**RENTAL MANAGEMENT SYSTEM**

**TEAM:**

Bekkam Siddigari Sai Bharat Reddy

Bokka Harivardhan Reddy

Pakanati Ravi Teja

Poreddy Srimanth Reddy

Pothina Bhargavi

Singam Dinesh Kumar Reddy

**Abstract:**

Our Project is regarding Rental management system where owner who wish to rent out their furnished property and a client who required furnished properties for a fixed period. We create a database for client where they can check their advance payment, lease details, monthly rent, gas bills, electricity bills and laundry bills. We will create a simple login interface for the client to look at their monthly bills. The payment method and details will be maintained in the database. The billing invoices will be generated to client mails. Using this database management system client can find all their residential bills at a place which is easy to access.

We are designing this database because right now we are facing problem of paying the bills in different applications. So, this database will helpful others to pay their all bills in single application.

**ER Diagram:**

**Entities:**

**Login** - Stores information about login such as Login Id, Login Name, Login Password.

**Tenant** - Stores information about tenant such as tenant ID, name, email, and phone number.

**Property** - Stores information about properties such as property ID, address.

**Lease** - Stores information about leases such as lease ID, tenant ID, property ID, lease start date, and lease end date

**Bill** - Stores information about bills such as bill ID, lease ID, bill type, bill amount, and payment status.

**Payment** - Stores information about payment such as Payment ID, Payment Method Name, Card Number, Expiration Date

**Relationships:**

Many-to-one relationship between property and tenant: A property can be rented out to multiple tenants over time, but each tenant occupies only one property at a time.

One-to-one relationship between tenant and bill: Each tenant is responsible for paying their own monthly bill, and each monthly bill is associated with only one tenant.

Many-to-one relationship between tenant and payment method: Multiple tenants can use the same payment method (e.g. credit card, bank transfer), but each tenant uses only one payment method at a time.

One-to-many relationship between property and bill type: A property can have multiple bill types associated with it (e.g. gas, electricity, laundry), but each bill type is associated with only one property.

**Designing the tables for a Relational Database:**

**Login table:**

Login\_Id

Login\_Name

Login\_Password

**Tenant table:**

Tenant\_ID (primary key)

First\_Name

Last\_Name

Email

Phone\_Number

Property\_ID (foreign key)

Lease\_Start\_Date

Lease\_End\_Date

**Property table:**

Property\_ID (primary key)

Owner\_ID (foreign key)

Address

City

State

Zipcode

**Lease table:**

Lease\_ID(primary key)

Lease\_Start\_Date

Lease\_End\_Date

Lease\_Deposit

Tenant\_ID(foreign key)

**Bill table:**

Bill\_ID (primary key)

Tenant\_ID (foreign key)

Bill\_Date

Total\_Amount

Bill\_Type\_ID (primary key)

Bill\_Type\_Name

**Payment table:**

Payment\_ID (primary key)

Payment\_Method\_Name

Tenant\_ID (foreign key)

Card\_Number

Expiration\_Date

**Highlights and summary:**

The topic is about a rental management system that aims to simplify the process of paying bills for both property owners and tenants. The system utilizes a database to store information related to lease details, monthly rent, gas bills, electricity bills, and laundry bills. The system also has a login interface for clients to view their monthly bills, and the payment method and details are maintained in the database.

The benefits of the rental management system are that it consolidates all bills into a single application, which is more convenient for tenants. The system also provides a more efficient and secure way to manage rental properties, as it allows property owners to easily track and manage their properties, and tenants to easily view and pay their bills.

To implement the rental management system, several tables need to be designed based on the relationships between the various data entities involved. These tables include the Property table, Owner table, Tenant table, Monthly Bill table, Bill Type table, Property Bill Type table, Payment Method table, and Tenant Payment Method table

In summary, the rental management system is a useful tool for property owners and tenants that simplifies the process of paying bills, improves efficiency and security, and consolidates all bills into a single application.