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# DATABASE DESIGN FOR MOBILE BANKING APPLICATION

**MOBILE BANKING** **APPLICATION**

* **Mobile banking applications have revolutionized the way individuals manage their finances by providing convenient access to banking services directly from Smartphones and tablets. These applications enable users to perform real-time transactions such as fund transfers, bill payments, and mobile check deposits with just a few taps, eliminating the need for physical bank visits. Enhanced security features like biometric authentication ensure the protection of sensitive information, while user-friendly interfaces make it easy for everyone to navigate their accounts. Additionally, many apps include budgeting tools and real-time notifications, allowing users to track spending and stay informed about their financial status. As reliance on mobile technology grows, these applications have become essential for modern banking, empowering users to take control of their financial lives in an increasingly fast-paced world.**

# Entities :

* Users
* Account
* Money Transfer
* Bills
* Cards
* Loans
* Bookings

# Attributes :

* **Users**
* Upi\_id
* Usename
* Password
* Email
* Phone
* **Account**
* Account\_id
* Upi\_id
* Account\_type
* Balance
* **Money Transfer**
* Transfer\_Type
* Amount
* Transfer\_Id
* From\_Upi\_Id
* **Bills**
* Mobile Recharge
* Electricity
* Loan Repayment
* DTH recharge
* Fast Tag
* **Cards**
* Holder Name
* Card\_number
* Card\_type
* Expiry\_date
* **Loans**
* Loan\_id
* Upi\_id
* Intest\_rate
* Amount
* Term
* **Bookings**
* Movie Ticket
* Bus Ticket
* Train Ticket
* Flight Ticket
* Hotels

### ****1.Users****

* **Has**: One or many Accounts.
* **Can Initiate**: One or many Money Transfers.
* **Can Pay**: One or many Bills.
* **Holds**: One or many Cards.
* **Takes Out**: One or many Loans.
* **Makes**: One or many Bookings.

### 2. ****Accounts****

* **Belongs To**: One User.
* **Can Be Used For**: One or many Money Transfers.
* **Can Be Linked To**: One or many Cards.
* **Can Pay**: One or many Bills.
* **Can Secure**: One or many Loans.
* **Can Be Used For**: One or many Bookings.

### 3. ****Money Transfer****

* **Initiated By**: One User.
* **Originates From**: One Account.
* **Can Be Sent To**: One or many Accounts (of other Users).

### 4. ****Bills****

* **Paid By**: One User.
* **Paid From**: One Account.
* **Can Be Associated With**: One or many Users (e.g., joint bills).

### 5. ****Cards****

* **Linked To**: One Account.
* **Held By**: One User.
* **Can Be Used For**: One or many Transactions.

### 6. ****Loans****

* **Taken Out By**: One User.
* **Secured By**: One Account.
* **Can Be Repaid From**: One or many Accounts.

### 7. ****Bookings****

* **Made By**: One User.
* **Paid For Using**: One Account.
* **May Require**: One Card for payment.

### Summary of Relationships

* **Users** → Accounts (1 to many)
* **Users** → Money Transfers (1 to many)
* **Users** → Bills (1 to many)
* **Users** → Cards (1 to many)
* **Users** → Loans (1 to many)
* **Users** → Bookings (1 to many)
* **Accounts** → Users (many to 1)
* **Accounts** → Money Transfers (1 to many)
* **Accounts** → Cards (1 to many)
* **Accounts** → Bills (1 to many)
* **Accounts** → Loans (1 to many)
* **Accounts** → Bookings (1 to many)
* **Money Transfers** → Users (many to 1)
* **Money Transfers** → Accounts (1 to many)
* **Bills** → Users (many to 1)
* **Bills** → Accounts (1 to many)
* **Cards** → Accounts (1 to 1)
* **Cards** → Users (1 to 1)
* **Loans** → Users (many to 1)
* **Loans** → Accounts (1 to many)
* **Bookings** → Users (many to 1)

**Cards**

HAS

**Bills**

MAKE

**MONEY TRANSFER**

**Loans**

HAVE

HAVE

**Users**

**Account**

**BOKINGS**

DO

