Smart Hostel

Project Documents

PREPARED BY

K.M.Mohiuddin

Department of Software Engineering

Acknowledgment

First of all, I am grateful to The Almighty Allah for giving us the ability to complete this project. Today I am feeling proud of ourselves. Because to be a student of Daffodil International University. And I am thankful to Daffodil International University for giving us a chance to prove ourselves by showing this project.

I am thankful to our Department Head In-Charge. And I want to thank our respected class teacher for supporting and giving your guideline and valuable advice.

“Smart hostel” is not a new system. But this software will give you a better experience. I hope every person who will use this system will be happy after completing it.

To build this software I have collected many types of information from different online sources. And also our friends help to build this software. At last, I also thank our parents for their unceasing encouragement and support. On record, our sense of gratitude to one and all who, directly or indirectly, have lent their helping hand in this project.

Thank You

Table of Content

Abstract

This project entitled “Smart Hostel” is a web-based application to manage hosteller, hostel meal systems, and Payment. There is a large number of hostels in our country. The hostel meal system is developed for automating the activities of the hostel meal process and rent payment. The software will be a great relief to the hostel owner. This software will help the hostel in-charge in case of managing hostel activities and maintaining reports. Admin/Hostel in-charge can handle all the processes so easily.

CHAPTER 1

INTRODUCTION

1.1. Overview

1.1.1. Background

A hostel by definition is an establishment that provides cheap food and lodging for a specific group of people, it is also seen as a home for students when staying away from their home. It has large well-ventilated dormitories and single rooms and is situated in the establishment. Providing clean and calm hostel accommodation is one of the keys responsible for hostel management. They are staffed 24 hours and most have security cameras installed. If you are ever uncomfortable or don't feel safe, then you have to tell the staff and ask for a room change. Sleeping in a hotel room is challenging enough for most of us, but it's nothing compared to hostels. Hostels introduce a whole new variety of elements that make you acutely aware you're not in your bed. You're in a strange city, sleeping in a room full of strangers. Sometimes we don't know who lives in the room next to us. Sometimes hostellers face many problems like what's on the menu or to cancel a meal or keeping track of the monthly meal cost. Many times we need to contact our service provider directly to find out any complaints or information. If there are a lot of people in the dormitory then a lot of staff is needed to take care of all the facilities. If the number of staff is less then the maintenance of the hostel becomes much more complicated.

1.1.2. Objectives

The smart hostel is a software-based system that will resolve the traditional problem of maintaining Hosteler records, queries, meal management, and communication. As the cost of staff and maintenance are increasing day by day also the number of web surfers is increasing day by day, a web-based solution will be certainly more accurate than a traditional desktop-based solution.

In this project, the users will be-

1. Hostel incharge
2. Hosteller

The list of operations that the system will provide are-

1. This software allows hostels to view the food portal by looking at what is on the menu today, canceling a meal, or requesting an extra meal.

2. The payment portal will help you pay your rent and food bills online. Also, helps to see the status of payment like payment scheme and payment ledger.
3. Add a new hostel, create and manage its contract, edit the dormitory information feature for the hostel in-charge.
4. Provide the Hosteller ID to registered users.
5. Warn and report any hosteller about his/her rental and meal payment by sending feedback.
6. Send any query or complaint through this system feature for hostellers.
7. This system will provide some special features for hostel charges such as review food requests, review meal cancellation requests, review payment reports and alert any hosteller, send review inquiries and complaints and respond to each review.

1.1.3. Scope

Smart Hostel will help maintain an ideal and modern environment inside a hostel. The hostel in-charge will use the system to keep track of the hostellers attached to them. This system will provide different facilities to a manager for maintaining the entire Hostel. Any hosteller can send any kind of query or complaint or maintenance request directly to the manager or caretaker. The hostel in-charge can review the query or complaints and take steps. By using this software Hostellers can view the menu from the menu portal, can request an extra meal or any special meal, or cancel a meal. From the admin site, the hostel in charge can add meals, review meal requests, and send feedback about confirmation or other information. The hostel in charge can cancel meals for anyone to everyone. Another main feature of this system is the payment portal. In this portal, any hosteller can view his/her Payment Scheme and Payment ledger. In a word, he will get all the information related to his payment from here, and also the hosteller can pay online by using the software. The hostel in-charge will regularly update any hosteller's payment scheme or update payment information and send notifications about payment confirmation.

All the information about hostellers admins will be automatically updated into a database. So again a smart hostel software will be very user-friendly. It will reduce the maintenance cost.

1.2. Project Delivery

1.2.1 Deliverables

The following contents will be delivered with the project:

a) Project CD

i. Project Demo
ii. User manual along with Tutorial

b) Documentation

1.2.2 Timescales

The time frame for implementing the project is given in Figure 1.2.1.

1.2.3 Work Distribution

The work distribution of the project is given in Table 1.2.1.

1.2.4 Project Resources

The resources required to finish the project are given in Table 1.2.2.

Duration

	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days	7 days
Project Proposal	■								
SRS		■							
Designing			■	■	■				
Coding						■	■		
Testing								■	

Finalization									

Figure 1.2.1: Time frames for project implementation

Project Proposal	K.M.Mohiuddin	7days
Software Requirement Specification	K.M.Mohiuddin	7 days
Software Design	K.M.Mohiuddin	21 days
Coding	K.M.Mohiuddin	14 days
Software Testing	K.M.Mohiuddin	7 days
Project Finalization	K.M.Mohiuddin	7 days

Table 1.2.1 Work Distribution

Hardware Requirements		
Processor	**RAM**	**Hard Disk Space**

Pentium II or higher	64 Mb or higher	128 Mb or higher

Software Requirements	
Operating System	**Database**
For users no specific OS is required. The server machine must have Windows XP/Vista/7 along with .NET framework 4 and IIS.	SQL Server 2008

Table 1.2.2 Project Resources

1.3. Summary

By using this software, the hostel incharge will always be connected with all the members of a crowded hostel and members will also be able to inform the incharge in case of any inconvenience. There is no need to keep an account of the cost of the hostel. This software will keep all the accounts by itself. Hostel Incharge will be able to address all the issues by using this system by staying at home.

1.4. References

1. HowTo: Write a project proposal [Online] URL:

How to Write a Project Proposal (With Example)

2. Homie -smart hostel living [Online] URL:

Homie - Smart Hostel Living

3. Hostel management system [Online] URL:

Hostel Booking,Hostel Management System Software: School,College

CHAPTER 2

SOFTWARE REQUIREMENT & SPECIFICATION

The complete requirement specification based on the elicitation process is described in this section.

1.1 Functional Requirements

The Functional Requirements Specification is designed to be read by a general audience. Readers should understand the system, but no technical knowledge should be required to understand the document.

Hosteller feature:

//Contact the author

Hostel Incharge feature :

//Contact the author

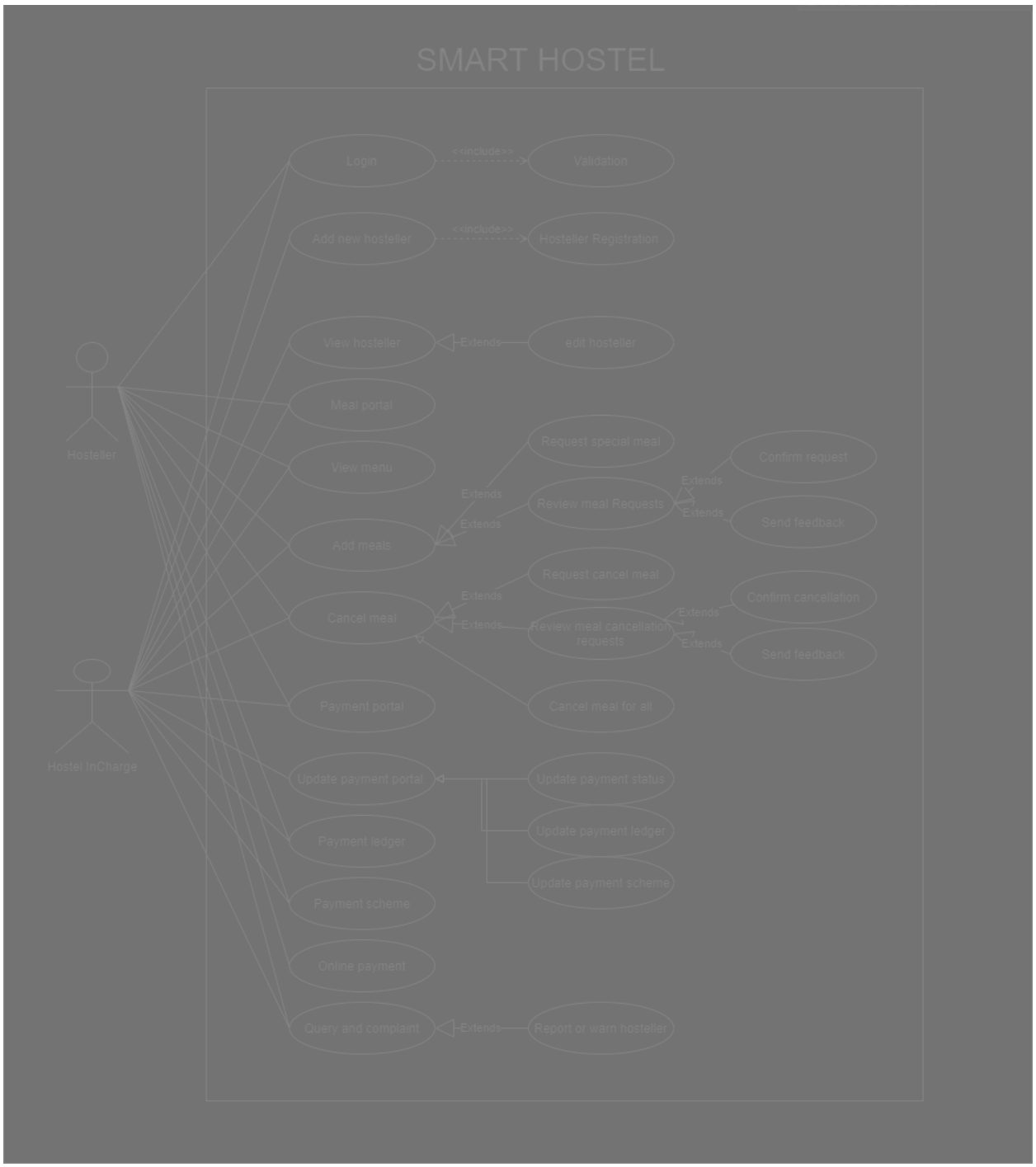
CHAPTER 3

USE CASE DIAGRAM

This is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved.

//Contact the author

3.1 Use case diagram for Smart hostel



CHAPTER 4

USE CASE DESCRIPTION

This is a text-based narrative of a functionality comprising detailed, step-by-step interaction between the actor and the system. It describes the outcomes of an action taken to accomplish a specific goal.

CHAPTER 5

ACTIVITY DIAGRAM

Activity diagrams are graphical representations of workflows of stepwise activities and actions with support for choice, iteration, and concurrency.

CHAPTER 6

Sequence Diagram

A sequence diagram shows object interactions arranged in time sequence. It depicts the objects involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario.

CHAPTER 7

Entity Relationship Diagram

An entity-relationship diagram (ERD) shows the relationships of entity sets stored in a database. An entity in this context is an object, a component of data. An entity set is a collection of similar entities. These entities can have attributes that define their properties.

//Contact the author

7.1 Entity Relationship Diagram (ERD) for “Smart hostel”