

We want to build a “Money Bank” banking system.

In the system;

Money Bank has customers. **Customers** identified by their, customer\_id, customer\_name, customer\_address, customer\_email, customer\_phone\_number. In addition, we divide customers into two; Retail Customers and Corporate Customers. “Retail Customers” is a “Customers” and “Corporate Customers” is a “Customers”. **Retail Customers** identified by their, card\_transaction, retail\_customer\_identity\_number, retail\_customer\_age, retail\_customer\_gender. **Corporate Customers** identified by their, corporate\_company\_tax\_number, corporate\_company\_employee

Customers **deposit** into their accounts. **Account** identified by their account\_id, account\_name, account\_base\_amount, account\_interest\_rate.

Customers **borrow** to take out loans. **Loan** identified by their, loan\_id, loan\_name, loan\_amount. In addition, we divide Loan into three; Personal Finance Loan, House Loan and Vehicle Loan. “Personal Finance Loan” is a “Loan”, “House Loan” is a “Loan” and “Vehicle Loan” is a “Loan”. **Personal Finance Loan** identified by their personal\_finance\_loan\_interest\_rate\_annual, **House Loan** identified by their house\_loan\_interest\_rate\_annual. **Vehicle Loan** identified by their vehicle\_loan\_interest\_rate\_annual.

Employees **serve** customers. **Employees** identified by their, employee\_id, employee\_name, employee\_identity\_number, employee\_dept, employee\_address, employee\_email, employee\_phone\_number, employee\_gender.

Employees **work for** branch. **Branch** identified by their, branch\_id, branch\_name, branch\_city.

Banks **have** branches. **Bank** identified by their, bank\_id, bank\_name.

Accounts **have** branches.

Branches **provide** loans.

Loan **paid as** through a weak entity payment. **Payment** identified by their, payment\_id, payment\_date, payment\_amount.

This banking system will be used by **Customers** and **Employees**.

There is a *many-to-one* relationship between **Payment** and **Loan**. One or more payments must be made on the loan, but each payment is made on a single loan.

There is a *many-to-many* relationship between **Branch** and **Loan**. Each branch can give more than one loan, each loan can be taken from many branches.

There is a *many-to-one* relationship between **Account** and **Branch**. Each account must be affiliated with at least one branch, and each branch must have at least one account.

There is a *many-to-one* relationship between **Branch** and **Employee**. Each branch must have at least one employee, but each employee can only work in one branch.

There is a *many-to-many* relationship between **Customers** and **Employee**. Every employee can serve every customer.

There is a *many-to-many* relationship between **Customer** and **Account**. Each customer can have multiple accounts. Customers can trade on any account they want.

There is a *many-to-many* relationship between **Customer** and **Loan**. Each customer can take as many credits as they want.

There is a *many-to-one* relationship between **Bank** and **Branch**. Each bank must be affiliated with at least one branch, but each branch is linked with a single bank.