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27603

Database Management System

Assignment II

BANK ACCOUNT SYSTEM

Requirements Text

This bank account management system is designed to handle multiple entities involved in managing a client's financial information. The main objective of this system is to facilitate easy management of client accounts, account types, categories, loans, and transactions. The system will provide a user-friendly interface for viewing, adding, updating, and managing client data and the various related entities, ensuring proper relationships and constraints among them.

The key entities include: **Client, Account, account Type, Loan and Account transaction and Category.** Each client has a unique record and can hold one or more accounts. Accounts are categorized based on their type, such as savings or checking, which are stored in the Account Type table. Clients can also be classified

into categories like personal or business. The system will allow for the easy management of loans associated with specific accounts. Additionally, the Transaction table will log all account activities such as deposits and withdrawals.

Furthermore, it will include basic audit features to track changes made to critical data points like balances and account statuses.

This system is expected to enhance the efficiency of financial operations and improve client satisfaction by offering detailed and organized account information.

Concepts:

1.Entity: An entity in database and systems design refers to an object, concept, or thing that can be distinctly identified and stored in a database. For example:

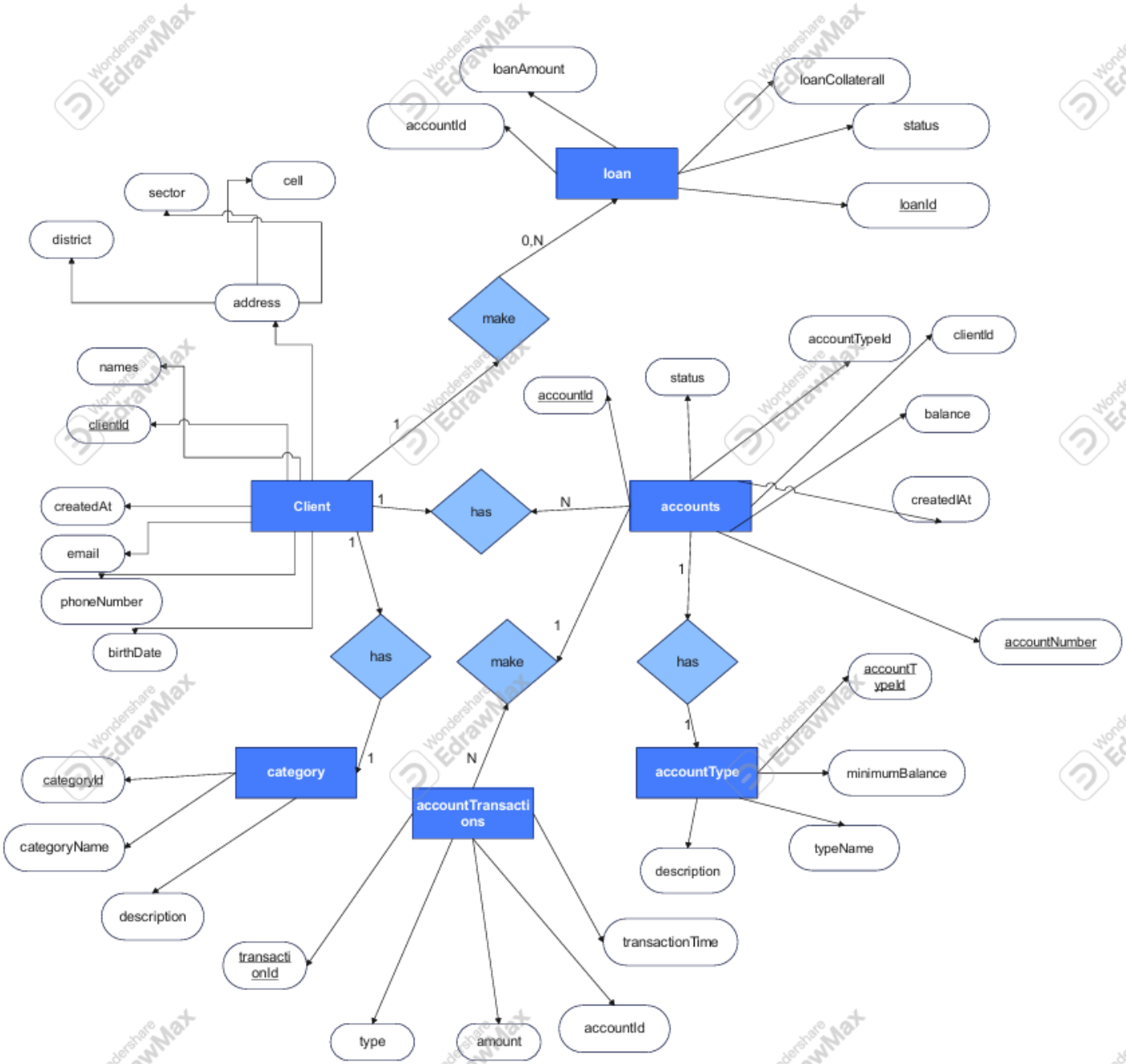
a. We have a **client**.
b. We have **loan**.
c. We have **account transaction**.
d. We also have **account**.

2. Attributes: Attributes are the properties or details that define the characteristics of an entity. They describe the specific pieces of information associated with an entity. For example:

a. For the Customer entity, attributes include **Customer_ID, First_Name and Last_Name**.
b. For the Account entity, attributes include **Account_ID, Balance,** and **Status**. Attributes help in uniquely identifying and describing each instance of an entity.

3. Relationships: Relationships define the connections or associations between different entities. They establish how one entity interacts with or depends on another. Common types of relationships include one-to-one, one-tomany, and many-to-many. For example:

a. A Client can have multiple Accounts (one-to-many relationship).
b. An Account can be linked to many Transactions (one-to-many relationship).
c. Each Loan is associated with one Account (one-to-one relationship in some cases). Relationships ensure the system captures the necessary interactions between entities.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CONCULSION

This is the **bank account system** containing an entity, attributes and their relationships. Within a **client, transaction, account and loan information's.**