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**UWM – Entities**

**Screen: Communication Channels Tab**

| **Field** | **Dat a Type** | **Max Length** | **Min Length** | **Required** | **Description** |
| --- | --- | --- | --- | --- | --- |
| Channel Type | Dropdown | - | - | Yes | Select the type of communication channel (e.g., email, phone number, mailing address) |
| Email | Text | 255 | 5 | Yes (if Channel Type is Email) | Enter the email address for the communication channel |
| Phone Number | Text | 20 | 10 | Yes (if Channel Type is Phone Number) | Enter the phone number for the communication channel |
| Mailing Address | Text | 500 | 10 | Yes (if Channel Type is Mailing Address) | Enter the mailing address for the communication channel |

**1. Borrower Table:**

* Fields:
  + Borrower ID: [Auto-generated unique identifier]
  + First Name: [Text, Max Length: 50]
  + Last Name: [Text, Max Length: 50]
  + Date of Birth: [Date]
  + Social Security Number: [Text, Max Length: 9]
  + Email: [Text, Max Length: 255]
  + Phone Number: [Text, Max Length: 20]
  + Address: [Text, Max Length: 500]

**2. Loan Application Table:**

* Fields:
  + Application ID: [Auto-generated unique identifier]
  + Borrower ID: [Foreign key referencing Borrower Table]
  + Loan Amount: [Decimal, Min Value: 0]
  + Loan Term (in months): [Integer, Min Value: 1]
  + Interest Rate: [Decimal, Min Value: 0]
  + Application Date: [Date]
  + Approval Status: [Text, Max Length: 50]

**3. Employment Table:**

* Fields:
  + Employment ID: [Auto-generated unique identifier]
  + Borrower ID: [Foreign key referencing Borrower Table]
  + Employer Name: [Text, Max Length: 100]
  + Employment Start Date: [Date]
  + Employment End Date: [Date]
  + Income: [Decimal, Min Value: 0]

**4. Asset Table:**

* Fields:
  + Asset ID: [Auto-generated unique identifier]
  + Borrower ID: [Foreign key referencing Borrower Table]
  + Asset Type: [Text, Max Length: 100]
  + Asset Value: [Decimal, Min Value: 0]

**5. Liability Table:**

* Fields:
  + Liability ID: [Auto-generated unique identifier]
  + Borrower ID: [Foreign key referencing Borrower Table]
  + Liability Type: [Text, Max Length: 100]
  + Liability Amount: [Decimal, Min Value: 0]

**6. Credit Report Table:**

* Fields:
  + Credit Report ID: [Auto-generated unique identifier]
  + Borrower ID: [Foreign key referencing Borrower Table]
  + Credit Score: [Integer, Min Value: 300, Max Value: 850]
  + Credit History: [Text]

**7. Rate Lock Table:**

* Fields:
  + Rate Lock ID: [Auto-generated unique identifier]
  + Application ID: [Foreign key referencing Loan Application Table]
  + Interest Rate: [Decimal, Min Value: 0]
  + Lock-in Period (in days): [Integer, Min Value: 1]

**Relations between Tables:**

* Borrower Table:
  + One-to-One relationship with Loan Application Table (based on Borrower ID)
  + One-to-Many relationship with Employment Table (based on Borrower ID)
  + One-to-Many relationship with Asset Table (based on Borrower ID)
  + One-to-Many relationship with Liability Table (based on Borrower ID)
  + One-to-One relationship with Credit Report Table (based on Borrower ID)
* Loan Application Table:
  + One-to-One relationship with Borrower Table (based on Borrower ID)
  + One-to-Many relationship with Rate Lock Table (based on Application ID)
* Employment Table:
  + Many-to-One relationship with Borrower Table (based on Borrower ID)
* Asset Table:
  + Many-to-One relationship with Borrower Table (based on Borrower ID)
* Liability Table:
  + Many-to-One relationship with Borrower Table (based on Borrower ID)
* Credit Report Table:
  + One-to-One relationship with Borrower Table (based on Borrower ID)
* Rate Lock Table:
  + Many-to-One relationship with Loan Application Table (based on Application ID)

**Borrower Table**

* Primary Key: Borrower ID

**Loan Application Table**

* Primary Key: Application ID
* Foreign Key: Borrower ID (references Borrower Table)

**Employment Table**

* Primary Key: Employment ID
* Foreign Key: Borrower ID (references Borrower Table)

**Asset Table**

* Primary Key: Asset ID
* Foreign Key: Borrower ID (references Borrower Table)

**Liability Table**

* Primary Key: Liability ID
* Foreign Key: Borrower ID (references Borrower Table)

**Credit Report Table**

* Primary Key: Credit Report ID
* Foreign Key: Borrower ID (references Borrower Table)

**Rate Lock Table**

* Primary Key: Rate Lock ID
* Foreign Key: Application ID (references Loan Application Table)