**HomeSpiration**

**Your creative home improvement companion**

**Topic** : Table Design

**Under the guidance of : Submitted By :**

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1. **Tbl\_Login**

Primary Key: LoginID

Foreign Key: UserID references from User\_Registration table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | LoginID | Int | PK, Auto Inc | Unique identifier for the login record |
| 2 | UserID | Int | FK, Not Null | References User\_Registration table |
| 3 | Username | Varchar(255) | Not Null, Unique | Username for login |
| 4 | PasswordHash | Varchar(255) | Not Null | Hashed password for user |
| 5 | LastLoginDate | DateTime |  | Date and time of the last user login |
| 6 | SessionID | Varchar(255) | Unique | Identifier for the user's current session |

1. **Tbl\_Registration**

Primary Key: UserID

Foreign Key: RoleID references from UserRole table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | UserID | Int | PK, Auto Inc | Unique identifier for the user |
| 2 | Username | Varchar(255) | Not Null, Unique | Chosen username |
| 3 | Email | Varchar(255) | Not Null, Unique | User's email address |
| 4 | PasswordHash | Varchar(255) | Not Null | Hashed password |
| 5 | RegistrationDate | DateTime | Not Null | Date and time of account creation |
| 6 | RoleID | Int | FK | References UserRole table |
| 7 | TwoFactorEnabled | Boolean | Not Null | Indicates two-factor auth status (0/1) |
| 8 | ProfilePicture | Varchar(255) | Not Null | URL or path to the user's profile picture |

1. **Tbl\_UserRole**

Primary Key: RoleID

Foreign Key: PermissionID references from Tbl\_Permissions table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | RoleID | Int | PK, Auto Inc | Unique identifier for the user role |
| 2 | RoleName | Varchar(50) | Not Null | Name of the role |
|  |  |  |  |  |
| 3 | CreatedAt | DateTime | Not Null | Date and time when the role was created |
| 4 | UpdatedAt | DateTime | Not Null | Date and time when the role was last updated |
| 5 | Description | Text | Not Null | A brief description of the user role |
| 6 | CanEdit | Boolean | Not Null | Permission to edit content (0/1) |
| 7 | CanDelete | Boolean | Not Null | Permission to delete content (0/1) |
| 8 | CanViewStats | Boolean | Not Null | Permission to view statistics (0/1) |
| 9 | IsActive | Boolean | Not Null | Whether the role is active or not (0/1) |

1. **Tbl\_UserActivity**

Primary Key: ActivityID

Foreign Key: UserID references from User\_Registration table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | ActivityID | Int | PK, Auto Inc | Unique identifier for the user activity |
| 2 | UserID | Int | FK, Not Null | References User\_Registration table |
| 3 | Description | Text | Not Null | Description of the activity |
| 4 | Timestamp | DateTime | Not Null | When the activity occurred |

1. **Tbl\_Company**

Primary Key: CompanyID

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | CompanyID | Int | PK, Auto Inc | Unique identifier for the company |
| 2 | Name | Varchar(255) | Not Null | Name of the company |
| 3 | Address | Varchar(255) | Not Null | Physical address of the company |
| 4 | ContactInfo | Varchar(255) | Not Null | Contact information for the company |
| 5 | ProfilePic | Varchar(255) | Not Null | URL or path to the company's profile image |

1. **Tbl\_CompanyProjects**

Primary Key: ProjectID

Foreign Key: CompanyID references from Company table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | ProjectID | Int | PK, Auto Inc | Unique identifier for the project |
| 2 | CompanyID | Int | FK, Not Null | References Company table |
| 3 | Name | Varchar(255) | Not Null | Name of the project |
| 4 | Description | Text | Not Null | Detailed description of the project |
| 5 | Category | Varchar(50) | Not Null | Category of the project |

1. **Tbl\_Customer**

Primary Key: CustomerID

Foreign Key: UserID references from User\_Registration table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | CustomerID | Int | PK, Auto Inc | Unique identifier for the customer |
| 2 | UserID | Int | FK, Not Null | References User\_Registration table |
| 3 | Preferences | Text |  | Stored customer preferences |
| 4 | SocialLinks | Varchar(255) |  | Social media links for the customer |

1. **Tbl\_ProjectUpdate**

Primary Key: UpdateID

Foreign Key: ProjectID references from CompanyProject table

Foreign Key: UpdatedBy references from User\_Registration table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | UpdateID | Int | PK, Auto Inc | Unique identifier for the project update |
| 2 | ProjectID | Int | FK, Not Null | References CompanyProject table |
| 3 | Title | Varchar(255) | Not Null | Title of the update |
| 4 | Description | Text | Not Null | Detailed description of the update |
| 5 | UpdateDate | DateTime | Not Null | Date and time of the update |
| 6 | UpdatedBy | Int | FK | References User table (who made the update) |

1. **Tbl\_Communication**

Primary Key: MessageID

Foreign Key: SenderID references from User\_Registration table

Foreign Key: ReceiverID references from User\_Registration table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | MessageID | Int | PK, Auto Inc | Unique identifier for the message |
| 2 | SenderID | Int | FK, Not Null | References User table (sender) |
| 3 | ReceiverID | Int | FK, Not Null | References User table (receiver) |
| 4 | MessageText | Text | Not Null | Content of the message |
| 5 | Timestamp | DateTime | Not Null | When the message was sent |

**10. AI\_Visualization**

Primary Key: VisualizationID

Foreign Key: CustomerID references from Customer table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Field** | **Data Type** | **Constraints** | **Description** |
| 1 | VisualizationID | Int | PK, Auto Inc | Unique identifier for the visualization |
| 2 | CustomerID | Int | FK, Not Null | References Customer table |
| 3 | Description | Text | Not Null | Description of the dream home |
| 4 | ImageData | Blob | Not Null | Data for the generated image |

**11.Tbl\_CompanyCommunication**

Primary Key: CommID

Foreign Key: CompanyID references from Company table

Foreign Key: CustomerID references from Customer table

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Data Type** | **Constraints** | **Description** |
| CommID | Int | PK, Auto Inc | Unique identifier for the communication |
| CompanyID | Int | FK, Not Null | References Company table |
| CustomerID | Int | FK, Not Null | References Customer table |
| Message | Text | Not Null | Content of the communication |
| CommDate | DateTime | Not Null | Date and time of the communication |
| Status | Varchar(50) |  | Status of the communication (e.g., sent, read) |

**12. ProjectRating**

Primary Key: RatingID

Foreign Key: ProjectID references from CompanyProject table

Foreign Key: CustomerID references from Customer table

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Data Type** | **Constraints** | **Description** |
| RatingID | Int | PK, Auto Inc | Unique identifier for the rating |
| ProjectID | Int | FK, Not Null | References CompanyProject table |
| CustomerID | Int | FK, Not Null | References Customer table |
| Rating | Int | Not Null | Numerical rating given to the project |
| Comment | Text |  | Optional comment on the project |

**13. ProjectInterest**

Primary Key: InterestID

Foreign Key: ProjectID references from CompanyProject table

Foreign Key: CustomerID references from Customer table

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Data Type** | **Constraints** | **Description** |
| InterestID | Int | PK, Auto Inc | Unique identifier for the interest |
| ProjectID | Int | FK, Not Null | References CompanyProject table |
| CustomerID | Int | FK, Not Null | References Customer table |
| InterestLevel | Varchar(50) | Not Null | Level of interest (e.g., high, medium, low) |
| DateExpressed | DateTime | Not Null | Date when the interest was expressed |

**14. DocumentShare**

Primary Key: DocID

Foreign Key: ProjectID references from CompanyProject table

Foreign Key: SharedBy references from User\_Registration table

Foreign Key: SharedWith references from User\_Registration table

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Data Type** | **Constraints** | **Description** |
| DocID | Int | PK, Auto Inc | Unique identifier for the document |
| ProjectID | Int | FK, Not Null | References CompanyProject table |
| SharedBy | Int | FK, Not Null | References User table |
| SharedWith | Int | FK | References User table |
| DocumentPath | Varchar(255) | Not Null | Path to the shared document |

**15. Security Log**

Primary Key: SecurityID

Foreign Key: UserID references from User\_Registration table

|  |  |  |  |
| --- | --- | --- | --- |
| **Field** | **Data Type** | **Constraints** | **Description** |
| SecurityID | Int | PK, Auto Inc | Unique identifier for the security log entry |
| UserID | Int | FK | References User table |
| ActionType | Varchar(50) | Not Null | Type of security action taken |
| Description | Text |  | Description of the security action |
| ActionDate | DateTime | Not Null | Date and time of the security action |