# Sri Lanka Institute of Information Technology

## Database Management Systems for Security - IE2024

## Year 2, Semester 1

## Lab Submission 01

**IT22151056**

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**Group – WD.CS 01.02**

Activity 01
1) 8 entities
- Bank
- Branch
- Account
- Customer
- Transaction
- Account type
- Current account
- Saving account

2) No
    i.    Branch

    ii.    Weak entities depend on strong entities and they cannot exist without strong entities.

3) one to many
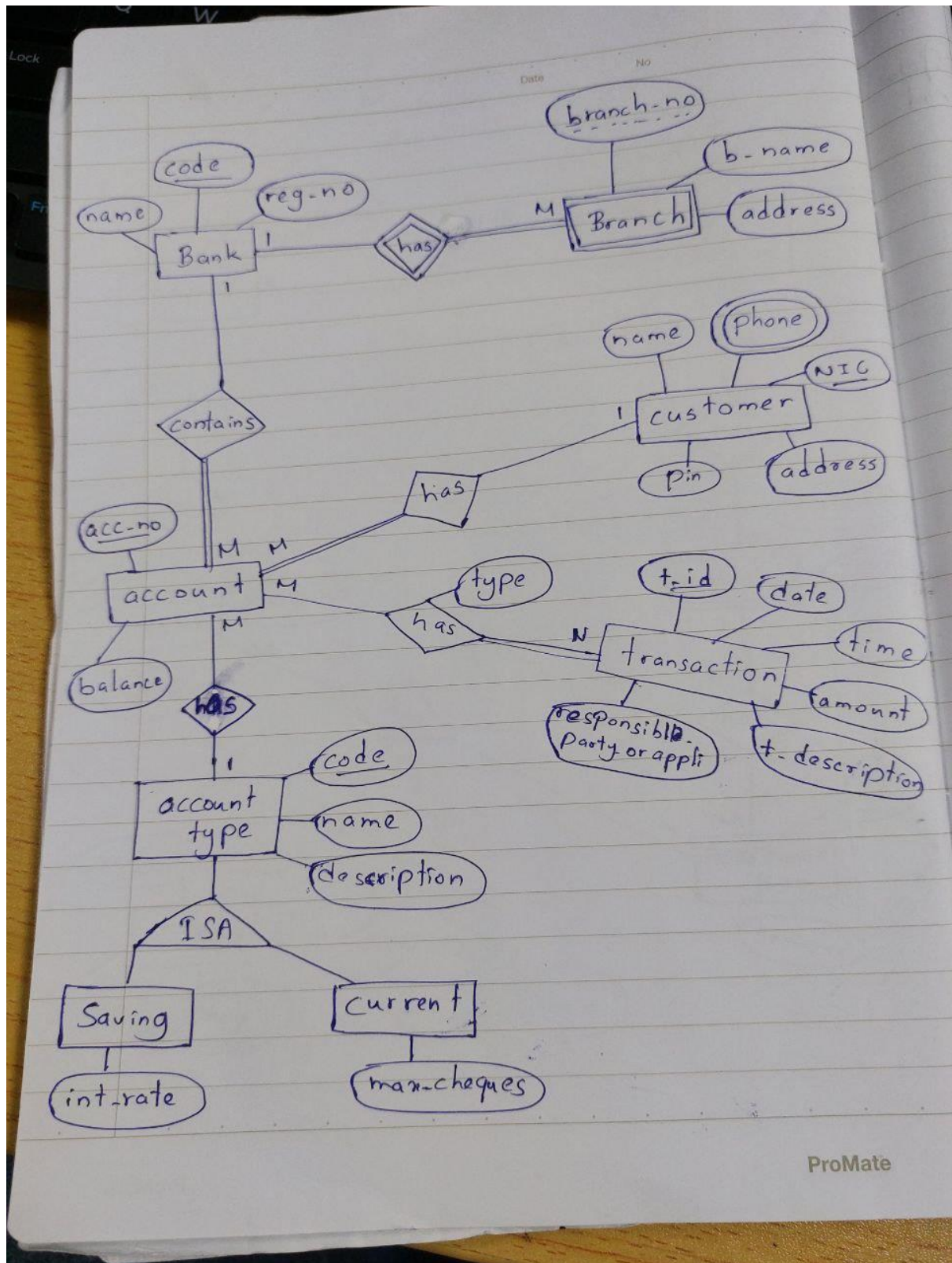  Many to many

    i)  Yes,
       Account type – superclass
       Saving account type, current account type – subclasses

        a) Disjoint and covering - Account type may be saving or current.

    ii)  No

4)

| Entity | Key | Attributes |
| --- | --- | --- |
| 1. Bank | Code, Name | Code, name, registration number |
| 2. Branch | Branch number | Branch number, branch name, address |
| 3. Account | Account number | Account number, balance |
| 4. Transaction | Transaction id | transaction id, date and time of transaction, amount, and responsible party or application for the transaction |
| 5. Customer | NIC, Customer number | customer number, NIC number, name, address, phone, and PIN. |
| 6. Account type | Account code | name, a code and a description |

# Activity 02

1) 6 entities
   - Campus
   - Program
   - Batch
   - Academic semester
   - Semester
   - Student

2) No

     i.   Semester

     ii.  Weak entities depend on strong entities and they cannot exist without strong entities.

3) One to many
   Many to many

    i.   No

    ii.  Batch, Academic Semester

       a) Many to many
             One to many

4)

| Entity | Key | Attributes |
| --- | --- | --- |
|  |  |  |

| | | | |
|---|---|---|---|
| 1. | Campus | Code , Name | code, name and  address |
| 2. | Program | Code | Code , Name, description and specialization |
| 3. | Batch | Id | Id, Group number, maximum number of student, section |
| 4. | Academic year | Academic Semester, Academic year | Academic Semester, Academic year |
| 5. | Student | Registration number | Registration number, name, address, phone |