📌 **Banking System – Entities & Attributes**

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1. Customers

- **CustomerID** *(PK)*
- **FullName**
- **Email**
- **Phone**
- **Address**
- **DateOfBirth**

Relationship: One-to-Many with Accounts, One-to-Many with Loans, Many-to-Many with Services, Many-to-Many with Employees

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2. Accounts

- **AccountID** *(PK)*
- **CustomerID** *(FK → Customers.CustomerID)*
- **AccountType**
- **Balance**
- **Status**

Relationship: One-to-Many with Transactions, One-to-Many with Cards

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3. Transactions

- **TransactionID** *(PK)*
- **AccountID** *(FK → Accounts.AccountID)*
- **TransactionDate**
- **Amount**
- **TransactionType**

4. Loans

- **LoanID** *(PK)*
- **CustomerID** *(FK → Customers.CustomerID)*
- **LoanType**
- **Amount**
- **Status**
- **StartDate**
- **EndDate**

Relationship: One-to-Many with LoanPayments

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5. LoanPayments

- **PaymentID** *(PK)*
- **LoanID** *(FK → Loans.LoanID)*
- **PaymentDate**
- **AmountPaid**

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6. Cards

- **CardID** *(PK)*
- **AccountID** *(FK → Accounts.AccountID)*
- **CardType**
- **ExpiryDate**

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7. Branches

- **BranchID** *(PK)*
- **BranchName**
- **Location**

Relationship: One-to-Many with Employees

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8. Employees

- **EmployeeID** *(PK)*
- **BranchID** *(FK → Branches.BranchID)*
- **FullName**
- **Position**
- **HireDate**

Relationship: Many-to-Many with Customers

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9. Services

- **ServiceID** *(PK)*
- **ServiceName**
- **Description**

Relationship: Many-to-Many with Customers

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10. CustomerServices *(Many-to-Many between Customers & Services)*

- **CustomerID** *(FK → Customers.CustomerID)*
- **ServiceID** *(FK → Services.ServiceID)*
- **SubscriptionDate**

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11. EmployeeCustomer *(Many-to-Many between Employees & Customers)*

- **EmployeeID** *(FK → Employees.EmployeeID)*
- **CustomerID** *(FK → Customers.CustomerID)*
- **RelationshipType**
- **StartDate**

📌 **Main Relationships**

1. **Customers ↔ Accounts → One-to-Many**

2. **Accounts ↔ Transactions → One-to-Many**

3. **Customers ↔ Loans → One-to-Many**

4. **Loans ↔ LoanPayments → One-to-Many**

5. **Accounts ↔ Cards → One-to-Many**

6. **Branches ↔ Employees → One-to-Many**

7. **Customers ↔ Services → Many-to-Many (via CustomerServices)**

8. **Employees ↔ Customers → Many-to-Many (via EmployeeCustomer)**