COMPUTER SCIENCE PROJECT ON C++:

ELECTRICITY BILL 2018-2019.

SUBMITTED BY:

R.ABISHEK BHAT
XII-A.

SRI VAGEESHA VIDHYASHRAM

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ACKNOWLEDGEMENT

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teacher in charge, Mrs.Ramya, under whose guidance and constant supervision the project was brought to the present state.

I would also like to express my gratitude towards my parents for their kind co-operation and encouragement which helped me in the completion of this project.

I am also thankful to the C.B.S.E for giving such a amazing opportunity and giving suitable instructions and guidelines for the project.

Last but not the least, I thank my friends who shared necessary information for preparing my project.

DESCRIPTION

The main objective of the project ELECTRICITY BILL is to provide the complete idea about the electricity bill. A host of services such as create a service number, print a bill, search, modify and to delete a service number are provided. In order to create a service

number , the consumer has to provide his personal details . In the option of display all the information of the consumer is obtained in search option . In modify option , a consumer can modify the details given . In the delete option , record of a particular consumer is deleted from database .

Source code

#include<iostream.h>

#include<conio.h>

#include<fstream.h>

#include<string.h>

#include<stdio.h>

```
#include<process.h>
int choice;
char username[50];
char password[20];
char qw[20];
class ebtariff
private:
int sertype;
int currentreading;
int lastreading;
char name[20];
char phoneno[20];
```

```
char streetname[200];
float doorno;
int power;
char aadharno[12];
char areaname[100];
char cityname[200];
char email_id[50];
public:
float serviceno;
int newreading;
int newreading2;
unsigned long cost;
void mainmenu();
void getdata();
```

```
void getchoice();
void info();
void ser();
void display1();
void choiceone();
void choicetwo();
void choicethree();
void choicefour();
void choicefive();
void choicesix();
void modify();
}bill;
void ebtariff::mainmenu()
```

```
clrscr();
for(int d=0;d<=79;d++)
cout<<"-";
cout<<"\n\t\t\t!!!!! HOME PAGE
!!!!!\n";
for(int f=0;f<=79;f++)
cout<<"-";
cout<<"\n\n\n\t\t\t\t1.TO PRINT
BILL";
cout<<"\n\t\t\t2.TO CREATE A
SERVICE";
cout<<"\n\t\t\t3.TO SEARCH A
SERVICE";
```

```
cout<<"\n\t\t\t4.DELETE A SERVICE
NUMBER";
cout<<"\n\t\t\t5.TO MODIFY A
SERVICE";
cout<<"\n\t\t\t6.EXIT";
cout<<"\nENTER YOUR CHOICE
[1(or)2(or)3(or)4(or)5(or)6]:";
void ebtariff::getdata()
cout<<"\n1.ENTER THE NAME OF THE
CONUSMER:";
gets(name);
```

```
cout<<"\n2.ENTER AADHAR
NUMBER:";
for(int o=0;o<12;o++)
cin>>aadharno[o];
cout<<"\n3.ENTER YOUR EMAIL ID:";
gets(email_id);
cout<<"\n4.ENTER ADDRESS:";
cout<<"\n\t\t\t 4.1DOOR NUMBER:";
cin>>doorno;
cout<<"\n\t\t 4.2 NAME OF THE
STREET:";
gets(streetname);
cout<<"\n\t\t 4.3 NAME OF THE
AREA:";
gets(areaname);
```

```
cout<<"\n\t\t\t 4.4 DISTRICT NAME:";
gets(cityname);
cout<<"\n\t\t\t 5.PHONE NUMBER:";
gets(phoneno);
cout<<"\n\t\t\t 6.SERVICE NUMBER:";
cin>>serviceno;
cout<<"\n7.TARIFF TYPE:";
cout<<"1.COMMERCIAL\t2.INDUSTRIAL
\t3.DOMESTIC:";
cout<<"\nENTER YOU OPTIONS
[1(or)2(or)3]:";
cin>>sertype;
lastreading=0;
```

```
void ebtariff::ser()
switch(sertype)
case 1:
cout<<"\n COST PER UNIT ENERGY IS
Rs7.\n";
cost=power*7;
break;
case 2:
cout<<"\n COST PER UNIT ENERGY IS
Rs 5.\n";
cost=power*5;
```

```
break;
case 3:
cout<<"\n COST PER UNIT ENERGY IS
Rs 3.\n";
cost=power*3;
break;
void ebtariff::info()
cout<<"\n1.NAME:"<<name;
cout<<"\n2.SERVICE
NUMBER:"<<serviceno;
```

```
cout<<"\n3.AADHAR NUMBER:";
for(int t=0;t<12;t++)
cout<<aadharno[t];</pre>
cout<<"\n4.EMAIL ID:"<<email id;
cout<<"\n5.PHONE
NUMBER:"<<phoneno;
cout<<"\n6.ADDRESS:\n\t\t\t";
cout<<"6.1 DOOR NUMBER:"<<doorno;
cout<<"\n\t\t6.2 NAME OF THE
STREET:"<<streetname;
cout<<"\n\t\t\6.3 NAME OF THE
AREA:"<<areaname;
cout<<"\n\t\t6.4 DISTRICT
NAME:"<<cityname;
```

```
void ebtariff::choiceone()
ifstream fillin;
clrscr();
fillin.open("service.txt",ios::binary|ios::
in);
clrscr();
for(int q=0;q<=79;q++)
cout<<"-";
cout<<"\n\t\t \t!!!!! ELECTRICITY BILL
!!!!!\n";
for(int r=0;r<=79;r++)
```

```
cout<<"-";
cout<<"\n\n\t \t";
bill.choicefive();
clrscr();
for(int q1=0;q1<=79;q1++)
cout<<"-";
cout<<"\n\t\t \t!!!!! ELECTRICITY BILL
!!!!!\n";
for(int q2=0;q2<=79;q2++)
cout<<"-";
bill.info();
cout<<"\n7.LAST
READING:"<<lastreading;
cout<<"\n8.CURRENT
READING:"<<currentreading;
```

```
cout<<"\n";
for(int y=0;y<=35;y++)
cout<<"*";
bill.ser();
for(int u=0;u<=35;u++)
cout<<"*";
cout<<"\n\t\t\t**********
**********.
cout<<"\n\t\t\tTOTAL COST :"<<cost;</pre>
cout<<"\n\t\t\t***********
*******\n";
getch();
```

```
void ebtariff::choicefive()
char aaa;
fstream filline;
filline.open("service.txt",ios::in|ios::out
|ios::binary);
char found='f';
int searched, pos;
char lk;
do{
cout<<"\n\t\tENTER THE SERVICE
NUMBER TO BE BILLED: :";
cin>>searched;
while(!filline.eof())
```

```
pos=filline.tellg();
filline.read((char*)&bill,sizeof(bill));
if(bill.serviceno==searched)
bill.info();
bill.lastreading=bill.currentreading;
cout<<"\nLAST
READING:"<<bill.lastreading;
cout<<"\nENTER THE CURRENT
READING:";
cin>>currentreading;
if(currentreading<bill.lastreading)
```

```
cout<<"NEW READING MUST BE
GREATER THAN THE OLD (OR)
PREVIOUS READING::PLEASE
CONTINUE FROM FIRST...PRESS 'y' TO
PROCEED:";
cin>>lk;
if(lk=='y')
choiceone();
break;
else
power=currentreading-bill.lastreading;
bill.ser();
filline.seekg(pos);
filline.write((char*)&bill,sizeof(bill));
```

```
found = 't';
break;
if(found=='f')
cout<<"ERROR.... SERVICE NUMBER IS
NOT FOUND...";
cout<<"\nDO YOU WANT TO TRY
AGAIN???...:ENTER 'Y' TO TRY
AGAIN...";
cin>>aaa;
}while(aaa=='y');
filline.seekg(0);
```

```
clrscr();
while(filline.read((char*)&bill,sizeof(bill
)))
bill.info();
filline.close();
void ebtariff::getchoice()
char yo;
do{
mainmenu();
cin>>choice;
```

```
switch(choice)
case 1: choiceone();
   break;
case 2: choicetwo();
   break;
case 3: choicethree();
   break;
case 4: choicefour();
   break;
case 5: modify();
   break;
case 6: choicesix();
   getch();
```

```
break;
default:cout<<"\n OPTION ENTER DOES
NOT MATCH....DO YOU WANT TO TRY
AGAIN....PRESS 'y' TO RETRY...:";
cin>>yo;
}while(yo=='y');
void ebtariff::choicetwo()
ofstream file;
char cont;
file.open("service.txt",ios::binary|ios::a
pp);
```

```
clrscr();
for(int q=0;q<=79;q++)
cout<<"-";
cout<<"\t\t \t!!!!! APPLICATION FORM
!!!!!\n";
for(int r=0;r<=79;r++)
cout<<"-";
bill.getdata();
file.write((char*)&bill,sizeof(bill));
cout<<"\n\t\t\!!!!!THANK YOU!!!!!!";
file.close();
```

```
void ebtariff::choicethree()
clrscr();
long pos;
char cj;
char foun='y';
ifstream fin3;
int searched;
do{
fin3.open("service.txt",ios::binary|ios::i
n);
clrscr();
for(int q=0;q<=79;q++)
cout<<"-";
```

```
cout<<"\n\t\t \t!!!!! SEARCH
ENGINE..... !!!!!\n";
for(int r=0;r<=79;r++)
cout<<"-";
cout<<"\n\n\t\t*ENTER THE SERVICE
NUMBER TO VEIW DETAILS:";
cin>>searched;
while(fin3.read((char*)&bill,sizeof(bill))
if(serviceno==searched)
clrscr();
for(int q=0;q<=79;q++)
cout<<"-";
```

```
cout<<"\n\t\t \t!!!!! SEARCH
ENGINE..... !!!!!\n";
for(int r=0;r<=79;r++)
cout<<"-";
cout<<"THE SERVICE NUMBER
"<<serviceno<<" CONTAINS :\n";
bill.info();
cout<<"\nLAST
READING:"<<lastreading;
bill.ser();
foun='n';
break;
if(foun=='y')
```

```
cout<<"\n...THIS SERVICE NUMBER
DOES NOT EXIT....";
fin3.close();
cout<<"\n\nDO YOU WANT TO SEARCH
MORE:";
cin>>cj;
}while(cj=='y');
cout<<"\n\t\t!!!!THANK YOU!!!!";
getch();
void ebtariff::choicefour()
```

```
ifstream fio1;
ofstream file2;
int check;
char ques;
char aym;
char confirm;
char found1='y';
clrscr();
fio1.open("service.txt",ios::binary|ios::i
n);
file2.open("temp.txt",ios::binary|ios::o
ut | ios::app);
clrscr();
for(int q=0;q<=79;q++)
```

```
cout<<"-";
cout<<"\t\t\t!!!! DELETION !!!!!!\n";
for(int r=0;r<=79;r++)
cout<<"-";
cout<<"\n\n\t**ENTER SERVICE
NUMBER:";
cin>>check;
while(fio1.read((char*)&bill,sizeof(bill))
if(bill.serviceno!=check)
file2.write((char*)&bill,sizeof(bill));
else
```

```
bill.info();
cout<<"\n IS THE INFORMATION
CORRECT???..PRESS ANY KEY TO
PROCCED..";
getch();
remove("service.txt");
rename("temp.txt","service.txt");
found1='n';
cout<<"\n****DELETED
SUCESSFULLY.....*****\n\n";
fio1.close();
file2.close();
if(found1=='y')
```

```
cout<<"RECORD NOT FOUND....";
cout<<"DO YOU WANT TO TRY
AGAIN...PRESS 'y' TO RETRY..";
cin>>aym;
}while(aym=='y');
void ebtariff:: modify()
clrscr();
int sea;
float doorno1;
```

```
int gt;
char streetname1[20];
char areaname1[20];
char aadharno1[12];
char cityname1[20];
char phoneno1[20];
int sertype1;
char rj;
char email_id1[50];
char newname[20];
long pos1;
fstream fine;
fine.open("service.txt",ios::in|ios::out|i
os::binary);
```

```
clrscr();
for(int q=0;q<=79;q++)
cout<<"-";
cout<<"\n\t\t \t!!!!! MODIFICATION
!!!!!\n";
for(int r=0;r<=79;r++)
cout<<"-";
cout<<"\n\n\t\tENTER THE SERVICE
NUMBER TO BE MODIFIED:";
cin>>sea;
while(fine.read((char*)&bill,sizeof(bill))
pos1=fine.tellg();
```

```
if(serviceno==sea)
bill.info();
cout<<"\nOPTIONS TO MODIFY:";
cout<<"\n\t\t1.NAME\n\t\t2.ADDR
ESS\n\t\t\t3.PHONE NUMBER";
cout<<"\n\t\t4.TARIFF\n\t\t5.AADH
AR NUMBER\n\t\t\6.EMAIL ID";
cout<<"\n\t\tENTER YOUR CHOICE
TO BE MODIFIED:";
cin>>gt;
clrscr();
for(int q=0;q<=79;q++)
cout<<"-";
```

```
cout<<"\n\t\t \t!!!!! MODIFICATION
!!!!!\n";
for(int r=0;r<=79;r++)
cout<<"-";
cout<<"\n\n\t";
do{
switch(gt)
case 1:
cout<<"ENTER NEW NAME:";
gets(newname);
strcpy(name,newname);
break;
```

```
case 2:
cout<<"ENTER THE NEW ADDRESS:";
cout<<"\n\t\tDOORNO:";
cin>>doorno1;
doorno=doorno1;
cout<<"\n\t\t\t NAME OF THE
STREET:";
gets(streetname1);
strcpy(streetname, streetname1);
cout<<"\n\t\t\t NAME OF THE AREA:";
gets(areaname1);
strcpy(areaname, areaname1);
cout<<"\n\t\t\t DISTRICT NAME:";
gets(cityname1);
```

```
strcpy(cityname,cityname1);
break;
case 3:
cout<<"\n\t\tENTER THE NEW
PHONE NUMBER:";
gets(phoneno1);
strcpy(phoneno,phoneno1);
break;
case 4:
cout<<"TYPES OF TRAIFF..:";
cout<<"1.COMMERIAL\n2.DOMESTIC\n
3.INDUSTRIAL";
```

```
cout<<"\nENTER THE TYPE OF THE
TARIFF...[1(or)2(or)3(or)]:";
cin>>sertype1;
sertype=sertype1;
break;
case 5:
cout<<"ENTER THE NEW AADHAR
CARD NUMBER:";
for(int y=0;y<12;y++)
cin>>aadharno1[y];
aadharno[y]=aadharno1[y];
```

```
break;
case 6:
cout<<"ENTER THE NEW EMAIL ID:";
gets(email_id1);
strcpy(email_id,email_id1);
break;
default:cout<<"THE OPTION YOU HAVE
ENTER IS INVALID....";
cout<<"DO YOU WANT TO TRY
AGAIN??... ENTER 'y' TO PROCEED:";
cin>>rj;
```

```
}while(rj=='y');
fine.seekg(pos1-sizeof(bill));
fine.write((char*)&bill,sizeof(bill));
void ebtariff::choicesix()
clrscr();
for(int q=0;q<=79;q++)
cout<<"-";
cout<<"\n\t\t \t!!!!! ELECTRICITY
BOARD !!!!!\n";
```

```
for(int r=0;r<=79;r++)
cout<<"-";
cout<<"\n\n\t \t";
cout<<"EXIT...!!";
cout<<"\n\n\t\tDO YOU WANT TO
EXIT:";
char a;
cin>>a;
if(a=='y')
cout<<"FOR FURTUR ENQURIES...
CONTACT:\n\t\t*PHONE
NUMBER:1912\n\t\t*EMAIL
ID:electricitysave@gamil.com";
```

```
cout<<"\n\n\t\t -SHIFT TO
RENEWABLE ENERGY..FOR BRIGHT
FUTURE..";
getch();
cout << "\\ \n\n\n\t\t\t\t\t.
NK YOU!!!!!!!!!";
exit(0);
else
getchoice();
getch();
int main()
```

```
char ccv;
 char ch;
 do{
 clrscr();
 cout<<"\n\n\n\n\n\n\n";
 for(int i=0;i<=79;i++)
 cout<<"-";
 cout<<"\n\t\t\ SRI VAGEESHA
VIDHYASHRAM\n";
 for(int j=0;j<=79;j++)
 cout<<"-";
 cout<<"\n\n\t\t\t\t\t\t\t\t\tDONE
BY:\n\t\t\t\t\t\t\t\tABISHEK
BHAT.R\n\t\t\t";
 system("pause");
```

```
clrscr();
 for(int q=0;q<=79;q++)
 cout<<"-";
 cout<<"\n\t\t \t!!!!! ELECTRICITY</pre>
BOARD !!!!!\n";
 for(int r=0;r<=79;r++)
 cout<<"-";
 cout<<"\n\n\n\n\t\t\tUSERNAME:";
 gets(username);
 cout<<"\n\t\t\tPASSWORD:";
 gets(password);
if(strcmp(username,"collectorofbill")==
0&&(strcmp(password,"qwer1234")==
0))
```

```
do
bill.getchoice();
cout<<"\n\t\tDO YOU WANT TO
RETURN TO HOME PAGE..PRESS 'y' TO
RETURN..:";
 cin>>ch;
}while(ch=='y');
clrscr();
cout<<"\n\t\tFOR FURTUR
ENQURIES...
CONTACT:\n\t\t\t\t*PHONE
NUMBER:1912\n\t\t\t\t*EMAIL
ID:electricitysave@gamil.com";
```

```
cout<<"\n\t\t -RENEWABLE ENERGY</pre>
MAKES WORLD LESS CARBON FOOT
PRINT...";
if(strcmp(username,"collectorofbill")!=
0||(strcmp(password,"qwer1234")!=0)
 cout<<"WRONG PASSWORD\n";
 cout<<"DO YOU WANT TO TRY
AGAIN:";
cin>>ccv;
 }while(ccv=='y');
```

```
getch();
return 0;
}
```

SAMPLE OUTPUTS

SRI VAGEESHA VIDHYASHRAM	
Press any key to continue.	DONE BY: ABISHEK BHAT.R

!!!!! ELECTRICITY BOARD !!!!!
USERNAME:collectorofbill
PASSWORD:qwer1234

!!!!! ELECTRICITY BOARD !!!!!

USERNAME:collectorofbill

PASSWORD:qwer1234

!!!!! APPLICATION FORM !!!!!

- 1.ENTER THE NAME OF THE CONUSMER: lakshmi bhat.r
- 2.ENTER AADHAR NUMBER: 123456789012
- 3.ENTER YOUR EMAIL ID:lakshmi252@gmail.com
- 4.ENTER ADDRESS:
- 4.1DOOR NUMBER:100
- 4.2 NAME OF THE STREET: bharathidasan salai
- 4.3 NAME OF THE AREA:cantonment
- 4.4 DISTRICT NAME: trichy
- 5.PHONE NUMBER:9994504204
- 6.SERVICE NUMBER:1
- 7.TARIFF TYPE:1.COMMERCIAL 2.INDUSTRIAL 3.DOMESTIC: ENTER YOU OPTIONS [1(or)2(or)31:2_

!!!!! HOME PAGE !!!!!

- 1.TO PRINT BILL
 2.TO CREATE A SERVICE
 3.TO SEARCH A SERVICE
 4.DELETE A SERVICE NUMBER
 5.TO MODIFY A SERVICE
- 6.EXIT

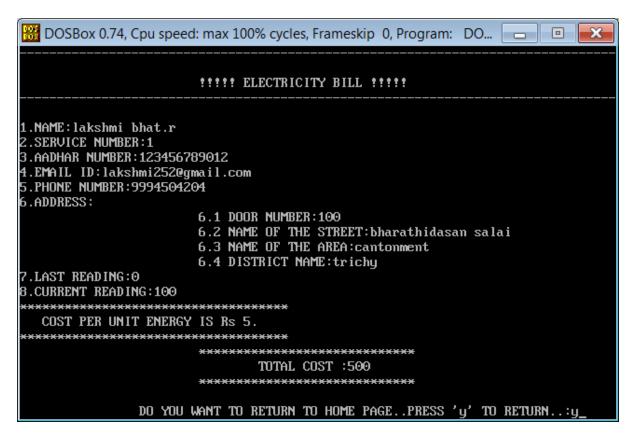
ENTER YOUR CHOICE [1(or)2(or)3(or)4(or)5(or)6]:1

ELECTRICITY BILL

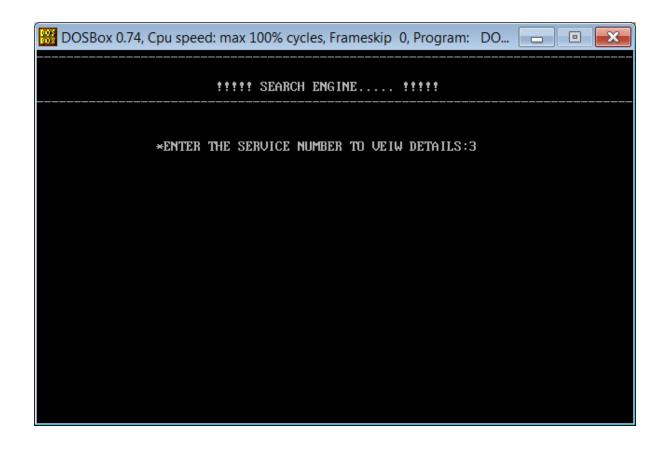
ENTER THE SERVICE NUMBER TO BE BILLED: :1

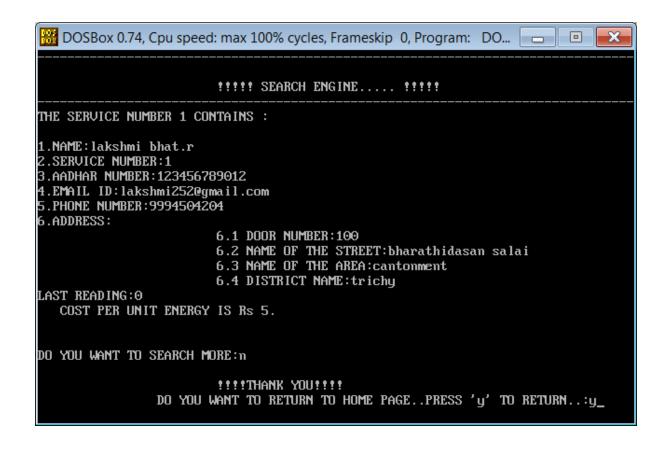
1.NAME:lakshmi bhat.r
2.SERVICE NUMBER:1
3.AADHAR NUMBER:123456789012
4.EMAIL ID:lakshmi2520gmail.com
5.PHONE NUMBER:9994504204
6.ADDRESS:
6.1 DOOR NUMBER:100
6.2 NAME OF THE STREET:bharathidasan salai
6.3 NAME OF THE AREA:cantonment
6.4 DISTRICT NAME:trichy

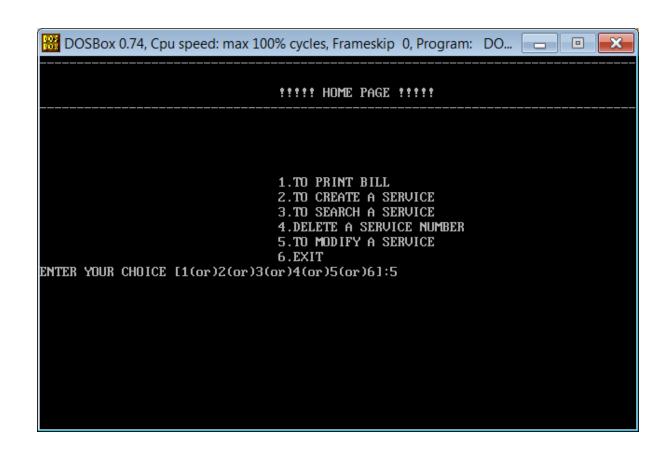
LAST READING:0
ENTER THE CURRENT READING:100_

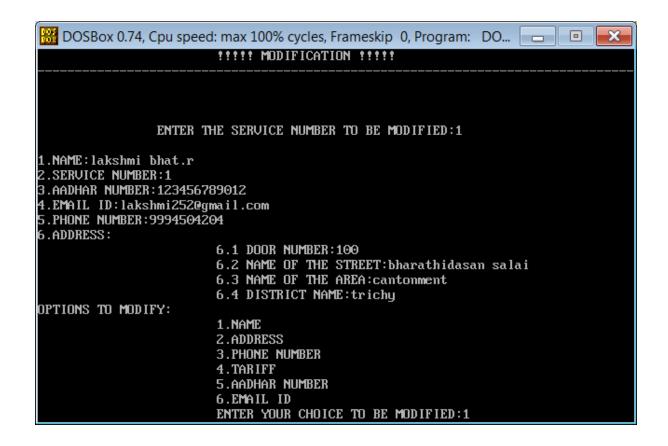


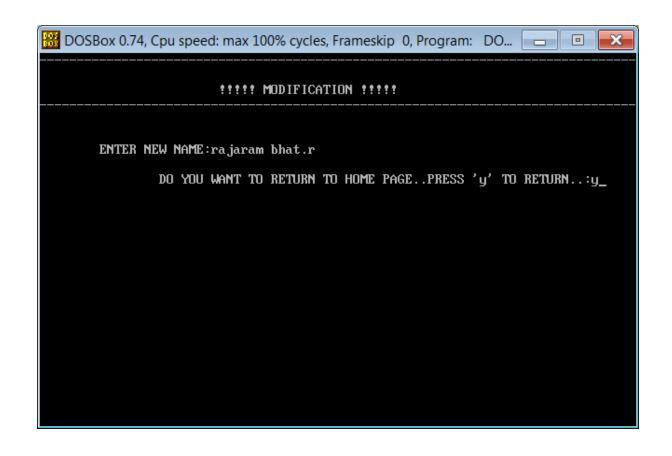
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: DO 🔃 😐 💌				
!!!!! HOME PAGE !!!!!				
1.TO PRINT BILL 2.TO CREATE A SERVICE 3.TO SEARCH A SERVICE 4.DELETE A SERVICE NUMBER 5.TO MODIFY A SERVICE 6.EXIT ENTER YOUR CHOICE [1(or)2(or)3(or)4(or)5(or)6]:3				



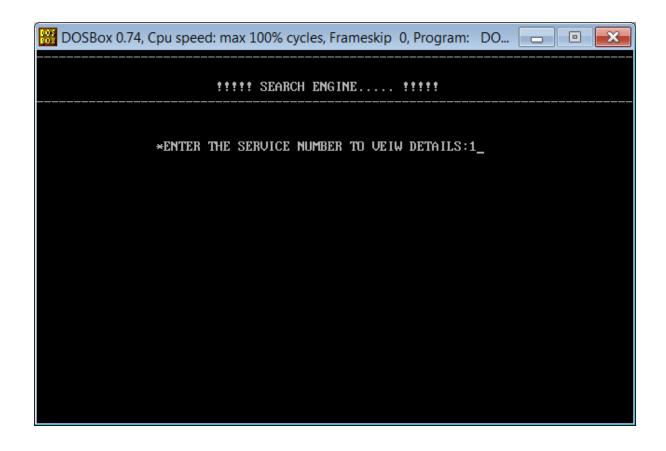


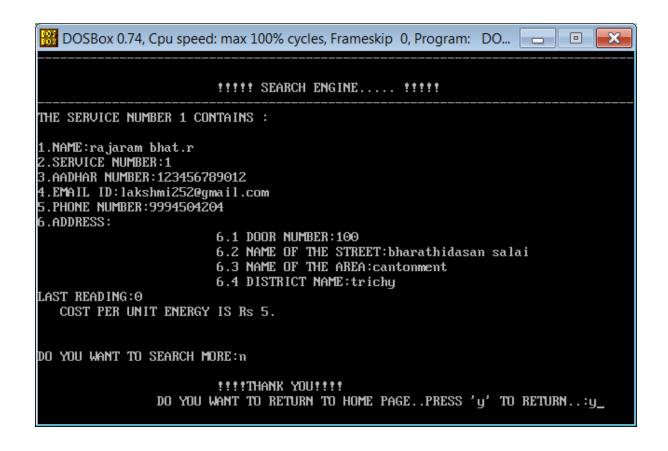


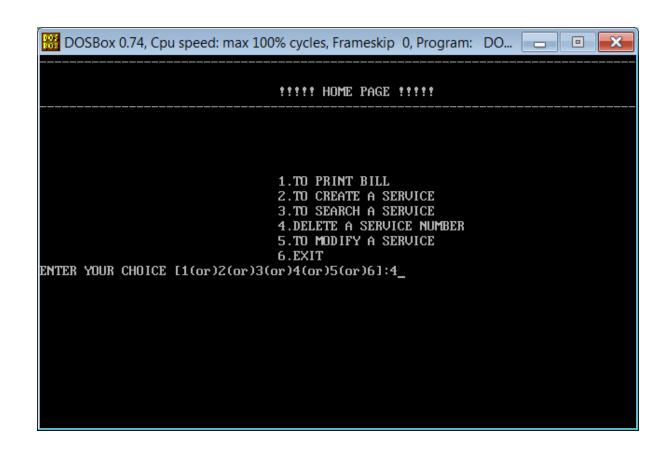


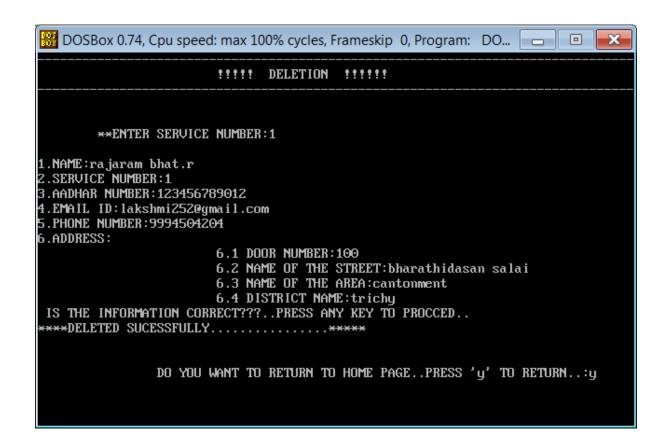


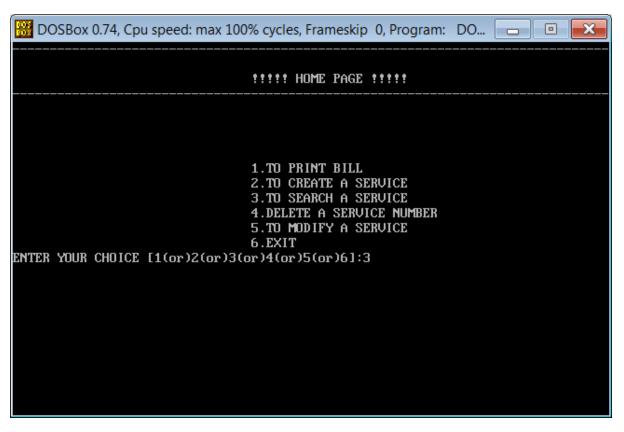
DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: DO
!!!!! HOME PAGE !!!!!
1.TO PRINT BILL 2.TO CREATE A SERVICE 3.TO SEARCH A SERVICE 4.DELETE A SERVICE NUMBER 5.TO MODIFY A SERVICE 6.EXIT ENTER YOUR CHOICE [1(or)2(or)3(or)4(or)5(or)61:3_

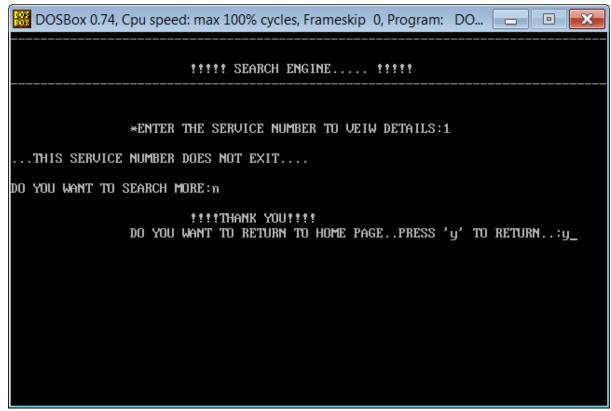




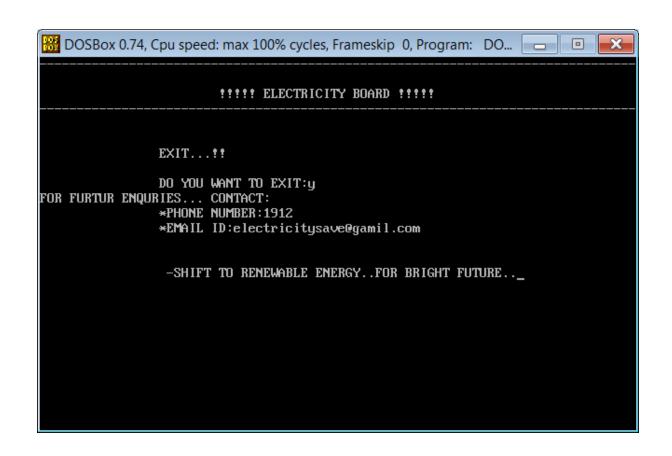








BOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program:	: DO 🕒 😐	×
!!!!! HOME PAGE !!!!!		
1.TO PRINT BILL 2.TO CREATE A SERVICE 3.TO SEARCH A SERVICE 4.DELETE A SERVICE NUMBER 5.TO MODIFY A SERVICE 6.EXIT ENTER YOUR CHOICE [1(or)2(or)3(or)4(or)5(or)6]:6		



Future enhancement

Electricity board has to deal with many consumers daily. Hence it is very important to maintain the records of all the consumers . For this purpose we require software that makes it easy to maintain the consumer details . The records of varies consumers can be stored in a single file . This software can be used by electricity service provider companies .

In this project "ELECTRICITY BILL" a c++ project facilities like create, search, display, modification, deletion of an service number are provided.

Conclusion

The project explained here is very useful in maintaining the consumer's details . And can

work on the existing record of consumer's details. The work load of the staff working in this department is considerably reduced.

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• Computer science with c++ by SUMITA ARORA.

