

**Capstone Project Report**

**Report 1 – Project Introduction**

– Hanoi, October 2022 –

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# I. Record of Changes

|  |  |  |  |
| --- | --- | --- | --- |
| Date | A\* M, D | In charge | Change Description |
| 07/10/2022 | A | ThongPQ | Overview; Product Background; Business Opportunity; Product Vision |
| 07/10/2022 | M | GiangNT | Overview; Product Background; Business Opportunity; Product Vision |
| 08/10/2022 | A | GiangNT | Major Features; Limitations & Exclusions |
| 08/10/2022 | A | ThongPQ | Existing Systems |
| 08/10/2022 | M | GiangNT | Existing Systems |
| 08/10/2022 | A | GiangNT | Major Features Diagram |
| 05/11/2022 | M | HuyenBN | Business Opportunity |
| 07/11/2022 | M | HuyenBN | Software Product Vision |
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\*A - Added M - Modified D - Deleted

# II. Project Introduction

## 1. Overview

### 1.1 Project Information

* Project name: FU House Finder
* Project code: FHF
* Group name: SWP490-G1
* Software type: Web App

### 1.2 Project Team

|  |  |  |  |
| --- | --- | --- | --- |
| **Full Name** | **Role** | **Email** | **Mobile** |
| Nguyen Tat Trung | Lecturer | Trungnt77@fe.edu.vn | 0904399139 |
| Nguyen The Giang | Leader | GiangNTHE153046@fpt.edu.vn | 0944961228 |
| Phung Quang Thong | Member | ThongPQHE150340 @fpt.edu.vn | 0987206969 |
| Bui Ngoc Huyen | Member | HuyenBNHE150346@fpt.edu.vn | 0346034217 |
| Nguyen Thu An | Member | AnNTHE150432@fpt.edu.vn | 0815709131 |
| Nguyen Tri Kien | Member | KienNTHE150160 @fpt.edu.vn | 0987999975 |

## 2. Product Background

Currently, the following major problems remain:

* The input data to the inn's website is currently not computerized to the smallest management unit, each room, to be included in the system. Therefore, the amount of high-quality data in existing web pages is not much.
* The current website searches for low-quality results for users because the status of the inn has not been updated to reflect reality. Due to the fact that the status of the room changes quite often and the host only puts general information on the Facebook group created by the admissions office, so it is difficult to find in large quantities to provide information for students to enroll with a large number of rooms to rent to students.

The student affairs department has a list of the names of the innkeepers who have been confirmed by the admissions office that the innkeeper exists in fact, the correct address and there may be a number of rooms in the area around FPT Hoa Lac University including 5 communes: Binh Yen, Thach Hoa, Tan Commune, Shareholders, Ha Bang save as excel file. The student affairs department also created 1 Facebook group for hostel owners to post and read about the rooms. With Facebook groups and a list of hostel owners, it still partially meets the rental information needs of a large number of old and new current students.

The problem situation is:

* The data of the motel rooms is not specific, the inn owner only posts general to the FB group as "Room for rent, xxx square meters, price, address, contact number ....". So, when enrolling new students, thousands of students want to find a hostel in 1 short time like when enrolling at the beginning of the year, the admissions office could not answer for thousands of students, parents' status of the large number of available rooms for rent around the campus area.
* The number of individual rooms for each student, the current way of doing it on the FB group meets but the large number of new students cannot rent a dormitory but having to outsource, the Facebook group method is not effective.

How to refresh:

* Digitize all accurate data to each room of all residents who have rooms for rent around Hoa Lac area. The smallest management unit is each room.

## 3. Existing Systems

### 3.1 FPT Can Tho

* Descriptions of the system: Helping students at FPT University Can Tho find accommodation
* Link: <https://dorm.fptucantho.vn/>
* System actors: guest, user, admin
* Features: Search for accommodation in Can Tho
* Pros:
  + There is a lot of information about the inn posted
  + Show full information about the accommodation people want to post
* Cons:
  + Pagination is still very weak
  + Difficult to attract users because the interface is not beautiful

### 3.2 Nhatot System

* Descriptions of the system: Helping people find accommodation
* Link: <https://www.nhatot.com/thue-phong-tro>
* System actors: guest, user, admin
* Features: Search for accommodation in Vietnam
* Pros:
  + Various hostels in many provinces
* Cons:
  + There are many ads inserted in eye-catching places that make it difficult for users to find the information they want to search

### 3.3 BatDongSan System

* Descriptions of the system: Helping people find accommodation
* Link: <https://batdongsan.com.vn/cho-thue-nha-tro-phong-tro-bac-tu-liem/gia-tu-1-trieu-den-3-trieu-dt-duoi-30m2>
* System actors: guest, user, admin
* Features: Search for accommodation in Vietnam
* Pros:
  + GUI is good
* Cons:
  + Can't show which rooms are available at the inn

### 3.4 Blog

* Descriptions of the system: Helping readers know how to convince customers
* Link: <https://timescityminhkhai.com/bi-quyet-luon-luon-lap-day-phong-trong.html>
* System actors: guest, user, admin

## 4. Business Opportunity

The number of students who enters FPT University is increasing extraordinarily. On the other hand, the number of rentals does not satisfy the demand due to the infrequent update of these rentals’ status and inaccessibility of the information. Therefore, the students struggle today because they cannot find an appropriate room to rent. We will improve the experience of not only the students but also the landlords. We will develop a helpful system which the landlords could visit and update the status of their rental in an easy way to reflect the reality. The regular updates on thses rooms could help students know which houses having available room for them to rent. Consequently, this system will help the landlords from making more money. Solving this problem will be good for our school because if the landlords find this is an advantageous system, they will be ready and willing to pay for it. Moreover, building up our reputation could attract more and more students’ attention and reinforce the belief of students’ parents in our school.

## 5. Software Product Vision

For students who need to find an appropriate rented accommodation, FU House Finder system is an information system that drives the optimization the process of finding rental. Our team expected to coordinate with the admission department to collect the real data on each specific room to push to google sheet. Unlike the existing websites, our product will provide the most proper information with detailed description, images, etc of every room for the users. After that, we are to run the feature of import excel files to import these massive number of collected data into the database to serving the searching feature, which is expected to be done before October 20th, 2022. We expect to implement this system into the real life with the simplest features at the end of November, 2022 at the Hoa Lac Campus. If this is a successful system implementation, it will be carried out in the other four campuses.

## 6. Project Scope & Limitations

### 6.1 Major Features

FE-01: Log in to the system using Google or Facebook

FE-02: View list of available houses in an area around a school campus, search for a house by different criteria

FE-03: View the detail information of a house, view detail information of a room in a house

FE-04: A student can give rates and comments to review a house, or report it if it is violated

FE-05: A landlord can upload information of a house, including many rooms

FE-06: A landlord can view, create, update, delete his houses and each room in a house

FE-07: A landlord can view and update his profile

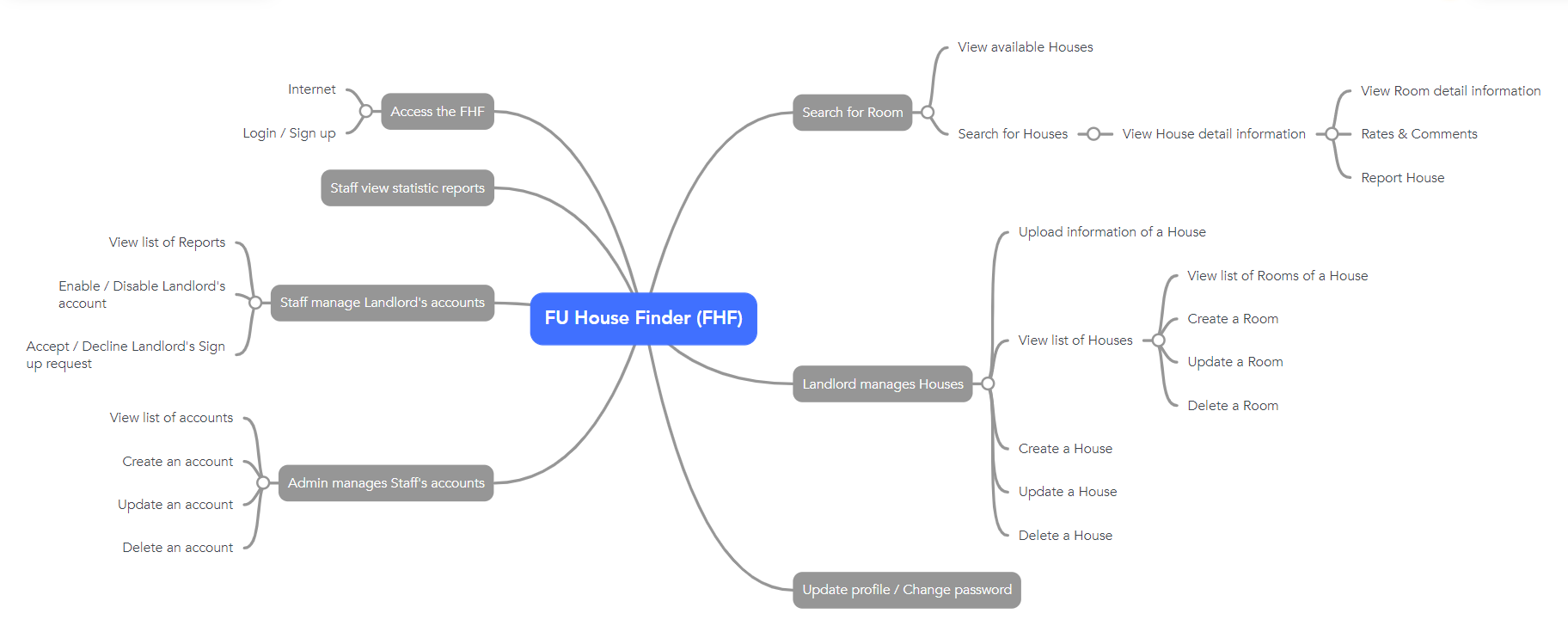
FE-08: A staff can view statistics and accept or decline landlord’s sign up request

FE-09: A staff can view and update his profile

FE-10: A staff can view reports to enable or disable accounts of landlords

FE-11: An admin can view, create, update, delete all staff’s accounts

FE-12: An admin change his password



### 6.2 Limitations & Exclusions

LI-1: Students cannot compare 2 houses or 2 rooms by its information

LI-2: Students cannot interact directly with the landlords via messaging in the system, they will have to make contact through phone or Facebook

LI-3: Students will not have a wish list to add their favorite houses into

LI-4: The system will not have the recommendation functionalities to recommend suitable houses to a student based on his history of views