```cpp
#include<iostream>
#include<windows.h>
#include<conio.h>
#include<fstream>
#include<cstring>
#include<cstdio>
#include<cstdlib>
#include<iomanip>
using namespace std;

int k=7,r=0,flag=0;
COORD coord = {0, 0};

void gotoxy(int x, int y)
{
    COORD coord;
    coord.X = x;
    coord.Y = y;
    SetConsoleCursorPosition(GetStdHandle(STD_OUTPUT_HANDLE), coord);
}
struct date
{
    int mm,dd,yy;
};

ofstream fout;
ifstream fin;

class item
{
    int itemno;
```

```cpp
    char name[25];
    date d;
public:
    void add()
    {
        cout<<"\n\n\tItem No: ";
        cin>>itemno;
        cout<<"\n\n\tName of the item: ";
        cin>>name;
//gets(name);
        cout<<"\n\n\tManufacturing Date(dd-mm-yy): ";
        cin>>d.mm>>d.dd>>d.yy;
    }
    void show()
    {
        cout<<"\n\tItem No: ";
        cout<<itemno;
        cout<<"\n\n\tName of the item: ";
        cout<<name;
        cout<<"\n\n\tDate : ";
        cout<<d.mm<<"-"<<d.dd<<"-"<<d.yy;
    }
    void report()
    {
        gotoxy(3,k);
        cout<<itemno;
        gotoxy(13,k);
        puts(name);
    }
    int retno()
    {
```

```cpp
            return(itemno);

    }

};

class amount: public item
{
    float price,qty,tax,gross,dis,netamt;
public:
    void add();
    void show();
    void report();
    void calculate();
    void pay();
    float retnetamt()
    {
        return(netamt);
    }
} amt;

void amount::add()
{
    item::add();
    cout<<"\n\n\tPrice: ";
    cin>>price;
    cout<<"\n\n\tQuantity: ";
    cin>>qty;
    cout<<"\n\n\tTax percent: ";
    cin>>tax;
    cout<<"\n\n\tDiscount percent: ";
```

```cpp
    cin>>dis;

    calculate();

    fout.write((char *)&amt,sizeof(amt));

    fout.close();

}

void amount::calculate()

{

    gross=price+(price*(tax/100));

    netamt=qty*(gross-(gross*(dis/100)));

}

void amount::show()

{

    fin.open("itemstore.dat",ios::binary);

    fin.read((char*)&amt,sizeof(amt));

    item::show();

    cout<<"\n\n\tNet amount: ";

    cout<<netamt;

    fin.close();

}


void amount::report()

{

    item::report();

    gotoxy(23,k);

    cout<<price;

    gotoxy(33,k);

    cout<<qty;

    gotoxy(44,k);

    cout<<tax;

    gotoxy(52,k);

    cout<<dis;
```

```cpp
    gotoxy(64,k);

    cout<<netamt;

    k=k+1;

    if(k==50)

    {

        gotoxy(25,50);

        cout<<"PRESS ANY KEY TO CONTINUE...";

        getch();

        k=7;

        system("cls");

        gotoxy(30,3);

        cout<<" ITEM DETAILS ";

        gotoxy(3,5);

        cout<<"NUMBER";

        gotoxy(13,5);

        cout<<"NAME";

        gotoxy(23,5);

        cout<<"PRICE";

        gotoxy(33,5);

        cout<<"QUANTITY";

        gotoxy(44,5);

        cout<<"TAX";

        gotoxy(52,5);

        cout<<"DEDUCTION";

        gotoxy(64,5);

        cout<<"NET AMOUNT";

    }

}


void amount::pay()

{
```

```cpp
	show();
	cout<<"\n\n\n\t\t*****************************************";
	cout<<"\n\t\t           DETAILS            ";
	cout<<"\n\t\t*****************************************";
	cout<<"\n\n\t\tPRICE              :"<<price;
	cout<<"\n\n\t\tQUANTITY            :"<<qty;
	cout<<"\n\t\tTAX PERCENTAGE          :"<<tax;
	cout<<"\n\t\tDISCOUNT PERCENTAGE      :"<<dis;
	cout<<"\n\n\n\t\tNET AMOUNT          :$"<<netamt;
	cout<<"\n\t\t*****************************************";
}


int main()
{
	cout.setf(ios::fixed);
	cout.setf(ios::showpoint);
	cout<<setprecision(2);
	fstream tmp("temp.dat",ios::binary|ios::out);
menu:
	system("cls");
	gotoxy(27,2);
	cout<<"SIMPLE BILLING SYSTEM";
	gotoxy(25,3);
	cout<<"=======================\n\n";
	cout<<"\n\t\t1.Bill Report\n\n";
	cout<<"\t\t2.Add/Remove/Edit Item\n\n";
	cout<<"\t\t3.Show Item Details\n\n";
	cout<<"\t\t4.Exit\n\n";
	cout<<"\t\tPlease Enter Required Option: ";
	int ch,ff;
	float gtotal;
```

```cpp
cin>>ch;

switch(ch)

{

case 1:

ss:

    system("cls");

    gotoxy(25,2);

    cout<<"Bill Details";

    gotoxy(25,3);

    cout<<"===============\n\n";

    cout<<"\n\t\t1.All Items\n\n";

    cout<<"\t\t2.Back to Main menu\n\n";

    cout<<"\t\tPlease Enter Required Option: ";

    int cho;

    cin>>cho;

    if(cho==1)

    {

        system("cls");

        gotoxy(30,3);

        cout<<" BILL DETAILS ";

        gotoxy(3,5);

        cout<<"ITEM NO";

        gotoxy(13,5);

        cout<<"NAME";

        gotoxy(23,5);

        cout<<"PRICE";

        gotoxy(33,5);

        cout<<"QUANTITY";

        gotoxy(44,5);

        cout<<"TAX %";

        gotoxy(52,5);
```

```cpp
    cout<<"DISCOUNT %";

    gotoxy(64,5);

    cout<<"NET AMOUNT";

    fin.open("itemstore.dat",ios::binary);

    if(!fin)

    {

        cout<<"\n\nFile Not Found...";

        goto menu;

    }

    fin.seekg(0);

    gtotal=0;

    while(!fin.eof())

    {

        fin.read((char*)&amt,sizeof(amt));

        if(!fin.eof())

        {

            amt.report();

            gtotal+=amt.retnetamt();

            ff=0;

        }

        if(ff!=0) gtotal=0;

    }

    gotoxy(17,k);

    cout<<"\n\n\n\t\t\tGrand Total="<<gtotal;

    getch();

    fin.close();

}

if(cho==2)

{

    goto menu;

}
```

```cpp
                goto ss;
        case 2:
db:
            system("cls");
            gotoxy(25,2);
            cout<<"Bill Manager";
            gotoxy(25,3);
            cout<<"================\n\n";
            cout<<"\n\t\t1.Add Item Details\n\n";
            cout<<"\t\t2.Edit Item Details\n\n";
            cout<<"\t\t3.Delete Item Details\n\n";
            cout<<"\t\t4.Back to Main Menu ";
            int apc;
            cin>>apc;
            switch(apc)
            {
            case 1:
                fout.open("itemstore.dat",ios::binary|ios::app);
                amt.add();
                cout<<"\n\t\tItem Added Successfully!";
                getch();
                goto db;

            case 2:
                int ino;
                flag=0;
                cout<<"\n\n\tEnter Item Number to be Edited :";
                cin>>ino;
                fin.open("itemstore.dat",ios::binary);
                fout.open("itemstore.dat",ios::binary|ios::app);
                if(!fin)
```

```cpp
{
    cout<<"\n\nFile Not Found...";
    goto menu;
}
fin.seekg(0);
r=0;
while(!fin.eof())
{
    fin.read((char*)&amt,sizeof(amt));
    if(!fin.eof())
    {
        int x=amt.item::retno();
        if(x==ino)
        {
            flag=1;
            fout.seekp(r*sizeof(amt));
            system("cls");
            cout<<"\n\t\tCurrent Details are\n";
            amt.show();
            cout<<"\n\n\t\tEnter New Details\n";
            amt.add();
            cout<<"\n\t\tItem Details editted";
        }
    }
    r++;
}
if(flag==0)
{
    cout<<"\n\t\tItem No does not exist...Please Retry!";
    getch();
    goto db;
```

```cpp
        }
        fin.close();
        getch();
        goto db;


case 3:
    flag=0;
    cout<<"\n\n\tEnter Item Number to be deleted :";
    cin>>ino;
    fin.open("itemstore.dat",ios::binary);
    if(!fin)
    {
        cout<<"\n\nFile Not Found...";
        goto menu;
    }

    fin.seekg(0);
    while(fin.read((char*)&amt, sizeof(amt)))
    {
        int x=amt.item::retno();
        if(x!=ino)
            tmp.write((char*)&amt,sizeof(amt));
        else
        {
            flag=1;
        }
    }
    fin.close();
    tmp.close();
    fout.open("itemstore.dat",ios::trunc|ios::binary);
    fout.seekp(0);
```

```cpp
        tmp.open("temp.dat",ios::binary|ios::in);

        if(!tmp)

        {

            cout<<"Error in File";

            goto db;

        }

        while(tmp.read((char*)&amt,sizeof(amt)))

            fout.write((char*)&amt,sizeof(amt));

        tmp.close();

        fout.close();

        if(flag==1)

            cout<<"\n\t\tItem Succesfully Deleted";

        else if (flag==0)

            cout<<"\n\t\tItem does not Exist! Please Retry";

        getch();

        goto db;

    case 4:

        goto menu;

    default:

        cout<<"\n\n\t\tWrong Choice!!! Retry";

        getch();

        goto db;

    }

case 3:

    system("cls");

    flag=0;

    int ino;

    cout<<"\n\n\t\tEnter Item Number :";

    cin>>ino;

    fin.open("itemstore.dat",ios::binary);

    if(!fin)
```

```cpp
        {
            cout<<"\n\nFile Not Found...\nProgram Terminated!";
            goto menu;
        }
        fin.seekg(0);
        while(fin.read((char*)&amt,sizeof(amt)))
        {
            int x=amt.item::retno();
            if(x==ino)
            {
                amt.pay();
                flag=1;
                break;
            }
        }
        if(flag==0)
            cout<<"\n\t\tItem does not exist....Please Retry!";
        getch();
        fin.close();
        goto menu;
    case 4:
        system("cls");
        gotoxy(20,20);
        cout<<"ARE YOU SURE, YOU WANT TO EXIT (Y/N)?";
        char yn;
        cin>>yn;
        if((yn=='Y')||(yn=='y'))
        {
            gotoxy(12,20);
            system("cls");
```

```cpp
        cout<<"*********************** THANKS
***********************************";

        getch();

        exit(0);

    }

    else if((yn=='N')||(yn=='n'))

        goto menu;

    else

    {

        goto menu;

    }

default:

    cout<<"\n\n\t\tWrong Choice....Please Retry!";

    getch();

    goto menu;

}

return 0;

}
```