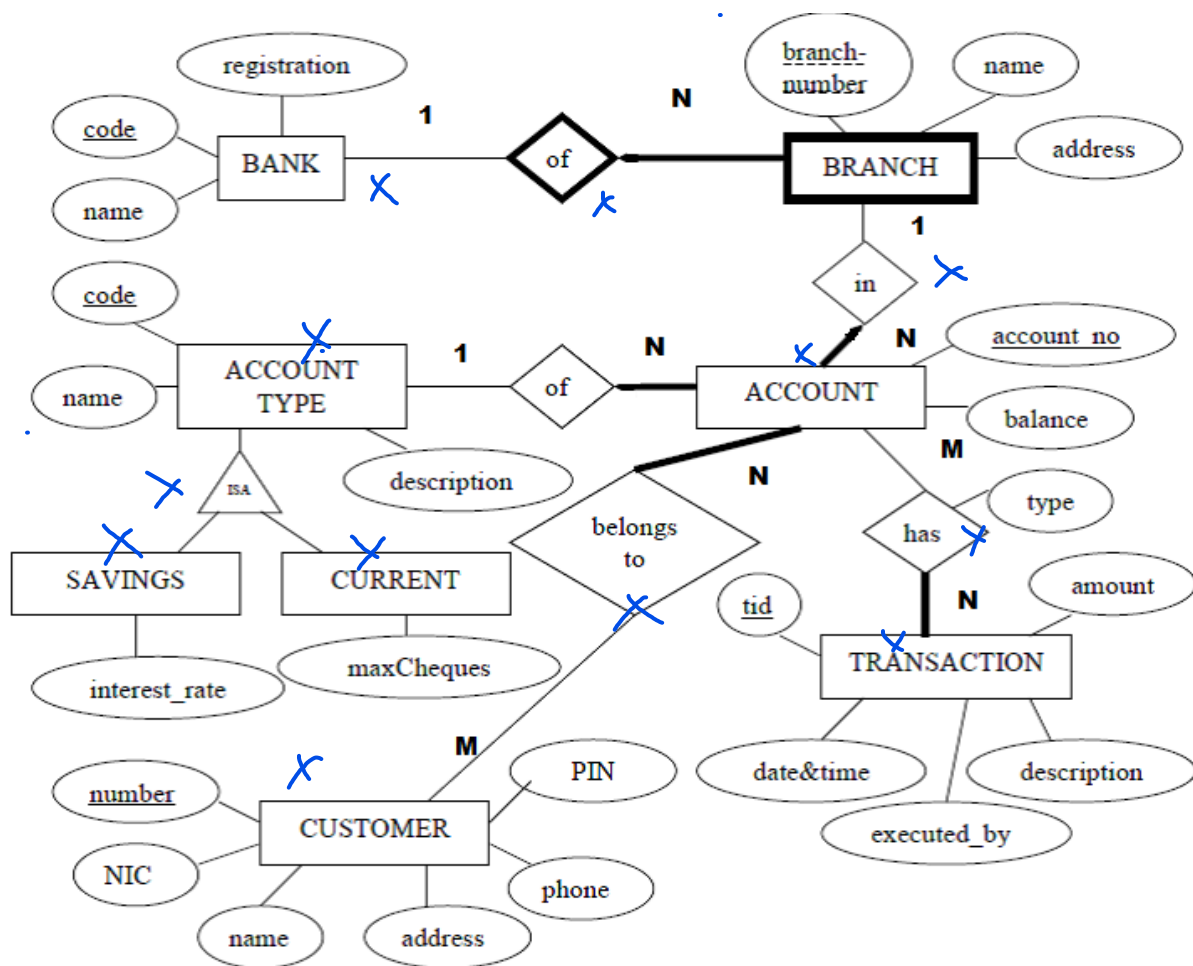


Lab Sheet 02**Question 1**

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 ER diagram illustrates the database structure for a library system. It includes the following entities and their attributes:

- Members** (Entity): library_id (PK), name, other_name, l-name, f-name, address, phone, e-mail, password, remarks, location (campus, floor, office_no).
- Member Type** (Entity): type (PK).
- Payment** (Entity): payid (PK), amount, date, manufacturer, version.
- Loan** (Entity): fine paid, fine, datetime_borrowed, date_returned, due date, status.
- Copy of Item** (Entity): access no (PK).
- Periodical Type** (Entity): date (PK).
- C-Software & Manual** (Entity): No attributes shown.
- C-Text** (Entity): No attributes shown.
- C-Published Book Type** (Entity): No attributes shown.
- C-Periodical Type** (Entity): No attributes shown.

Relationships and Cardinalities:

- Members** (N) to **Member Type** (1): Relationship **Type**.
- Members** (M) to **Payment** (N): Relationship **pay**.
- Members** (M) to **Loan** (N): Relationship **Loan**.
- Members** (N) to **Copy of Item** (N): Relationship **copy**.
- Payment** (1) to **Copy of Item** (N): Relationship **copy**.
- Periodical Type** (1) to **Copy of Item** (N): Relationship **copy**.
- C-Software & Manual** (N) to **Copy of Item** (N): Relationship **copy**.
- C-Text** (N) to **Copy of Item** (N): Relationship **copy**.
- C-Published Book Type** (N) to **Copy of Item** (N): Relationship **copy**.
- C-Periodical Type** (N) to **Copy of Item** (N): Relationship **copy**.

Generalization:

- Copy of Item** is generalized by **C-Software & Manual**, **C-Text**, **C-Published Book Type**, and **C-Periodical Type** via an **ISA** relationship.

