

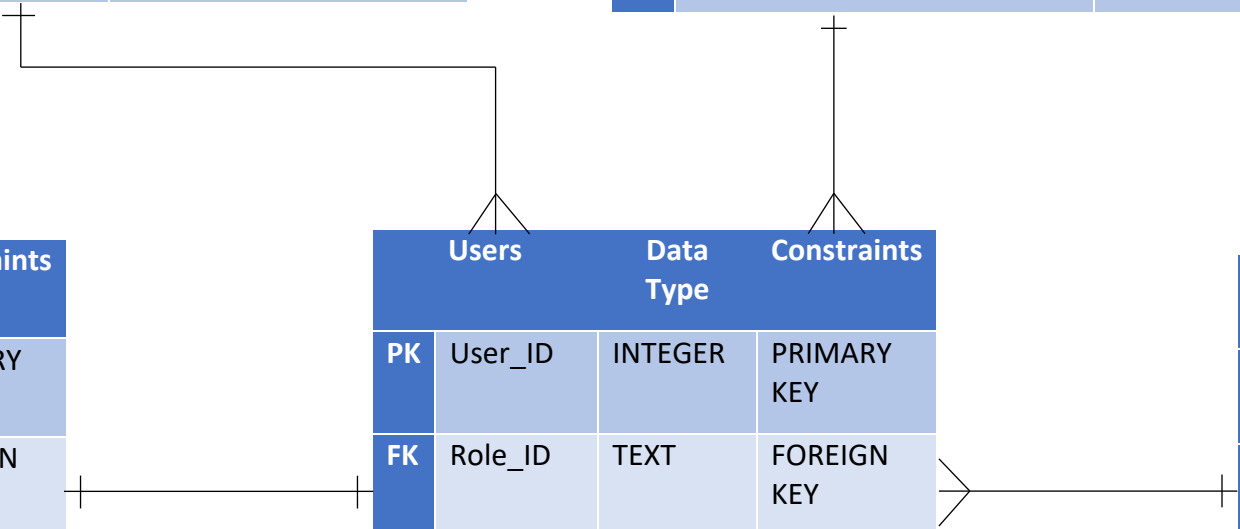
Cases		Data Type	Constraints
PK	Case_ID	INTEGER	PRIMARY KEY
FK	User_ID	INTEGER	FOREIGN KEY
	Case_Type	TEXT	NOT NULL
	Status	TEXT	NOT NULL
	Request_Received_Year	INTEGER	NOT NULL
	Request_Received_Month	TEXT	NOT NULL
	Request_Closed_Year	INTEGER	NOT NULL
	Request_Closed_Month	TEXT	NOT NULL
	Case_Active_Days_at_Closure	INTEGER	NOT NULL
	Case_Active_Days_grouped	TEXT	NOT NULL
	Closed_on_time	TEXT	NOT NULL
	Reason_grouped	TEXT	NOT NULL
	Number_of_Records	INTEGER	NOT NULL

Complaints		Data Type	Constraints
PK	Complaint_ID	INTEGER	PRIMARY KEY
FK	User_ID	INTEGER	FOREIGN KEY
	Case_Type	TEXT	NOT NULL
	Status	TEXT	NOT NULL
	Request_Received_Year	INTEGER	NOT NULL
	Request_Received_Month	TEXT	NOT NULL
	Request_Closed_Year	INTEGER	NOT NULL
	Request_Closed_Month	TEXT	NOT NULL
	Case_Active_Days_at_Closure	INTEGER	NOT NULL
	Case_Active_Days_grouped	TEXT	NOT NULL
	Closed_on_time	TEXT	NOT NULL
	Reason_grouped	TEXT	NOT NULL
	Number_of_Records	INTEGER	NOT NULL

Dashboard		Data Type	Constraints
PK	Dashboard_ID	INTEGER	PRIMARY KEY
FK	User_ID	INTEGER	FOREIGN KEY
	Chart_Type	TEXT	NOT NULL, UNQIE
	Dashboard_Settings	TEXT	NOT NULL
	Graph_Preferences	TEXT	NOT NULL, UNIQUE

Users		Data Type	Constraints
PK	User_ID	INTEGER	PRIMARY KEY
FK	Role_ID	TEXT	FOREIGN KEY
	Username	TEXT	NOT NULL, UNQIE
	Password	TEXT	NOT NULL
	Email	TEXT	NOT NULL, UNIQUE

Filter		Data Type	Constraints
FK	User_ID	INTEGER	FOREIGN KEY
	Section	TEXT	
	Filter_criteria	TEXT	
	Filter_type	TEXT	
	Filter_value	TEXT	



Relationships:

Cases to Users (One-to-Many):

- Each case might have multiple associated users (e.g., assignees, supervisors). A foreign key User_ID in the Cases table links to the Users table's User_ID.
- Relationship: One case can have many users associated with it, but each user belongs to only one case in this context.

Complaints to Users (One-to-Many):

- Similar to the Cases relationship, each complaint might also have multiple associated users. A foreign key User_ID in the Complaints table links to the Users table's User_ID.
- Relationship: One complaint can have many users associated with it, but each user belongs to only one complaint in this context.

Dashboard to Users (One-to-One):

- The Dashboard table contains user-specific dashboard data. The User_ID in the Dashboard table links to the Users table's User_ID.
- Relationship: Each user has their own dashboard data stored in the Dashboard table.

Filter to Users (One-to-Many):

- Filters are associated with users for personalized filtering options. The User_ID in the Filters table links to the Users table's User_ID.
- Relationship: Each user can have multiple filter configurations stored in the Filters table.

Normalization and Data Types:

Normalization:

- The structure adheres to the third normal form (3NF), which reduces data redundancy and ensures data integrity.

Data Types:

- Attributes have appropriate data types based on the nature of the data in the SQLite database.
- For example:
 - Case_ID, Complaint_ID, User_ID: INTEGER (Primary and Foreign Keys)
 - Date-related attributes: DATE or DATETIME
 - Textual descriptions: TEXT or VARCHAR
 - Numeric values: INTEGER or DECIMAL

Design Considerations:

User Authentication:

- A separate Users table stores user authentication details, ensuring security by storing hashed passwords.

Relationships:

- One-to-Many relationships are established between cases/complaints, dashboard data, filters, and users, facilitating connections between these entities without duplicating user information.

Personalization:

- The tables are designed to capture personalized data such as user-specific dashboard configurations and filter preferences.

Data Integrity:

- The use of foreign keys maintains referential integrity across tables, ensuring that data remains consistent between related tables.

Efficient Storage:

- Data types are chosen to optimize storage and retrieval performance while accurately representing the stored information.