C++ Course Based Project

Topic : Vijetha Billing System

Source code :

```
#include<conio.h>
#include<stdio.h>
#include<process.h>
#include<fstream.h>


  //***************************************************************
  // CLASS USED IN PROJECT
  //***************************************************************

  class product
  {
     int pno;
     char name[50];
     float price, qty, tax, dis;
     public:
        void create_product()
        {
           cout << "\nPlease Enter The Product No. of The Product ";
           cin >> pno;
           cout << "\n\nPlease Enter The Name of The Product ";
           gets(name);
           cout << "\nPlease Enter The Price of The Product ";
           cin >> price;
           cout << "\nPlease Enter The Discount (%) ";
           cin >> dis;
        }

     void show_product()
     {
        cout << "\nThe Product No. of The Product : " << pno;
        cout << "\nThe Name of The Product : ";
```

```
        puts(name);
        cout << "\nThe Price of The Product : " << price;
        cout << "\nDiscount : " << dis;
    }

    int retpno()
    {
        return pno;
    }

    float retprice()
    {
        return price;
    }

    char * retname()
    {
        return name;
    }

    int retdis()
    {
        return dis;
    }

};  //class ends here

//***************************************************************
// global declaration for stream object, object
//***************************************************************

fstream fp;
product pr;
//***************************************************************
// function to write in file
//***************************************************************

void write_product()
{
    fp.open("Shop.dat", ios::out | ios::app);
```

```
    pr.create_product();
    fp.write((char * ) & pr, sizeof(product));
    fp.close();
    cout << "\n\nThe Product Has Been Created ";
    getch();
}
//***************************************************************
// function to read all records from file
//***************************************************************
void display_all()
{
    clrscr();
    cout << "\n\n\n\t\tDISPLAY ALL RECORD !!!\n\n";
    fp.open("Shop.dat", ios:: in );
    while (fp.read((char * ) & pr, sizeof(product)))
    {
        pr.show_product();
        cout << "\n\n====================================\n";
        getch();
    }
    fp.close();
    getch();
}
//***************************************************************
// function to read specific record from file
//***************************************************************
void display_sp(int n)
{
    int flag = 0;
    fp.open("Shop.dat", ios:: in );
    while (fp.read((char * ) & pr, sizeof(product)))
    {
        if (pr.retpno() == n)
        {
            clrscr();
            pr.show_product();
            flag = 1;
        }
    }
    fp.close();
```

```
    if (flag == 0)
        cout << "\n\nrecord not exist";
    getch();
}
//***************************************************************
// function to modify record of file
//***************************************************************
void modify_product()
{
    int no, found = 0;
    clrscr();
    cout << "\n\n\tTo Modify ";
    cout << "\n\n\tPlease Enter The Product No. of The Product";
    cin >> no;
    fp.open("Shop.dat", ios:: in | ios::out);
    while (fp.read((char * ) & pr, sizeof(product)) && found == 0)
    {
        if (pr.retpno() == no)
        {
            pr.show_product();
            cout << "\nPlease Enter The New Details of Product" << endl;
            pr.create_product();
            int pos = -1 * sizeof(pr);
            fp.seekp(pos, ios::cur);
            fp.write((char * ) & pr, sizeof(product));
            cout << "\n\n\t Record Updated";
            found = 1;
        }
    }
    fp.close();
    if (found == 0)
        cout << "\n\n Record Not Found ";
    getch();
}
//***************************************************************
// function to delete record of file
//***************************************************************
void delete_product()
{
    int no;
```

```
    clrscr();
    cout << "\n\n\n\tDelete Record";
    cout << "\n\nPlease Enter The product no. of The Product You Want To
Delete";
    cin >> no;
    fp.open("Shop.dat", ios:: in | ios::out);
    fstream fp2;
    fp2.open("Temp.dat", ios::out);
    fp.seekg(0, ios::beg);
    while (fp.read((char * ) & pr, sizeof(product)))
    {
        if (pr.retpno() != no)
        {
            fp2.write((char * ) & pr, sizeof(product));
        }
    }
    fp2.close();
    fp.close();
    remove("Shop.dat");
    rename("Temp.dat", "Shop.dat");
    cout << "\n\n\tRecord Deleted ..";
    getch();
}
//***************************************************************
// function to display all products price list
//***************************************************************

void menu()
{
    clrscr();
    fp.open("Shop.dat", ios:: in );
    if (!fp)
    {
          cout <<"ERROR!!! FILE COULD NOT BE OPEN\n\n\n Go To Admin
Menu to creat File ";
        cout << "\n\n\n Program is closing ....";
        getch();
        exit(0);
    }
```

```
    cout << "\n\n\t\tProduct MENU\n\n";
    cout <<
"=====================================================\n";
    cout << "P.NO.\t\tNAME\t\tPRICE\n";
    cout <<
"=====================================================\n";

    while (fp.read((char * ) & pr, sizeof(product)))
    {
        cout << pr.retpno() << "\t\t" << pr.retname() << "\t\t" << pr.retprice() <<
endl;
    }
    fp.close();
}

//***************************************************************
// function to place order and generating bill for Products
//***************************************************************

void place_order()
{
    int order_arr[50], quan[50], c = 0;
    float amt, damt, total = 0;
    char ch = 'Y';
    menu();
    cout << "\n============================";
    cout << "\n PLACE YOUR ORDER";
    cout << "\n============================\n";
    do
    {
        cout << "\n\nEnter The Product No. Of The Product : ";
        cin >> order_arr[c];
        cout << "\nQuantity in number : ";
        cin >> quan[c];
        c++;
        cout << "\nDo You Want To Order Another Product ? (y/n)";
        cin >> ch;
    } while (ch == 'y' || ch == 'Y');
    cout << "\n\nThank You For Placing The Order";
    getch();
```

```
    clrscr();
    cout << "\n\n******************************** INVOICE
************************\n";
    cout << "\nPr No.\tPr Name\tQuantity \tPrice \tAmount \tAmount after
discount\ n ";
    for (int x = 0; x <= c; x++)
    {
        fp.open("Shop.dat", ios:: in );
        fp.read((char * ) & pr, sizeof(product));
        while (!fp.eof())
        {
            if (pr.retpno() == order_arr[x])
            {
                amt = pr.retprice() * quan[x];
                damt = amt - (amt * pr.retdis() / 100);
                cout << "\n" << order_arr[x] << "\t" << pr.retname() <<
                    "\t" << quan[x] << "\t\t" << pr.retprice() << "\t" << amt << "\t\t"
<< damt;
                total += damt;
            }
            fp.read((char * ) & pr, sizeof(product));
        }

        fp.close();
    }
    cout << "\n\n\t\t\t\t\tTOTAL = " << total;
    getch();
}


//***************************************************************
// ADMINSTRATOR MENU FUNCTION
//***************************************************************
void admin_menu()
{
    clrscr();
    char ch2;
    cout << "\n\n\n\tADMIN MENU";
    cout << "\n\n\t1.CREATE PRODUCT";
    cout << "\n\n\t2.DISPLAY ALL PRODUCTS";
```

```
    cout << "\n\n\t3.QUERY ";
    cout << "\n\n\t4.MODIFY PRODUCT";
    cout << "\n\n\t5.DELETE PRODUCT";
    cout << "\n\n\t6.VIEW PRODUCT MENU";
    cout << "\n\n\t7.BACK TO MAIN MENU";
    cout << "\n\n\tPlease Enter Your Choice (1-7) ";
    ch2 = getche();
    switch (ch2)
    {
    case '1':
        clrscr();
        write_product();
        break;
    case '2':
        display_all();
        break;
    case '3':
        int num;
        clrscr();
        cout << "\n\n\tPlease Enter The Product No. ";
        cin >> num;
        display_sp(num);
        break;
    case '4':
        modify_product();
        break;
    case '5':
        delete_product();
        break;
    case '6':
        menu();
        getch();
    case '7':
        break;
    default:
        cout << "\a";
        admin_menu();
    }
}
//***************************************************************
```

```
// THE MAIN FUNCTION OF PROGRAM
//*************************************************************
void main()
{
   char ch;
   intro();
   do
   {
      clrscr();
      cout << "\n\n\n\tMAIN MENU";
      cout << "\n\n\t01. CUSTOMER";
      cout << "\n\n\t02. ADMINISTRATOR";
      cout << "\n\n\t03. EXIT";
      cout << "\n\n\tPlease Select Your Option (1-3) ";
      ch = getche();
      switch (ch)
      {
      case '1':
         clrscr();
         place_order();
         getch();
         break;
      case '2':
         admin_menu();
         break;
      case '3':
         exit(0);
      default:
         cout << "\a";
      }
   } while (ch != '3');
}
```