20DCS103

DBMS Assignment : 01

* E-R diagram of banking management system.

→ Assumptions :

→ There are multiple banks and each bank has many branches. Each branch has multiple customers.

→ Customers have various types of accounts.

→ Some customers also have taken different types of loans from these bank branches.

→ One customer can have multiple accounts and loans.

Step 1 : Identify the entities.

→ Bank
→ Branch
→ Loan
→ Account
→ Customer.

Step 2 : Find the relationships.

→ One bank has many branches and each branch belongs to only one bank, hence the cardinality between bank and branch is

one to many.

→ One branch offers many loans and each loan is associated with one branch, hence the cardinality between branch and loan is one to many.

→ One branch maintains multiple accounts and each account is associated to one and only one branch, hence the cardinality between branch and account is one to many.

→ One loan can be availed by multiple customers, and each customer can avail multiple loans, hence the cardinality between loan and customer is many to many.

→ One customer can hold multiple accounts and each account can be held by multiple customers, hence the cardinality between customer and account is many to many.

Step 3 : Identify the key attributes!

→ BankCode is the key attribute for the entity 'Bank', as it identifies the banks uniquely.

→ Branch is the key attribute for 'Branch' entity.

→ Customer Number is the key attribute for 'customer' entity.

→ Loan Number is the key attribute for 'Loan' entity.

→ AccountNo is the key attribute for 'account' entity.

Step 4 : Identify othe relevant attributes.

→ For the 'Bank' entity, the relevant attributes other than 'Bankcode' would be 'name' and 'address'.

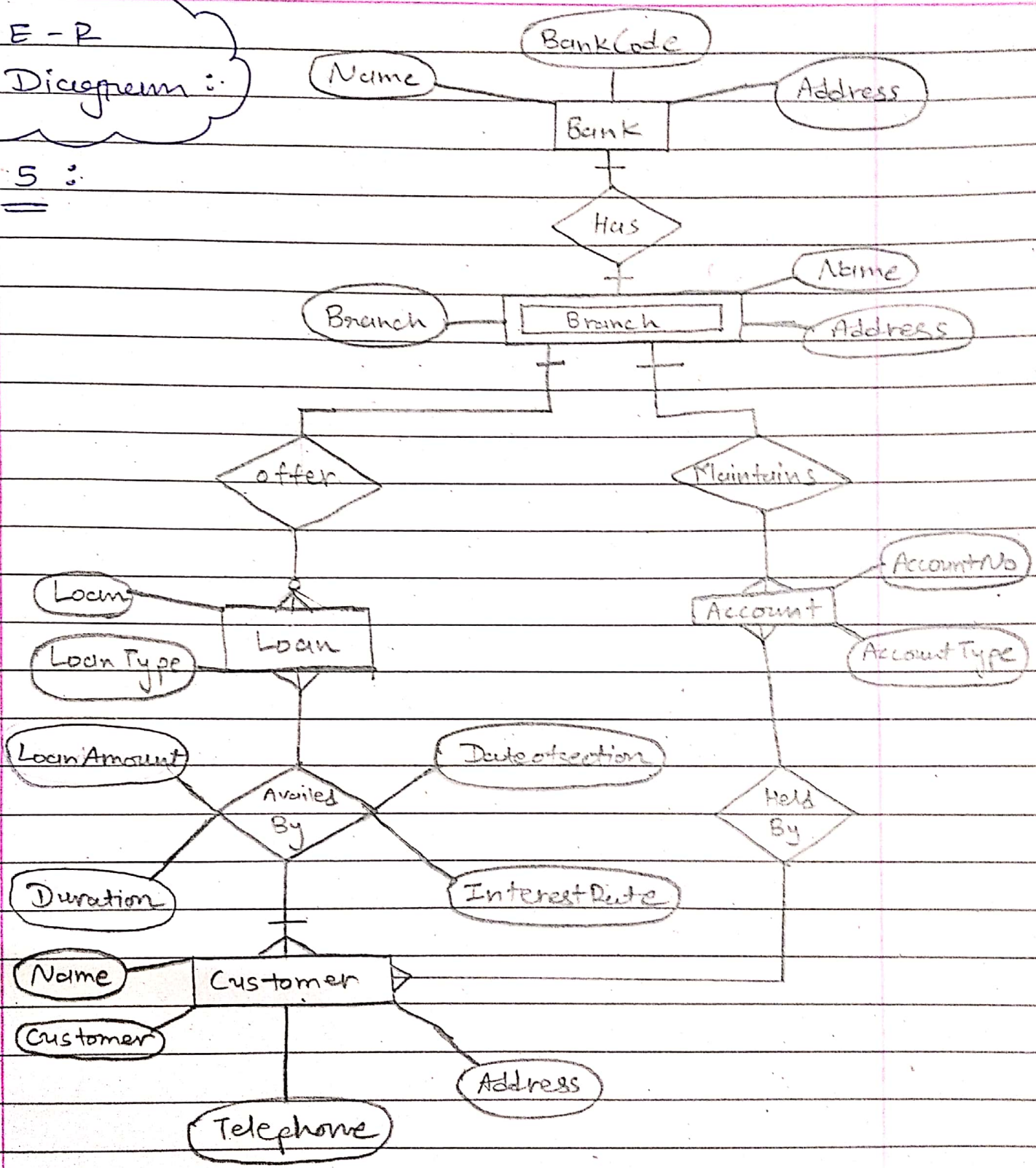
→ For the 'Branch' entity, the relevant attributes other than 'Branch' would be 'Name' and 'Address'.

→ For the 'Loan' entity, the relevant attributes other than 'Loan' would be 'Loan type'.

→ For the 'Account' Entity, the relevant attribute other than 'AccountNo' would be 'Account Type'.

* E-R Diagram :

Step 5 :



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