Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution, Affiliated to Visvesvaraya Technological Universitiy, Belagavi, Accredited by NAAC with 'A 'Grade)
Near Jnana Bharathi Campus, Mallathahalli, Bangalore-560 056

Project Report
On

ELECTRICITY BILL MANAGEMENT SYSTEM

Submitted By

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2022-23

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CERTIFICATE

This is to certify that the project entitled **ELECTRICITY BILL MANAGEMENT SYSTEM** submitted in the partial fulfilment of the requirement of the 5th semester DBMS laboratory curriculum during the year 2022-23 is a result of bonafide work carried out by

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ABSTRACT

The Electricity Bill Management System is a project that aims to simplify the process of managing and maintaining electricity bills. The system provides a user-friendly interface for both customers and admins to manage and view their electricity bills. The system's features include bill generation, payment, history, customer management, and admin management. The system has been developed using MySQL as the backend database and PHP as the frontend programming language. It offers features like login authentication, role-based access control, and data encryption to ensure that sensitive information is kept safe and secure. The system's scope can be extended by incorporating additional features like integration with IoT devices to monitor and control electricity usage, integration with payment gateways to facilitate online payments, and integration with analytics tools to provide insights into electricity consumption patterns. Overall, the Electricity Bill Management System is a comprehensive and efficient solution for managing electricity bills. It simplifies the billing process and allows customers to manage their bills efficiently, while providing admins with the ability to manage customer data and view statistics related to electricity consumption.

LIST OF CONTENTS

Chapter 1

INTRODUCTION

The Electricity Bill Management System is a DBMS project designed to provide a user-friendly platform for managing and maintaining electricity bills. The project aims to simplify the process of electricity billing by providing various features like bill generation, payment, history, customer management, and admin management.

The current manual process of managing electricity bills is time-consuming and prone to errors. The Electricity Bill Management System provides a digital platform that automates the entire process of electricity billing. The system is designed to be highly customizable and scalable, catering to the needs of different types of customers and businesses.

The project has been developed using the MySQL database management system as the backend and PHP and HTML as the frontend programming language. The system's user interface is designed to be intuitive and easy to use, ensuring that customers and admins can efficiently manage their bills and other related data.

The system's security features like login authentication, role-based access control, and data encryption ensure that sensitive information is kept safe and secure. The project's scope can be extended by incorporating additional features like integration with IoT devices to monitor and control electricity usage, integration with payment gateways to facilitate online payments, and integration with analytics tools to provide insights into electricity consumption patterns.

Overall, the Electricity Bill Management System project is a comprehensive solution for managing electricity bills, simplifying the billing process, and allowing customers and admins to efficiently manage their bills and related data.

1.1PROBLEM STATEMENT

This system is named as Electricity Bill Management System.This system is made to keel the records about the bill of the customers. The admin can manage all the accounts and the registered users like employees and customers can only manage their own accounts.

1.2PROPOSED SOLUTION

Created a database system that allows consumers to register and while also allowing the user and admin to manage this system efficiently.

Like a customer can only manage his account and cannot see any details of either customer, employees can see the details of all the customer's accounts and the admin can manage all the accounts including the customers and employees accounts. This system also had the option for customers to pay their electricity bills online mode.
Either through internet banking or by debit card. This system also has the feature to add and delete customer and employee's accounts in case a customer wants to cut the connection or an employee wants to leave the job. All the employees are divided into different departments according to their job profile and the customers are divided according to their wards.

This project covers a wide range of topics, from business concepts to computer science, and itnecessitates the completion of numerous studies in order to meet the project's objectives.

1.3 OBJECTIVES

- This system is made to keel the records about the bill of the customers. The admin can view all the registered users like employees and customers can only manage their own accounts.
- This system helps in maintaining the bills and the payments. A different module is there for employees to check the customer's details if their job requires it. Admin, employees, and customers all have a different interface and different privileges according to their needs.
- As a system development reference, create documents such as Software Requirement Specification (SRS) and Software Design Description

1.4 OVERVIEW

- An Electricity Bill Management System is a DBMS mini-project designed to help customers and administrators manage and maintain their electricity bills efficiently. The system's primary goal is to simplify the process of managing and tracking electricity consumption and billing.

- The system consists of two modules - the customer module and the admin module. The customer module allows customers to view and pay their bills, track their electricity consumption, and update their personal information. The admin module provides the

system's administrators with the ability to manage customers' data, generate reports, and view statistics related to electricity consumption.

- The system is built using a combination of MySQL as the backend database and PHP as the frontend programming language. It has a user-friendly interface that enables users to navigate easily and efficiently. The system incorporates security features like login authentication to ensure that sensitive information is kept safe and secure. The system's primary features include bill generation, customer management, and admin management.

- Overall, the Electricity Bill Management System is a comprehensive and efficient solution for managing electricity bills. It simplifies the process of managing and tracking electricity consumption and billing and is a valuable tool for customers and administrators alike.

1.5 SCOPE

- The scope of the Electricity Bill Management System is to provide a user-friendly and efficient way for customers to manage their electricity bills. The system will be developed using a MySQL database as the backend and PHP as the frontend programming language.

- The system will allow customers to create an account and view their electricity bills online. Customers will be able to access their bills from anywhere and anytime. The system will provide customers with the ability to view their billing history, track their electricity consumption, and pay their bills online.

- The admin module of the system will allow the system's administrators to manage the customer's data, generate reports, and view statistics related to electricity consumption. The system will also provide security features like login authentication, role-based access control, and data encryption to ensure that sensitive information is kept safe and secure.

- The system's scope can be extended by incorporating additional features such as automatic bill generation and reminders, integration with IoT devices to monitor and control electricity usage, and integration with payment gateways to facilitate online payments.

- Overall, the Electricity Bill Management System aims to simplify the process of managing electricity bills and provide a hassle-free experience to the customers. The system's scope is vast and can be customized to cater to the needs of various customers and businesses.

Chapter 2

SYSTEM DESIGN

System design is the solution for the creation of a new system. This phase focuses on the detailed implementation of the feasible system. It emphasis on translating design specifications to performance specification. System design has two phases of development:

- Logical design
- Physical design

During logical design phase the analyst describes inputs (visitor an animal details), outputs (manage data), databases (data sores) and procedures (data flows) all in a format that meets the user requirements. The physical design is followed by physical design or coding.

Physical design produces the working system by defining the design specifications, which specify exactly what the candidate system must do.

2.1 DATABASES

Databases are the storehouses of data used in the software systems. The data is stored in tables inside the database. Several tables are created for the manipulation of the data for the system. Two essential settings for a database are

- Primary key -the field that is unique for all the record occurrences
- Foreign key -the field used to set relation between tables.

Normalization is a technique to avoid redundancy in the tables.

2.2 SYSTEM TOOLS

The various system tools that have been used in developing both the front end and the back end of the mini project are being listed :

2.2.1 Front End

- HTML : HTML is used to create and save web document.
- CSS : CSS is used for styling the web document created using HTML.
- JavaScript : It is a programming language,commonly used with web browsers.

2.2.2 Back End

- MYSQL : The back end is implemented using MySQL which is used to design the databases. MYSQL MySQL is the world's second most widely used open-source relational database management System (RDBMS).The SQL phrase stands for Structured Query Language.
- PHP : Hypertext Preprocessor (PHP) is a technology that allows software developers to create dynamically generated web pages, in HTML ,or other document types, as per client request. PHP is an open source software.

2.3 SCHEMA DIAGRAM

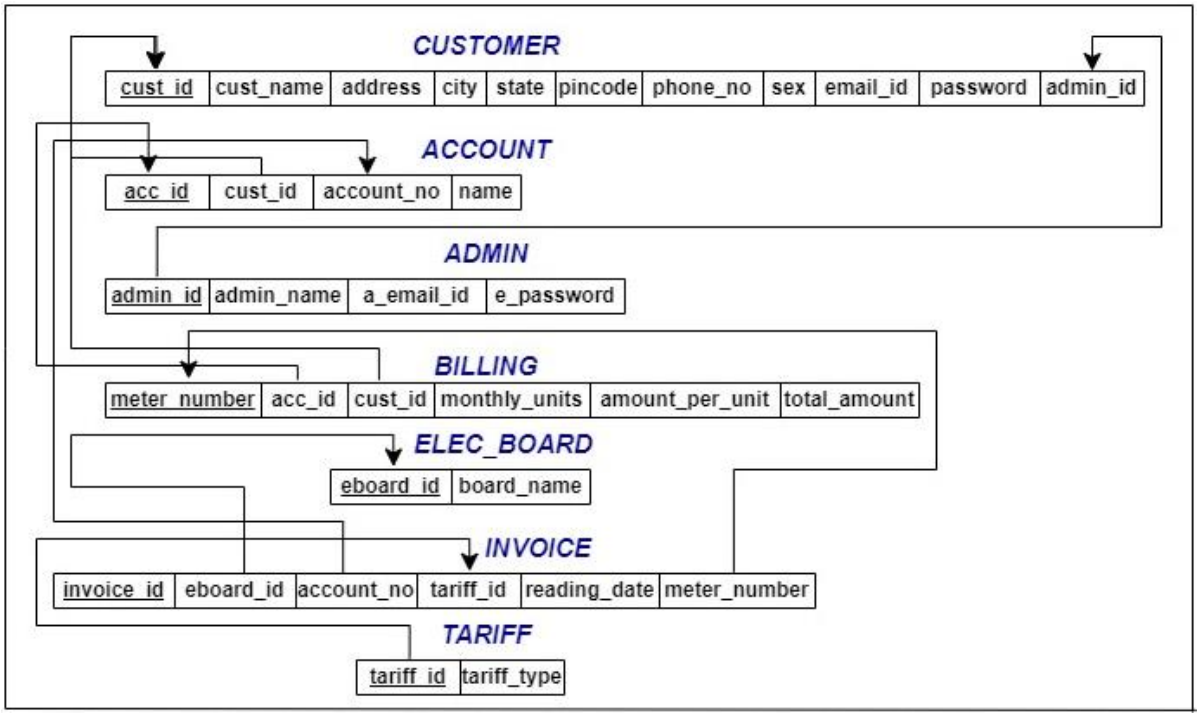


Fig 2.1 Schema Diagram

2.4 ER DIAGRAM

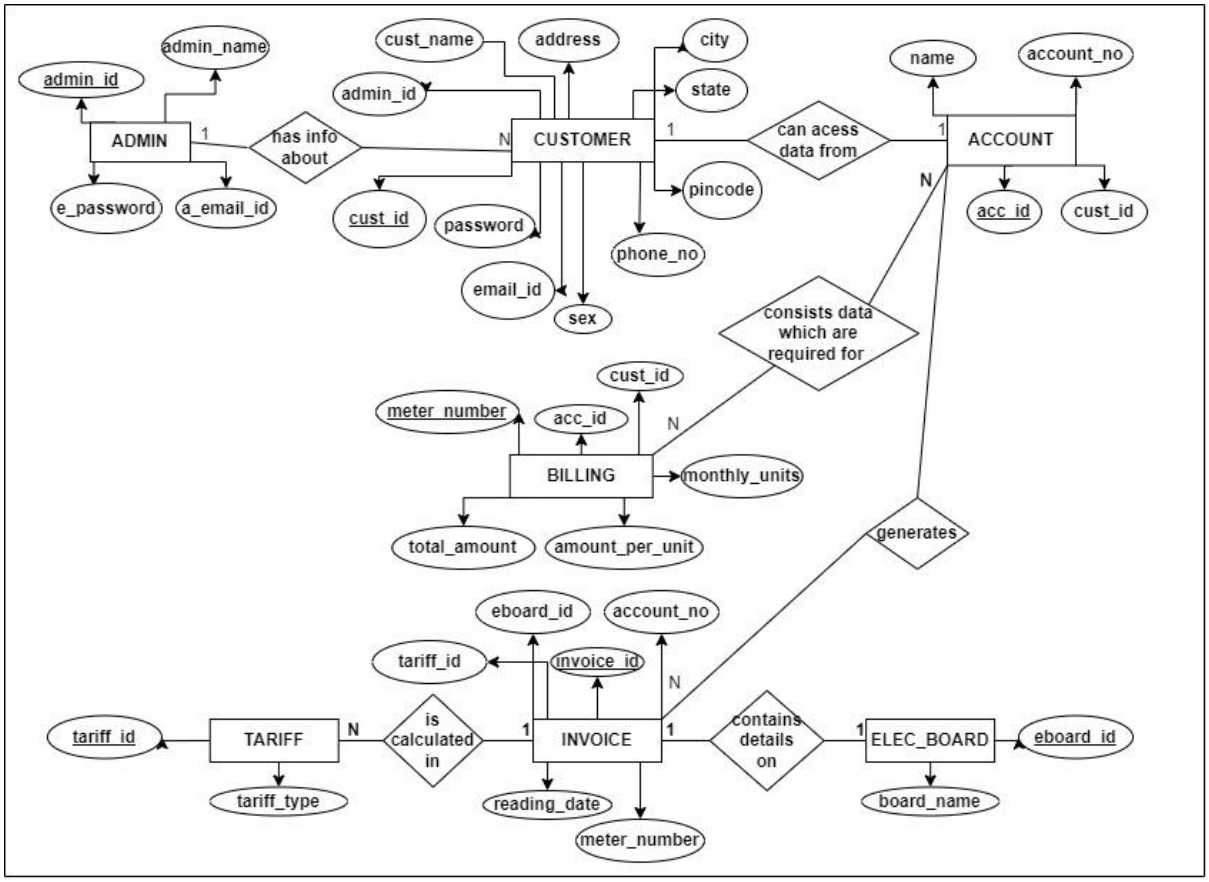


Fig 2.2 ER Diagram

Chapter 3

HARDWARE AND SOFTWARE REQUIREMENTS

3.1 Hardware

- Processor – Pentium
- Speed – 1.5 GHZ
- RAM – 1GB
- Hard disk – 40 GB

5.2 Software

- Operating system – Windows
- Technology – HTML, CSS, Bootstrap, PHP, JavaScript
- Software package – XAMPP
- Database – MySQL

Chapter 4

IMPLEMENTATION

	Table	Action	Rows	Type	Collation	Size	Overhead
☐	account	Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_general_ci	32.0 KiB	-
☐	admin	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐	billing	Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_general_ci	48.0 KiB	-
☐	customer	Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_general_ci	32.0 KiB	-
☐	elec_board	Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_general_ci	16.0 KiB	-
☐	invoice	Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_general_ci	64.0 KiB	-
☐	tariff	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_general_ci	16.0 KiB	-
	7 tables	Sum	51	InnoDB	utf8mb4_general_ci	224.0 KiB	0 B

Fig4.1 tables

4.1 Create Tables

TABLE CUSTOMER

```
create table customer
(
cust_id   number(3),
cust_name    varchar(20),
address    varchar(50),
city varchar(20),
state  varchar(20),
pincode  number(6),
phone_no number(10),
sex  varchar(1),
email id varchar(10),
password varchar(10),
admin_id  number(3),
primary  key(cust_id),
foreign key(admin_id)references admin(admin_id)
);
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	cust_id	int(3)			No	None		AUTO_INCREMENT	Change Drop More
☐	2	cust_name	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
☐	3	address	varchar(50)	utf8mb4_general_ci		No	None			Change Drop More
☐	4	city	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
☐	5	state	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
☐	6	pincode	int(6)			No	None			Change Drop More
☐	7	phone_no	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More
☐	8	sex	varchar(1)	utf8mb4_general_ci		No	None			Change Drop More
☐	9	email_id	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
☐	10	password	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More
☐	11	admin_id	int(3)			No	None			Change Drop More

Fig 4.1.2 table customer description

TABLE ACCOUNT

```
create table account
(
acc_id number(3),
cust_id number(3),
acc_no number(5),
name varchar(20),
primary key(acc_id),
foreign key(cust_id)references customer(cust_id)
);
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	acc_id	int(3)			No	None		AUTO_INCREMENT	Change Drop More
☐	2	cust_id	int(3)			No	None			Change Drop More
☐	3	account_no	int(225)			No	None			Change Drop More
☐	4	name	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More

Fig 4.1.3 table account description

TABLE ADMIN

```
create table admin
(
admin_id number(3),
admin_name varchar(20),
admin_email id varchar(10),
e_password varchar(10),
```

```
primary key(admin_id)
);
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	admin_id	int(3)			No	None			Change Drop More
☐	2	admin_name	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
☐	3	a_email_id	varchar(20)	utf8mb4_general_ci		No	None			Change Drop More
☐	4	e_password	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More

Fig 4.1.4 table admin description

TABLE BILLING

```
create  table billing
(
meta_number  number(3),
acc_id   number(3),
cust_id number(3),
monthly_units  number(3),
amount_per_unit  numer(2),
total_amount  number(6),
primary key(meta_number),
foreign key(acc_id)references account(acc_id),
foreign key(cust_id)references  customer(cust_id)
);
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	meter_number	int(3)			No	None		AUTO_INCREMENT	Change Drop More
☐	2	acc_id	int(3)			No	None			Change Drop More
☐	3	cust_id	int(3)			No	None			Change Drop More
☐	4	monthly_units	int(3)			No	None			Change Drop More
☐	5	amount_per_unit	int(2)			No	None			Change Drop More
☐	6	total_amount	int(6)			No	None			Change Drop More

Fig 4.1.5 table billing description

TABLE ELEC_BOARD

```
create  table electric_board
(
eboard_id  number(4),
board_name  varchar(50),
primary key(eboard_id)
```

);

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	**eboard_id**	int(5)			No	*None*			Change Drop More
☐	2	**board_name**	varchar(100)	utf8mb4_general_ci		No	*None*			Change Drop More

Fig 4.1.6 table elec_board description

TABLE INVOICE

```
create table  invoice
(
invoice_id  number(4),
eboard_id  number(4),
acc_no  number(5),
tarrif_id  number(2),
reading_date  date
meta_number number(3),
primary key(invoice_id),
foreign key(eboard_id)references elec_board(eboard_id),
foreign key(acc_no)references account(acc_no),
foreign key(tarrif_id)references tarrif(tarrif_id),
foreign key(meta_number)references billing(meta_number)
);
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	**invoice_id**	int(4)			No	*None*		AUTO_INCREMENT	Change Drop More
☐	2	**eboard_id**	int(4)			No	*None*			Change Drop More
☐	3	**account_no**	int(5)			No	*None*			Change Drop More
☐	4	**tariff_id**	int(2)			No	*None*			Change Drop More
☐	5	**reading_date**	date			No	*None*			Change Drop More
☐	6	**meter_number**	int(3)			No	*None*			Change Drop More

Fig 4.1.7 table invoice description

TABLE TARIFF

```
create  table tariff
(
tariff_id number(2),
tariff_type   varchar(50)
);
```

	#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
☐	1	tariff_id	int(12)			No	*None*			Change Drop More
☐	2	tariff_type	varchar(50)	utf8mb4_general_ci		No	*None*			Change Drop More

Fig 4.1.8 table tariff description

4.2 Insert values into the Tables

Insert into table Customer

insert into customer values(401,'Vishnu','Basaveswaranagara',
'Bengaluru','Karnataka',570054,987654321,'M','vishnu@gmail.com','qwerty');

insert into customer values(402,'Anant','H D Kote Road'
'Mysore','Karnataka',570009,789654321,'M','anant@gmail.com','qwerty');

insert into customer values(403,'Deekshith','R K Block'Tumkur','Karnataka'
,570054 ,986543210,'M','deekshith@gmail.com','qwerty');

insert into customer values(404,'Farhaan','Gokul', 'Hubli','Karnataka',580009 ,876543210
,'M','farhaan@gmail.com','qwerty');

insert into customer values(405,'Tushara','C J Colony'
'Gulbarga','Karnataka',585101,965487321,'','tushara@gmail.com','qwerty');

insert into customer values(406,'Priya','Mulki','Manglore',
'Karnataka',574173 ,78564123,'F','priya@gmail.com','qwerty');

insert into customer values(408,'Preethi','Sulthanpur','Gulbarga',
'Karnataka',585102,876543210,'F','preethi@gmail.com','qwerty');

insert into customer values(409,'Ajay',
'Agadi','Hubli','Karnataka',580020,912345678,'M','ajay@gmail.com','qwerty');

insert into customer values(410,'Ritika',
'Kateel','Manglore','Karnataka',574173,903456789, 'F','ritika@gmail.com','qwerty');

select * from customer;

	cust_id	cust_name	address	city	state	pincode	phone_no	sex	email_id	password	admin_id
Edit Copy Delete	401	Abhay	M G Road	Mysore	Karnataka	570008	7455678902	M	abhay@gmail.com	qwerty	154
Edit Copy Delete	402	Vishnu	Basaveswaranagar	Bengaluru	Karnataka	570054	98765 4321	M	vishnu@gmail.com	qwerty	170
Edit Copy Delete	403	Anant	H D Kote Road	Mysore	Karnataka	570009	78965 4321	M	anant@gmail.com	qwerty	154
Edit Copy Delete	404	Deekshith	R K Block	Tumkur	Karnataka	570054	98654 3210	M	deekshith@gmail.com	qwerty	170
Edit Copy Delete	405	Farhaan	Gokul	Hubli	Karnataka	580009	87654 3210	F	farhaan@gmail.com	qwerty	170
Edit Copy Delete	406	Tushara	C J Colony	Gulbarga	Karnataka	585101	96548 7321	F	tushara@gmail.com	qwerty	154
Edit Copy Delete	407	Priya	Mukli	Mangalore	Karnataka	0	78564 123	F	priya@gmail.com	qwerty	154
Edit Copy Delete	408	Preethi	Sultanpur	Gulbarga	Karnataka	585102	87654 3210	F	preethi@gmail.com	qwerty	170
Edit Copy Delete	409	Ajay	Agadi	Hubli	Karnataka	580020	91234 5678	M	ajay@gmail.com	qwerty	154
Edit Copy Delete	410	Ritika	Kateel	Mangalore	Karnataka	574173	90345 6789	F	rithika@gmail.com	qwerty	170

Fig4.2.1 Table customer

Insert into table account

insert into account values(111,401,12341,’Abhay’);

insert into account values(112,402,12342,’Vishnu’);

insert into account values(113,403,12343,’Anant’);

insert into account values(114,404,12344,’Deekshith’);

insert into account values(115,405,12345,’Farhaan’);

insert into account values(116,406,12346,’Tushara’);

insert into account values(117,407,12347,’Priya’);

insert into account values(118,408,12348,’Preethi’);

insert into account values(119,409,12349,’Ajay’);

insert into account values(120,410,12350,’Rithika’);

select *from account;

	acc_id	cust_id	account_no	name
Edit Copy Delete	111	401	12341	Abhay
Edit Copy Delete	112	402	12342	Vishnu
Edit Copy Delete	113	403	12343	Anant
Edit Copy Delete	114	404	12344	Deekshith
Edit Copy Delete	115	405	12345	Farhaan
Edit Copy Delete	116	406	12346	Tushara
Edit Copy Delete	117	407	12347	Priya
Edit Copy Delete	118	408	12348	Preethi
Edit Copy Delete	119	409	12349	Ajay
Edit Copy Delete	120	410	12350	Rithika

Fig4.2.3 Table account

Insert into table Admin

insert into admin values(154,'Sunetha S L','sunetha@gmail.com',1234);

insert into admin values(170,'Varshitha S','varshitha@gmail.com',1234);

select * from admin;

	admin_id	admin_name	a_email_id	e_password
Edit Copy Delete	154	Sunetha S L	sunetha@gmail.com	1234
Edit Copy Delete	170	Varshitha S	varshitha@gmail.com	1234

Fig4.2.3 Table admin

Insert into table Billing

insert into billing values(101,111,401,500,10,5000);

insert into billing values(102,112,402,390,10,3900);

insert into billing values(103,113,403,208,10,2080);

insert into billing values(104,114,404,800,10,8000);

insert into billing values(105,115,405,200,10,2000);

insert into billing values(106,116,406,600,10,6000);

insert into billing values(107,117,407,500,10,5000);
insert into billing values(108,118,408,770,10,7700);

insert into billing values(109,119,409,560,10,5600);

insert into billing values(110,120,410,320,10,3200);

select * from billing;

	meter_number	acc_id	cust_id	monthly_units	amount_per_unit	total_amount
Edit Copy Delete	101	111	401	500	10	5000
Edit Copy Delete	102	112	402	390	10	3900
Edit Copy Delete	103	113	403	208	10	2080
Edit Copy Delete	104	114	404	800	10	8000
Edit Copy Delete	105	115	405	200	10	2000
Edit Copy Delete	106	106	406	600	10	6000
Edit Copy Delete	107	117	407	500	10	5000
Edit Copy Delete	108	118	408	770	10	7700
Edit Copy Delete	109	119	409	560	10	5600
Edit Copy Delete	110	120	410	320	10	3200

Fig4.2.4 Table bliing

Insert into table Elec_board

insert into electric_board values(111,’BESCOM’);

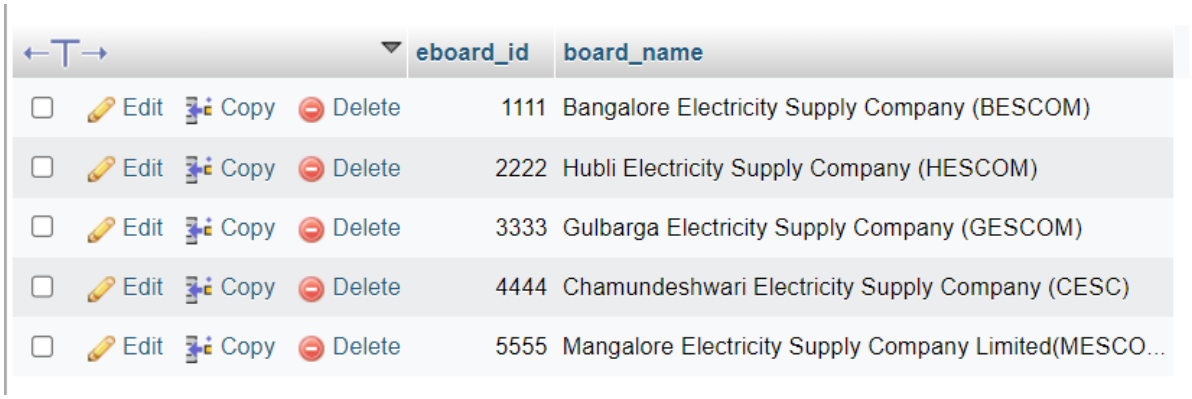
insert into electric_board values(222,’HESCOM’);

insert into electric_board values(333,’GESCOM’);

insert into electric_board values(444,’CESC’);

insert into electric_board values(555,’MESCOM’);

select * from electric_board;



	eboard_id	board_name
Edit Copy Delete	1111	Bangalore Electricity Supply Company (BESCOM)
Edit Copy Delete	2222	Hubli Electricity Supply Company (HESCOM)
Edit Copy Delete	3333	Gulbarga Electricity Supply Company (GESCOM)
Edit Copy Delete	4444	Chamundeshwari Electricity Supply Company (CESC)
Edit Copy Delete	5555	Mangalore Electricity Supply Company Limited(MESCO...

Fig4.2.5 Table elec_board

Insert into table Invoice

insert into invoice values(1201,4444,12341,13,2022-12-24);

insert into invoice values(1202,1111,12342,12,2022-12-21);

insert into invoice values(1203,4444,12343,12,2022-12-19);

insert into invoice values(1204,1111,12344,14,2022-12-28);

insert into invoice values(1205,2222,12345,15,2022-12-18);

insert into invoice values(1206,3333,12346,13,2022-12-25);

insert into invoice values(1207,5555,12347,13,2022-12-15);

insert into invoice values(1208,3333,12348,12,2022-12-10);

insert into invoice values(1209,2222,12349,14,2022-12-30);

insert into invoice values(1210,5555,12350,15,2022-12-27);

select *from invoice;

	invoice_id	eboard_id	account_no	tariff_id	reading_date	meter_number
Edit Copy Delete	1201	4444	12341	13	2022-12-24	101
Edit Copy Delete	1202	1111	12342	12	2022-12-21	102
Edit Copy Delete	1203	4444	12343	12	2022-12-19	103
Edit Copy Delete	1204	1111	12344	14	2022-12-28	104
Edit Copy Delete	1205	2222	12345	15	2022-12-18	105
Edit Copy Delete	1206	3333	12346	13	2022-12-25	106
Edit Copy Delete	1207	5555	12347	13	2022-12-15	107
Edit Copy Delete	1208	3333	12348	12	2023-12-10	108
Edit Copy Delete	1209	2222	12349	14	2022-12-30	109
Edit Copy Delete	1210	5555	12350	15	2022-12-27	110

Fig4.2.6 Table invoice

Insert into table Tariff

insert into tariff values(12,'Power factor tariff');

insert into tariff values(13,'peak Load tariff');

insert into tariff values(14,'Two Part tariff');

insert into tariff values(15,'Three Part tariff');

select *from tariff;

	tariff_id	tariff_type
Edit Copy Delete	12	Power factor tariff
Edit Copy Delete	13	peak Load tariff
Edit Copy Delete	14	Two part tariff
Edit Copy Delete	15	Three part tariff

Fig4.2.5 Table tariff

Chapter 5

SQL QUERIES

5.1 Query1

Count the number of the customer whose billing amount is greater than 5000?

```
SELECT COUNT(*)
FROM billing
WHERE total_amount>=5000;
```

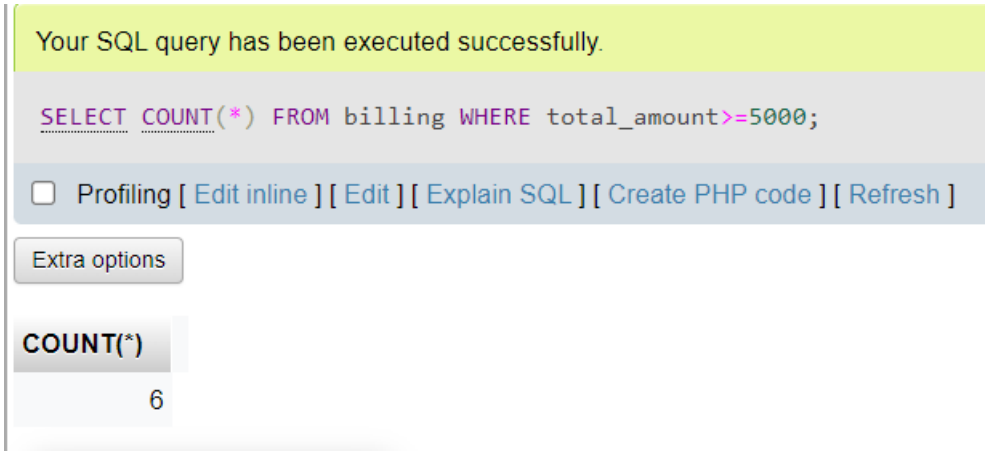


Fig5.1 Query 1

5.2 Query2

Retrieve the name of customer whose meter number is 106

```
SELECT c.cust_name
FROM customer c, billing b
WHERE c.cust_id=b.cust_id AND b.meter_number=106;
```

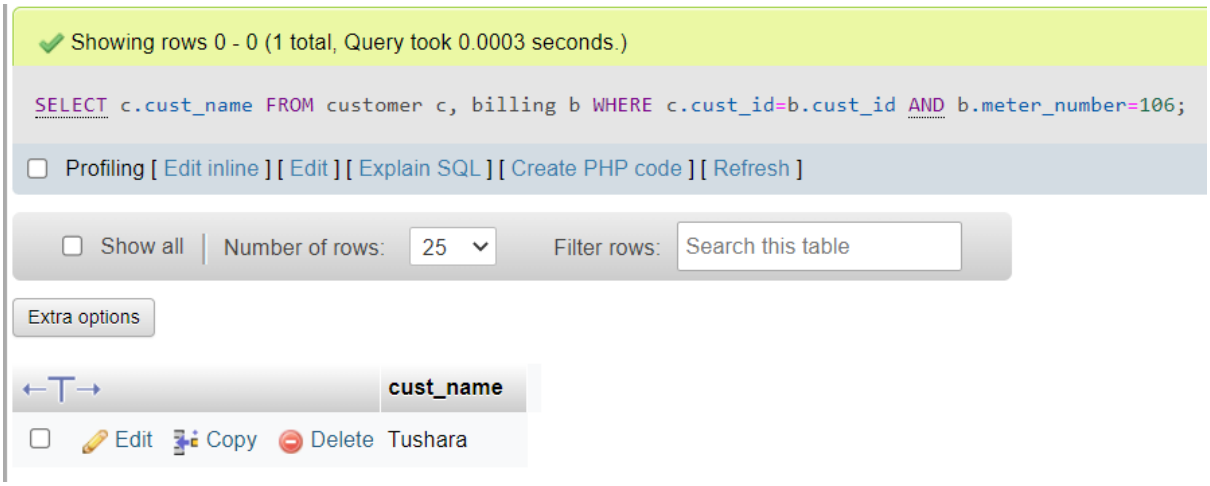


Fig5.2 Query 2

5.3 Query3

Retrieve names and address of customer from the city Mysore

SELECT cust_name,address,city,state,pincode

FROM customer

WHERE city='Mysore';

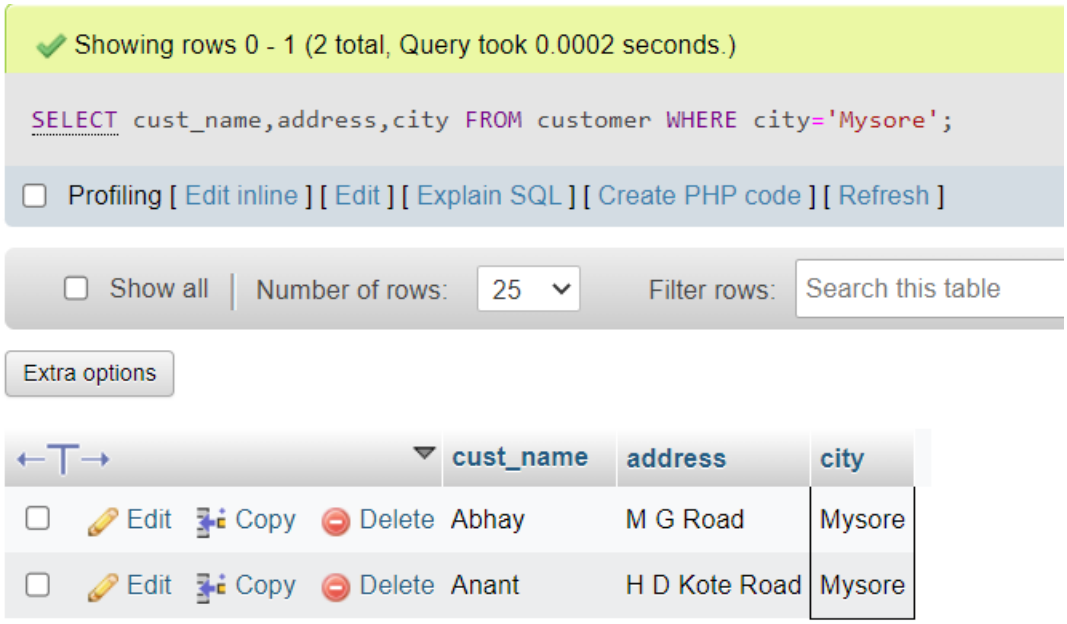


Fig5.3 Query 3

5.4 Query4

Retrieve the bill details and invoice of the bill that was billed on '2022-12-18'

SELECT *

FROM billing b,invoice v

```
WHERE b.meter_number=v.meter_number AND reading_date='2022-12-18';
```

Fig5.4 Query 4

5.5 Query5

Retrieve the names and id of customers under the electricity board with eboard_id=’5555’

```
SELECT cust_name,cust_id
FROM customer
WHERE cust_id IN(SELECT cust_id
                 FROM account a
                 WHERE account_no IN(SELECT account_no
                                     FROM invoice
                                     WHERE eboard_id='5555'));
```

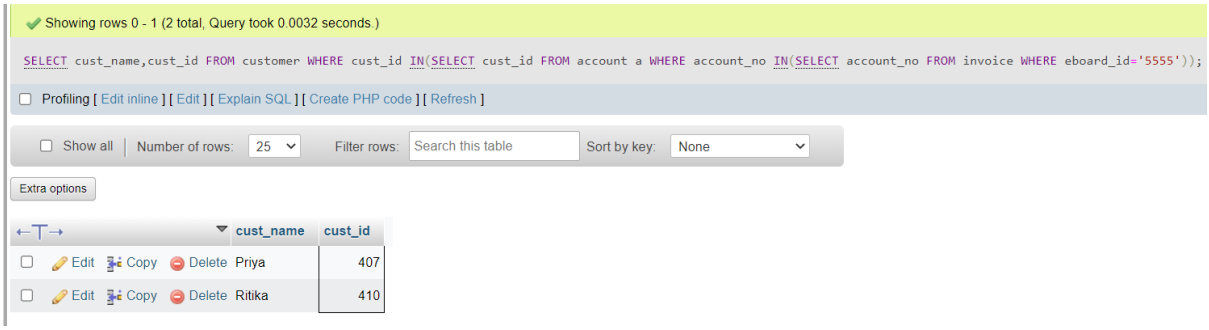


Fig5.5 Query 5

5.6 Query6

Retrieve the name, id, address, city, state, phone no, email of all the customers under the admin ‘Varshitha S’

```
SELECT c.cust_id,c.cust_name,c.address,c.city,c.state,c.email_id,c.phone_no
FROM customer c,admin a
WHERE c.admin_id=a.admin_id AND a.admin_name='Varshitha S';
```

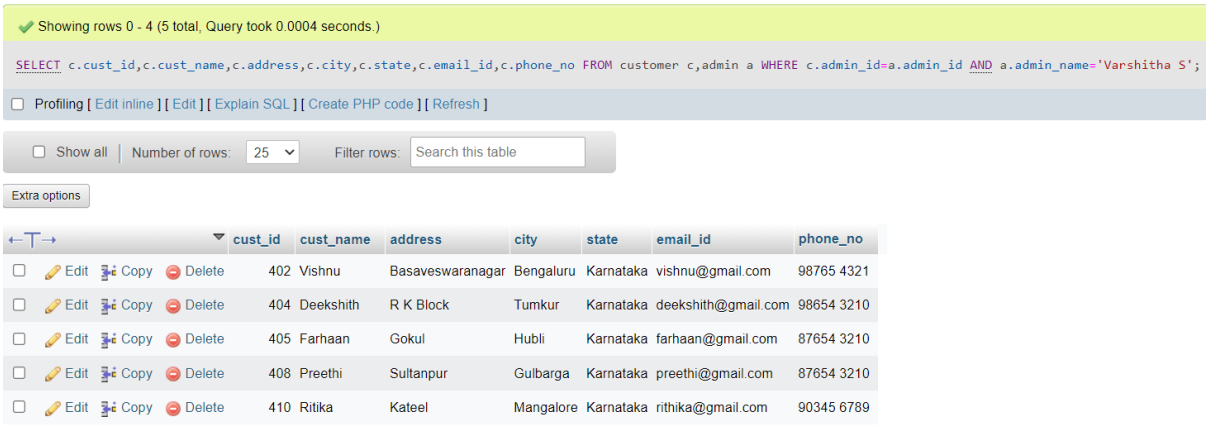


Fig5.6 Query 6

5.7 Query7

Retrieve the sum of total amount paid by the customers under the admin with admin_id=’154’

```
SELECT SUM(total_amount)
FROM billing
WHERE cust_id IN (SELECT c.cust_id
                  FROM customer c,admin a
                  WHERE c.admin_id=a.admin_id AND a.admin_id='154');
```

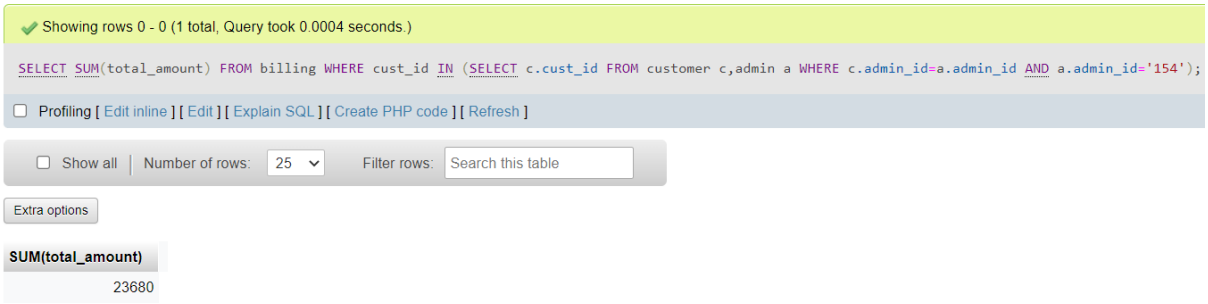


Fig5.7 Query 7

Chapter 6

SNAPSHOTS

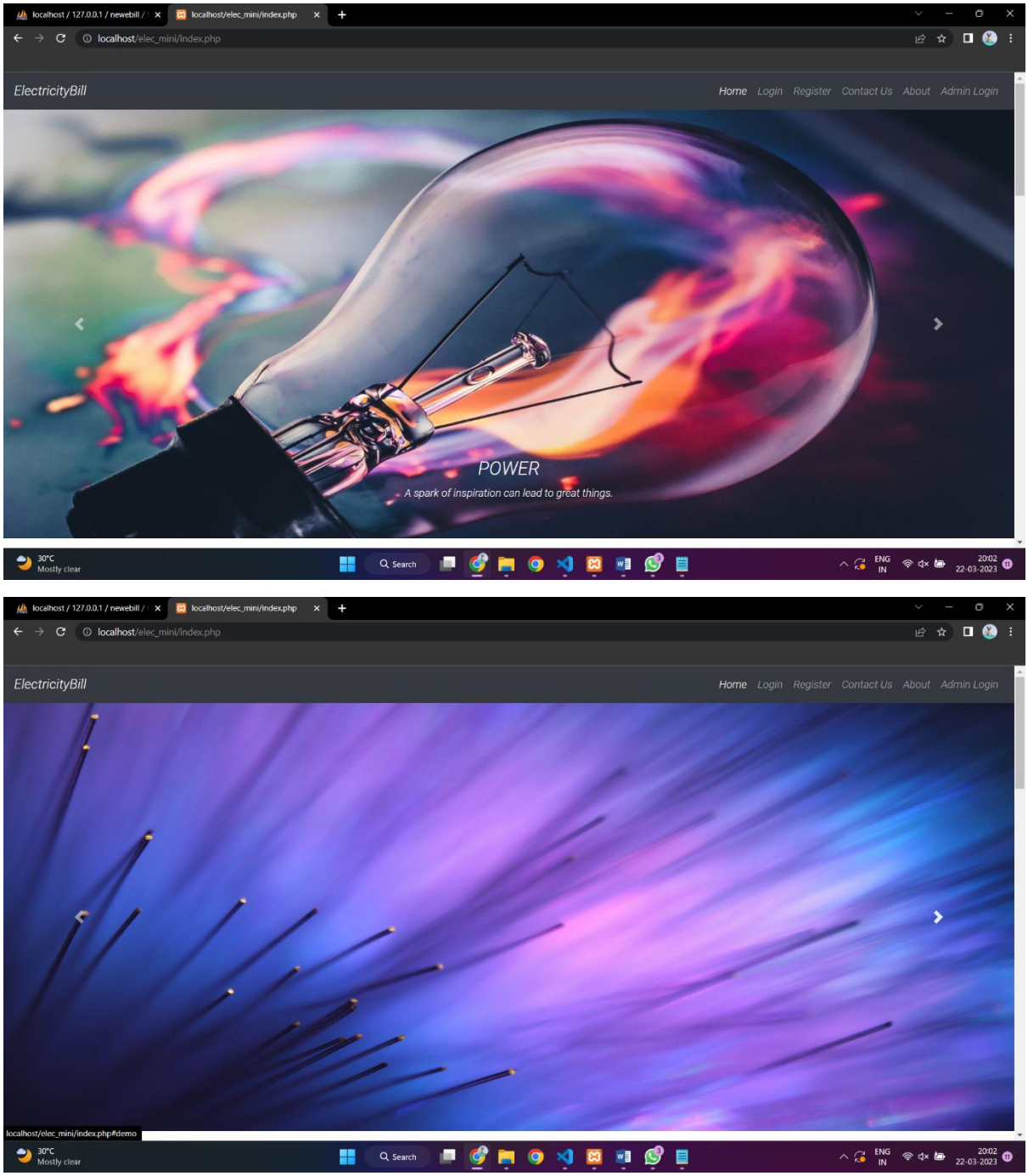


Fig6.1 home page of the website

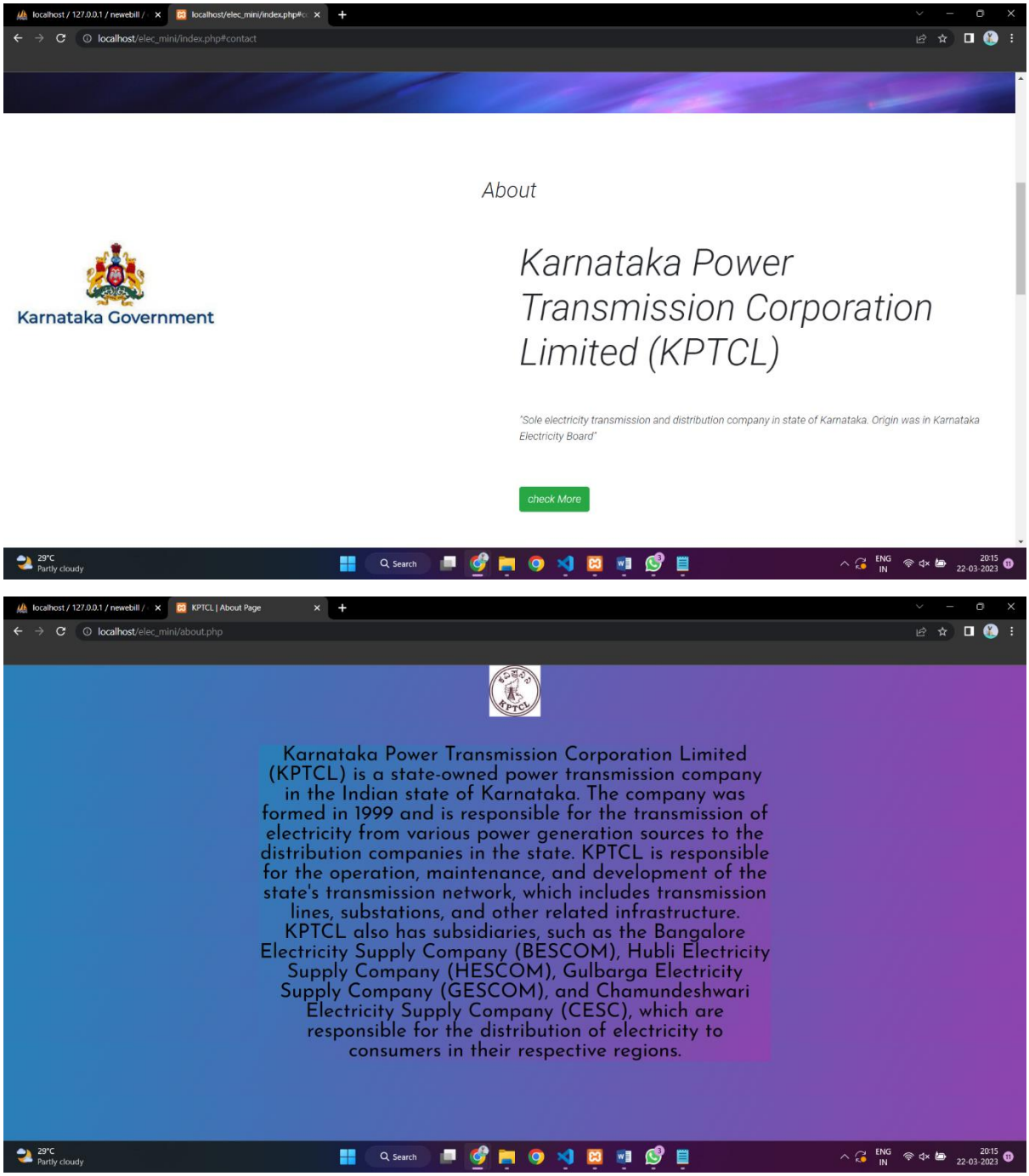


Fig 6.2 about page

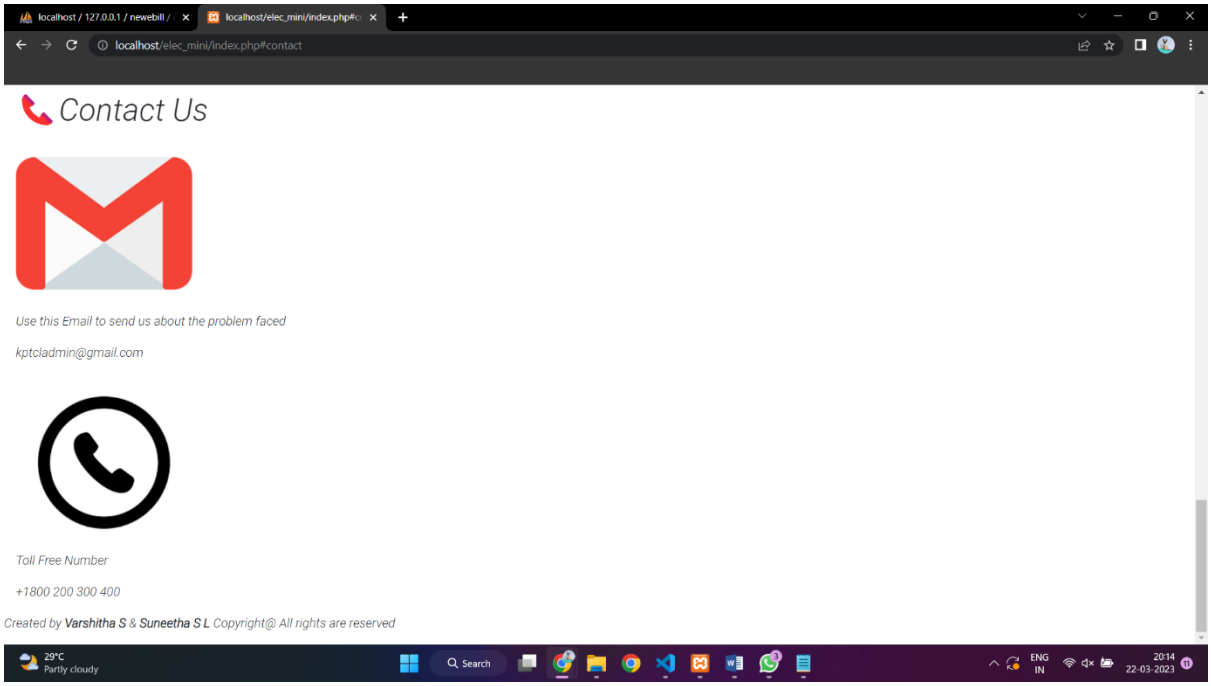


Fig 6.3 Contact us

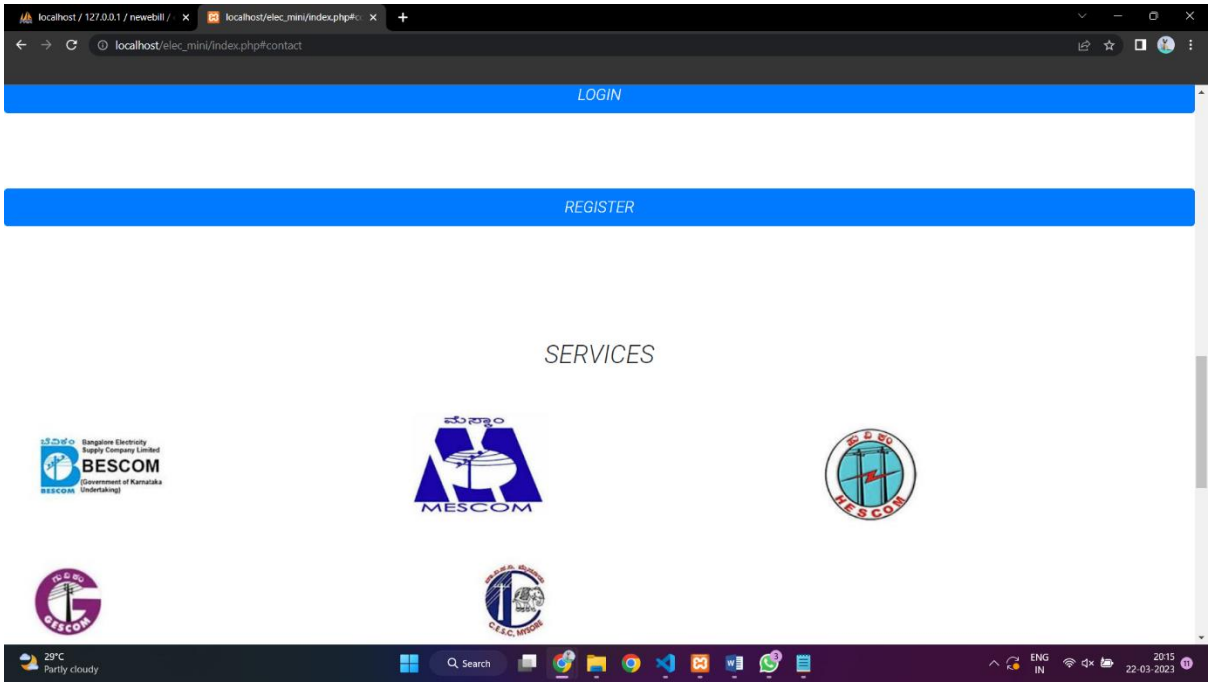
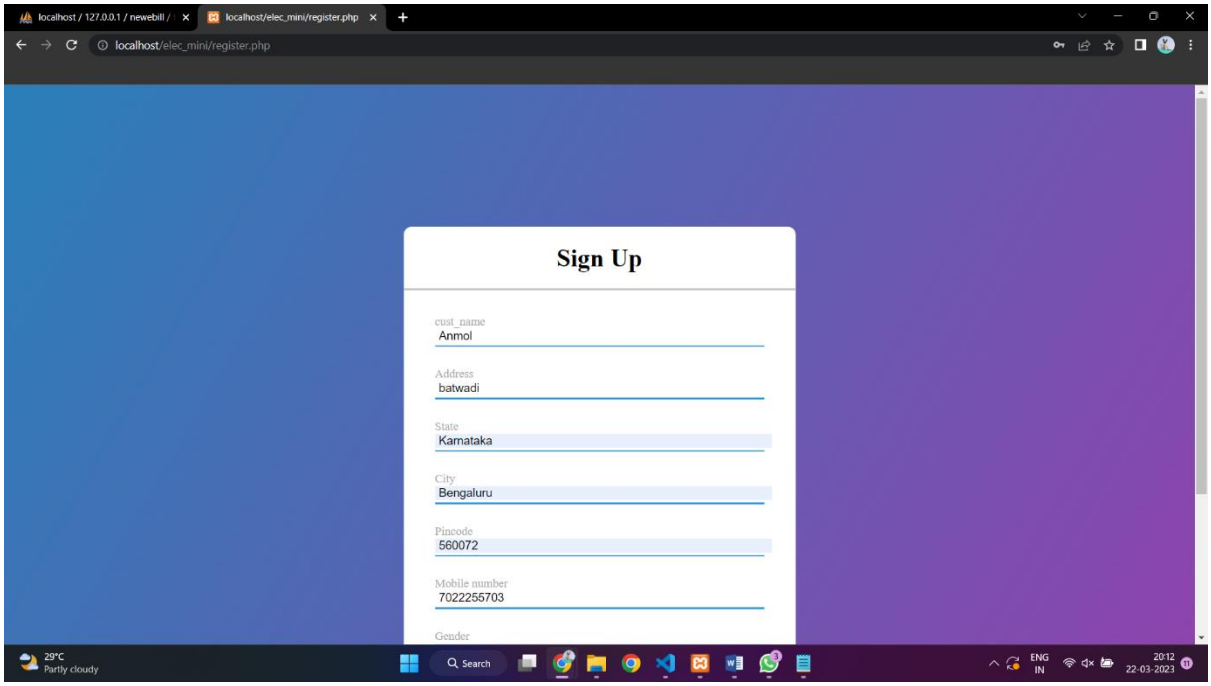


Fig 6.4 Services provided



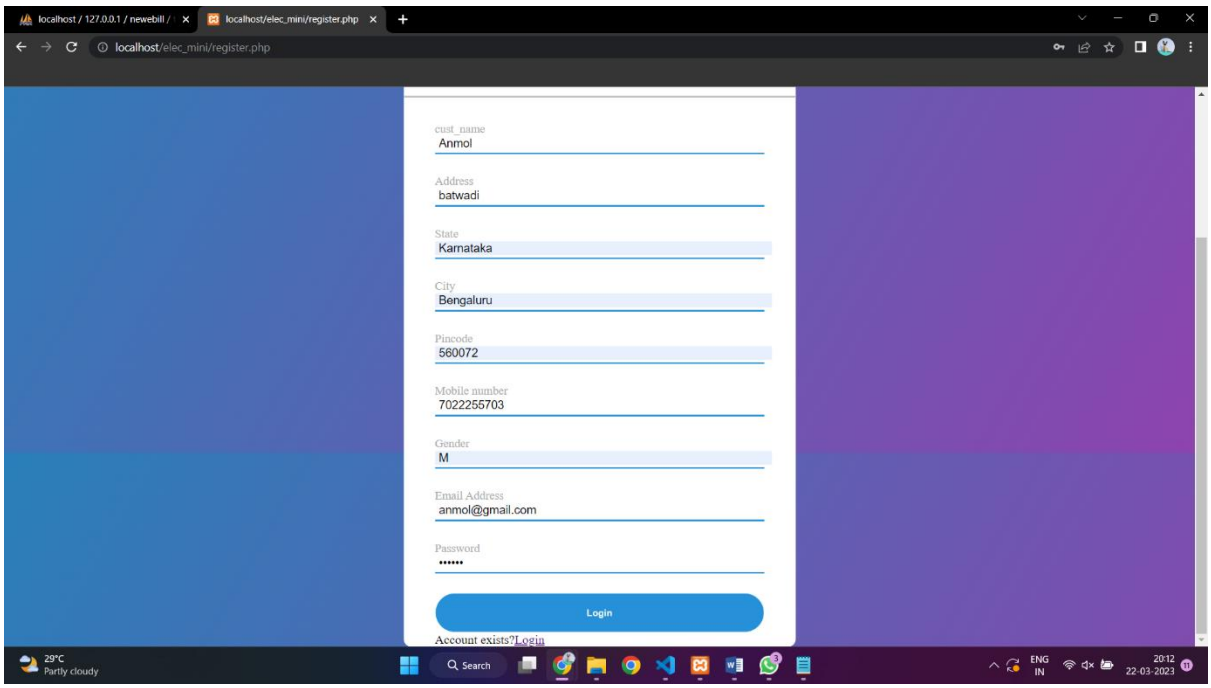


Fig 6.5 Register page for new customers

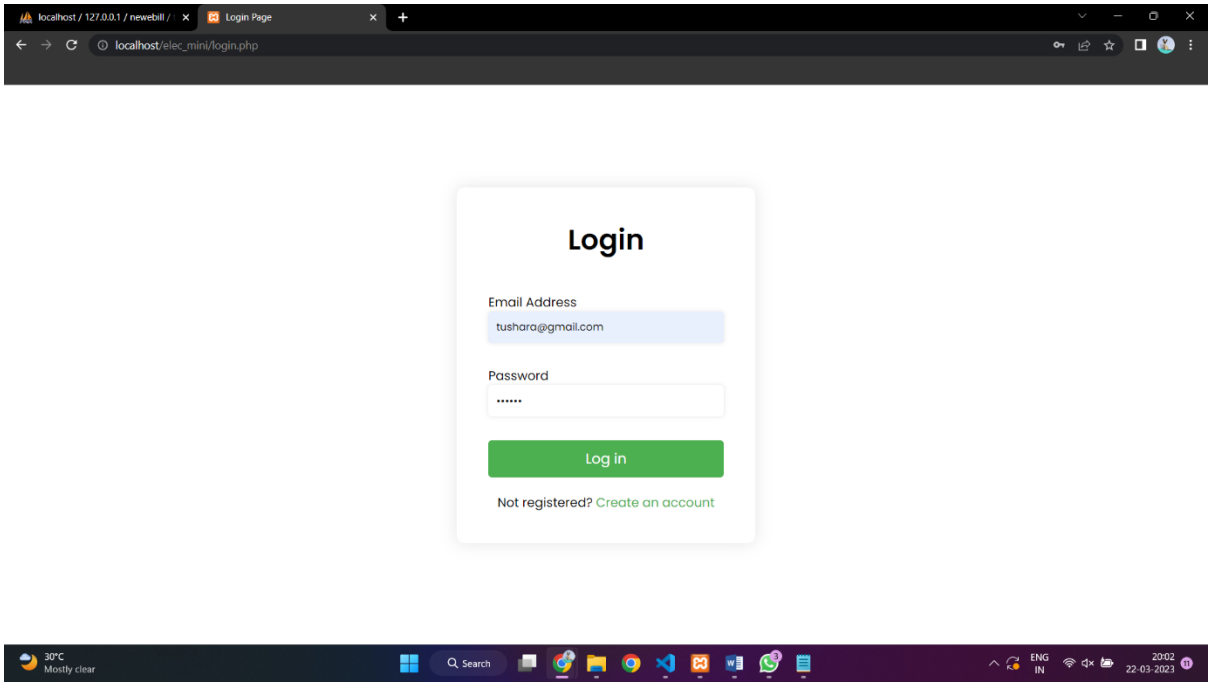


Fig 6.6 Login page for existing customers

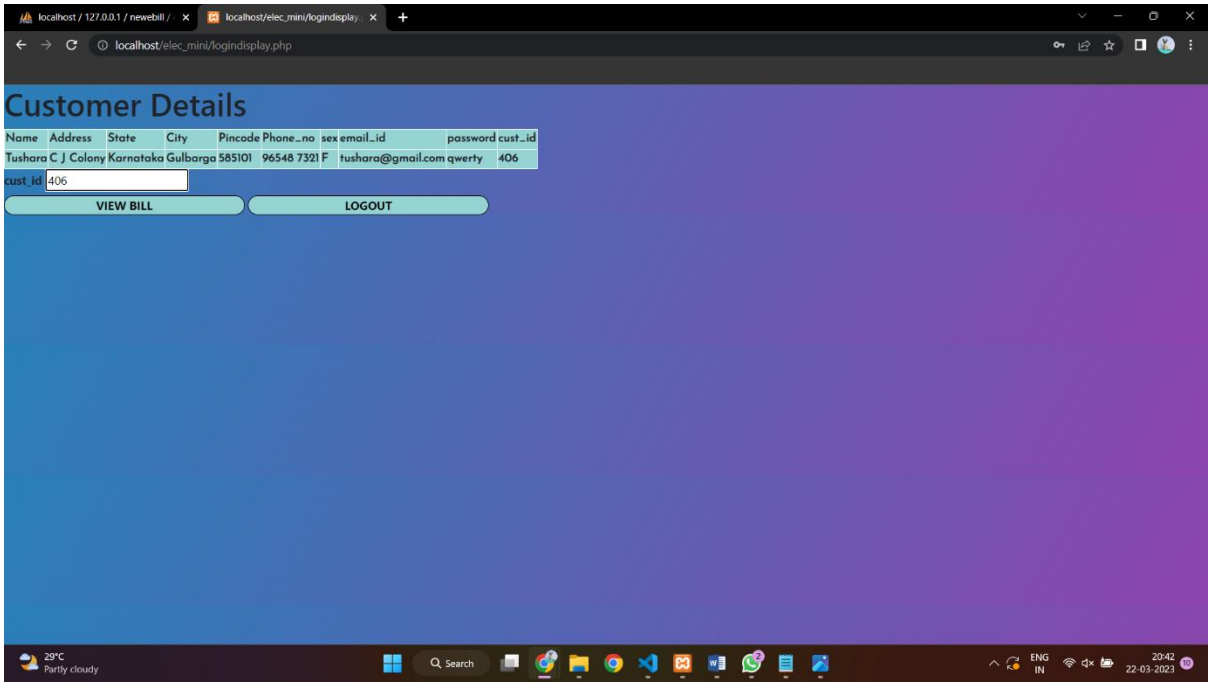


Fig 6.7 after login customer details are shown

Click view bill to view the bill details

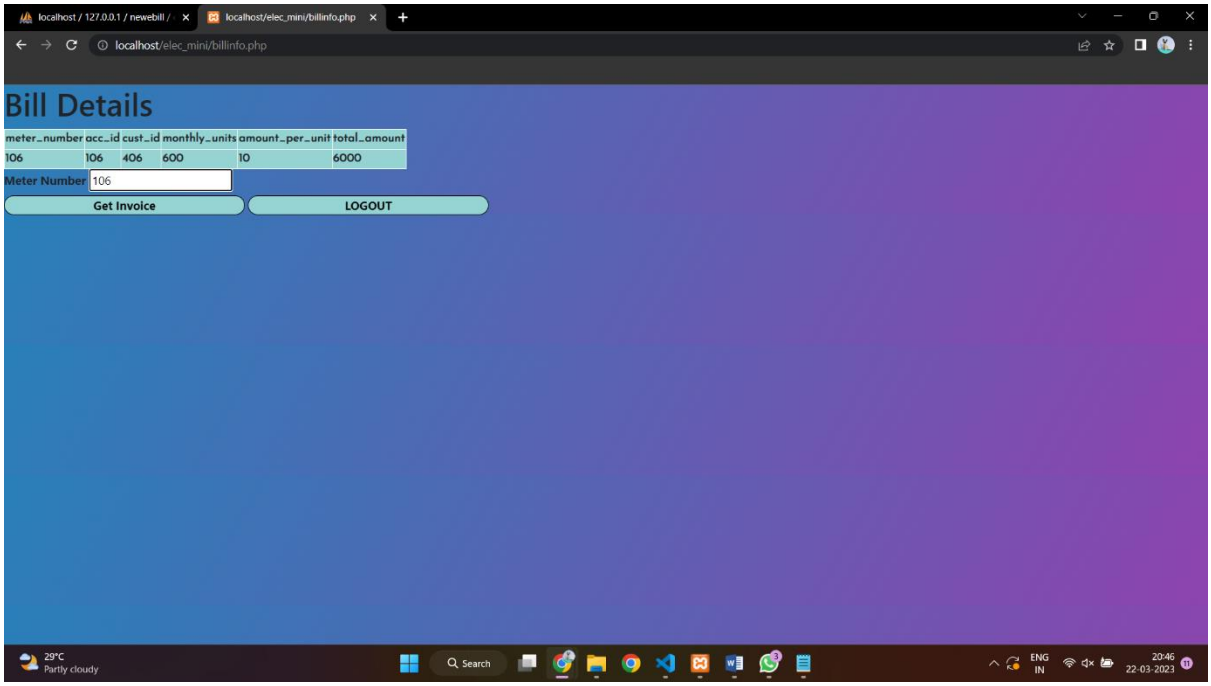


Fig 6.8 bill details are displayed

Click Get Invoice to get the invoice details

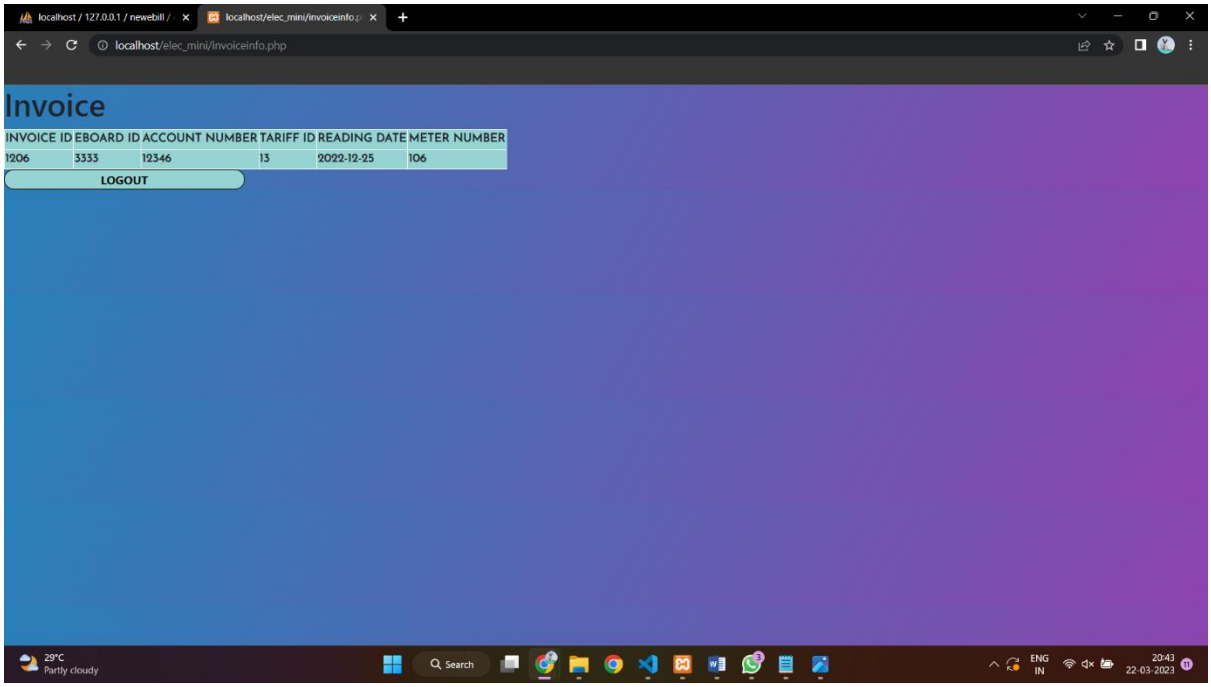


Fig 6.9 Invoice details are displayed

Click logout to logout and return to the home page

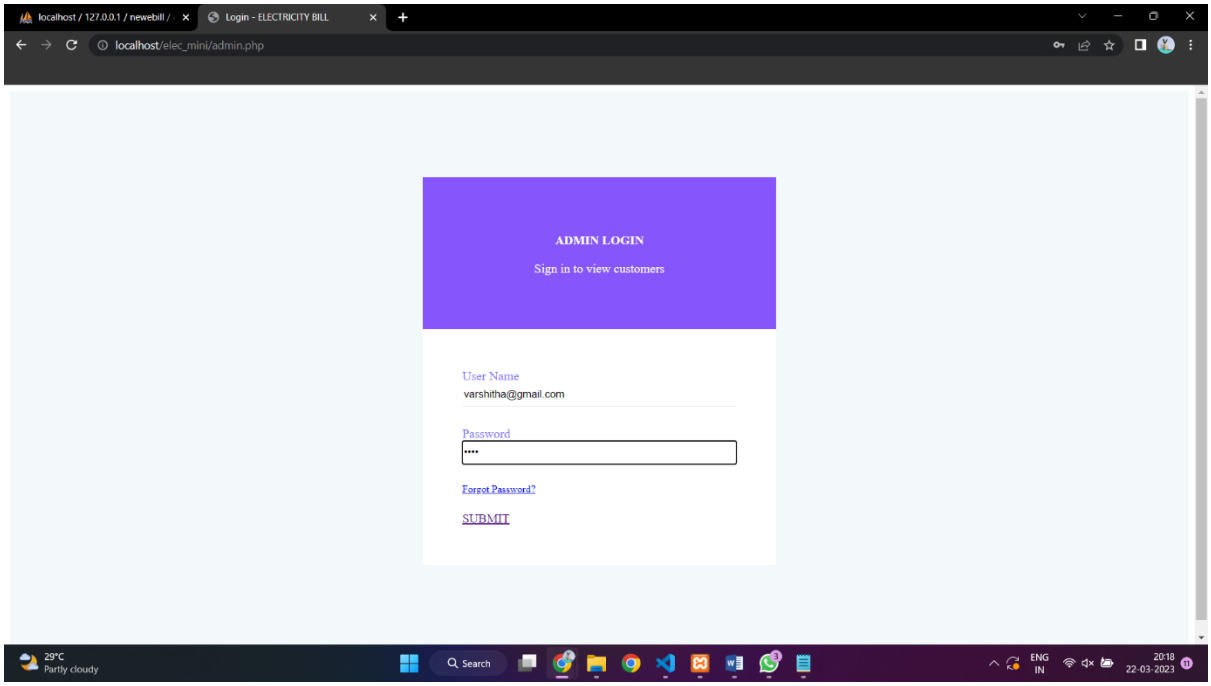


Fig 6.10 Admin login page

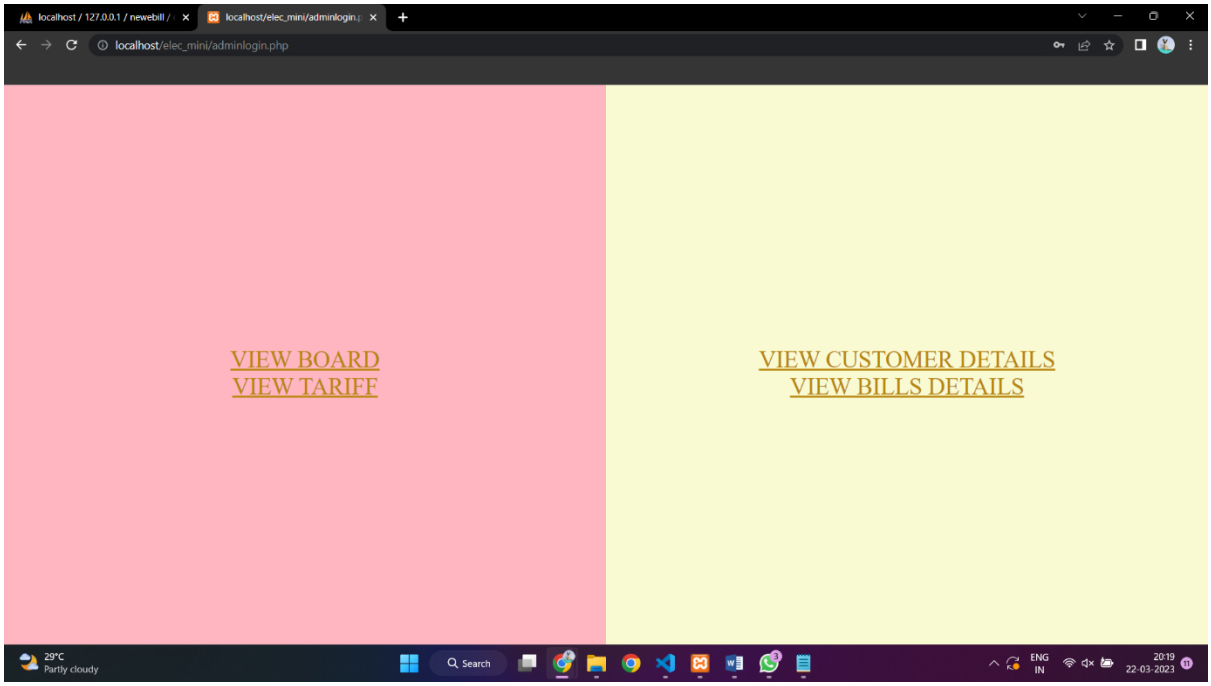


Fig 6.11 After logging in the admin can view board, tariff, customer, bill details

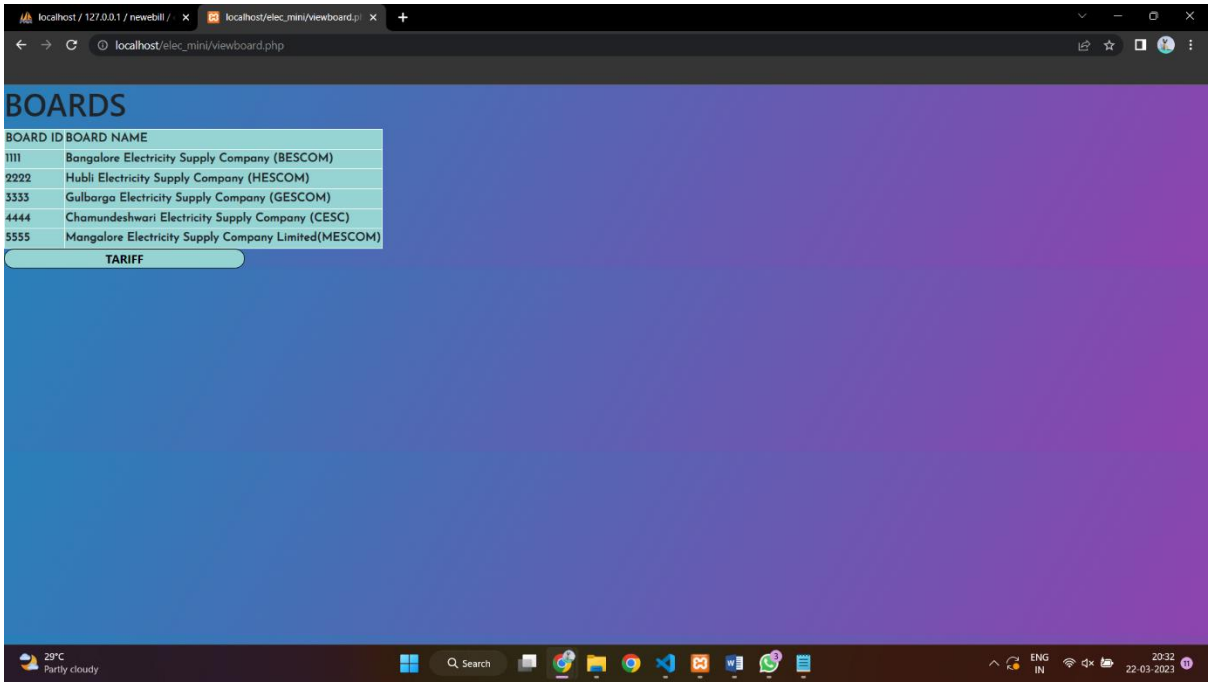


Fig 6.12 admin viewing the board details

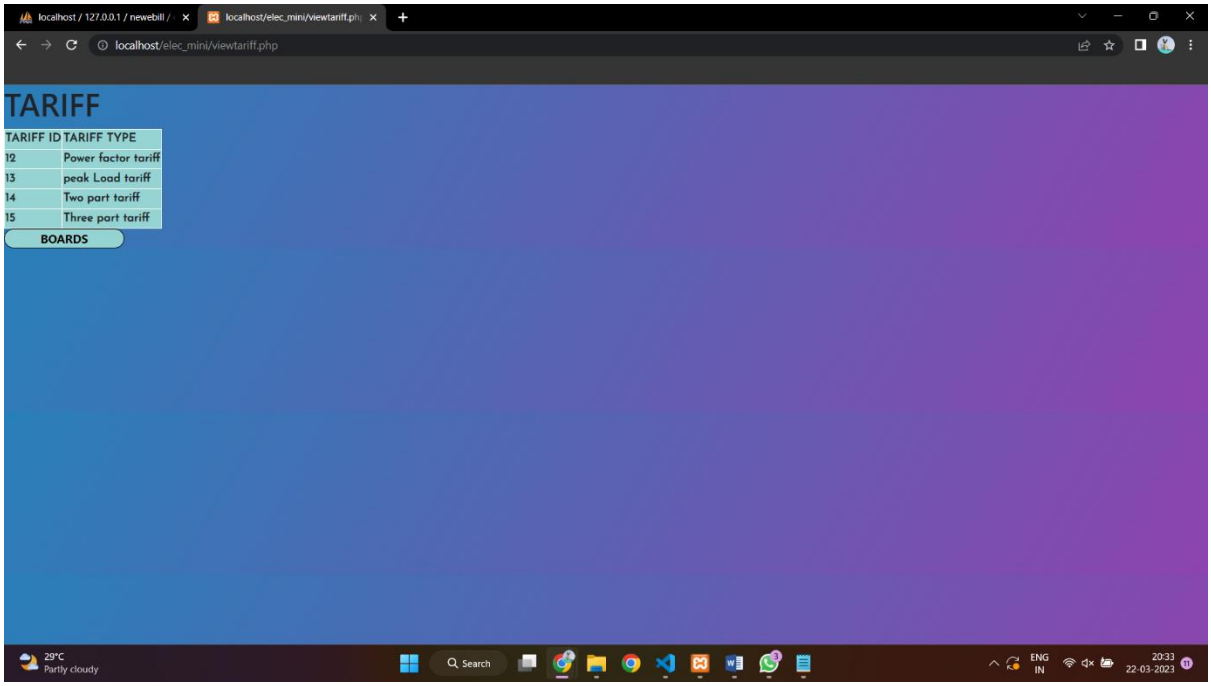


Fig 6.13 admin viewing the tariff details

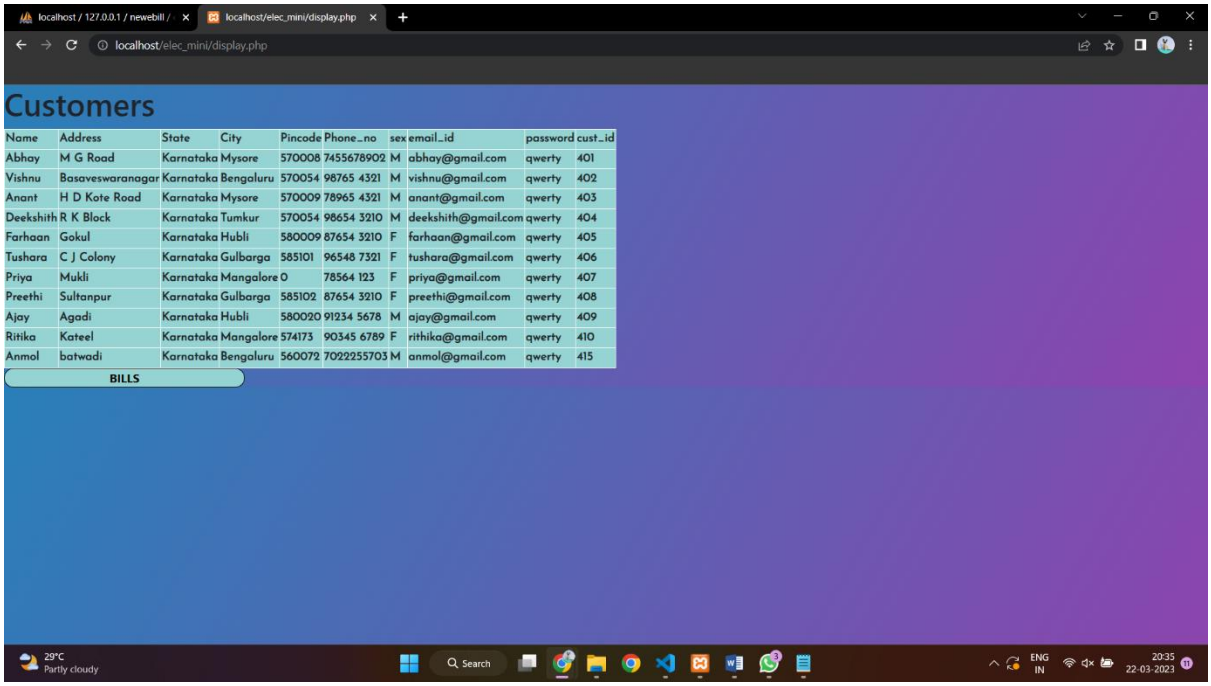


Fig 6.14 admin viewing all the customer details

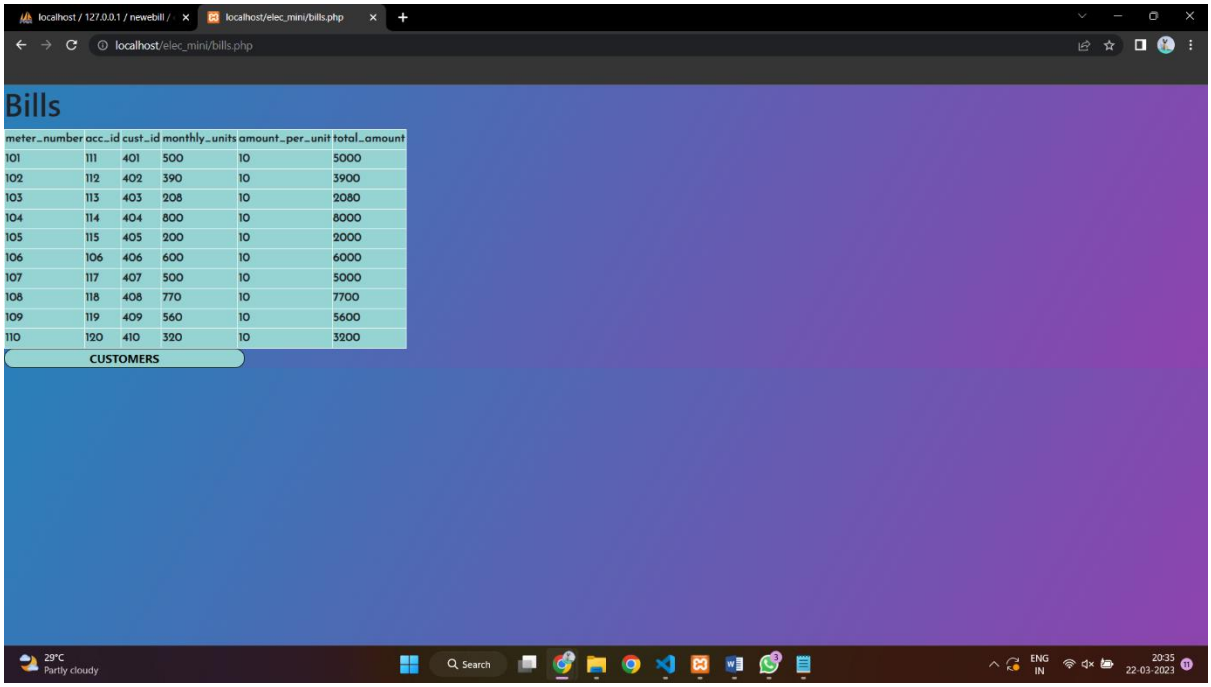


Fig 6.15 admin viewing all the bill details

CONCLUSION

In conclusion, the Electricity Bill Management System developed as a DBMS mini-project is a useful tool for managing and maintaining electricity bills. The system offers various features like bill generation, bill payment, bill history, customer management, and admin management, which simplifies the process of managing electricity bills. The system has been developed using MySQL as the backend database and PHP as the frontend programming language. It provides a user-friendly interface for both customers and admins to manage and view their electricity bills. Overall, the Electricity Bill Management System is a comprehensive and efficient solution for managing electricity bills. It can be further enhanced by adding more features such as bill reminders, automatic bill payments, and advanced analytics for better insights into bill management.

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