Project 2: Relational Database Design

Problem Statement:

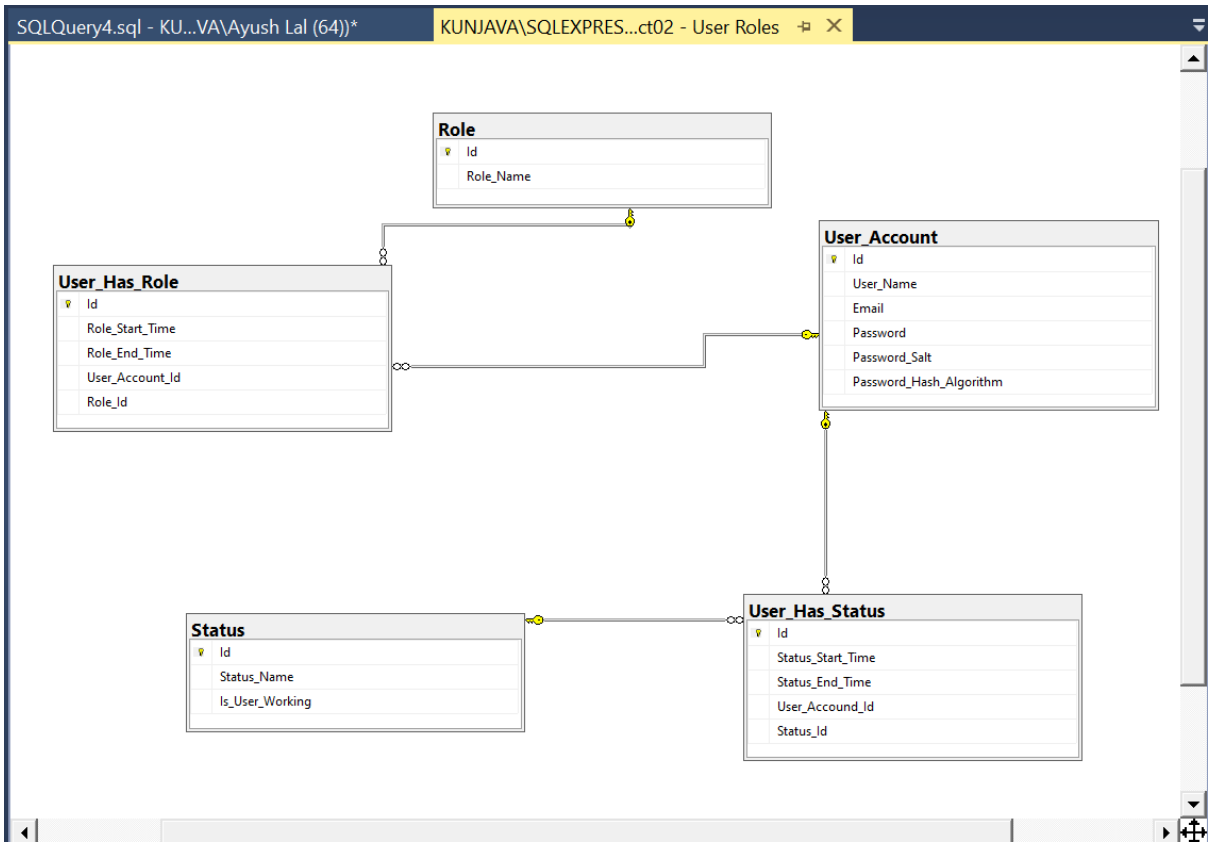
How to convert a relational design into tables in SQL Server?

Topics:

In this project, you will work on converting a relational design that enlists various users, their roles, user accounts and their statuses into different tables in SQL Server and insert data into them. Having at least two rows in each of the tables, you have to ensure that you have created respective foreign keys.

Tasks To Be Performed:

- Define relations/attributes
- Define primary keys
- Create foreign keys



1. Insert data into each of the above tables. With at least two rows in each of the tables. Make sure that you have created respective foreign keys.

- ```
  Create Table [Role](Id int Primary Key,Role_Name Varchar(100))
  ```
  - ```
    insert into Role Values(1,'Manager'),(2,'Admin')
    ```

	Id	Role_Name
1	1	Manager
2	2	Admin

- ```
  Create Table User_Has_Role(Id int Primary Key,Role_Start_Time timestamp,
  Role_End_Time Datetime,User_Account_Id int,Role_Id Int,
  Foreign Key(User_Account_Id) References User_Account(Id),
  Foreign Key(Role_Id) References Role(ID))
  ```
  - ```
    Insert into User_Has_Role(Id,Role_End_Time,User_Account_Id,Role_Id)
    Values(1,'2024-01-31 23:58:15.070',1,1)
    ```
  - ```
    Insert into User_Has_Role(Id,Role_End_Time,User_Account_Id,Role_Id)
    Values(2,'2024-02-01 00:14:30.723',2,2)
    ```

	Id	Role_Start_Time	Role_End_Time	User_Account_Id	Role_Id
1	1	0x00000000000007DB	2024-01-31 23:58:15.070	1	1
2	2	0x00000000000007DD	2024-02-01 00:14:30.723	2	2

- ```
  Create Table User_Account(Id Int Primary Key,User_Name varchar(100),
  Email Varchar(254),Password Varchar(200),Password_Salt varchar(50),
  Password_Hash_Algorithm Varchar(50))
  ```
  - ```
    Insert into User_Account
    Values(1,'Ayush','ayush@google.com','ayush@go','ayush',
    'ayush123'),(2,'Shweta','shweta@google.com','shweta@go','shweta',
    'shweta123')
    ```

	Id	User_Name	Email	Password	Password_Salt	Password_Hash_Algorithm
1	1	Ayush	ayush@google.com	ayush@go	ayush	ayush123
2	2	Shweta	shweta@google.com	shweta@go	shweta	shweta123

- ```
  Create Table Status(Id int Primary Key,Status_Name Varchar(100),Is_User_Working
  binary)
  ```
  - ```
    Insert into Status Values(1,'Activie',0),(2,'Active',0)
    ```

	Id	Status_Name	Is_User_Working
1	1	Activie	0x00
2	2	Active	0x00

- ```
  Create Table User_Has_Status(Id Int Primary Key,Status_Start_Time Timestamp,
  Status_End_Time Datetime,User_Accound_Id int,Status_Id Int,
  Foreign Key(User_Accound_Id) References User_Account(Id),
  Foreign Key(Status_Id) References Status(Id))
  ```

- ```
  Insert Into
  User_Has_Status(Id,Status_End_Time,User_Accound_Id,Status_Id)
  Values(1,'2024-02-01 00:17:03.750',1,1),(2,'2024-02-01
  00:23:49.843',2,2)
  ```

	Id	Status_Start_Time	Status_End_Time	User_Accound_Id	Status_Id
1	1	0x00000000000007DE	2024-02-01 00:17:03.750	1	1
2	2	0x00000000000007DF	2024-02-01 00:23:49.843	2	2

2. Delete all the data from each of the tables.

- **Deleting From Role Table**

```
sp_help 'User_Has_Role'

Alter Table User_Has_Role Drop Constraint FK__User_Has___Role___5070F446

Delete From Role
```

- **Deleting From `User_Has_Role` Table**

```
Delete From User_Has_Role
```

- **Deleting From User_Account Table**

```
sp_help 'User_Has_Status'

Alter Table User_Has_Status Drop Constraint FK__User_Has___User___5535A963

Delete From User_Account
```

- **Deleting From Status Table**

```
sp_help 'User_Has_Status'

Alter Table User_Has_Status Drop Constraint FK__User_Has___Statu__5629CD9C

Delete From Status
```

- **Deleting From User_Has_Status Table**

```
Delete From User_Has_Status
```
```