**ALGORITHM**

**Step 1:** Start

**Step 2:** Declare variables id\_num, mtr\_num, ch, name[20], st\_name, a\_name[20], dis\_name[20], h\_name[10], puc, cons\_unit, bill, c\_read, uc\_read in structure named ems.

**Step 3:** Read value of all variables entered from user.

**Step 4:** Check the conditions for bill calculation

If cons\_unit>1 and con\_unit <=2

Bill<-500+(cons\_unit\*1000)\*puc.

Else If cons\_unit<1

Bill<-(cons\_unit\*1000)\*puc.

Else If cons\_unit>2 and con\_unit <=5

Bill<-900+(cons\_unit\*1000)\*puc.

Else If cons\_unit>5 and con\_unit <=10

Bill<-1500+(cons\_unit\*1000)\*puc.

Else cons\_unit>10

Bill<-900+(cons\_unit\*1000)\*puc.

**Step 5:** Check if user has requested to change the last reading.

If yes

Read new reading from uc\_read and store it in c\_read to display the new current reading.

Display the details from user and also display the bill calculated in step 4.

If no

Display the details read and also display the bill calculated in step 4.

**Step 6:** Stop

**FLOWCHART:**

Ch==1

Declare variables id\_num, mtr\_num, ch, name[20], st\_name, a\_name[20], dis\_name[20], h\_name[10], puc, cons\_unit, bill, c\_read, uc\_read in structure named ems.

Read all variables

Bill<-1500+(cons\_unit\*1000)\*puc

False

False

False

False

true

true

true

true

true

yes

no

Display bill

If cons\_unit>10

Bill<-900+(cons\_unit\*1000)\*puc

Bill<-900+(cons\_unit\*1000)\*puc

Bill<-cons\_unit\*1000)\*puc

If cons\_unit>2nd con\_unit <=5

If cons\_unit<1

If cons\_unit>5and con\_unit <=10

Bill<-500+(cons\_unit\*1000)\*puc

If cons\_unit>1 and con\_unit <=2

Display uc\_read

c\_read=uc\_read

Read uc\_read variables

**CODE:**

#include<stdio.h>

#include<conio.h>

#include<string.h>

void bill();

void details();

struct ems

{

int id\_num,mtr\_num,ch;

char name[20],st\_name,a\_name[20],dis\_name[20],h\_name[8];

float puc,cons\_unit,bill,c\_read,uc\_read;

}e;

void main()

{

clrscr();

printf("\n Enter Your Full Name : ");

gets(e.name);

printf("\n Enter Id Number : ");

scanf("%d",&e.id\_num);

printf("\n Enter Meter Number : ");

scanf("%d",&e.mtr\_num);

printf("\n Enter House Number : ");

scanf("%s",&e.h\_name);

printf("\n Enter Area Name : ");

scanf("%s",&e.a\_name);

printf("\n Enter District : ");

scanf("%s",&e.dis\_name);

printf("\n Your consumption in kilowatt : ");

scanf("%f",&e.cons\_unit);

printf("\n Per unit charge : ");

scanf("%f",&e.puc);

printf("\n Current Reading : ");

scanf("%f",&e.c\_read);

printf("\n REQUEST FOR CHANGE IN LAST READING (PRESS 1 FOR yes/2 FOR no)");

scanf("%d",&e.ch);

if(e.ch==1)

{

printf("Enter Updated Reading : ");

scanf("%f",&e.uc\_read);

e.c\_read=e.uc\_read;

printf("\n Current Reading : %f",e.c\_read);

getch();

details();

bill();

printf("\n Bill : %f",e.bill);

}

else if (e.ch==2)

{

details();

bill();

printf("\n Bill : %f",e.bill);

}

else

{

printf("\n Invalid Input");

}

getch();

}

void bill()

{

if(e.cons\_unit>1 && e.cons\_unit<=2)

{

e.bill=500+(e.cons\_unit-1)\*1000\*e.puc;

}

else if(e.cons\_unit<1)

{

e.bill=(e.cons\_unit\*1000)\*e.puc;

}

else if(e.cons\_unit>2 && e.cons\_unit<=5)

{

e.bill=900+(e.cons\_unit-1)\*1000\*e.puc;

}

if(e.cons\_unit>5 && e.cons\_unit<=10)

{

e.bill=1500+(e.cons\_unit-1)\*1000\*e.puc;

}

if(e.cons\_unit>10)

{

e.bill=900+(e.cons\_unit-1)\*1000\*e.puc;

}

getch();

}

void details()

{

clrscr();

printf("\n Enter Your Full Name : %s",e.name);

printf("\n Enter Id Number : %d ",e.id\_num);

printf("\n Enter Meter Number : %d ",e.mtr\_num);

printf("\n Enter House Number : %s ",e.h\_name);

printf("\n Enter Area Name : %s",e.a\_name);

printf("\n Enter District : %s",e.dis\_name);

printf("\n Your consumption in kilowatt : %f",e.cons\_unit);

printf("\n Per unit charge : %f",e.puc);

printf("\n Current Reading : %f",e.c\_read);

getch();

}

**OUTPUT:**



