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

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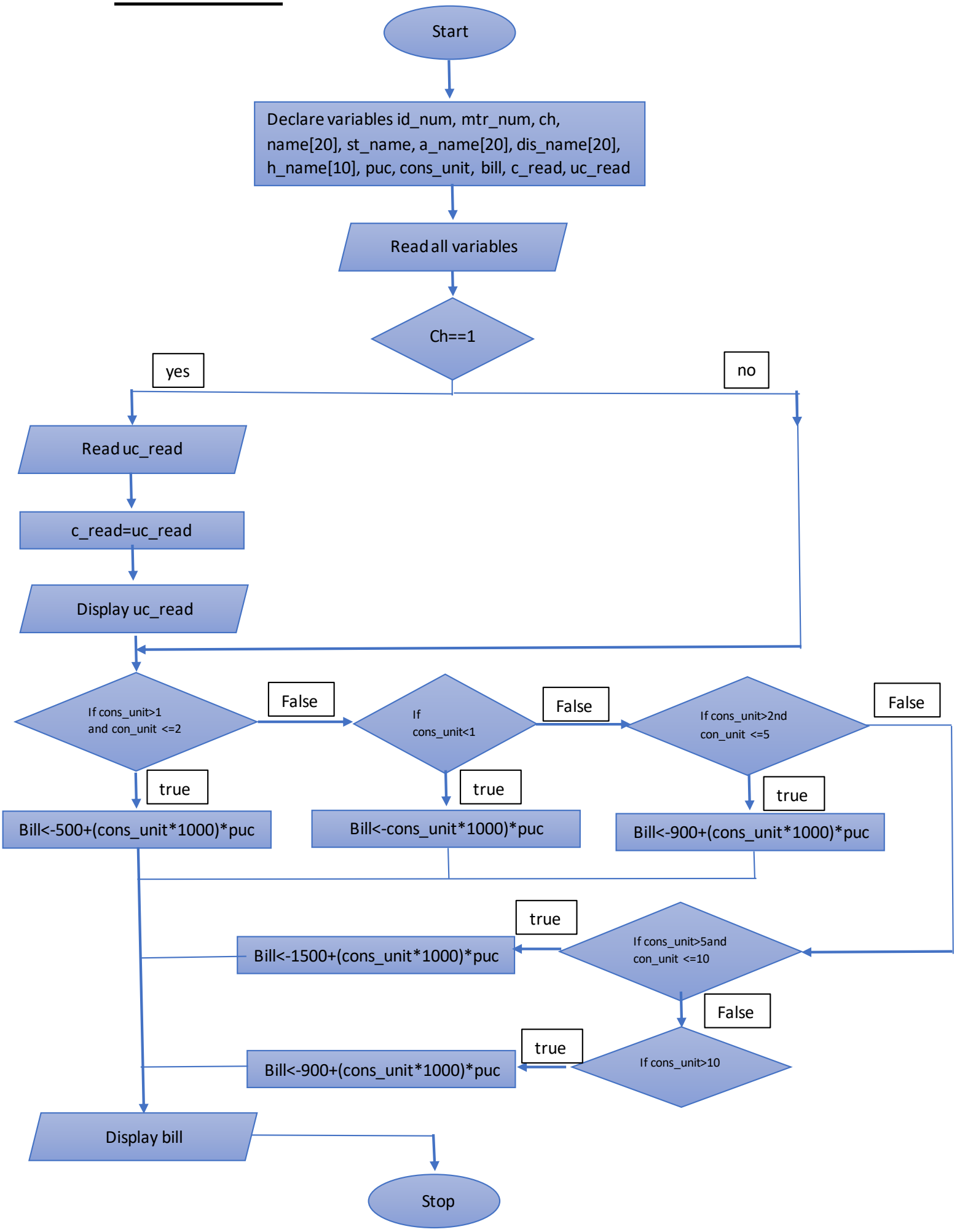
FLOWCHART:



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:

```
 Enter Your Full Name :  Avani

 Enter Id Number :  123

 Enter Meter Number : 3346

 Enter House Number : 5

 Enter Area Name : ahmedabad

 Enter District : hansol

 Your consumption in kilowatt : 2

 Per unit charge : 0.1

 Current Reading : 11

 REQUEST FOR CHANGE IN LAST READING (PRESS 1 FOR yes/2 FOR no)1
Enter Updated Reading : 13

 Current Reading : 13.000000
```

```
 Enter Your Full Name : Avani
 Enter Id Number : 123
 Enter Meter Number : 3346
 Enter House Number : 5
 Enter Area Name : ahmedabad
 Enter District : hansol
 Your consumption in kilowatt : 2.000000
 Per unit charge : 0.100000
 Current Reading : 13.000000
 Bill : 600.000000_
```