ENTITY-RELATIONSHIP MODEL

PREPARED FOR

PROJECT Phase - II

DATA AND APPLICATIONS

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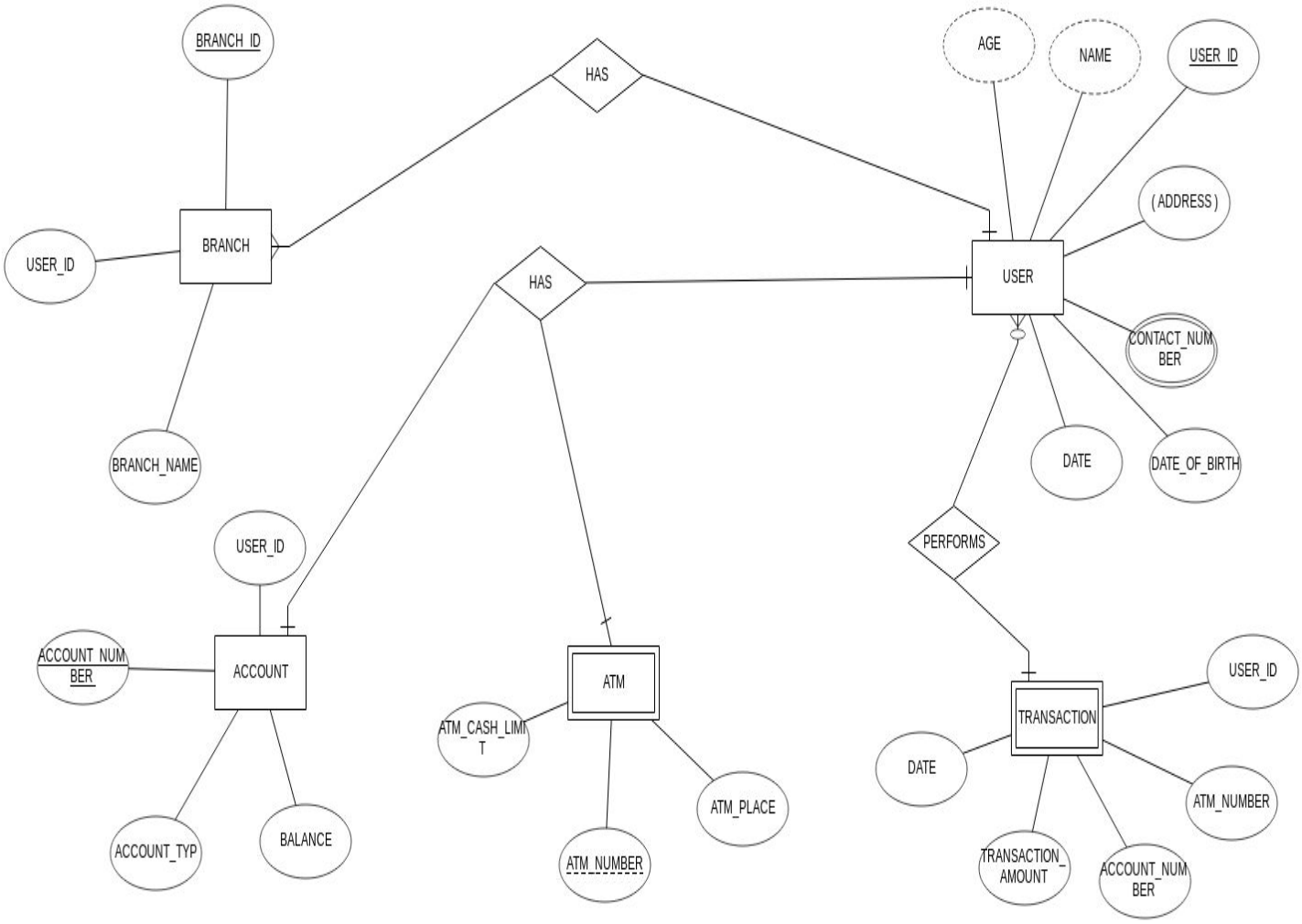
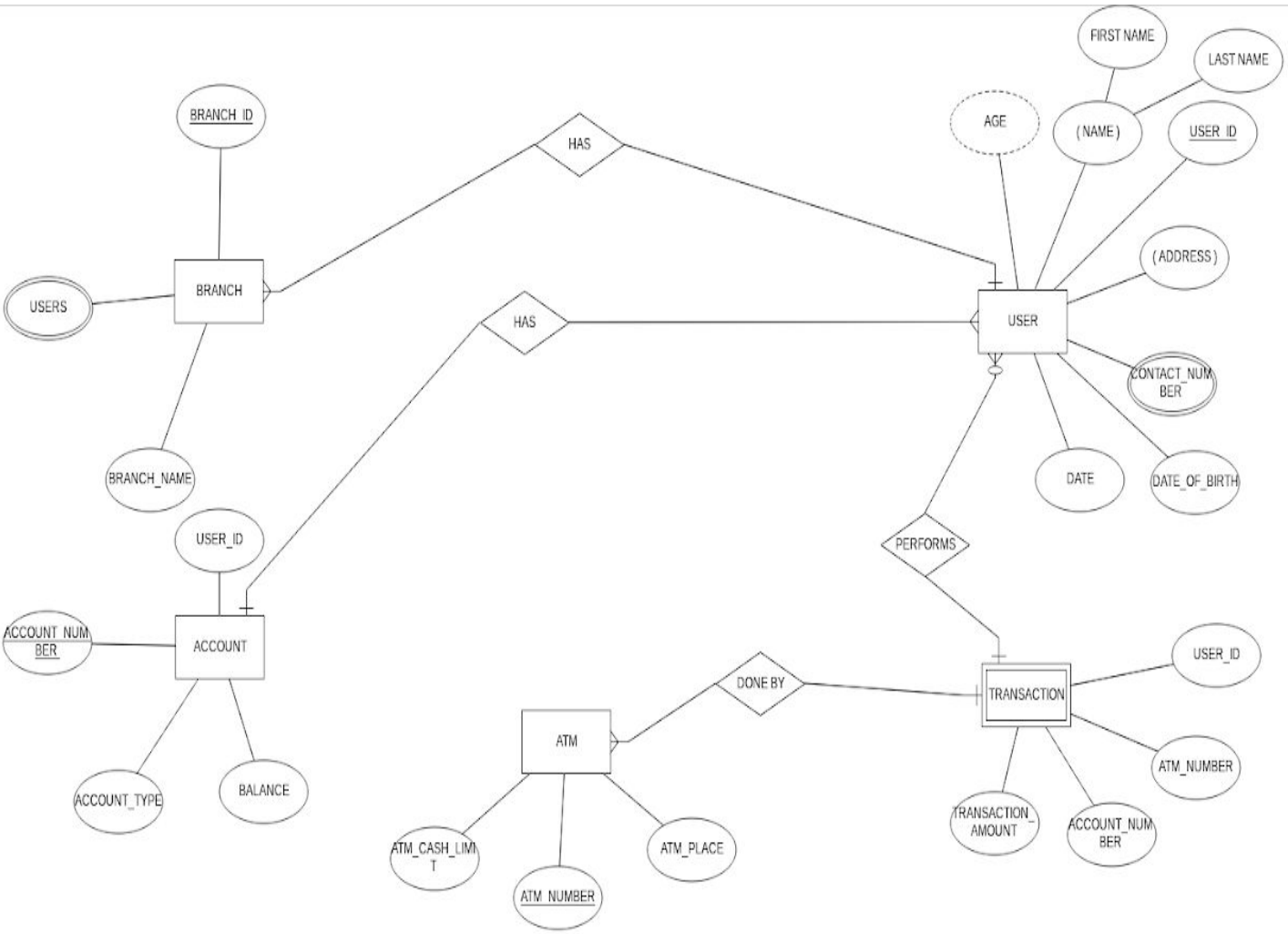
1. ER MODEL based on the given SRS



2. OBSERVED FLAWS IN THE GIVEN SRS

- In the given SRS there is a one to one relationship between user and account. But one user can have more than one account which belong to different branches in the same bank. Thus, there should be a many-one relationship between **account** and **user**.
- According to the SRS it looks like each **ATM** has unique ATM number. therefore , it should be a regular entity not a weak one.
- The given relationship between an **account** and an **ATM** makes no sense. So this relationship needs to be removed.
- The given relationship between a **user** and an **ATM** makes no sense again. So this relationship needs to be removed.
- In the given SRS, the attribute name of a **user** is defined as both a composite and a derived attribute. Instead, it should be a composite only.
- There exists a many-one relationship between user and branch. So the user_id attribute of a branch should be multi-valued. That's why we have changed it name from user_id to users.
- There should be a **DoneBy** relationship between an**ATM** and a **transaction** specifying the ATM which did the transaction.

3. ER-MODEL AFTER REMOVING THE ABOVE FLAWS


FIRST NAME
LAST NAME
BRANCH_ID
AGE
(NAME)
USER_ID
HAS
(ADDRESS)
USERS
BRANCH
HAS
USER
CONTACT_NUMBER
BRANCH_NAME
DATE
DATE_OF_BIRTH
USER_ID
PERFORMS
ACCOUNT_NUMBER
ACCOUNT
DONE BY
TRANSACTION
USER_ID
ATM
ATM_NUMBER
ACCOUNT_TYPE
BALANCE
TRANSACTION_AMOUNT
ACCOUNT_NUMBER
ATM_CASH_LIMIT
ATM_PLACE
ATM_NUMBER