**System Implementations**

**Recommended System Requirements**

Processors: Intel® Core™ i3 processor 4300M at 2.60 GHz.

Disk space: 4 to 8 GB.

Operating systems: Windows® 10, MACOS, and UBUNTU.

Python Versions: 3.X.X or Higher.

**Minimum System Requirements**

Processors: Intel Atom® processor or Intel® Core™ i3 processor.

Disk space: 1 GB.

Operating systems: Windows 7 or later, MACOS, and UBUNTU.

Python Versions: 2.7.X, 3.9.X.

**ACKNOWLEDGEMENT**TTT

First and foremost, praises and thanks to the God, the Almighty, for His showers of blessings throughout my research work to complete the research successfully.

We would like to express my deep and sincere gratitude to my subject teacher, **Mr. Amit Udiwal**, for giving me the opportunity to do research and providing invaluable guidance throughout this research. His dynamism, vision, sincerity and motivation have deeply inspired me. He has taught me the methodology to carry out the research and to present the research works as clearly as and honour to work and study under his guidance. We are very much thankful to our **Sr. Jasmin** for giving valuable time and moral support to develop this software. We would like to take opportunity to extend my sincere thanks and gratitude to our parents for being a source of inspiration and providing time and freedom to develop this software project. We also feel indebted to my friends for the valuable suggestions during the project work.

Bhoomi Patni

[Roll No.

Class XII

**CERTIFICATE**

This is to certify that the project on ‘Electricity Billing System’ is a work done by Bhoomi Patni fulfilment of CBSE’S AISSCE EXAMINATION 2022-23 and has been carried out under my direct supervision and guidance. This report or a similar report on the topic has not been submitted for any other examination and does not form any other examination and does not form any other course undergone by the candidate.

Name: Bhoomi Patni [Roll No.

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Signature of Teacher / Guide

Name: Mr. Amit Udiwal

Designation:

………………. ….………………

**REFERENCE**

The order to work on this project on ‘Electricity Billing System’ the following books & literature are referred by me during the various phrases of department of the project.

• http://www.python.org/.

• http://www.itsourcecode.org/.

• http://www.wikipedia.org/.

• Informatics Practices for Class XII

- By Sumita Arora

• Together with informatics practices.

Other than the above mentioned books, the suggestions and supervision of my teacher and my class experience also helped me to develop this software project.

**Introduction**

This system is named as Electricity Billing System. This system is made to keep the records about the bills of the customers. The admin can manage all the accounts and 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.

**Objective and**

**Scope of The Project**

The Main Objective of this Project is it 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.

Like a customer can only manage his account and cannot see any details of other customers, 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 has the option for customers to pay their electricity bills online mode.

Electricity Billing System

**import mysql.connector as sql , random , datetime as dt**

**import matplotlib.pyplot as plt**

**conn=sql.connect(host='localhost',user='root',passwd='manager',database='EBS')**

**if conn.is\_connected():**

**print("successfully connected")**

**c='YES' or "yes" or 'Yes'**

**V='YES' or "yes" or 'Yes'**

**c1=conn.cursor()**

**while c=='YES' or "yes" or 'Yes':**

**print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*WELCOME TO ELECTRICITY BILLING SYSTEM\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')**

**print(dt.datetime.now())**

**print('1.NEW USER')**

**print('2.EXISTING USER')**

**print('3.EXIT')**

**choice1=int(input('ENTER YOUR CHOICE:'))**

**if choice1==1:**

**username=input("Enter your username number :")**

**password=input("Enter your password:")**

**confirmpasswd=input("Confirm your password:")**

**if password==confirmpasswd:**

**info1="insert into newuser values('{}','{}','{}')".format(username,password,confirmpasswd)**

**c1.execute(info1)**

**conn.commit()**

**c=input("do you want to continue?(yes or no)")**

**else:**

**print('your confirm password is incorrect')**

**print('Try again')**

**c=input("do you want to continue?(yes or no)")**

**elif choice1==2:**

**username=input('Enter your username:')**

**password=input('Enter your password:')**

**info2="select \* from newuser where username='{}' and password='{}'".format(username,password)**

**c1.execute(info2)**

**data=c1.fetchall()**

**while V=='YES' or "yes" or 'Yes':**

**if any(data):**

**print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*WELCOME TO ELECTRICITY BILLING SYSTEM\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')**

**print("1.ACCOUNT SETTINGS")**

**print("2.TRANSACTION")**

**print("3.VIEW CUSTOMER DETAILS")**

**print("4.GRAPHICAL REPRESENTATION")**

**print('5.EXIT')**

**choice2=int(input('ENTER YOUR CHOICE'))**

**if choice2==1:**

**print('1.NEW CUSTOMER')**

**print('2.DELETE EXISTING ACCOUNT')**

**choice12=int(input('ENTER YOUR CHOICE:'))**

**if choice12==1:**

**accountno=random.randrange(1000000,9999999,10)**

**print("your accountno is",accountno)**

**boxid=input("enter your mete box ID:")**

**bankname=input('Enter your BANK NAME :')**

**bankbranch=input('Enter your BANK BRANCH :')**

**name=input('Enter your name :')**

**address=input('Enter your address :')**

**areacode=int(input('Enter your area PIN CODE :'))**

**phoneno=int(input('Enter your PHONE NUMBER :'))**

**email=input('Enter your email :')**

**info2="insert into AddNewCustomer values({},'{}','{}','{}','{}',{},{},'{}','{}')".format(accountno,bankname,bankbranch,name,address,areacode,phoneno,email,boxid)**

**c1.execute(info2)**

**conn.commit()**

**V=input("do you want to continue?(yes or no)")**

**if V=='yes':**

**continue**

**else:**

**break**

**elif choice12==2:**

**acc=input("ENTER YOUR ACCOUNT NUMBER:")**

**use=input("ENTER YOUR USERNAME:")**

**info6=c1.execute("delete from Transaction where accountno='{}'".format(acc))**

**info7=c1.execute("delete from AddNewCustomer where accountno='{}'".format(acc))**

**info8=c1.execute("delete from newuser where username='{}'".format(use))**

**c1.execute(info6)**

**c1.execute(info7)**

**c1.execute(info8)**

**conn.commit()**

**print("THANK YOU FOR USING OUR SOFTWARE,YOUR ACCOUNT IS SUCCESFULLY DELETED")**

**V=input("do you want to continue?(yes or no)")**

**if V=='yes':**

**continue**

**else:**

**break**

**elif choice2==2:**

**accountno=int(input('Enter your account number :'))**

**info10="select \* from Transaction where accountno="+str(accountno)**

**c1.execute(info10)**

**data3=c1.fetchall()**

**for row in data3:**

**paid=row[6]**

**if paid=='yes':**

**print('you have already paid the bill')**

**break**

**else:**

**unit=random.randint(0,101)**

**print('Dear customer, you have used ',unit,'units of electricity.')**

**print('One unit of curent is 150 ruppees')**

**amount=150\*unit**

**toda=dt.date.today()**

**deadline=dt.date(2020,1,30)**

**if deadline<toda:**

**fine=(toda-deadline)\*30**

**totamt=amount+fine**

**print('you have dealyed for ',toda-deadline,'days.The fine per day is 30 rupees.')**

**GST=(15/100)\*totamt**

**totalamt=totamt+GST**

**print('Pleae payup ',totalamt,'rupees inclding GST')**

**p=input("Please Enter YES to transact")**

**if p=="YES"or 'Yes'or'yes':**

**print("Transaction successful")**

**print("You have paid the bill")**

**else:**

**print('plz pay the bill sooner')**

**else:**

**totamt=0**

**GST=(15/100)\*amount**

**totalamt=amount+GST**

**print('Pleae payup ',totalamt,'rupees inclding GST')**

**p=input("Please Enter YES to transact")**

**if p=="YES":**

**print("Transaction successful")**

**print("You have paid the bill")**

**else:**

**print('plz pay the bill sooner')**

**info3="insert into Transaction values({},{},'{}',{},{},{},'{}')".format(accountno,unit,toda,totamt,GST,totalamt,p)**

**c1.execute(info3)**

**conn.commit()**

**V=input("do you want to continue?(yes or no)")**

**if V=='yes':**

**continue**

**else:**

**break**

**elif choice2==3:**

**accountno=int(input('Enter your account number :'))**

**info4="select \* from AddNewCustomer where accountno=" + str(accountno)**

**c1.execute(info4)**

**data1=c1.fetchall()**

**for row in data1:**

**print(" Account Number: ", row[0])**

**print("bankname:",row[1])**

**print("bankbranch:",row[2])**

**print("Person name:",row[3])**

**print("Your meter device ID=",row[8])**

**print("Residential address:",row[4])**

**print("area code:",row[5])**

**print("phone number:",row[6])**

**print("email:",row[7])**

**info5="select \* from Transaction where accountno=" + str(accountno)**

**c1.execute(info5)**

**data2=c1.fetchall()**

**for row in data2:**

**print(" Unit : ",row[1])**

**print(" paid on:",row[2])**

**print("amount to be paid without GST:",row[3])**

**print("GST=",row[4])**

**print("amount to be paid including GST:",row[5])**

**V=input("do you want to continue?(yes or no)")**

**if V=='yes':**

**continue**

**else:**

**break**

**elif choice2==4:**

**info9="select accountno,totalamt from Transaction"**

**c1.execute(info9)**

**L1,L2,=[],[]**

**for i in c1.fetchall():**

**L1.append(i[0])**

**L2.append(i[1])**

**plt.plot(L1,L2)**

**plt.title("GRAPH")**

**plt.show()**

**V=input("do you want to continue?(yes or no)")**

**if V=='yes':**

**continue**

**else:**

**break**

**elif choice2==5:**

**print( "THANK YOU!!!! VISIT AGAIN!!!!")**

**break**

**c='yes'**

**else:**

**print('username / password is incorrect')**

**break**

**c=input("do you want to try again?(yes or no)")**

**else:**

**print( "THANK YOU!!!! VISIT AGAIN!!!!")**

**V='no'**

**elif choice1==3:**

**print( "THANK YOU!!!! VISIT AGAIN!!!!")**

**c='no'**

**break**

**else:**

**print("invalid choice")**

**c=input("do you want to try again?(yes or no)")**

**else:**

**print( "THANK YOU!!!! VISIT AGAIN!!!!")**

**c='no'**

**import mysql.connector as sql**

**conn = sql.connect(host='localhost',user='root',password='manager',database='EBS')**

**if conn.is\_connected():**

**print("successfully connected")**

**c1=conn.cursor()**

**c1.execute('create table newuser(username VARCHAR(100) primary key,password VARCHAR(100),confirmpasswd VARCHAR(100))')**

**c1.execute('create table AddNewCustomer(accountno int primary key,bankname VARCHAR(25),bankbranch VARCHAR(25),name VARCHAR(25),address VARCHAR(100),areacode INT(6),phoneno INT(15),email VARCHAR(25),boxid VARCHAR(25))')**

**c1.execute('create table Transaction(accountno INT(10) ,unit INT(10),toda VARCHAR(25),totamt INT(10),GST INT(10),totalamt INT(10),p VARCHAR(25) , foreign key(accountno) references AddNewCustomer(accountno))')**

**print("table created")**