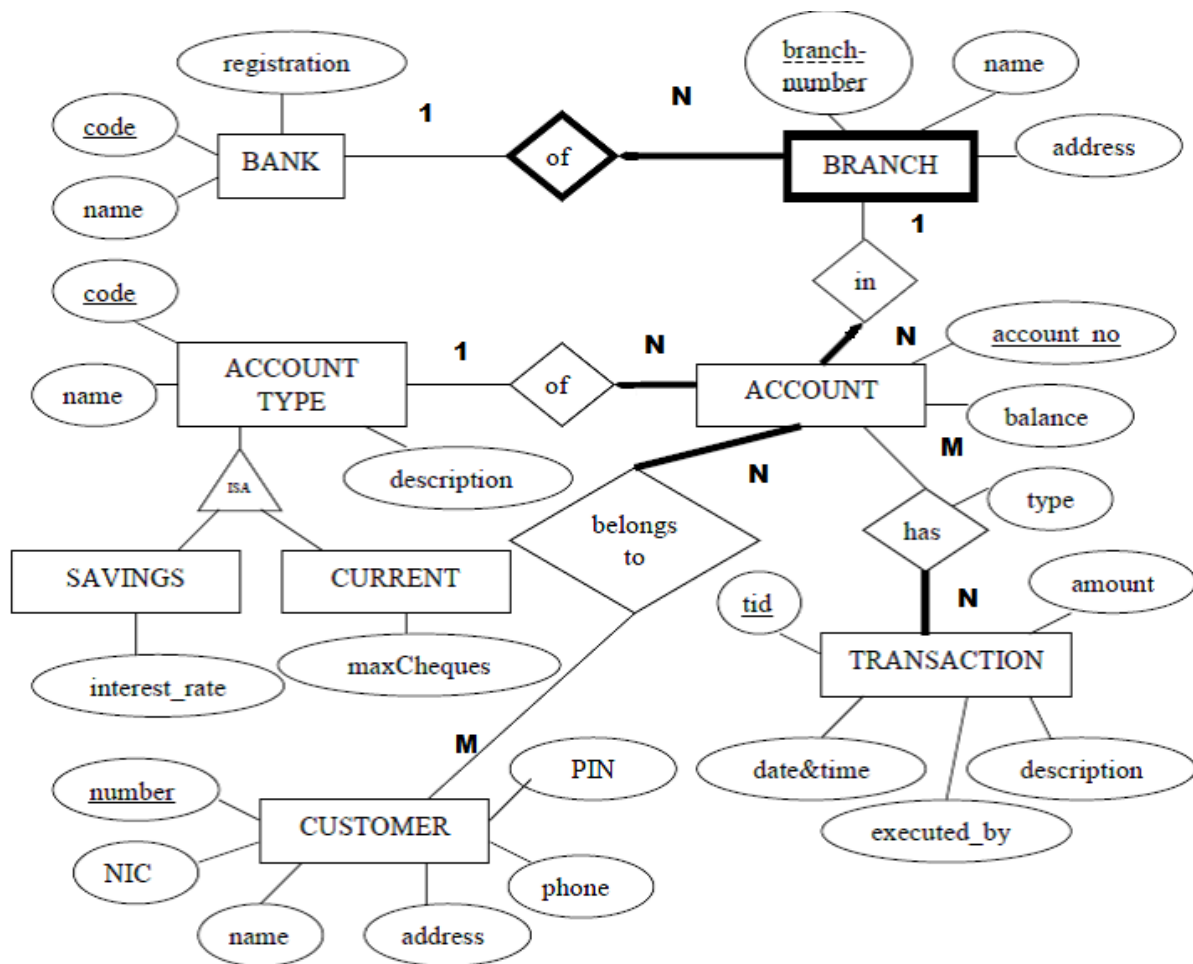


Lab Sheet 02

Question 1

Map the following EER model into the relational model and answer the questions below.



1. How many relations did you get in your relational schema after mapping?.....
2. What is the primary key of the Branch relation?.....

3. What mapping option did you use to map the entity 'Account Type' and its sub classes? Why did you select the option you selected?.....
.....
4. How many tables refer to the AccountNo attribute in Accounts table? What are the relations that refer to AccountNo as foreign keys?.....
.....

Question 2

Map the EER model in the next page which is drawn for a library system into the relational model. Underline the primary keys. Clearly show the foreign key.

Answer the following questions with relevance to the schema you have written.

1. What mapping option did you use to map the entity 'Item' and its sub classes? Why did you select the option you selected?.....
.....
2. What mapping option did you use to map the entity 'Books' and its sub classes? Why did you select the option you selected?.....
.....
3. What mapping option did you use to map the entity 'Periodicals' and its sub classes? Why did you select the option you selected?.....
.....
4. What is the primary key of 'PeriodicalType' table?.....
5. What are the foreign keys for the 'Published Book Type'?
.....
6. What mapping option did you use to map the entity 'Copy of Items' and its sub classes? Why did you select the option you selected?.....
.....
7. What are the any foreign keys for the 'C-Periodical Type'?.....
.....
8. What are the attributes of the 'Pay' table?.....
.....

The diagram is an Entity-Relationship (ER) model for a library database. It includes the following components:

- Entities and Attributes:**
 - Members:** Attributes include library_id, name, other_name, l-name, f-name, location (campus, floor, office_no), phone, e-mail, address, password, and remarks.
 - Member Type:** Attribute is type.
 - Payment:** Attributes include payid, amount, date, and manufacturer.
 - Loan:** Attributes include fine paid, fine, datetime_borrowed, date returned, due date, status, and access no.
 - Copy of Item:** Attributes include access no.
 - Periodical Type:** Attribute is date.
 - C-Software & Manual:** No attributes shown.
 - C-Text:** No attributes shown.
 - C-Published Book Type:** No attributes shown.
 - C-Periodical Type:** No attributes shown.
- Relationships and Cardinalities:**
 - Members to Member Type:** 1:N relationship labeled "Type".
 - Members to Payment:** M:N relationship labeled "pay".
 - Members to Loan:** M:N relationship labeled "Loan".
 - Members to Copy of Item:** M:N relationship labeled "copy".
 - Payment to Copy of Item:** 1:N relationship labeled "copy".
 - Loan to Copy of Item:** N:N relationship labeled "Loan".
 - Periodical Type to Copy of Item:** 1:N relationship labeled "copy".
 - C-Software & Manual to Copy of Item:** N:N relationship labeled "copy".
 - C-Text to Copy of Item:** N:N relationship labeled "copy".
 - C-Published Book Type to Copy of Item:** N:N relationship labeled "copy".
 - C-Periodical Type to Copy of Item:** N:N relationship labeled "copy".
- Generalization:**
 - An **ISA** (Generalization) relationship exists between **Copy of Item** and the four categories: **C-Software & Manual**, **C-Text**, **C-Published Book Type**, and **C-Periodical Type**.

