// PROJECT SALES MANAGEMENT

#include <iostream.h>

#include <fstream.h>

#include <process.h>

#include <string.h>

#include <stdlib.h>

#include <stdio.h>

#include <ctype.h>

#include <conio.h>

#include <dos.h>

// CLASS NAME : Menu

// DETAILS : IT CONTROLLS OVER ALL THE FUNCTIONS RELATED TO MENU

class menu

{public :

void main\_menu(void) ;

private :

void edit\_menu(void) ;

} ;

// DETAILS : IT CONTROLLS OVER ALL THE FUNCTIONS RELATED TO PRODUCT ITEMS

class product

{

public :

void add\_item(void) ;

void delete\_item(void) ;

void modify\_item(void) ;

void list\_of\_item(void) ;

void purchase(void) ;

private :

int last\_code(void) ;

void delete\_record(int) ;

void modify\_record(int) ;

void display\_record(int) ;

int item\_found(int) ;

int recordno(int) ;

void sort(void) ;

int itemcode ;

char itemname[30] ;

float itemcost, itemprice ;

} ;

// DETAILS : IT CONTROLLS OVER ALL THE FUNCTIONS RELATED TO MAKING BILL

class account

{public :

void bill\_list(void) ;

void prepare\_bill(int) ;

int last\_billno(void) ;

void add\_bill(int, int t\_itemcode, char \*t\_itemname, float t\_qty,

float t\_cost, float t\_price) ;

private :

int code, billno, length ;

int dd, mm, yy ;

float cost, price, quantity ;

char name[30] ;

} ;

// THIS FUNCTION CREATE MAIN MENU AND CALLS OTHER FUNCTIONS

void menu :: main\_menu(void)

{

clrscr() ;

char ch ;

while (1)

{

clrscr() ;

gotoxy(10,3) ;

cout

<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" ;

gotoxy(10,23) ;

cout

<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" ;

gotoxy(28,6) ;

cout <<"S A L E S M A N A G E M E N T" ;

gotoxy(28,7) ;

cout <<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~" ;

gotoxy(30,9) ;

cout <<"1: PURCHASE PRODUCTS" ;

gotoxy(30,11) ;

cout <<"2: LIST OF PRODUCTS" ;

gotoxy(30,13) ;

cout <<"3: EDIT PRODUCTS FILE" ;

gotoxy(30,15) ;

cout <<"4: BILLS REPORT" ;

gotoxy(30,17) ;

cout <<"0: QUIT" ;

gotoxy(30,20) ;

cout <<"Enter Your Choice : " ;

ch = getche() ;

if (ch == '1')

{

product p ;

p.purchase() ;

}

else

if (ch == '2')

{

product p ;

p.list\_of\_item() ;

}

else

if (ch == '3')

edit\_menu() ;

else

if (ch == '4')

{

account a ;

a.bill\_list();

}

else

if (ch == '0')

break ;

}

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

// THIS FUNCTION CREATE EDIT MENU AND CALLS OTHER FUNCTIONS

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

void menu :: edit\_menu(void)

{

char ch ;

while (1)

{

clrscr() ;

gotoxy(10,3) ;

cout

<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" ;

gotoxy(10,23) ;

cout

<<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" ;

gotoxy(32,6) ;

cout <<"E D I T M E N U" ;

gotoxy(32,7) ;

cout <<"~~~~~~~~~~~~~~~~" ;

gotoxy(32,10) ;

cout <<"1: ADD PRODUCTS" ;

gotoxy(32,12) ;

cout <<"2: MODIFY PRODUCTS" ;

gotoxy(32,14) ;

cout <<"3: DELETE PRODUCTS" ;

gotoxy(32,16) ;

cout <<"0: EXIT" ;

gotoxy(32,19) ;

cout <<"Enter Choice : " ;

ch = getche() ;

if (ch == '1')

{

product p ;

p.add\_item() ;

break ;

}

else

if (ch == '2')

{

product p ;

p.modify\_item() ;

break ;

}

else

if (ch == '3')

{

product p ;

p.delete\_item() ;

break ;

}

else

if (ch == '0')

break ;

}

}

// THIS FUNCTION RETURNS THE CODE OF THE LAST RECORD IN THE PRODUCT FILE (PRODUCT.DAT).

int product :: last\_code(void)

{

fstream file ;

file.open("PRODUCT.DAT", ios::in) ;

file.seekg(0,ios::beg) ;

int t=0 ;

while (file.read((char \*) this, sizeof(product)))

t = itemcode ;

file.close() ;

return t ;

}

// THIS FUNCTION DISPLAY THE LIST OF THE ITEMS

void product :: list\_of\_item(void)

{

clrscr() ;

fstream file ;

file.open("PRODUCT.DAT", ios::in) ;

file.seekg(0) ;

int row = 6 , found = 0 ;

gotoxy(30,2) ;

cout <<"LIST OF ITEMS" ;

gotoxy(3,4) ;

cout <<"ITEM CODE ITEM NAME ITEM COST ITEM PRICE" ;

gotoxy(2,5) ;

cout <<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" ;

while (file.read((char \*) this, sizeof(product)))

{

delay(20);

found = 1 ;

gotoxy(5,row) ;

cout <<itemcode ;

gotoxy(14,row) ;

cout <<itemname ;

gotoxy(37,row) ;

cout <<itemcost ;

gotoxy(51,row) ;

cout <<itemprice ;

if ( row == 22 )

{

row = 5 ;

gotoxy(1,25) ;

cout <<"Press any key to continue..." ;

getche() ;

clrscr() ;

gotoxy(30,2) ;

cout <<"LIST OF ITEMS" ;

gotoxy(3,4) ;

cout <<"ITEM CODE ITEM NAME ITEM COST ITEM PRICE" ;

gotoxy(2,5) ;

cout <<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

}

else

row++ ;

}

if ( !found )

{

gotoxy(5,10) ;

cout <<"\7Records not found" ;

}

gotoxy(1,25) ;

cout <<"Press any key to continue..." ;

getche() ;

file.close () ;

}

// THIS FUNCTION ADD RECORDS IN THE PRODUCT.DAT (PRODUCT.DAT)

void product :: add\_item(void)

{

int tcode, valid ;

char ch, t\_itemcost[10], t\_itemprice[10] ;

tcode = last\_code() ;

tcode++ ;

do{

clrscr() ;

gotoxy(71,2) ;

cout <<"<0>=Exit" ;

gotoxy(27,3) ;

cout <<"ADDITION OF PRODUCTS" ;

gotoxy(26,4) ;

cout <<"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" ;

gotoxy(5,6) ;

cout <<"Item Code : " <<tcode ;

gotoxy(5,8) ;

cout <<"Item Name : " ;

gotoxy(5,10) ;

cout <<"Item Cost : " ;

gotoxy(5,12) ;

cout <<"Item Price : " ;

do{

valid = 1 ;

gotoxy(1,8) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER ITEM NAME TO ADD IN THE MENU" ;

gotoxy(5,8) ;

cout <<"Item Name : " ;

gets(itemname) ;

strupr(itemname) ;

if (itemname[0] == '0')

return ;

if ((strlen(itemname) < 1) || (strlen(itemname) > 20))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 1..20" ;

getch() ;

}

} while (!valid) ;

do

{

valid = 1 ;

gotoxy(1,10) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER ITEM COST TO ADD IN THE MENU" ;

gotoxy(5,10) ;

cout <<"Item Cost : " ;

gets(t\_itemcost) ;

itemcost = atof(t\_itemcost) ;

if (t\_itemcost[0] == '0')

return ;

if (itemcost < 1 || itemcost > 800)

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 1..800" ;

getch() ;

}

} while (!valid) ;

do

{

valid = 1 ;

gotoxy(1,12) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER ITEM PRICE TO ADD IN THE MENU" ;

gotoxy(5,12) ;

cout <<"Item Price : " ;

gets(t\_itemprice) ;

itemprice = atof(t\_itemprice) ;

if (t\_itemprice[0] == '0')

return ;

if (itemprice < itemcost || itemprice > 1000)

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = " <<itemcost <<"..1000" ;

getch() ;

}

} while (!valid) ;

do

{

gotoxy(1,15) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,15) ;

cout <<"Do you want to save this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'Y')

{itemcode = tcode ;

fstream file ;

file.open("PRODUCT.DAT", ios::out | ios::app ) ;

file.write((char \*) this, sizeof(product)) ;

file.close() ;

tcode++ ;

}

do

{

gotoxy(1,17) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,17) ;

cout <<"Do you want to add more records (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

} while (ch == 'Y') ;

}

// THIS FUNCTION DISPLAY THE RECORD OF THE GIVEN CODE FROM

// THE PRODUCT FILE (PRODUCT.DAT)

void product :: display\_record(int tcode)

{

fstream file ;

file.open("PRODUCT.DAT", ios::in) ;

file.seekg(0,ios::beg) ;

while (file.read((char \*) this, sizeof(product)))

{

if (itemcode == tcode)

{

gotoxy(5,3) ;

cout <<"Item Code : "<<itemcode ;

gotoxy(5,4) ;

cout <<"Item Name : "<<itemname ;

gotoxy(5,5) ;

cout <<"Item Cost : "<<itemcost ;

gotoxy(5,6) ;

cout <<"Item Price : "<<itemprice ;

break ;

}

}

file.close() ;

}

// THIS FUNCTION RETURN THE VALUE 1 IF THE RECORD IS FOUND FOR THE GIVEN CODE IN THE PRODUCT FILE (PRODUCT.DAT)

int product :: item\_found(int tcode)

{

fstream file ;

file.open("PRODUCT.DAT", ios::in) ;

file.seekg(0,ios::beg) ;

int found=0 ;

while (file.read((char \*) this, sizeof(product)))

{

if (itemcode == tcode){

found++ ;

break ;

}

}

file.close() ;

return found ;

}

// THIS FUNCTION RETURN THE RECORD NO. OF THE GIVEN CODE IN THE PRODUCT FILE (PRODUCT.DAT)

int product :: recordno(int tcode)

{

fstream file ;

file.open("PRODUCT.DAT", ios::in) ;

file.seekg(0,ios::beg) ;

int found=0 ;

while (file.read((char \*) this, sizeof(product)))

{

found++ ;

if (itemcode == tcode)

break ;

}

file.close() ;

return found ;

}

// THIS FUNCTION DELETES THE RECORD FOR THE GIVEN CODE FROM

// THE PRODUCT FILE (PRODUCT.DAT)

void product :: delete\_record(int tcode)

{

fstream file ;

file.open("PRODUCT.DAT", ios::in) ;

fstream temp ;

temp.open("temp.dat", ios::out) ;

file.seekg(0,ios::beg) ;

while ( !file.eof() )

{

file.read((char \*) this, sizeof(product)) ;

if ( file.eof() )

break ;

if ( itemcode != tcode )

temp.write((char \*) this, sizeof(product)) ;

}

file.close() ;

temp.close() ;

file.open("PRODUCT.DAT", ios::out) ;

temp.open("temp.dat", ios::in) ;

temp.seekg(0,ios::beg) ;

while ( !temp.eof() )

{

temp.read((char \*) this, sizeof(product)) ;

if ( temp.eof() )

break ;

file.write((char \*) this, sizeof(product)) ;

}

file.close() ;

temp.close() ;

}

// THIS FUNCTION GIVES THE CODE NO. TO DELETE RECORD FROM THE PRODUCT FILE (PRODUCT.DAT)

void product :: delete\_item(void)

{

clrscr() ;

char t\_code[5], ch ;

int t, tcode ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to see the list" ;

gotoxy(5,3) ;

cout <<"Enter Item Code of the item to be deleted : " ;

gets(t\_code) ;

t = atoi(t\_code) ;

tcode = t ;

if (t\_code[0] == '0')

return ;

if (tcode == 0)

{

list\_of\_item() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to Exit" ;

gotoxy(5,24) ;

cout <<"Enter Item Code of the item to be deleted : " ;

gets(t\_code) ;

t = atoi(t\_code) ;

tcode = t ;

if (tcode == 0)

return ;

}

clrscr() ;

if (!item\_found(tcode))

{

gotoxy(5,5) ;

cout <<"\7Record not found" ;

getch() ;

return ;

}

display\_record(tcode) ;

do

{

gotoxy(1,8) ; clreol() ;

gotoxy(5,8) ;

cout <<"Do you want to delete this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

return ;

delete\_record(tcode) ;

gotoxy(5,15) ;

cout <<"\7Record Deleted" ;

getch() ;

}

// THIS FUNCTION MODIFY THE RECORD FOR THE GIVEN CODE FROM THE PRODUCT FILE (PRODUCT.DAT)

void product :: modify\_record(int tcode)

{

int recno ;

recno = recordno(tcode) ;

int valid, t\_code ;

char ch, t\_itemcost[10], t\_itemprice[10], t\_itemcode[5] ;

gotoxy(71,2) ;

cout <<"<0>=Exit" ;

gotoxy(5,12) ;

cout <<"Item Code : " ;

gotoxy(5,14) ;

cout <<"Item Name : " ;

gotoxy(5,16) ;

cout <<"Item Cost : " ;

gotoxy(5,18) ;

cout <<"Item Price : " ;

do

{

gotoxy(20,12) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,12) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER ITEM CODE TO ADD IN THE MENU" ;

gotoxy(5,12) ;

cout <<"Item Code : " ;

gets(t\_itemcode) ;

t\_code = atoi(t\_itemcode) ;

if (t\_code == 0)

return ;

if (item\_found(t\_code) && t\_code != tcode)

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 CODE ALREADY GIVEN" ;

getch() ;

}

}

do{

gotoxy(20,14) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,14) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER ITEM NAME TO ADD IN THE MENU" ;

gotoxy(5,14) ;

cout <<"Item Name : " ;

gets(itemname) ;

strupr(itemname) ;

if (itemname[0] == '0')

return ;

if ((strlen(itemname) < 1) || (strlen(itemname) > 20))

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 1..20" ;

getch() ;

}

}

do

{

gotoxy(20,16) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{

valid = 1 ;

gotoxy(1,16) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER ITEM COST TO ADD IN THE MENU" ;

gotoxy(5,16) ;

cout <<"Item Cost : " ;

gets(t\_itemcost) ;

itemcost = atof(t\_itemcost) ;

if (t\_itemcost[0] == '0')

return ;

if (itemcost < 1 || itemcost > 800)

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 1..800" ;

getch() ;

}

}

do{gotoxy(20,18) ; clreol() ;

cout <<"Change (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

valid = 0 ;

while (ch == 'Y' && !valid)

{valid = 1 ;

gotoxy(1,18) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER ITEM PRICE TO ADD IN THE MENU" ;

gotoxy(5,18) ;

cout <<"Item Price : " ;

gets(t\_itemprice) ;

itemprice = atof(t\_itemprice) ;

if (t\_itemprice[0] == '0')

return ;

if (itemprice < itemcost || itemprice > 1000)

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = " <<itemcost <<"..1000" ;

getch() ;

}

}

do

{

gotoxy(1,21) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(5,21) ;

cout <<"Do you want to save this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

if (ch == '0')

return ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

return ;

itemcode = t\_code ;

cout <<"\n" <<itemname ;

cout <<itemcost ;

cout <<itemprice ;

getch() ;

fstream file ;

file.open("PRODUCT.DAT", ios::out | ios::ate) ;

int location ;

location = (recno­1) \* sizeof(product) ;

file.seekp(location) ;

file.write((char \*) this, sizeof(product)) ;

file.close() ;

sort() ;

clrscr() ;

gotoxy(5,15) ;

cout <<"\7Record Modified" ;

getch() ;

}

// THIS FUNCTION GIVES THE CODE NO. TO MODIFY RECORD FROM THE PRODUCT FILE (PRODUCT.DAT)

void product :: modify\_item(void)

{

clrscr() ;

char t\_code[5], ch ;

int t, tcode ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to see the list" ;

gotoxy(5,3) ;

cout <<"Enter Item Code of the item to be Modify : " ;

gets(t\_code) ;

t = atoi(t\_code) ;

tcode = t ;

if (t\_code[0] == '0')

return ;

if (tcode == 0)

{

list\_of\_item() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to Exit" ;

gotoxy(5,24) ;

cout <<"Enter Item Code of the item to be modify : " ;

gets(t\_code) ;

t = atoi(t\_code) ;

tcode = t ;

if (tcode == 0)

return ;

}

clrscr() ;

if (!item\_found(tcode))

{

gotoxy(5,5) ;

cout <<"\7Record not found" ;

getch() ;

return ;

}

display\_record(tcode) ;

do

{gotoxy(5,8) ;

cout <<"Do you want to Modify this record (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

return ;

modify\_record(tcode) ;

}

// THIS FUNCTION SORT THE RECORD IN THE PRODUCT FILE (PRODUCT.DAT) ACCORDING TO THE CODE NOS.

void product :: sort(void)

{

int i=0,j ;

product arr[100] ;

product temp ;

fstream file ;

file.open("PRODUCT.DAT", ios::in) ;

file.seekg(0,ios::beg) ;

while (file.read((char \*) &arr[i], sizeof(product)))

i++ ;

int size ;

size = i ;

file.close() ;

for (i=1; i<size; i++)

for (j=0; j<size­i; j++)

{

if (arr[j].itemcode > arr[j+1].itemcode)

{

temp=arr[j];

arr[j]=arr[j+1];

arr[j+1]=temp;

}

}

file.open("PRODUCT.DAT", ios::out) ;

for (i=0; i<size; i++)

file.write((char \*) &arr[i], sizeof(product)) ;

file.close() ;

}

// THIS FUNCTION PURCHASES THE PRODUCT ITEM IN THE MENU

void product :: purchase(void)

{

clrscr() ;

account a ;

int t\_billno, purchased=0 ;

t\_billno = a.last\_billno() ;

t\_billno++ ;

char t\_code[5], ch;

float t\_quantity ;

int t, tcode, i=0, valid ;

float qty ;

int t\_itemcode ;

float t\_qty, t\_cost, t\_price ;

char t\_itemname[30] ;

struct date d;

int d1, m1, y1 ;

getdate(&d);

d1 = d.da\_day ;

m1 = d.da\_mon ;

y1 = d.da\_year ;

do

{

clrscr() ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to see the list" ;

gotoxy(5,3) ;

cout <<"Enter Item Code of the item to be Purchase : " ;

gets(t\_code) ;

t = atoi(t\_code) ;

tcode = t ;

if (t\_code[0] == '0')

{

if (purchased)

a.prepare\_bill(t\_billno) ;

return ;

}

if (tcode == 0)

{

list\_of\_item() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"Press <ENTER> to Exit" ;

gotoxy(5,24) ;

cout <<"Enter Item Code of the item to be Purchase : " ;

gets(t\_code) ;

t = atoi(t\_code) ;

tcode = t ;

if (tcode == 0)

{

if (purchased)

a.prepare\_bill(t\_billno) ;

return ;

}

}

clrscr() ;

if (!item\_found(tcode))

{

gotoxy(5,5) ;

cout <<"\7Item Code not found" ;

getch() ;

if (purchased)

a.prepare\_bill(t\_billno) ;

return ;

}

gotoxy(60,2) ;

cout <<"Date:" <<d1 <<"/" <<m1 <<"/" <<y1 ;

display\_record(tcode) ;

do

{

valid = 1 ;

gotoxy(1,8) ; clreol() ;

gotoxy(1,24) ; clreol() ;

gotoxy(1,25) ; clreol() ;

gotoxy(3,25) ;

cout <<"ENTER QUANTITY TO BE PURCHASE IN Kg." ;

gotoxy(5,8) ;

cout <<"Quantity : " ;

cin>>t\_quantity ;

qty=t\_quantity ;

if (t\_quantity == 0)

{

if (purchased)

a.prepare\_bill(t\_billno) ;

return ;

}

if (qty < 1 || qty > 800)

{

valid = 0 ;

gotoxy(3,24) ;

cout <<"\7 Range = 1..800" ;

getch() ;

}

} while (!valid) ;

do

{

gotoxy(5,10) ; clreol() ;

gotoxy(5,10) ;

cout <<"Do you want to cancel this purchase (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

if (ch == 'N')

{

purchased = 1 ;

fstream file ;

file.open("PRODUCT.DAT", ios::in) ;

file.seekg(0,ios::beg) ;

while (file.read((char \*) this, sizeof(product)))

{

if (itemcode == tcode)

{

t\_itemcode = itemcode ;

strcpy(t\_itemname,itemname) ;

t\_cost = itemcost ;

t\_price = itemprice ;

t\_qty = qty ;

a.add\_bill(t\_billno,t\_itemcode,t\_itemname,t\_qty,t\_cost,t\_price) ;

i++ ;

break ;

}}

file.close() ;

}do{

gotoxy(5,12) ; clreol() ;

gotoxy(5,12) ;

cout <<"Do you want to purchase more (y/n) : " ;

ch = getche() ;

ch = toupper(ch) ;

} while (ch != 'N' && ch != 'Y') ;

} while (ch == 'Y') ;

a.prepare\_bill(t\_billno) ;

}

// THIS FUNCTION RETURNS THE BILL NO. OF THE LAST RECORD IN THE BILL FILE (BILL.DAT)

int account :: last\_billno(void)

{

fstream file ;

file.open("BILL.DAT", ios::in) ;

file.seekg(0,ios::beg) ;

int t=0 ;

while (file.read((char \*) this, sizeof(account)))

t = billno ;

file.close() ;

return t ;

}

// THIS FUNCTION ADDS THE RECORD IN THE BILL FILE (BILL.DAT)

void account :: add\_bill(int t\_billno, int t\_itemcode, char

t\_itemname[30], float t\_qty, float t\_cost, float t\_price)

{

struct date d;

int d1, m1, y1 ;

getdate(&d);

d1 = d.da\_day ;

m1 = d.da\_mon ;

y1 = d.da\_year ;

dd = d1 ;

mm = m1 ;

yy = y1 ;

code = t\_itemcode ;

strcpy(name,t\_itemname) ;

cost = t\_cost ;

price = t\_price ;

quantity = t\_qty ;

billno = t\_billno ;

fstream file ;

file.open("BILL.DAT", ios::out | ios:: app ) ;

file.write((char \*) this, sizeof(account)) ;

file.close() ;

}

// THIS FUNCTION PREPARES AND DISPLAYS THE BILL FOR THE GIVEN BILL NO. ACCORDING TO PURCHASES MADE.

void account :: prepare\_bill(int t\_billno)

{

clrscr() ;

struct date d;

int d1, m1, y1 ;

getdate(&d);

d1 = d.da\_day ;

m1 = d.da\_mon ;

y1 = d.da\_year ;

float total=0.0, total\_bill=0.0 ;

gotoxy(33,3) ;

cout <<"CUSTOMER BILL" ;

gotoxy(55,5) ;

cout <<"Date:" <<d1 <<"/" <<m1 <<"/" <<y1 ;

gotoxy(8,7) ;

cout <<"ITEMS PURCHASED" ;

gotoxy(8,8) ;

cout <<"+++++++++++++++" ;

gotoxy(8,9) ;

cout <<"Item code Item name Cost Price Qty Total";

gotoxy(8,10) ;

cout <<"­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­­";

int row=11 ;

fstream file;

file.open("BILL.DAT", ios::in) ;

file.seekg(0) ;

while (file.read((char \*) this, sizeof(account)) !=0 )

{

if (billno == t\_billno)

{

gotoxy(8,5) ;

cout <<"BILL NO. # " <<billno ;

gotoxy(8,6) ;

cout <<"===============" ;

gotoxy(10,row) ;

cout <<code ;

gotoxy(18,row) ;

cout <<name ;

gotoxy(39,row) ;

cout <<cost ;

gotoxy(47,row) ;

cout <<price ;

gotoxy(56,row) ;

cout <<quantity ;

total = quantity \* price ;

gotoxy(63,row) ;

cout <<total ;

total\_bill = total\_bill + total ;

row++ ;

}

}

file.close() ;

gotoxy(39,row+1) ;

cout <<"TOTAL BILL: Rs." <<total\_bill <<" /=" ;

getch() ;}

// THIS FUNCTION DISPLAYS THE LIST OF THE BILLS

void account :: bill\_list(void)

{

clrscr() ;

fstream file ;

file.open("BILL.DAT", ios::in) ;

file.seekg(0) ;

int row=5, found=0, pageno=1, prev\_billno=0, flag=0 ;

float total=0.0, total\_bill=0.0 ;

gotoxy(30,2) ;

cout <<"LIST OF BILLS" ;

gotoxy(3,4) ;

cout <<"Billno. Date Item Code Item name Cost Pri Qty Total" ;

gotoxy(3,5) ;

cout<<"===========================================================================";

while (file.read((char \*) this, sizeof(account)))

{row++ ;

delay(20) ;

found = 1 ;

if (prev\_billno != billno)

{if (flag){

gotoxy(52,row) ;

cout <<"TOTAL BILL: Rs." <<total\_bill <<"/=" ;

total\_bill = 0.0 ;

row++ ;

}

gotoxy(4,row) ;

cout <<billno ;}

flag = 1 ;

gotoxy(11,row) ;

cout <<dd <<"/" <<mm <<"/" <<yy ;

gotoxy(24,row) ;

cout <<code ;

gotoxy(32,row) ;

cout <<name ;

gotoxy(52,row) ;

cout <<cost ;

gotoxy(59,row) ;

cout <<price ;

gotoxy(67,row) ;

cout <<quantity ;

total = quantity \* price ;

gotoxy(73,row) ;

cout <<total ;

total\_bill = total\_bill + total ;

if ( row >= 23 ){

row = 5 ;

gotoxy(66,1) ;

cout <<"Page no. : " <<pageno ;

pageno++ ;

gotoxy(1,25) ;

cout <<"Press any key to continue..." ;

getche() ;

clrscr() ;

gotoxy(30,2) ;

cout <<"LIST OF BILLS" ;

gotoxy(3,4) ;

cout <<"Billno. Date Item Code Item name CostPrice Qty Total" ;

gotoxy(3,5) ;

cout<<"===========================================================================";

prev\_billno = billno ;}

row++ ;

gotoxy(52,row) ;

cout <<"TOTAL BILL: Rs." <<total\_bill <<"/=" ;

if ( !found ){

gotoxy(5,10) ;

cout <<"\7Records not found" ;

}

gotoxy(66,1) ;

cout <<"Page no. : " <<pageno ;

gotoxy(1,25) ;

cout <<"Press any key to continue..." ;

getche() ;

file.close () ;

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

// THIS FUNCTION IS THE MAIN FUNCTION CALLING THE MAIN MENU

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

void main(void)

{

clrscr() ;

menu m ;

m.main\_menu() ;

}