

**Capstone Project Report**

**Report 1 – Project Introduction**

– Hanoi, December 2022 –

**Table of Contents**

[I. Record of Changes 3](#_Toc116258851)

[II. Project Introduction 4](#_Toc116258852)

[1. Overview 4](#_Toc116258853)

[1.1 Project Information 4](#_Toc116258854)

[1.2 Project Team 4](#_Toc116258855)

[2. Product Background 4](#_Toc116258856)

[3. Existing Systems 5](#_Toc116258857)

[3.1 FPT Can Tho 5](#_Toc116258858)

[3.2 Nhatot System 5](#_Toc116258859)

[3.3 BatDongSan System 5](#_Toc116258860)

[3.4 Blog 6](#_Toc116258861)

[4. Business Opportunity 6](#_Toc116258862)

[5. Software Product Vision 6](#_Toc116258863)

[6. Project Scope & Limitations 6](#_Toc116258864)

[6.1 Major Features 6](#_Toc116258865)

[6.2 Limitations & Exclusions 7](#_Toc116258866)

# 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 |
| 08/11/2022 | M | HuyenBN | Product Background |
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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

First of all, the number of students attending to FPT University increases dramatically each year. From nearly 3000 students in 2019, it rose over 2000 students for the next 2 years, which lead to a consequence of the lack of accommodations. There are just 5 dormitories in the university campus which are able to provide approximately 1500 accommodations for students. As a result, it is very difficult for the students to look for a suitable place.

Admission Office staffs has been attempting to resolve these problems by creating a Facebook group named “[FU-Hòa Lạc] Hội review nhà trọ có tâm” which can help the landlords and students can update information easilier. Besides, a lot of problems are still remaining, which can be listed as:

* The data input is still provided manually, which is time-consuming and inefficient. Consequently, these data could not be specific to the room unit.
* The infrequent update of the rented accommodation status could lead to a consequence of inaccurately reflected actual information. Therefore, the results of searching process are of poor quality.
* Students can write a lot of posts to find an accommodation which can made the landlords’ posts become vanished.

To respond to the pronounced acceleration of students’ rental demand, FU House Finder, with the advantage of qualified information of rentals by the admission department, is developed by the ambition of solving these biggest problems.

## 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:
  + The GUI is favorable
* Cons:
  + The system cannot show available rooms.

### 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
* Features:
* Pros:
  + Good UI
* Cons:
  + Redundant and irrelevant information

## 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. We will address these problems by improving 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 these 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.

Additionally, other existing systems provide a large amount of information, usually nationwide but users still cannot find an appropriate rental in the contryside. FU House Finder will focus on a specific area around the university campus which can improve the experience of finding suitable accommodation.

## 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

|  |  |  |
| --- | --- | --- |
| **Major Feature** | | **Description** |
| **List Houses** | | View list of Available House |
| **Filter House** | | Filter list of Available House to find suitable house |
| **House Details** | | View Details of a house |
| **Room Details** | | View Details of a room |
| **Student** | Login | Login using Google or Facebook, auto register |
| Report | Report a violated house |
| Room Order | Create order to find a room |
| Rate House | Rate a house quality |
| **Landlord** | Login | Login using Google or Facebook, not auto register |
| Register | Register Landlord account for using Landlord features |
| List own Houses | View list of owns houses |
| Manage Houses | Create, update, delete owns houses |
| Manage Rooms | Create, update, delete owns rooms |
| Update Profiles | Update profiles |
| **Staff** | Login | Login using provided Staff Email and Password |
| Change Password | Change password |
| Statistics | View Houses statistics |
| Manage landlord accounts | View, Verify or Disable Landlord accounts |
| Manage Reports | View, Verify and Update status of reports |
| Manage Orders | View, Verify and Update status of rooms orders |
| **Admin** | Login | Login using system Administrator Email and Password |
| Manage Staff Accounts | View, Create, Update, Delete Staff Account |

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

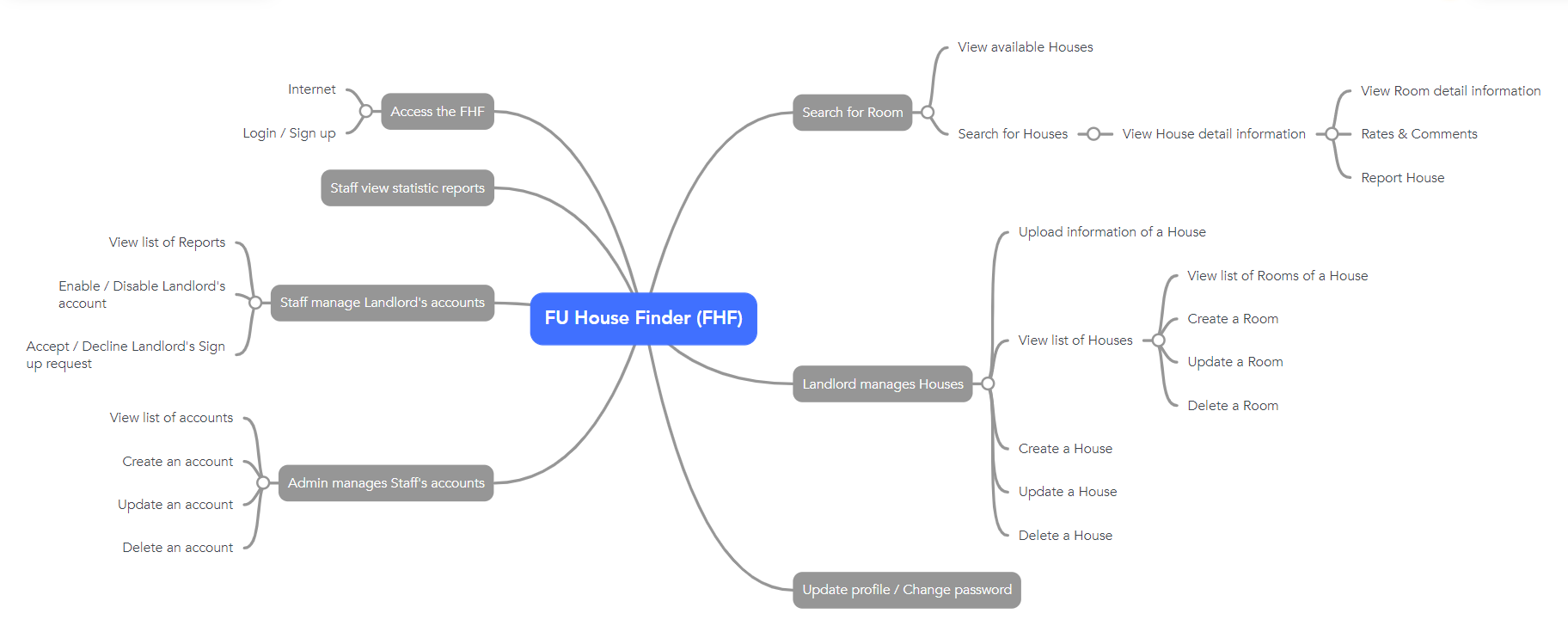
FE-08: A staff can view statistics and accept or decline landlord’s sign up request

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