H.K.E Society's

POOJYA DODDAPPA APPA COLLEGE OF ENGINEERING

GULBARGA - 585102

Department Of Computer Science Engineering

MINI PROJECT PREPORT

ON

"ELECTRICITY   BILL"

SUBJECT: DBMS

SUBMITTED BY

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UNDER THE GUIDANCE

PROF   :   PROF PALLAVI PATIL

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INTRODUCTION:

The project topic is Electricity Bill. In this Project I have used Tkinter Module of python for frontend and MySQL for backend database storage. This project is for those people who is working as bill generator not for customer. First the user has to generate the bill and add bill to database. And user can check the bill on the data base. And also user can search the bill using its meter number Or customer Name.

Description of the technologies used, database system, queries used, schema diagram and screenshots of the interface is attached below.

PROBLEM STATEMENT:

Running a Electricity Bill software isn't as easy as it sounds. software are constantly changing and evolving to keep up with the times and provide their patrons with the best possible experience. Developers are responsible for a lot of tasks to keep everything running smoothly. They have to keep up with technology to be efficient.

EXISTING SYSTEMS:

The existing systems are majorly created for big scale Electricity Bill software, these systems are very complex to be used for small scale Electricity Bill software systems. Therefore this project is useful as it can be managesmall scale Electricity Bill software systems.

SCHEMA DIAGRAM:-

Name	Meter_No	Previous_Unit	Current_Unit	Bill_Amount

CREATION OF TABLE:-

CREATE TABLE customer_record` (

    `Name` VARCHAR(20) NOT NULL,

     `Meter_No` INT NOT NULL,

     `Previous_Unit` INT NOT NULL,

     `Current_Unit` INT NOT NULL,

     `Bill_Amount ` INT NOT NULL,

     PRIMARY KEY (`Meter_No`));

desc customer_record;

```
+-------------------+-----------------+-------+------+----------+---------+
|   Field           | Type            | Null | Key | Default | Extra |
+-------------------+-----------------+-------+------+----------+---------+
| Name              | varchar(20) | NO  |     | NULL   |       |
| Meter_No          | int            | NO  | PRI | NULL   |       |
| Previous_Unit | int            | NO  |     | NULL   |       |
| Current_Unit  | int            | NO  |     | NULL   |       |
| Bill_Amount   | int            | NO  |     | NULL   |       |
+-------------------+-----------------+-------+------+----------+---------+
```

(Note: $ indicate variable name)

INSERTION:-

INSERT INTO 'customer_record (Name, Meter_No , Previous_ Unit, Current_Unit , Bill_Amount)

VALUES

($nameentry,$mitNoentry,$prNoentry,$currNoentry);

TECHNOLOGIES USED:-

FRONTEND :

- PYTHON TKINTER

BACKEND :

- MYSQL

PYTHON TKINTER:-

Graphical User Interface(GUI) is a form of user interface which allows users to interact with com
puters through visual indicators using items such as icons, menus, windows, etc. It has advantages over the Command Line Interface(CLI) where users interact with computers by writing commands using keyboard only and whose usage is more difficult than GUI.

Tkinter is the inbuilt python module that is used to create GUI applications. It is one of the most commonly used modules for creating GUI applications in Python as it is simple and easy to work with. You don't need to worry about the installation of the Tkinter module separately as it comes with Python
already. It gives an object-oriented interface to the Tk GUI toolkit.

MYSQL:-

What is a Database?

A database is a separate application that stores a collection of data. Each database has one or more distinct APIs for creating, accessing, managing, searching and replicating the data it holds.

Other kinds of data stores can also be used, such as files on the file system or large hash tables in memory but data fetching and writing would not be so fast and easy with those type of systems.

Nowadays, we use relational database management systems (RDBMS) to store and manage huge volume of data. This is called relational database because all the data is stored into different tables and relations are established using primary keys or other keys known as **Foreign Keys**.

A **Relational DataBase Management System (RDBMS)** is a software that –

- Enables you to implement a database with tables, columns and indexes.
- Guarantees the Referential Integrity between rows of various tables.
- Updates the indexes automatically.
- Interprets an SQL query and combines information from various tables.

MySQL Database

MySQL is a fast, easy-to-use RDBMS being used for many small and big businesses. MySQL is developed, marketed and supported by MySQL AB, which is a Swedish company. MySQL is becoming so popular because of many good reasons –

- MySQL is released under an open-source license. So you have nothing to pay to use it.
- MySQL is a very powerful program in its own right. I
- t handles a large subset of the functionality of the most expensive and powerful database packages.
- MySQL uses a standard form of the well-known SQL data language.
- MySQL works on many operating systems and with many languages including PHP, PERL, C, C++, JAVA, etc.
- MySQL works very quickly and works well even with large data sets.
- MySQL is very friendly to PHP, the most appreciated language for web development.

Screenshots Of The Interface :-

Below figure shows HOME   PAGE to Electricity Bill

Figure 1: Home Page

After Clicking "Show Data" Button
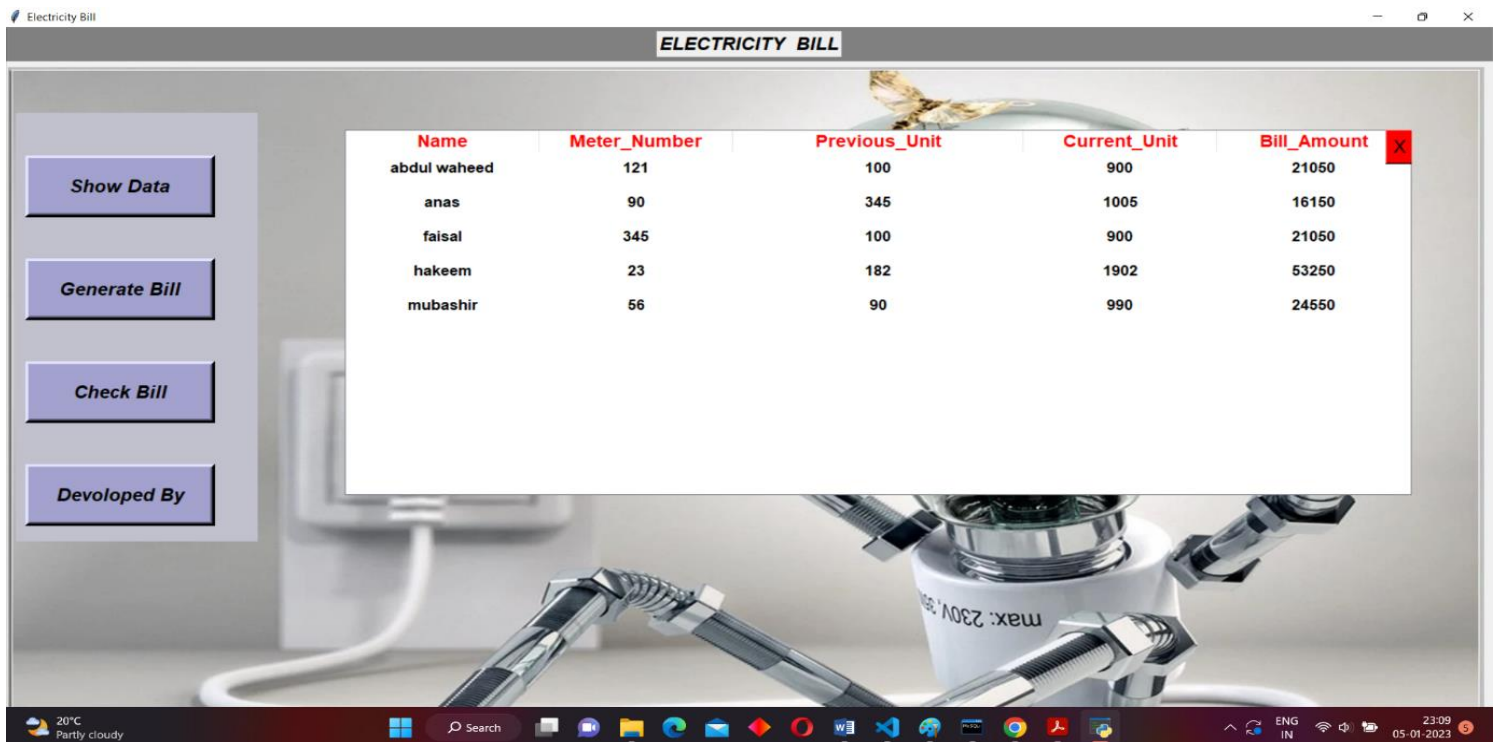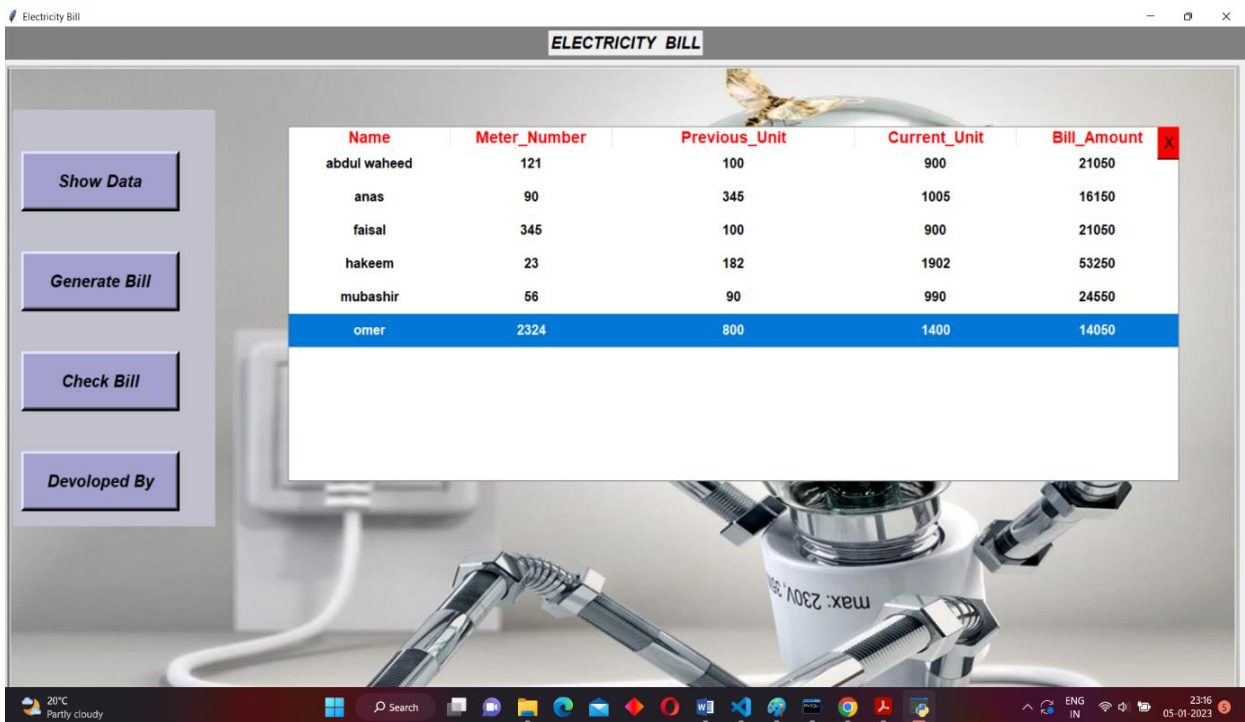

Name	Meter_Number	Previous_Unit	Current_Unit	Bill_Amount
abdul waheed	121	100	900	21050
anas	90	345	1005	16150
faisal	345	100	900	21050
hakeem	23	182	1902	53250
mubashir	56	90	990	24550

Figure 2

After Clicking "Generate Bill" Button

Figure 3

Fill The Information

Figure 4

After clicking "Generate Bill" Button
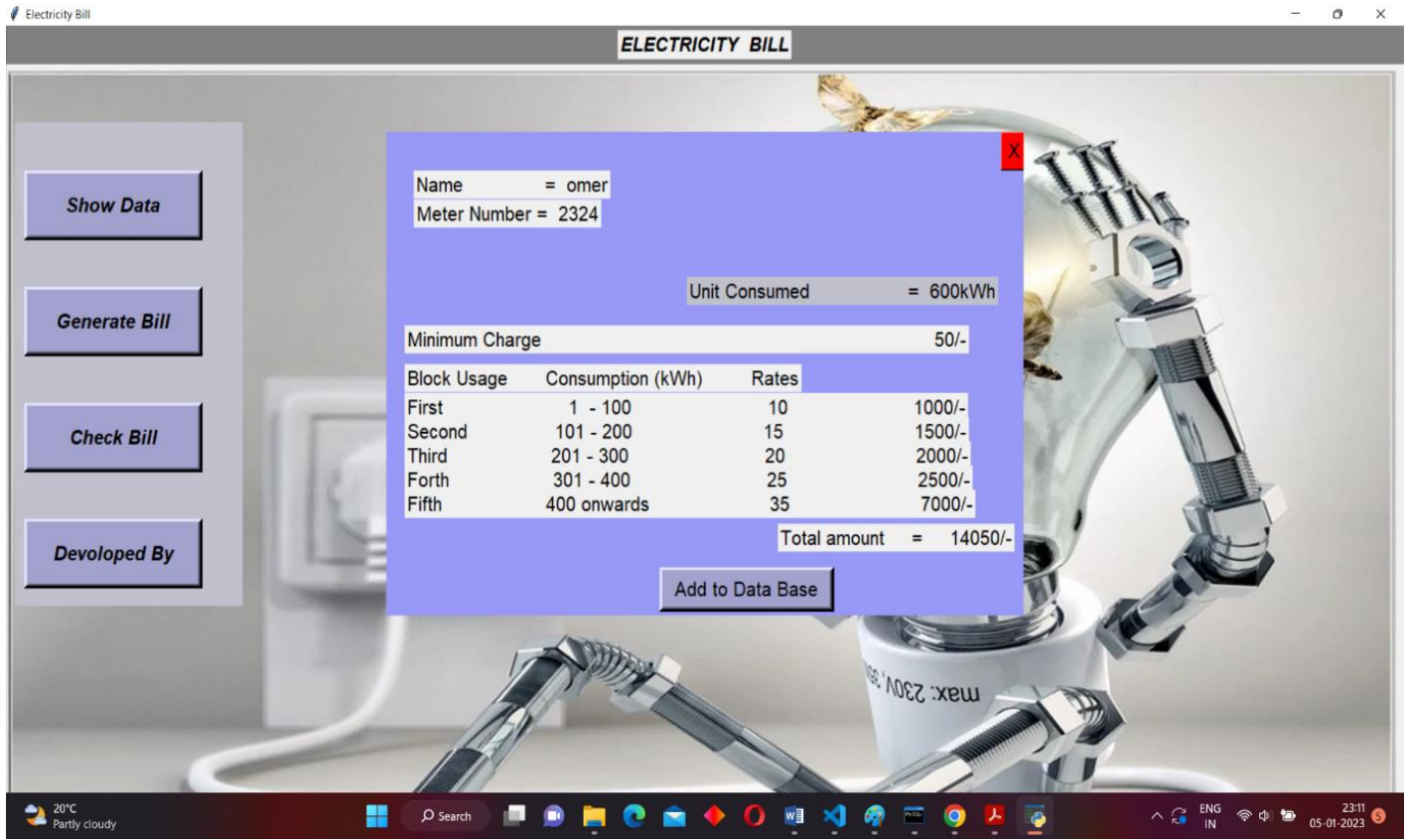
Figure 5

After clicking "Add to Data Base" Button
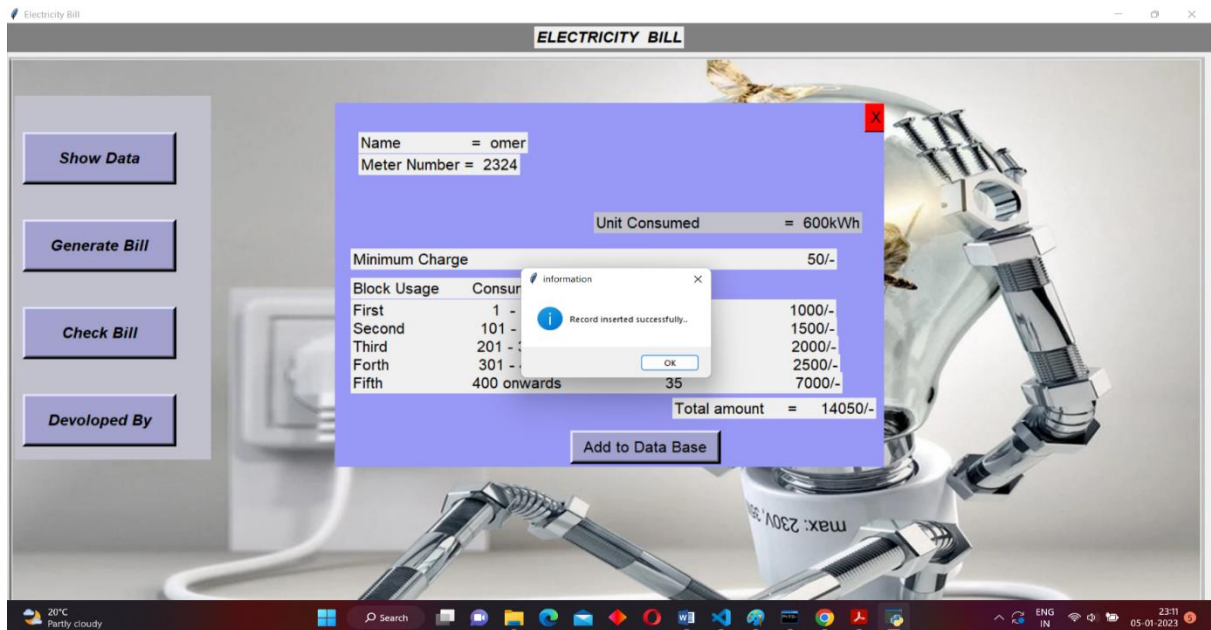
Figure 6

Enter the Name Or Meter Number

Figure 7

After clicking "Search Bill" Button

Figure 8

After clicking "Show Data" Button

Figure 9

After clicking "Devoloped By" Button

Figure 10