**MYHOTEL MANAGEMENT SYSTEM IN OBJECTIVE C**

**Made by:**

Zhibo Zhang

08/12/2019

# INTRODUCTION

MyHotel requires a management system to control its various operations such as allowing employees to manage account of all the customers who are currently in the hotel and manage room information. Also, the system should let the customer make a reservation for hotel and attend to various needs of customers and also achieving increased efficiency in the overall working of the Hotel itself.

## PURPOSE OF THE SYSTEM

MyHotel Management System aims to make a staff’s work easier by provide a simple interface and design to let employee interacts with the application and reduce the processing time of satisfying customer’s needs. The system can be accessed by the admin and customers, but the highest priority is given to admin (employee) that are assigned with a login id and password. And a direct easy access for customer to make a reservation.

## SCOPE

The system will have two entries: **Employee Entry** and **Customer Entry**.

**Employee Entry** will have a **Login** system initially for employee only. After employee logged in, he/she will have access to the features down below:

* Searching a room by ID.
* Displaying all unreserved room(s).
* Displaying all rooms.
* Reserving a room for customer.
* Releasing a room.

**Customer Entry** will not have a Login system. He/She will have direct access to the features down below:

* Registering as a new customer.
* Displaying the waiting list.
* Pay the Bill.

## 

## 1.3 HARDWARE AND SOFTWARE REQUIREMENTS

The system is built based on Objective C. Therefore, for optional coding and easy debugging I choose to use Xcode 11.2.1 under Mac OS.

The system can be used in both Windows and Mac operating system. For Windows, the operating system must be higher than Windows 7, and with GUNStep compiler installed. For Mac, the operating system must be higher than macOS Catalina 10.15.1, and Xcode installed.

# Design Description

## Interface Design

## 

**Fig: Welcome Screen**

* **Welcome Page where user get the info about the application.**



**Fig: Login Screen**

* **Login screen for employee and for customer here, employee has the highest priority where employee can reserve, release, search, display and many more.**
* **Customer can check-in and view on availability of rooms through option 2.**
* **Quit the application by choosing option 3.**

****

****

****

**Fig: Employee Login**

* **Employee: Username: admin**

**Password: admin**

* **Login page for employee. It is for security purpose. No one can access employee page. Only employee have the permission to handle records.**

**A screenshot of a cell phone

Description automatically generated**

**Fig: Employee Screen**

* **Options to handle records.**

****

****

****

****

**Fig : Search A Room By ID**

* **Searching Room Details:**

**Room ID**

**Room Type**

**Availability**

**\*This hotel only has 9 rooms.**

**Room ID Collections: 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008.**

****

****

**![A screenshot of a cell phone

Description automatically generated]()**

**Fig: Display All Unreserved Room(s)**

****

****

**![A close up of text on a black background

Description automatically generated]()**

**Fig: Display All Rooms**

****

****

****

****

**A close up of a logo

Description automatically generated**

**Fig: Reserve A Room**

****

****

****

****

****

**Fig: Release A Room**

****

![A screenshot of a cell phone

Description automatically generated]()



**Fig: List All Customer(s)**

****



**![A close up of a logo

Description automatically generated]()**

**Fig: Check Customer Waiting List**

**![A screenshot of a cell phone

Description automatically generated]()**

**Fig: Customer Screen**

****

****

**A screenshot of a cell phone

Description automatically generated**

**Fig: Register As A New Customer**

****

****

**![A screenshot of a cell phone

Description automatically generated]()**

**Fig: Display The Waiting List**

****

****

**A screenshot of a cell phone

Description automatically generated**

**Fig: Pay The Bill**

**\*Customers Who Ready To Pay The Bill Are:**

**Customer ID: 100, 101, 102.**

## 2.2 Class Diagram

**A picture containing screenshot

Description automatically generated**

**Class Diagram Version 1**

**A close up of text on a black background

Description automatically generated**

**Class Diagram Version 2**

**Draw.io Class Diagram Created By Zhibo Zhang:** <https://www.draw.io/#LUntitled%20Diagram.drawio>

## 2.2 Algorithm Diagram

Start END

MyHotel Management Welcome Page INPUT: 3

INPUT: PRESS ANY KEYS TO CONTINUE

Choose either 1-Employee OR 2-Customer OR 3-Quit

INPUT: 1 INPUT: 2

Employee Login Screen Customer Registration

Input Username and Password Hotel Registration INPUT: 4

Page

FALSE TRUE Enter the Option

1 – 4 INPUT: 3

Invalid Hotel Management

Username Page

or Password Enter the Option

1 – 8

INPUT: 1

INPUT: 2

Search A Room By ID

Display All Unreserved Room(s). **INPUT: 3**

Display All Rooms

**INPUT: 4 INPUT: 1**

Reserve A Room

**INPUT: 5**

Release A Room

**INPUT: 6**

List All Customer(s) INPUT: 2

**INPUT: 7**

Check Customer Waiting List

**INPUT: 8**

Back To Login Menu

Register As A New Customer

Display The Waiting List

Pay the Bill

Back To Login Menu

# CONCLUSION

At the end of this project, I was able to:

* Explain Objective C programming concepts and apply them to the modelling of real-world systems.
* Follow Objective C language structure and analysing each class.
* Demonstrate the ability to develop and derive new class structures and organise them such that they will model real-world systems within computers.

## 