**RV College of Engineering®, Bengaluru – 59**

**Department of Computer Science and Engineering**

**Introduction to Database Systems Laboratory (21CS53)**

**Mid-Term Report on Database Project**

|  |  |  |
| --- | --- | --- |
| **TITLE: Electricity Billing System** | | |
| **TEAM** | USN: 1RV21CS150 | Name: Sharath Chandra K |
| USN: 1RV21CS135 | Name: Sadiq Wahid Tugoo |
|  | USN: 1RV21CS141 | Name: Samiksha Ranjan |

1. **Tables created details**

* login Table:

Columns:

meter\_no: VARCHAR(20) - Stores the meter number associated with the user.

username: VARCHAR(30) - Username of the user for login.

name: VARCHAR(30) - Name of the user.

password: VARCHAR(20) - Password of the user.

user: VARCHAR(20) - Type of user (e.g., admin, regular user).

* Customer Table:

Columns:

name: VARCHAR(20) - Name of the customer.

meter\_no: VARCHAR(20) - Meter number associated with the customer.

address: VARCHAR(50) - Address of the customer.

city: VARCHAR(30) - City of the customer.

state: VARCHAR(30) - State of the customer.

email: VARCHAR(40) - Email address of the customer.

phone: VARCHAR(20) - Phone number of the customer.

* Meter\_info Table:

Columns:

meter\_no: VARCHAR(20) - Meter number associated with the information.

meter\_location: VARCHAR(20) - Location of the meter.

meter\_type: VARCHAR(20) - Type of meter.

phase\_code: VARCHAR(20) - Phase code of the meter.

bill\_type: VARCHAR(20) - Type of billing.

days: VARCHAR(20) - Number of days for billing cycle.

1. **Table creation Queries**

* CREATE TABLE customer (

name VARCHAR(20),

meter\_no VARCHAR(20),

address VARCHAR(50),

city VARCHAR(30),

state VARCHAR(30),

email VARCHAR(40),

phone VARCHAR(20)

);

* CREATE TABLE meter\_info (

meter\_no VARCHAR(20),

meter\_location VARCHAR(20),

meter\_type VARCHAR(20),

phase\_code VARCHAR(20),

bill\_type VARCHAR(20),

days VARCHAR(20)

);

* CREATE TABLE tax (

cost\_per\_unit VARCHAR(20),

meter\_rent VARCHAR(20),

service\_charge VARCHAR(20),

service\_tax VARCHAR(20),

swacch\_bharat\_cess VARCHAR(20),

fixed\_tax VARCHAR(20)

);

1. **Table Population Queries**

* INSERT INTO login (meter\_no, username, name, password, user)

VALUES ('123456789', 'user123', 'John Doe', 'password123', 'regular\_user');

* INSERT INTO customer (name, meter\_no, address, city, state, email, phone)

VALUES ('Alice Smith', '987654321', '123 Main Street', 'Anytown', 'Anystate', 'alice@example.com', '555-123-4567');

* INSERT INTO meter\_info (meter\_no, meter\_location, meter\_type, phase\_code, bill\_type, days)

VALUES ('123456789', 'Basement', 'Digital', 'Single', 'Monthly', '30');

1. **Query execution for data retrieval required for your project**

* SELECT \* FROM login;
* SELECT name, email FROM customer;
* SELECT meter\_no, meter\_location FROM meter\_info;
* SELECT \* FROM tax;
* SELECT meter\_no, month, totalbill FROM bill WHERE status = 'unpaid';