DDL Exercise 3: Build Rental System

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**Requirements:**

1. Check for Type of Inspection - "Move-In", "Move-Out", "Air-Filter"

2. Default for Type of Maintenance - "Routine"

3. Check for Type of Maintenance - "Fix", "Routine", "Inspect"

**What you need to submit:**

1. Data Dictionary

2. Database Diagram

3. Screen Capture of expanded Inspection and Maintenance tables to display check and default

4. MDF and LDF file

**Question1: Data Dictionary**

Table\_name:Applicant

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Index |
| Applicant\_ID | PK so Unique | int |  | Y | Y |  |  | Y |
| Property\_ID | Property ID in Application for property occupancy(FK as it refers to PK in property table) | int |  |  |  |  |  |  |
| Previous\_address | Current residing address before moving in | varchar | 20 |  |  |  |  |  |
| Street | Address details of applicant | varchar | 15 |  |  |  |  |  |
| Zip\_code | Zip code of applicant’s address | numeric | 5,0 |  |  |  |  |  |
| Application\_Status | Status of application | varchar | 20 |  |  | 'Under Review' | ([Application\_status]=  'Already occupied' OR [Application\_status]=  'Under Review' OR [Application\_status]=  'Cancelled' OR [Application\_status]=  ‘Approved') |  |
| Credit\_score | Applicant’s credit score | numeric | 5,2 |  |  |  |  |  |

Table\_name:Inspection\_registration

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Index |
| Inspection\_ID | PK so Unique | int |  | Y | Y |  |  | Y |
| Date | Date on which inspection is done | date |  |  |  |  |  |  |
| Inspection\_type | Type of inspection | varchar | 15 |  |  |  | ([Inspection\_type]='Air-Filter' OR [Inspection\_type]=  'Move-Out' OR [Inspection\_type]=  'Move-In') |  |
| Photo | Image of the property after the inspection is done | image |  |  |  |  |  |  |
| Tenant\_ID | Tenant who requests inspection(FK as it refers to tenant\_ID from Tenant table) | int |  |  |  |  |  |  |
| Property\_ID | FK as it refers to the property\_ID in property table | int |  |  |  |  |  |  |

Table\_name:Landlord

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Landlord\_ID | PK so Unique | int |  | Y | Y |  |  |  |  | Y |
| First\_name | Name of the landlord | varchar | 20 |  |  |  |  |  |  |  |
| Last\_Name | Name of the landlord | varchar | 20 |  |  |  |  |  |  |  |
| Phone | Phone number of the landlord | numeric | 10,0 |  |  |  |  |  |  |  |
| Street | Address details of the landlord | varchar | 20 |  |  |  |  |  |  |  |
| City | Address details of the landlord | varchar | 15 |  |  |  |  |  |  |  |
| State | Residing state of the landlord | varchar | 15 |  |  |  |  |  |  |  |
| Zip | Zip code of Landlord’s address | Numeric | 5,0 |  |  |  |  |  |  |  |
| Email | Email address of Landlord’s address | varchar | 15 |  |  |  |  |  |  |  |

Table\_name:Maintenance\_Record

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Index |
| Billing\_reference  \_no | PK so Unique  (generated after completion of maintenance service) | int |  | Y | Y |  |  | Y |
| Type\_of\_service | Type\_Of\_  Maintenance done on property | varchar | 50 |  |  | ('Routine') | ([Type\_of\_service]='Inspect' OR [Type\_of\_service]='Routine' OR [Type\_of\_service]='Fix') |  |
| Date | Date on which maintenance is done  [Calculated column with getdate()] | date |  |  |  |  |  |  |
| Vendor\_ID | Maintenance done by which vendor  (FK which refers to PK in vendor table) | int |  |  |  |  |  |  |
| Property\_ID | Property on which maintenance is done(FK which refers to PK in property table) | int |  |  |  |  |  |  |

Table\_name: Maintenance\_Request

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Index |
| Request\_ID | PK so Unique  (ID generated when maintenance is requested) | int |  | Y | Y |  |  | Y |
| Request\_Type | Type of maintenance requested | varchar | 15 |  |  | 'Routine' | ([Request\_Type]=  'Inspect' OR [Request\_Type]=  'Routine' OR [Request\_Type]='Fix') |  |
| Request\_Date | Date on which maintenance request is raised  [Calculated column with getdate()] | date |  |  |  |  |  |  |
| Tenant\_ID | Tenant who requests maintenance(FK as it refers to PK in tenant table) | int |  |  |  |  |  |  |
| Property\_ID | Property on which maintenance is requested(FK as it refers to PK in Property table) | int |  |  |  |  |  |  |

Table\_name:Ownership\_Details

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Allow nulls | Index |
| Landlord\_ID | CPK (Landlord\_ID and Property\_ID together uniquely identifies each row) | int |  |  |  |  |  |  | Y |
| Property\_ID | CPK (Landlord\_ID and Property\_ID together uniquely identifies each row) | int |  |  |  |  |  |  | Y |
| Owned\_since | Owned by landlord since | date |  |  |  |  |  |  |  |
| Property\_status | Available for renting purpose or not | varchar | 5 |  |  | 'To be Determined’ | ([Property\_  status]=  'Occupied' OR [Property\_  status]=  'Available' OR [Property\_  status]='To be determined') |  |  |

Table\_name:Property

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Property\_ID | PK so Unique | int |  | Y | Y |  |  |  |  | Y |
| Street | Address details related to property | varchar | 25 |  |  |  |  |  |  |  |
| City | City in which property exists | varchar | 20 |  |  |  |  |  |  |  |
| State | State in which property exists | varchar | 20 |  |  |  |  |  |  |  |
| Zip | Zip code of property | numeric | 5,0 |  |  |  |  |  |  |  |
| Required\_  creditscore | Creditscore required for accepting tenant application | int |  |  |  |  |  |  |  |  |

Table\_name:Rent\_Payment

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Payment\_ID | PK so Unique | int |  | Y | Y |  |  |  |  | Y |
| Payment\_Date | Date on which rent payment was made | date |  |  |  |  |  |  |  |  |
| Tenant\_ID | Tenant who paid rent(FK as it refers to PK in Tenant table) | int |  |  |  |  |  |  |  |  |
| Property\_ID | Property for which rent was paid(FK as it refers to PK in Property table) | int |  |  |  |  |  |  |  |  |

Table\_name:Tenant

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Tenant\_ID | PK so Unique | int |  | Y | Y |  |  |  |  | Y |
| First\_Name | Tenant name | varchar | 30 |  |  |  |  |  |  |  |
| Last\_name | Tenant name | varchar | 30 |  |  |  |  |  |  |  |
| Phone | Phone number of tenant | numeric | 10,0 |  |  |  |  |  |  |  |
| Email | Email Address of tenant | varchar | 20 |  |  |  |  |  |  |  |
| Tenant\_application\_ID | Application ID of current tenant(FK as it refers to PK in applicant table) | int |  |  |  |  |  |  |  |  |

Table\_name: Vendor

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_name | Description | Data\_type | Size | Identity | Unique | Default | Check | Rule | Allow nulls | Index |
| Vendor\_ID | PK so Unique | int | 25 | Y | Y |  |  |  |  | Y |
| First\_Name | Name of vendor who provides maintenance | varchar | 25 |  |  |  |  |  |  |  |
| Last\_Name | Name of vendor who provides maintenance | varchar | 25 |  |  |  |  |  |  |  |
| Phone | Phone number of vendor who provides maintenance | numeric | 10,0 |  |  |  |  |  |  |  |
| Street | Address Details of vendor who provides maintenance | varchar | 15 |  |  |  |  |  |  |  |
| City | City in which vendor lives | varchar | 10 |  |  |  |  |  |  |  |
| State | State in which vendor lives | varchar | 10 |  |  |  |  |  |  |  |
| Zip | Zip code associated with vendor who provides maintenance | numeric | 5,0 |  |  |  |  |  |  |  |
| Email | Email address of vendor | varchar | 15 |  |  |  |  |  |  |  |

**Question2: Database Diagram**

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**Question2: Screen Capture of expanded Inspection and Maintenance tables to display check and default**

**A screenshot of a computer

Description automatically generated with medium confidence**



Graphical user interface, text, application

Description automatically generated



**A screenshot of a computer

Description automatically generated with medium confidence**



Graphical user interface, text, application

Description automatically generated



A picture containing text, screenshot, indoor

Description automatically generated

