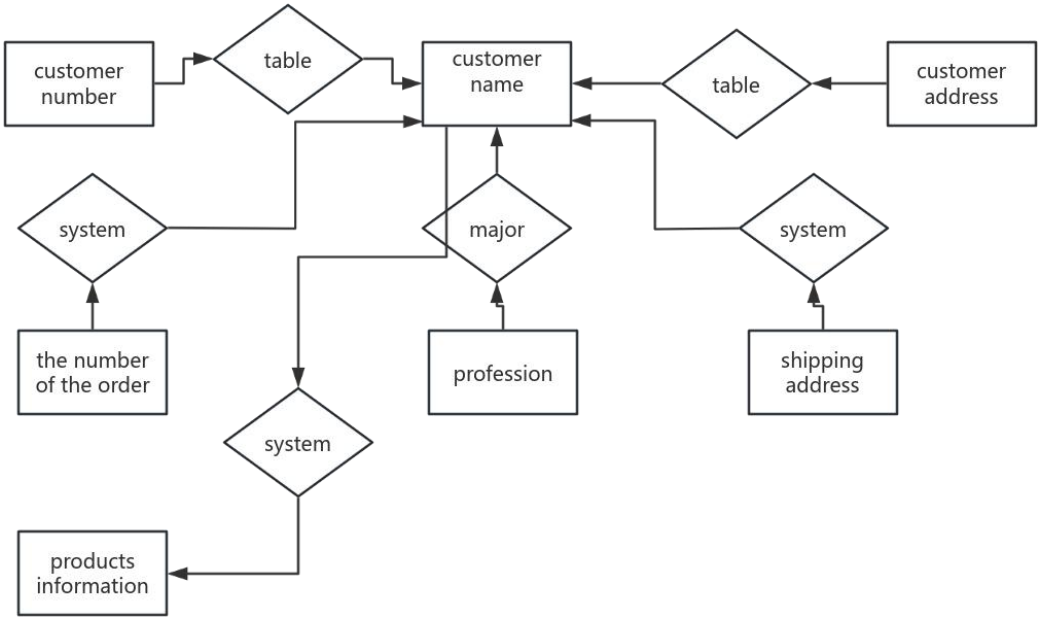

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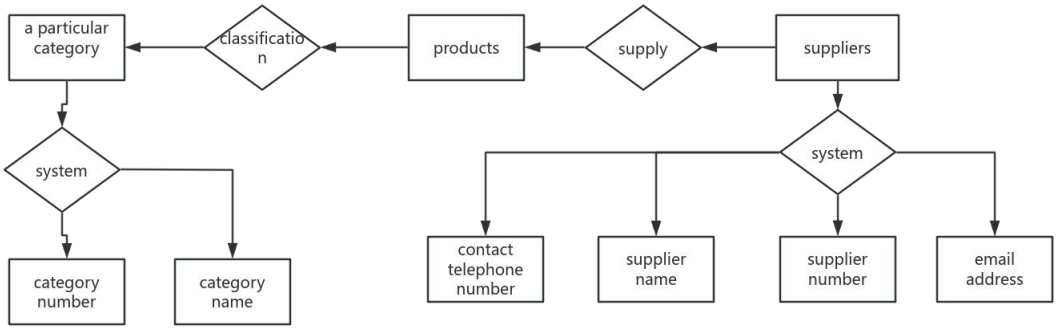
table
customer name
table
customer address
system
major
system
the number of the order
profession
shipping address
system
products information


a particular category
classificatio n
products
supply
suppliers
system
system
category number
category name
contact telephone number
supplier name
supplier number
email address