

{ Lecture:- 5 }

ER Diagram

① ER Diagram of an Banking system

• Requirements are given below:-

- ① Branches.
- ② Bank \rightarrow customers.
- ③ Customer \rightarrow account, take loan.
- ④ Customer is associated with some banker.
- ⑤ Bank has employees.
- ⑥ Accounts \rightarrow Savings a/c, Current a/c.
- ⑦ Loan originated by branch
 \rightarrow loan ≥ 1 ,
 \rightarrow Payment Schedule.

\rightarrow Entities are:-

- ① Branch, ② Customer, ③ Employee,
- ④ Saving a/c, ⑤ Current a/c, ⑥ Loan
- ⑦ Payment (Loan) (Weak entity)

\rightarrow Attributes

- ① Branch \rightarrow name, city, assets, liabilities
- ② Customer \rightarrow Cust-ID, name, address, contact no, DOB, age

③ Employee :- emp-ID, name, Contact no., dependent name, year of service, start-date,

④ Saving a/c :- acc-no., balance, interest-rate, daily-withdrawal limit.

⑤ Current a/c :- acc-no., balance, per-transaction-charges, overdraft-amount.

⑥ Generalized Entity :- acc-no., balance.
(Account)

⑦ Loan :- loan-number, amount.

⑧ Payment :- Payment no., date, amount.

→ Relationship & Constraints

① Customer borrow loan
M : N
=

② Loan originated by branch
~~many to many~~
N : 1
=

③ Loan loan-Payment Payment
1 : N
=

④ Customer deposits account
M : N

⑤ Customer banks Employee
N : 1

⑥ Employee managed by Employee
N : 1