**Mortgage Process Accelerator (MPA)**

**Tables related Loan products**

**Name:** Property restriction categories table

**Table-1:** mpa**.**prop\_rstr\_catg

Columns used for Property restriction categories table

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| catg\_id (serial) | Integer | Primary key | It describes the category Id of the Property restriction category table |
| catg\_type | varchar(35) | Not null | It describes the property restriction category type |
| catg\_desc | varchar(300) | Not null | It provides the description the about the property restriction category type |

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**Name:**  Restriction category table

**Table-2:** mpa**.**prop\_rstr

Columns used for Restriction categories table

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| rstr\_id (serial) | Integer | Primary key | It describes the restriction category Id of the Restriction category table |
| rstr\_catg\_id | Integer | Not null,  Foreign key | It describes the restriction category Id which have foreign key relation with Property restriction category |
| rstr\_type | varchar(30) | Not null | It describes the restriction category type |
| rstr\_desc | varchar(300) | Not null | It provides the description the about the restriction category |

**prop\_rstr and prop\_rstr\_catg tables have a one-to-many relation**

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**Name:** Loan product table

**Table-3:** mpa.loan\_prod

Columns used for Loan prod table

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| prod\_id (sequence) | Integer | Primary key | It describes the product Id of the Loan product table |
| prod\_name | varchar(50) | Not null | It describes the product name of the Loan product |
| Intr\_rate | decimal(5,2) | Not null | interest rate applicable for loan |
| loan\_term | Integer | Not null | period of time, in months, within which a loan is expected to be repaid |
| max\_loan\_amt | decimal(18,2) | Not null | Maximum loan amount of the Loan product |
| mdp | decimal(18,2) | Not null | Min Down Payment, interpret this w.r.t mdp\_type column |
| mdp\_type | varchar(10) | Not null,  Check | Value can be either ABSOLUTE or PERCENTAGE - see Check constraint |
| min\_cr\_score | Integer | Not null | Min required credit score for the loan product |
| max\_ltv\_ratio | Integer | Not null | Max Loan-to-value ratio |
| pmi\_req | boolean | Not null | Private Mortgage Insurance required |
| orgin\_fee | decimal(18,3) | Not null | Origination fee |
| prepay\_penalty | boolean | Not null | Is pre payment penalty applicable to the loan product |
| docu\_reqrm | varchar(500) | Not null | Documentation requirements - free text |
| escrow\_req | boolean | Not null | Is Escrow required for the loan product |
| prop\_rstr\_exists | boolean | Not null | Do Property restrictions exist for the loan product |
| status | boolean | Not null | If true the loan product is currently Active else |

CHECK (mdp\_type = 'ABSOLUTE' OR mdp\_type = 'PERCENTAGE')

mdp\_type = ABSOLUTE => Actual amount of Min down payment

mdp\_type = PERCENTAGE => Min down payment is expressed as a percentage of actual loan amount

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**Name:** Loan product status history table

**Table-4:** mpa.loan\_prod\_status\_history

Columns used for Loan product status history

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| prod\_id | Integer | Not null,  Foreign key | It describes the product Id of the Loan product table foreign reference of Loan product table |
| start\_dt | date | Not null | It describes the start date of loan product made available to the borrowers |
| end\_dt | date | Not null | It describes about the loan product status is inactive |

(prod\_id, start\_dt) 🡪 Composite primary key

(end\_dt >= start\_dt) 🡪 End date must greater than start date

**loan\_prod to loan\_prod\_status\_history has one-to-many relation**

**NOTE:** mpa.loan\_prod\_status\_history - In the application layer it should be taken care that for a given prod\_id start\_dt cannot be on or before any of the same prod\_id's already existing end\_dt. This is necessary to avoid overlapping active/inactive periods for any product.

If start\_dt & end\_dt are same in an entry => the loan product was active for just one day

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**Name:** Loan Product & Property Restrictions category table (Junction table)

**Table-5:** mpa.loan\_prod\_prop\_rstr

Columns used for Loan product and property restriction

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| prod\_id | Integer | Foreign key | It describes the product Id which have a foreign key reference of the Loan product table |
| rstr\_id | Integer | Foreign key | It describes the restriction category Id which have a foreign key reference of the restriction category table |

**Table to establish many-to-many relation between loan\_prod and prop\_rstr tables**

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**Name:** pre pay penalty master table

**Table-6:** mpa.pre\_pay\_penalty\_master

Columns used for pre pay penalty master table

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| penalty\_id | Integer | Primary key | It describes the penalty Id of the table |
| prod\_id | Integer | Primary key,  Foreign key | It describes the product Id which have a foreign key reference of the Loan product table |
| min\_penalty\_amt | Decimal(18,2) | Not null | Minimum penalty amount of the pay penalty master table |
| penalty\_percentage | Decimal(5,2) | Not null | It describes the percentage of the pay penalty master table and value should be between 0 to 100 |

**loan\_prod to pre\_pay\_pentity\_master has one-to-one relation**

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**Tables related to Escrow**

**Name:** Escrow companies

**Table-7:** mpa.escrow\_companies

Column used for escrow companies

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| esco\_id(serial) | Integer | Primary key | It describes the escrow company Id of the escrow companies table |
| esco\_name | varchar(60) | Not null, unique | It describes the escrow company name |
| address | varchar(255) | Not null | Address of the escrow company(area) |
| city | varchar(100) | Not null | Escrow company present in which city |
| state | varchar(100) | Not null | Escrow company present in which state |
| zipcode | varchar(5) | Check, Not null | Zip code of the escrow company |
| phone | varchar(20) | Not null | Phone number of the escrow company |
| email | varchar(60) | Not null | Email of the escrow company |
| in\_escrow\_ac\_no | varchar(20) | Not null, Unique | A/c info of the escrow co's holding a/c where funds are temporarily deposited |
| es\_ac\_bank\_name | varchar(20) | Not null, Unique | Name of Bank in which escrow a/c is present |
|  |  |  | IFSC code of Bank |
| es\_process\_time | Integer | Not null | measured in days. It's an average of co's performance. Usually the average ranges between 20 working days to 30 working days |

CHECK (zipcode ~ '^([0-9]{5})?$'), -- Enforces US zip code format,

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**Name:** Escrow requirements

**Table-8:** mpa.escrow\_requirements

Column used for escrow requirements

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| req\_id(serial) | Integer | Primary key | Primary key of escrow requirements |
| req\_name | varchar(100) | Not null, Unique | Requirement name |
| description | text |  | Description of a escrow requirements |

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**Name:** Escrow requirements Loan product (junction table)

**Table-9:** mpa.escrow\_requirements\_loan\_prod

Column used for escrow requirements loan product

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| prod\_id | Integer | Foreign key | Primary key of loan product |
| req\_id | Integer | Foreign key | Primary key of escrow requirements |

(prod\_id, req\_id) 🡪 Composite primary key

**Table to establish many-to-many relation between escrow\_requirements and loan\_prod tables**

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**Name:** Escrow service areas (Service areas of an Escrow company)

**Table-10:** mpa.escrow\_service\_area

Column used for escrow service areas

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| service\_area\_id (serial) | Integer | Primary key | It describes the service area Id of the table |
| esco\_id | Integer | Foreign key,  Not null | Foreign key to escrow\_companies table |
| country | varchar(100) | Not null | The country in which escrow company provide services |
| state | varchar(30) | Not null | The country in which escrow company provide services |
| city | varchar(100) | Not null | The country in which escrow company provide services |
| zipcode | varchar(5) | Not null, Check | Zipcode of the area |

CHECK (zipcode SIMILAR TO '[0-9]{5}(?:[-][0-9]{4})?')

**escrow\_companies to escrow\_service\_area has one-to-many relation**

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**Name:** Escrow agent (Escrow Agent master data)

**Table-11:** mpa.escrow\_agent

Column used for escrow agent

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | Data type | Constrain | Description |
| escrow\_agent\_id  (serial) | Integer | Primary key | It describes the escrow agent Id of the table |
| escrow\_license\_id | varchar(10) | Not null, unique | License id of an escrow agent |
| first\_name | varchar(50) | Not null | First name of a agent |
| last\_name | varchar(50) | Not null | Last name of a agent |
| phone | varchar(20) | Not null | Phone number of the agent |
| email | varchar(100) | Not null, Unique | Email of the agent (unique) |
| esco\_id | integer | Foreign key,  Not null | Foreign key to escrow\_companies table |
| avg\_tx\_vol | integer | Not null, Unique | Average number of transactions handled by the escrow agent on monthly basis |
| tx\_success\_rate | decimal(5,2) |  | Success rate based on monthly average |
| escrow\_sw | varchar(20) |  | Escrow software used by the agent (Eg: Qualia, E-Closing, SnapClose, ResWare etc.) |

**escrow\_companies to escrow\_agent has one-to-many relation**

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**Tables related to Underwriting**

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