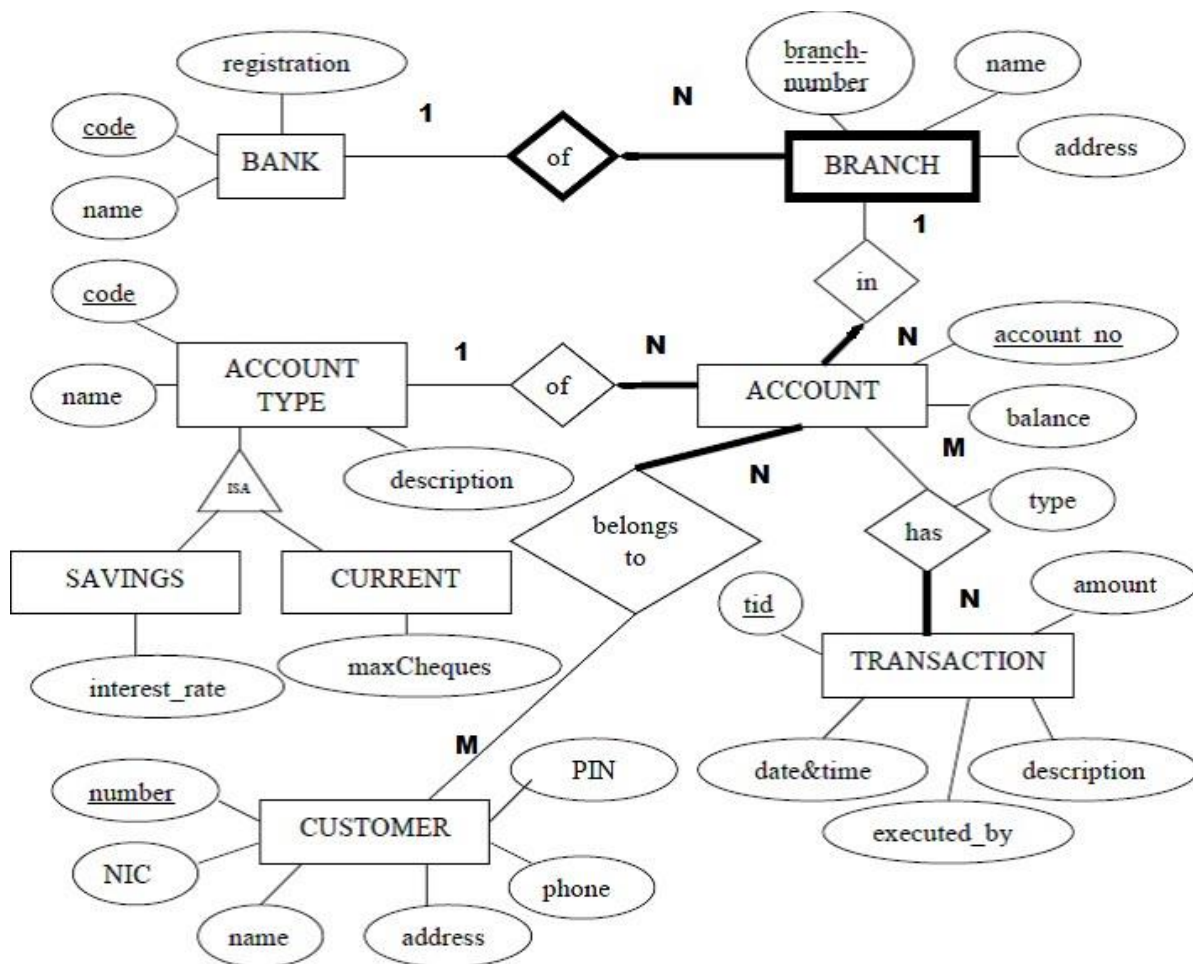


Lab Sheet 02

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.
 - Payment:** Attributes include payid, amount, date, and manufacturer.
 - Loan:** Attributes include fine paid, fine, datetime_borrowed, date returned, due date, and status.
 - Copy of Item:** Attributes include access no.
 - Periodical Type:** Attribute is date.
 - Specialization Types:** C-Text, C-Published Book Type, and C-Periodical Type.
- Relationships and Cardinalities:**
 - Members to Member Type:** 1-to-N relationship.
 - Members to Payment:** M-to-M relationship.
 - Members to Loan:** M-to-N relationship.
 - Payment to Copy of Item:** 1-to-N relationship.
 - Copy of Item to Loan:** N-to-M relationship.
 - Copy of Item to Periodical Type:** N-to-1 relationship.
 - Copy of Item to C-Text:** N-to-1 relationship.
 - Copy of Item to C-Published Book Type:** N-to-1 relationship.
 - Copy of Item to C-Periodical Type:** N-to-1 relationship.
- Specialization:** An ISA (Is-A) relationship exists between Copy of Item and the three specialization types: C-Text, C-Published Book Type, and C-Periodical Type.

