CS441 SRS

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February 2016

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1 Introduction

1.1 Purpose

This document describes the requirements for the design of the a desktop application to divide up the bill up between roommates. This will be done in a use case format identifying the basic system flow.

1.2 Background

The cost of living by oneself today can be quite a huge task so many take the alternative of finding others to share cost. Our application is here to aid the process of finding someone to share a household with and dividing up the bill in a simple and fair manner.

1.3 Definitions, Acronyms, and Abbreviations

2 System Requirements

2.1 Actor(s)

2.1.1 Head of Household

The head of household has the responsibility of setting agreeable criteria to determine the pricing of the bill. They will handle requests to join the household and will also be responsible for paying their share of the bill on time.

2.1.2 Roommate

Roommates live in the room of a head of household, whom they agreed to terms with. Roommates are responsible for paying their share of the bill on time.

2.2 High Level Flow

The head of household is in charge of creating the household and posting it up for others to see and decide whether they want to share in the same household. Anyone may create a profile and look through postings and send a request to join the household. The bill of the household will be determined by criterias such as size of rooms, and utilities.

2.3 Basic Use Cases

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2.3.4	Handle Requests
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2.3.1 Create Profile

Use Case: Create Profile
Scope:
Level: User Goal
Intention in Context: The intention of a Client is to create a profile in order to use this application
Primary Actor: Client
Main Success Scenario:
1. Client create a profile, where they put information such as username, name, age, gender, etc...
2. System verify information, and add into database

2.3.2 Create a Household

Use Case: Create a Household
Scope:
Level: User level
Intention in Context: The intention is to allow Client to set up the household they plan to share. Other users will be able to view the information and respond. By creating the household, the Client will be the head of household.
Primary Actor: Client
Main Success Scenario:
1. Client create room with address, price, and how many roommates
2. System will verify information and post it for others to see

2.3.3 Request to join Household

Use Case: Request to join Household
Scope:
Level: User level
Intention in Context: The intention of this is to allow Clients to send a request to the household they want to share. Information must be approved by head of household.
Primary Actor: Client
Main Success Scenario:
1. Client request head of household to join household.
2. Head of household will be able to see Client's profile to decide.
3. Request will be approved or denied

2.3.4 Handle Requests

Use Case: Handle Requests
Scope:
Level:
Intention in Context: The intention of the head of household is to respond to people who request to join his or her household
Primary Actor: Head of household
Main Success Scenario:
1. Head of household check request, and view requester's profiles 2. Head of household approve or deny requests.
3. Reply will be sent back to requester

2.3.5 Leave Household

<u>**Use Case:**</u> Leave household
Scope:
Level: User level
Intention in Context: The intention of the Client is to leave the household if they are unsatisfied with roommates.
Primary Actor: Client
Main Success Scenario:
1. Client is removed from the household at the end of the month.
2. Client will not be a part of the household by the next month.

2.3.6 Remove Roommate

<u>**Use Case:**</u> Remove Roommate
Scope:
Level:
Intention in Context: The intention of roommates are to be able to vote to remove another roommate if one is not satisfied. Only majority vote will allow removal. If there is only two roommates, only head of household may use this case.
Primary Actor: Roommates within the household
Main Success Scenario:
1. Any roommate may start a vote to kick another roommate.
2. Every roommate must vote within a time limit.
3. Removal is done only if there is a majority vote.

2.3.7 View Household

<u>**Use Case:**</u> View Household
Scope:
Level: User level
Intention in Context: The intention of the Client is to be able to view the households that are available to decide which to choose. Client may also view their own household
Primary Actor: Client
Main Success Scenario:
1. Client selects available room to view.
2. Household ID will be passed onto system to find and view household.
<u>**Extension:**</u>
2a. Client may request to join household if he or she is not living in it.

2.3.8 Determine Price

Determine Price:
Scope:
Level:
Intention in Context: The intention of the head of household is to set pricing of the household based on criteria such as bigger room, or utility.
Primary Actor: Head of Household
Main Success Scenario:
1. Head of household will set pricing based on set criteria.
2. Roommate(s) must pay the price at the date determined.
Extension:
1a. Roommate must consent or decline the price set

2.3.9 View Bill

View Bill:
Scope:
Level: User level
Intention in Context: The intention of Client is to view bills (both his or her own, and other households that are listed).
Primary Actor: Client
Main Success Scenario:
1. Client views a bill.
2. Bill is found with ID and shown to Client.

2.3.10 Pay Bill

Pay Bill:
Scope:
Level: User level
Intention in Context: The intention of the Client is to pay his or her own bill before the month's end or they must pay late fees on top of their overdue payment.
Primary Actor: Client
Main Success Scenario:
1. Client will select payment method.
2. Payment will be verified.
3. Bill will be updated

2.3.11 View Household Residents

<u>View Household Residents:</u>
Scope:
Level: User level
Intention in Context: The intention of the Client is to view the residents of the household he or she is interested in.
Primary Actor: Client
Main Success Scenario:
1. Client asks to view residents of a household.
2. System uses household ID to find and view the resident(s)

2.3.12 View Household Listings

<u>View Household Listings:</u>
Scope:
Level: User level
Intention in Context: The intention of the Client is to be able to view other households that have been posted in order to make a decision.
Primary Actor: Client
Main Success Scenario:
1. Client views list of all household within a proximity.
2. Clients may select an individual household for more detail.