**1. FalsoPay Users Table**

This table holds user information.

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| user\_id | INT (PK) | Unique identifier for the user. |
| first\_name | VARCHAR(255) | User's first name. |
| last\_name | VARCHAR(255) | User's last name. |
| email | VARCHAR(255) | User's email address. |
| phone\_number | VARCHAR(15) | User's mobile number for IPA registration. |
| created\_at | TIMESTAMP | Account creation timestamp. |
| Default\_Account | INT (FK) | Foreign key linking to the **Instant\_Payment\_Addresses Table** |
|  |  |  |

**2. Banks Table**

This table lists all banks in the system.

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| bank\_id | INT (PK) | Unique identifier for the bank. |
| bank\_name | VARCHAR(255) | Name of the bank (e.g., Bank A, Bank B, etc.). |
| bank\_code | VARCHAR(50) | Code for routing payments to the bank. |
| swift\_code | VARCHAR(50) | SWIFT/BIC code for international transfers. |

**3. Bank\_Accounts Table**

Stores bank account details linked to users and their banks.

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| bank\_id | INT combined PK | Foreign key linking to the Banks table. |
| account\_number | VARCHAR(30) combined PK | Account number for the bank account generated. |
| bank\_user\_id | INT (FK) | Foreign key linking to the Bank\_Users table. |
| iban | VARCHAR(34) | IBAN (International Bank Account Number). |
| status | ENUM('active', 'inactive') | Current status of the account. |
| type | VARCHAR(20) |  |
| created\_at | TIMESTAMP | Timestamp when the account was added. |
| balance | INT |  |

**4. Cards Table**

This table holds prepaid card details, independent of the **InstaPay** user ID.

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| card\_id | INT (PK) | Unique identifier for each prepaid card. |
| user\_id | INT (FK) | Foreign key linking to the Users table. |
| bank\_id | INT (FK) | Foreign key linking to the Banks table (for linking cards). |
| card\_number | VARCHAR(19) | Prepaid card number. |
| expiration\_date | DATE | Expiration date for the prepaid card. |
| cvv | VARCHAR(4) | CVV code for the prepaid card. |
| card\_type | ENUM('debit', 'prepaid') | Type of card (Debit or Prepaid). |
| created\_at | TIMESTAMP | Timestamp when the prepaid card was added. |

**5. Transactions Table**

This table records all transactions.

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| transaction\_id | INT (PK) | Unique identifier for each transaction. |
| sender\_user\_id | INT (FK) | Foreign key linking to the Users table (sender). |
| receiver\_user\_id | INT (FK) | Foreign key linking to the Users table (receiver). |
| amount | DECIMAL(10, 2) | Transaction amount. |
| transaction\_type | ENUM('send', 'receive') | Type of transaction (send or receive). |
| sender\_bank\_id | INT (FK) | Foreign key linking to the Banks table (sender's bank). |
| receiver\_bank\_id | INT (FK) | Foreign key linking to the Banks table (receiver's bank). |
| transaction\_time | TIMESTAMP | Timestamp of when the transaction occurred. |
| ipa\_used | VARCHAR(255) | Instant Payment Address (IPA) if used. |
| status | ENUM('pending', 'completed', 'failed') | Current status of the transaction. |

**6. Instant\_Payment\_Addresses Table**

Tracks the Instant Payment Address (IPA) for bank accounts.

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| ipa\_id | INT (PK) | Unique identifier for the IPA. |
| bank\_id | INT |  |
| account\_id | INT (FK) | Foreign key linking to the Bank\_Accounts table. |
| ipa\_address | VARCHAR(255) | The IPA assigned to the bank account for payment routing. |
| created\_at | TIMESTAMP | Timestamp when the IPA was created. |

**7. Bank\_Users**

Stores external bank account information, for onboarding and linking additional external accounts.

| **Field** | **Type** | **Description** |
| --- | --- | --- |
| **bank\_user\_id** | **INT (PK)** | **Unique identifier for the user.** |
| **first\_name** | **VARCHAR(255)** | **User's first name.** |
| **last\_name** | **VARCHAR(255)** | **User's last name.** |
| **email** | **VARCHAR(255)** | **User's email address.** |
| **phone\_number** | **VARCHAR(15)** | **User's mobile number.** |
| **date\_of\_birth** | **DATE** | **User's date of birth.** |
| **created\_at** | **TIMESTAMP** | **Account creation timestamp.** |