C++ Project on MESS MANAGEMENT SYSTEM

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C++ Project on

mess MANAGEMENT SYSTEM

To:

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ABSTRACT

The main objective of this C++ project on Mess Management System is to manage the items available in the mess and their prices per plate.

It manages all the information about items, orders and their prices.

The project is built for the billing purpose at the customer level as it reduces the time for the billing management and the manual work for the managing items and orders.

It tracks all the details about the Mess, food available and their prices as well as the bill generation.

1. INTRODUCTION

1.1 Introduction to Mess Management System:

As the main objective of this C++ project on Mess Management System is to manage the items available in the mess and their prices per plate as well as generate the bill.

CLASS USED IN THE PROGRAM:

1: class Mess:

In this class there are

Mess() is the constructor, void show() void allItems() void addNewItem() int searchById(int) void showQuantity(int) int checkQuantity(int,int) void addNewSale(int,int) are the functions used.

FUNCTIONS USED IN THE PROGRAM:

a. void show():

This function prints the main menu which includes

- Buy an item
- Menu Card ✞ Add new Item ✞ Exit.

b. void allItems():

This function prints the menu card of the Mess.

c. void addNewItem():

This function is for adding new item in the cart.

d. int searchById(int):

This is used to search that item is present or not.

e. void showQuantity(int):

This function is used to show the quantity of the items present.

f. int checkQuantity(int,int):

This function is used to check the quantity of the items present.

g. void addNewSale(int,int):

This function calculates the total bill of items bought.

2. SYSTEM DEVELOPMENT

2.1 System Development Tools

1. C++:

C++ is a general-purpose programming language created by Bjarne Stroustrup as an extension of the C programming language, or "C with Classes". The language has expanded significantly over time, and modern C++ has object-oriented, generic, and functional features in addition to facilities for low- level memory manipulation. It is almost always implemented as a compiled language, and many vendors provide C++ compilers, including the Free Software Foundation, LLVM, Microsoft, Intel, Oracle, and IBM, so it is available on many platforms

2 Coding

```
#include<iostream>
#include<fstream> #include<sstream>
#include<string>
#include<cstdlib>
#include<windows.h> using
namespace std; class
Mess
{ public:    Mess();    void
show();    void allItems();
void addNewItem();    int
searchById(int);    void
showQuantity(int);    int
checkQuantity(int,int);
void addNewSale(int,int);
};
string name; int choice;
int item, quantity,price=0;
int main()
{    system("cls");    system("title Mess
Management System");    system("mode con:
cols=140 lines=30");    system("color 0f");
Mess Mess;    again:    Mess.show();
cin>>choice;    if(choice == 1)
  {
      cout<<"Enter your  Good name: ";
cin>>name;        cout<<endl;
system("cls");        bb:
      Mess.allItems();
      cout<<endl;
mm:
      cout<<"Hello "<<name;        cout<<"\nWhat do you want to
buy?"<<endl<<"Enter Number of the item: ";        cin>>item;        if(item<=7)
      {
      if(Mess.searchById(item)==0)
      {
         cout<<"This item is not present\n";
goto mm;
      }
      customer:
```

```
        Mess.showQuantity(item);
cout<<"\nEnter quantity of the item: ";
cin>>quantity;
if(Mess.checkQuantity(item, quantity)==1)
        {
            Mess.addNewSale(item, quantity);
goto again;
        }
else
        {
            cout<<quantity<<" Quantity is not present in our Mess. Try again";
goto customer;
        }
}
else
        {
            system("cls");
            cout<<"\t\t\tPlease Enter Proper Number!!!";
Sleep(7000);            goto bb;
        }
    }
    else if(choice == 2)
    {
        Mess.allItems();
goto again;
    }
    else if(choice == 3)
    {
        Mess.addNewItem();
        goto again;
    }
    else if(choice == 4)
    {
        exit(0);
    }
    return 0;
}
Mess::Mess()
{
    cout<<"\n\n\n_____________________________Welcome!!!_____________________________\n";
}
void Mess::show()
```

```
{    cout<<"\n\n";    cout <<"\t\t\t\t\t\t\t\t\t\t            A Project by\n\n";    cout <<"\t\t\t\t\t\t\t\t\t\tMalaika  Shehbaz                    18501510-106\n";    cout <<"\t\t\t\t\t\t\t\t\t\t\t\t\t&\t\t\t\t\t\t";  cout <<"\t\t\t\t\t\t\t\t\t\t        Syed Hassan  Imam  Rizvi\t       18501510-107\n\n";        cout <<"\t\t\t\t\t\t\t\t\t\t Bs(Physics)7th B        \n\n";    cout<<"\t\t\t\t\t\t\t\t\t\t       To : Sir Aaqib Ali\n"; cout <<"              Mess Management System      \n";    cout<<"             Here choose an option\n";     cout <<"                        1.BUY AN ITEM          \n";     cout <<"  2.MENU CARD         \n";    cout <<"                   3.ADD NEW ITEM       \n";    cout <<"                4.EXIT          \n";    cout<<"------------------------------------------------------------\n";    cout<<"Enter your choice: ";
}
void Mess::allItems()
{
system("cls");
   cout<<"____________________________________\n";
cout<<"_____________MENU CARD______________\n\n";
cout<<"\nWhat would you like to order?\n";    cout<<"   Item
|       Price \n";    cout<<"1:CHAPATI      |  10 Rs.  per
piece\n";    cout<<"2:RICE        |  70 Rs.  per plate\n";
cout<<"3.DAL         |  40 Rs.  per plate\n";    cout<<"4.ALOO
MATAR   |  65 Rs.  per plate\n";    cout<<"5.PANEER      |
150 Rs. per plate\n"; cout<<"6.QEEMA       |  120 Rs. per
piece\n";    cout<<"________Today's SPECIAL
Menu________\n";    cout<<"7.BIRYANI      |  135 Rs. per
plate\n\n";
cout<<"____________________________________\n";
   Sleep(7000);
system("cls");
}
void Mess::addNewItem()
{
   Mess Mess;
system("cls");    t:
   Mess.show();
system("cls");    mnn:
   cout<<"________________________________________________\n";
cout<<"____________Total BILL: "<<price<<"____________"<<endl;
Mess.allItems();    int id;    int quantity;    mm:
   cout<<"Hello "<<name;    cout<<"\nWhat do you want to add?"<<endl<<"
Enter Number of the item: ";      cin>>id;      if (id<=7)
      {
      if(Mess.searchById(id)==0)
      {
```

```
        cout<<"This item is not present\n";
goto x;
      }
      customer:
      cout<<"\t\t\t\t\t\t\t\t\t\t\t\t\t\tTotal BILL: "<<price;
Mess.showQuantity(id);        cout<<"\nEnter quantity of the
item: ";        cin>>quantity;
      if(Mess.checkQuantity(id, quantity)==1)
      {
         Mess.addNewSale(id, quantity);
goto x;
      }
else
      {
         cout<<quantity<<" Quantity is not present in our Mess. Try again";
goto customer;
      }
x:
         cout<<"\nDo you want to add more?. Enter (Y/N) ";
char ch;           cin>>ch;           if (ch=='y' || ch=='Y')
goto t;           else
         {
          cout<<"\n\n\n\n\n\n\n\n";            cout<<"_____Total BILL:
"<<price<<"_____"<<endl;            cout<<"_____Thank you dear "<<name<<"
for visiting here!_____\n";            cout<<"_____Do visit
again!!_____\n";            Sleep(12000);            system("cls");
return;

         }
}
else{
            cout<<"\t\t\tPlease enter proper number!!!";
Sleep(3000);            goto mnn;
      }
}
void Mess::addNewSale(int item, int quantity)
{
   cout<<"_____\n";
int price1;    string item_name;     system("cls");
if(quantity<=10)
   {
   cout<<"Preaparing Bill\n";
Sleep(2000);    if(item==1)
```

```
   {
   item_name="CHAPATI ";
   }
   else if(item==2)
   {   item_name="RICE";
   }
   else if(item==3)
   {   item_name="DAL ";
   }
   else if(item==4)
   {   item_name="ALOO MATAR ";
   }
   else if(item==5)
   {   item_name="PANEER";
   }
   else if(item==6)
   {   item_name="QEEMA ";
   }
   else if(item==7)
   {   item_name="BIRYANI ";
   }
   if(item==1)
   {
   cout<<"You Bought item : "<<item_name<<" and quantity of : "<<quantity<<" items";
price=price+10*quantity;      price1=10*quantity;         cout<<"Price is "<<price1;
cout<<"\t\t\t\t\t\t\t\t\t\t\t\t\tTotal BILL: "<<price;
   }
   else if(item==2)
   {  cout<<"You Bought item : "<<item_name<<" and quantity of : "<<quantity<<" items";
price=price+70*quantity;      price1=70*quantity;         cout<<"Price is "<<price1;
cout<<"\t\t\t\t\t\t\t\t\t\t\t\t\tTotal BILL: "<<price;
   }
   else if(item==3)
   {   cout<<"You Bought item "<<item_name<<" and quantity of "<<quantity<<" items";
price=price+40*quantity;      price1=40*quantity;         cout<<"Price is "<<price1;
       cout<<"\t\t\t\t\t\t\t\t\t\t\t\t\tTotal BILL: "<<price;
   }
   else if(item==4)
   {   cout<<"You Bought item "<<item_name<<" and quantity of "<<quantity<<" items";
price=price+45*quantity;      price1=45*quantity;         cout<<"Price is "<<price1;
cout<<"\t\t\t\t\t\t\t\t\t\t\t\t\tTotal BILL: "<<price;
   }
   else if(item==5)
```

```
   {   cout<<"You Bought item "<<item_name<<" and quantity of "<<quantity<<" items";
price=price+150*quantity;      price1=150*quantity;         cout<<"Price is "<<price1;
cout<<"\t\t\t\t\t\t\t\t\t\t\t\t\tTotal BILL: "<<price;
   }
   else if(item==6)
   {   cout<<"You Bought item "<<item_name<<" and quantity of "<<quantity<<" items";
price=price+120*quantity;      price1=120*quantity;         cout<<"Price is "<<price1;
cout<<"\t\t\t\t\t\t\t\t\t\t\t\t\tTotal BILL: "<<price;
   }
   else if(item==7)
   {   cout<<"You Bought item "<<item_name<<" and quantity of "<<quantity<<" items";
price=price+135*quantity;      price1=135*quantity;         cout<<"Price is "<<price1;
cout<<"\t\t\t\t\t\t\t\t\t\t\t\t\tTotal BILL: "<<price;
   }
   }
else{
       cout<<"\t\t\tPlease enter proper quantity!!!";
Sleep(10000);                system("cls");

   }
}
void Mess::showQuantity(int i)
{    system("cls");
cout<<"\n\n\n\n\n";
cout<<"Checking Quantity";
cout<<" . ";     Sleep(1000);
cout<<". ";     cout<<"\n";
   cout<<"_____\n";
   cout<<"    Item      |  Quantity \n";

    if(i==1)
    cout<<"1:CHAPATI     |  10 pieces\n";
    else if(i==2) cout<<"2:RICE         |  10
    plates\n";
   else if(i==3)     cout<<"3.DAL          |  10 plates\n";     else
if(i==4)     cout<<"4.ALOO MATAR   |  10 plates\n";     else
if(i==5)      cout<<"5.PANEER         |  10 plates\n";      else
if(i==6)      cout<<"6.QEEMA          |  10 plates\n";      else
if(i==7)        cout<<"7.BIRYANI          |    10  plates\n\n";
cout<<"_____\n";
}
int Mess::searchById(int id)
```

```
{     if(id<1 &&
id>6)     return 0;
else     return 1;
}
int Mess::checkQuantity(int item, int quantity)
{     if
(quantity>20)
return 0;     else
return 1;
}
```

3. CONCLUSION

We performed this program in DEVc++ which is efficient in maintaining customer's details and can easily perform operations on customer's records and also works to handles the information of the products available in a mess.

This software also reduces the work load of the Mess and makes bill management easier.

There can be certain modifications such as edit the quantity and delete the item.

Thank You!