

CustomerBill

```
-- customerName : String
-- customerCharges : Size_t
-- numberOfDaysStayed : Int
-- tax : Const Double
```

```
+ setCustomerName( n : String )
+ getCustomerName() : String
+ setCustomerCharges( c : Size_t )
+ getCustomerCharges() : Size_t
+ setCustomerStayTime( d : Int)
+ getCustomerStayTime() : Int
+ getCustomerTax() : Double
    RoomService
```

```
-- customerBags : Const Int
-- tacosToDoor : Const Int
-- cleanRoom : Const Int
```

```
+ cleanTheRoom() : Const Int
+ bringTacos() : Const Int
+ bringCustomerBags() : Const Int
    MiniBar
```

```
-- water : Const Int
-- alchol : Const Int
-- candy : Const Int
```

```
+ buyAlcohol() : Const Int
+ buyCandy() : Const Int
+ buyWater() : Const Int
+ updateCost( charge : Int, *bill : CustomerBill)
```

```
// Written by Jared Dyreson : Project Five -> Hotel Manager
// File : CustomerBill.hpp
// Goal : Lay the foundation for the class
#pragma once
#include <string>
using namespace std;

class CustomerBill{
private:
    // attributes of the class
    string customerName;
    size_t customerCharges = 0;
    int numberOfDaysStayed = 0;
    const double tax = 1.0825;
public:
    // able to be accessed by the other .cpp files
    void setCustomerName(string n);
    string getCustomerName();
    void setCustomerCharges(size_t c);
    size_t getCustomerCharges();
    void setCustomerStayTime(int d);
    int getCustomerStayTime();
    double getCustomerTax();
};
```

```
// Written by Jared Dyreson
// File : MiniBar.hpp
// Goal : Skeleton code for the MiniBar class
#pragma once
#include "CustomerBill.hpp"
#include "RoomService.hpp"

class MiniBar{
private:
    const int water = 2, alchol = 10, candy = 3;
public:
    const int buyAlcohol();
    const int buyCandy();
    const int buyWater();
    void updateCost(int charge, CustomerBill *bill);
};
```

```
// Written by Jared Dyreson
// File : RoomService.hpp
// Goal : Skeleton code for the RoomService class
#pragma once
#include "CustomerBill.hpp"

class RoomService{
private:
    const int customerBags = 5, tacosToDoor = 10, cleanRoom = 20;
public:
    const int cleanTheRoom();
    const int bringTacos();
    const int bringCustomerBags();
    void updateCost(int charges, CustomerBill *bill);
};
```

```
// Written by Jared Dyreson : Project Five -> Hotel Manager
// File : CustomerBill.cpp
// Goal : Define all functions for the CustomerBill class
#include <iostream>
#include <string>
#include "CustomerBill.hpp"

using namespace std;

void CustomerBill:: setCustomerName(string n){ customerName = n; }
string CustomerBill:: getCustomerName(){ return customerName; }
void CustomerBill:: setCustomerCharges(size_t c) { customerCharges = c; }
size_t CustomerBill:: getCustomerCharges(){ return customerCharges; }
void CustomerBill:: setCustomerStayTime(int d){ numberOfDaysStayed = d; }
int CustomerBill:: getCustomerStayTime(){ return numberOfDaysStayed; }
double CustomerBill:: getCustomerTax() { return tax; }
```

```
// Written by Jared Dyreson
// File : MiniBar.cpp
// Goal : Define the charges for a given item in the hotel services
#include "CustomerBill.hpp"
#include "RoomService.hpp"
#include "MiniBar.hpp"

const int MiniBar:: buyAlcohol() { return alchol; }
// $12 for alcohol
const int MiniBar:: buyCandy() { return candy; }
// $2 for candy
const int MiniBar:: buyWater() { return water; }
// $10 for water
void MiniBar:: updateCost(int charge, CustomerBill *bill) {bill->setCustomerCharges(bill->getCustomerCharges()+charge); }
```

```
// Written by Jared Dyreson
// File : RoomService.cpp
// Goal : Define the functions for the RoomService class
#include "CustomerBill.hpp"
#include "RoomService.hpp"

const int RoomService:: cleanTheRoom() { return cleanRoom; }
const int RoomService:: bringCustomerBags() { return customerBags; }
const int RoomService:: bringTacos() { return tacosToDoor; }
void RoomService:: updateCost(int charges, CustomerBill *bill) { bill->setCustomerCharges((bill->getCustomerCharges()+charges)); }
```

```

// Written by Jared Dyreson
// File : Source.cpp
// Goal : Implementation

#include "CustomerBill.hpp"
#include "RoomService.hpp"
#include "MiniBar.hpp"
#include <string>
#include <iostream>
using namespace std;

// Prototypes
int numDaysStayed();
string customerName();
bool usedMiniBar();
bool usedRoomService();
void clear();

int main(){
    const double tax = 1.0825;
    // create three instances, each for their respective class
    CustomerBill customer;
    RoomService roomService;
    MiniBar miniBar;
    // getting and setting name
    string name = customerName();
    customer.setCustomerName(name);
    // getting and setting time stayed
    int numberOfDaysStayed = numDaysStayed();
    // getting, calculating and setting the amount it cost for board
    int costToStay = numberOfDaysStayed*100;
    customer.setCustomerCharges(costToStay);
    customer.setCustomerStayTime(numberOfDaysStayed);
    // let's see if they used the minibar
    char selection = '\0';
    do{
        clear();
        cout << "Which items did you use?" << endl;
        cout << "1) Water" << endl;
        cout << "2) Candy" << endl;
        cout << "3) Alcohol" << endl;
        cout << "Q) Quit" << endl;
        cout << "Option: ";
        cin >> selection;
        switch(selection){
            case 1: {
                miniBar.updateCost(miniBar.buyWater(), &customer);
                break;
            }
            case 2: {
                miniBar.updateCost(miniBar.buyCandy(), &customer);
                break;
            }
            case 3: {
                miniBar.updateCost(miniBar.buyAlcohol(), &customer);
                break;
            }
            case 'Q': {
                clear();
                break;
            }
            default: {
                cerr << "[*] Invalid option" << selection << endl;
            }
        }
    }
}

```



```

} while (selection != 'Q');
selection = '\0';

do{
    clear();
    cout << "Which services did you use?" << endl;
    cout << "1) Bags brought to the door" << endl;
    cout << "2) Brought tacos" << endl;
    cout << "3) Cleaned the room" << endl;
    cout << "Q) Quit" << endl;
    cout << "Option: ";
    cin >> selection;
    switch(selection){
        case 1: {
            roomService.updateCost(roomService.bringCustomerBags(), &customer);
            break;
        }
        case 2: {
            roomService.updateCost(roomService.bringTacos(), &customer);
            break;
        }
        case 3: {
            roomService.updateCost(roomService.cleanTheRoom(), &customer);
            break;
        }
        case 'Q':{
            clear();
            break;
        }
        default: {
            cerr << "[*] Invalid option" << endl;
        }
    }
} while (selection != 'Q');
// let's generate a tab that is easier for the customer to interpret
cout << "Thank you for staying at Jared 5 Star Resort" << endl;
cout << "+-----+" << endl;
cout << "| Receipt |" << endl;
cout << "+-----+" << endl;
cout << "Nights stayed: " << customer.getCustomerStayTime() << endl;
// total amount with tax factored in
cout << "Total Amount due: " << (customer.getCustomerCharges() * customer.getCustomerTax())
<< endl;
// since nothing was dynamically allocated, the stack will be cleared for us automatically
return 0;
}

int numDaysStayed(){
    int num;
    cout << "How many nights did you stay?: ";
    cin >> num;
    return num;
}

string customerName(){
    string name;
    cout << "Your name?: ";
    getline(cin, name);
    return name;
}

bool usedMiniBar(){
    bool miniBarFlag = false;
    cout << "Did you use the mini bar?[0/1]: ";

```

```
    cin >> miniBarFlag;
    return miniBarFlag;
}

bool usedRoomService(){
    bool usedRoomServiceFlag = false;
    cout << "Did you request for room service during your stay?[0/1]: ";
    cin >> usedRoomServiceFlag;
    return usedRoomServiceFlag;
}

void clear() { cout << "\033[2J\033[1;1H"; }
```

Thank you for staying at Jared 5 Star Resort

-----+
| Receipt |
-----+

Nights stayed: 10
Total Amount due: 1082.5

jared@jared-xps ~/Desktop/CompSci-CSUF/CPSC-121/Projects/Project Five \$ |

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2.png

sample_for_print

CustomerBill.cpp

CustomerBill.hpp

CustomerBill.hpp.gch

hello.txt

Makefile

MiniBar.cpp

MiniBar.hpp

MiniBar.hpp.gch

Project_Five

RoomService.cpp

RoomService.hpp

RoomService.hpp.gch

Source.cpp

#include "CustomerBill.hpp"

#include "RoomService.hpp"

#include "MiniBar.hpp"

#include <string>

#include <iostream>

using namespace std;

int numDaysStayed();

string customerName();

bool usedMiniBar();

bool usedRoomService();

void clear();

int main(){

const double tax = 1.0825;

CustomerBill customer;

RoomService roomService;

MiniBar miniBar;

string name = customerName();

customer.setCustomerName(name);

int numberOfDaysStayed = numDaysStayed();

int costToStay = numberOfDaysStayed*100;

customer.setCustomerCharges(costToStay);

customer.setCustomerStayTime(numberOfDaysStayed);

char selection = '0';

do{

clear();

cout << "Which items did you use?" << endl;

cout << "1) Water" << endl;

cout << "2) Candy" << endl;

cout << "3) Alcohol" << endl;

cout << "0) Quit" << endl;

cout << "Option: ";

cin >> selection;

Error

Warning

Warning

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Source.cpp

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5 items, Free space: 695.7 GB

Menu

All That Remains - P...

| Friendship and inh...

| Pictures

Source.cpp — ~/Des...

jared@jared-xps ~/D...

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Sunday March 25, 13:39

— + ×

Which services did you use?
1) Bags brought to the door
2) Brought tacos
3) Cleaned the room
0) Quit
Option: 2|

1.png

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example_for_push

CustomerBill.cpp

CustomerBill.hpp

CustomerBill.hpp.gch

hello.txt

Makefile

MiniBar.cpp

MiniBar.hpp

MiniBar.hpp.gch

Project_Five

RoomService.cpp

RoomService.hpp

RoomService.hpp.gch

Source.cpp

```
#include "CustomerBill.hpp"
#include "RoomService.hpp"
#include "MiniBar.hpp"
#include <string>
#include <iostream>
using namespace std;

int numDaysStayed();
string customerName();
bool usedMiniBar();
bool usedRoomService();
void clear();

int main(){
    const double tax = 1.0825;

    CustomerBill customer;
    RoomService roomService;
    MiniBar miniBar;

    string name = customerName();
    customer.setCustomerName(name);

    int numberOfDaysStayed = numDaysStayed();

    int costToStay = numberOfDaysStayed*100;
    customer.setCustomerCharges(costToStay);
    customer.setCustomerStayTime(numberOfDaysStayed);

    char selection = '0';
    do{
        clear();
        cout << "Which items did you use?" << endl;
        cout << "1) Water" << endl;
        cout << "2) Candy" << endl;
        cout << "3) Alcohol" << endl;
        cout << "0) Quit" << endl;
        cout << "Option: ";
        cin >> selection;
```

Error

Warning

Warning

clang

clang

GCC

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Sunday March 25, 13:38

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Which services did you use?
1) Bags brought to the door
2) Brought tacos
3) Cleaned the room
0) Quit
Option: 3|

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example_for_push

CustomerBill.cpp

CustomerBill.hpp

CustomerBill.hpp.gch

hello.txt

Makefile

MiniBar.cpp

MiniBar.hpp

MiniBar.hpp.gch

Project_Five

RoomService.cpp

RoomService.hpp

RoomService.hpp.gch

Source.cpp

#include "CustomerBill.hpp"
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#include "MiniBar.hpp"
#include <string>
#include <iostream>
using namespace std;

int numDaysStayed();
string customerName();
bool usedMiniBar();
bool usedRoomService();
void clear();

int main(){
 const double tax = 1.0825;

 CustomerBill customer;
 RoomService roomService;
 MiniBar miniBar;

 string name = customerName();
 customer.setCustomerName(name);

 int numberOfDaysStayed = numDaysStayed();

 int costToStay = numberOfDaysStayed*100;
 customer.setCustomerCharges(costToStay);
 customer.setCustomerStayTime(numberOfDaysStayed);

 char selection = '0';
 do{
 clear();
 cout << "Which items did you use?" << endl;
 cout << "1) Water" << endl;
 cout << "2) Candy" << endl;
 cout << "3) Alcohol" << endl;
 cout << "0) Quit" << endl;
 cout << "Option: ";
 cin >> selection;

Error

Warning

Warning

clang

clang

gcc

expanded

unexpanded

unexpanded

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Menu

All That Remains - P...

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Source.cpp — ~/Des...

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