MOBILE APPLICATION DESIGN

Hanoi, Aug 2019

FPT OCD APP

FPT On Campus Dormitory Mobile Application

Students:
Nguyễn Việt Trung – SE05465 (L)
Trần Tiến Đức – SE04541

Supervisor:
Mr.Bùi Văn Phát

QS STARS RATED FOR EXCELLENCE 2012

FPT Education

FPT UNIVERSITY

MINISTRY OF EDUCATION AND TRAINING

INTRODUCTION

Group GDP491_G2: OCD APP

Member: **Nguyễn Việt Trung - Trần Tiến Đức – GD1201**

OCD is an app that helps student and guard can live better and work more efficiently at FU dormitory.
Not only helps, student to manage all the process and fees, but also accelerate the process of all *dormitory's* request.
OCD also enhance all the services to be more convenient and modern.
With OCD, guard team and admin team can always spend less time and workforce but gain better work efficiency.
OCD is created to bring useful connection between student and guard in dormitory life

TABLE OF CONTENT

REPORT 1

1.OVERVIEW
- 1.1.PROBLEM ABSTRACTION
- 1.2.ABOUT OCD

2.RESEARCH
- 2.1.FACILITIES
- 2.2.SURVEY
- 2.3.INTERVIEW
- 2.4.SIMILAR APPS
- 2.5.TECHNOLOGY

3.SPECIFY REQUIREMENTS

REPORT 2 ; REPORT 3

4.DESIGN PROPOSAL & PRE-DESIGN
- 4.1.USER SKETCH
- 4.2.EMPATHY MAP
- 4.3.USER PERSONA
- 4.4.USER JOURNEY MAP
- 4.5.WORKFLOW ANALASYS
- 4.6.FIRST SITEMAP
- 4.7.FIRST BALSAMIQ PROTOTYPE
- 4.8.FINAL SITEMAP
- 4.9.SCREEN MAP
- 4.10.SECOND BALSAMIQ PROTOTYPE

REPORT 4 ; REPORT 5

5. UI DESIGN & DESIGN FINALIZATION
- 5.1.MOODBOARD
- 5.2.STYLEGUIDE
- 5.3.LOGO
- 5.4.FIRST XD DESIGN PROTOTYPE
- 5.5.FINAL XD DESIGN PROTOTYPE

6. SIMULATION FUNCTION

1 OVEWVIEW

1.1 PROBLEM ABSTRACTION

Many mistakes and unnecessary long process

Slow response in emergency cases

Waste time, money and workforce but inefficiency

Privacy and Security are not ensured

Reality shows that problems in FPTU Dormitory still exist

FRUSTRATION

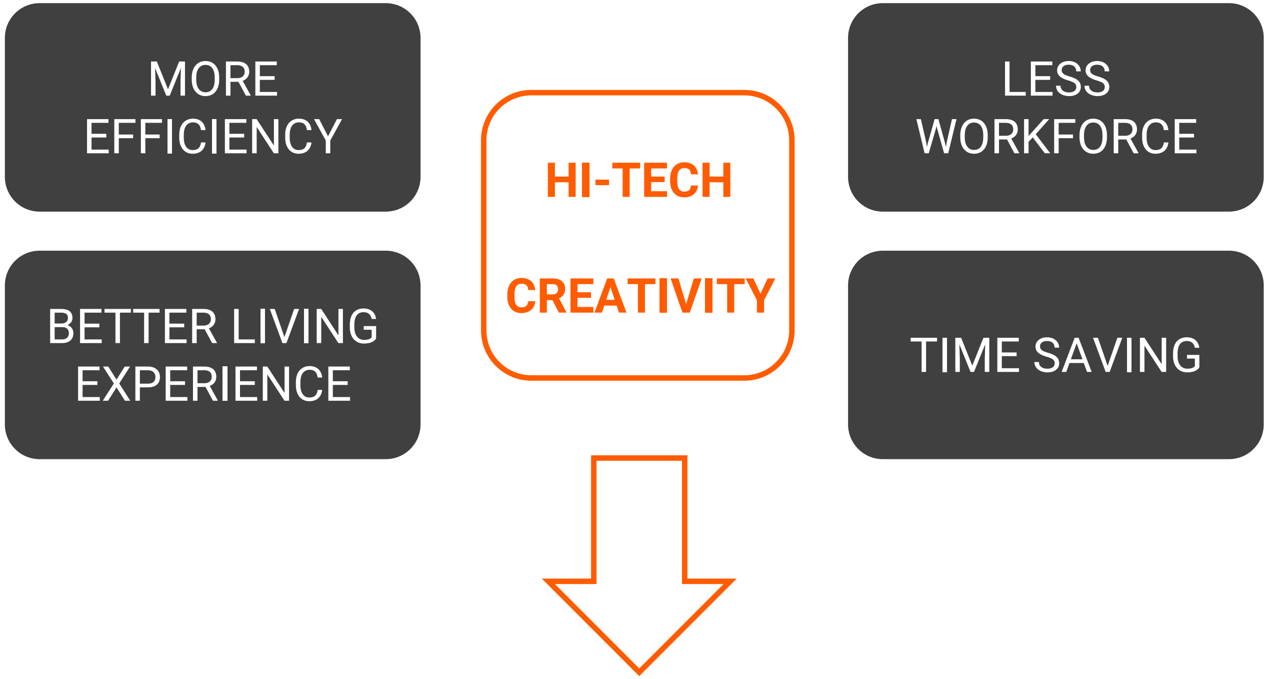
OCD Website is solving well, but not all

1 OVERVIEW

1.2 ABOUT OCD

FPT On Campus Dormitory Mobile Application

FPT On Campus Dormitory



MORE EFFICIENCY

BETTER LIVING EXPERIENCE

HI-TECH

CREATIVITY

LESS WORKFORCE

TIME SAVING

OPTIMIZATION & MODERNIZATION

2 RESEARCH

2.1 FACILITIES

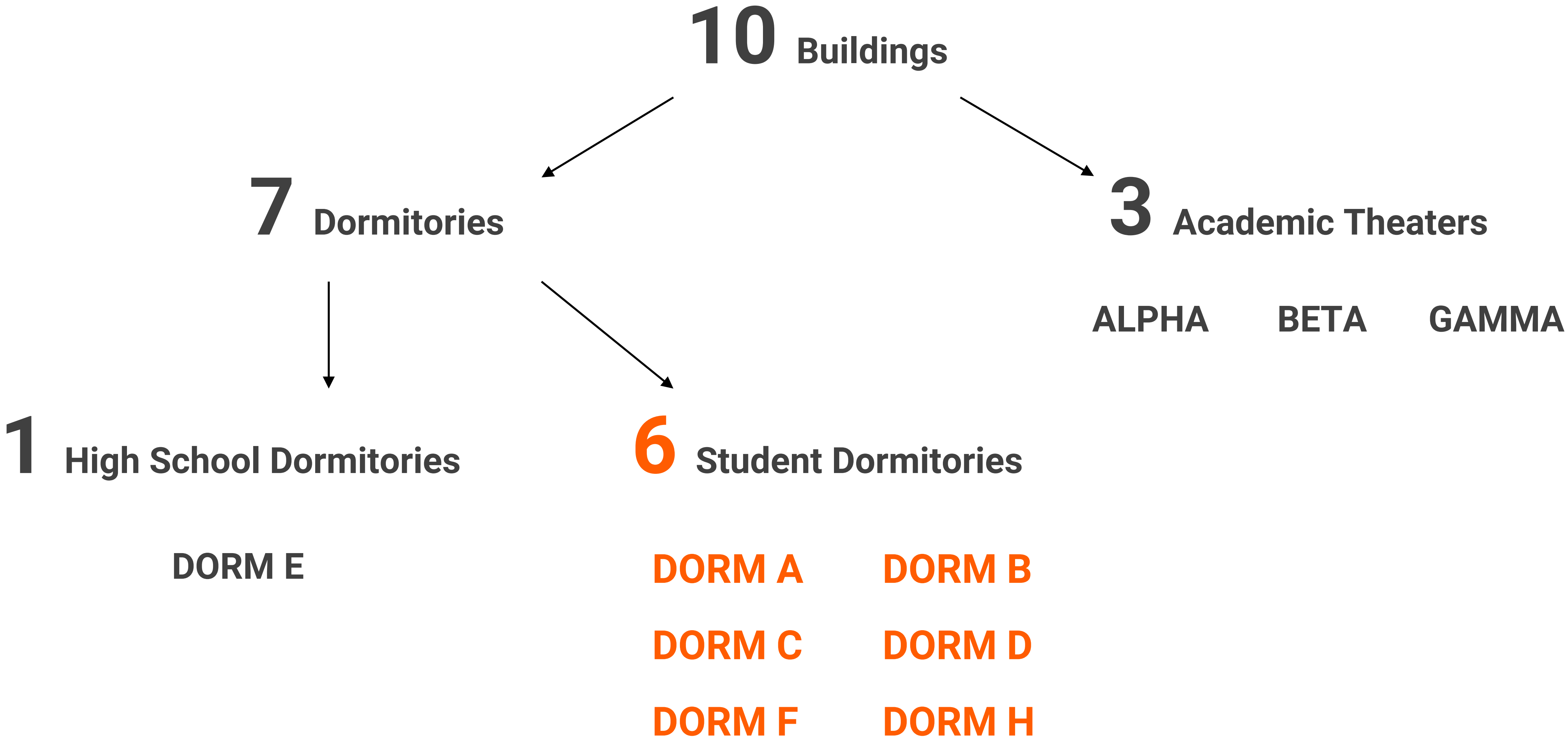
3 Active Campuses

Ha Noi

Da Nang

Can Tho

FPT Hoa Lac – Hanoi Dormitory



10 Buildings

7 Dormitories

3 Academic Theaters

ALPHA BETA GAMMA

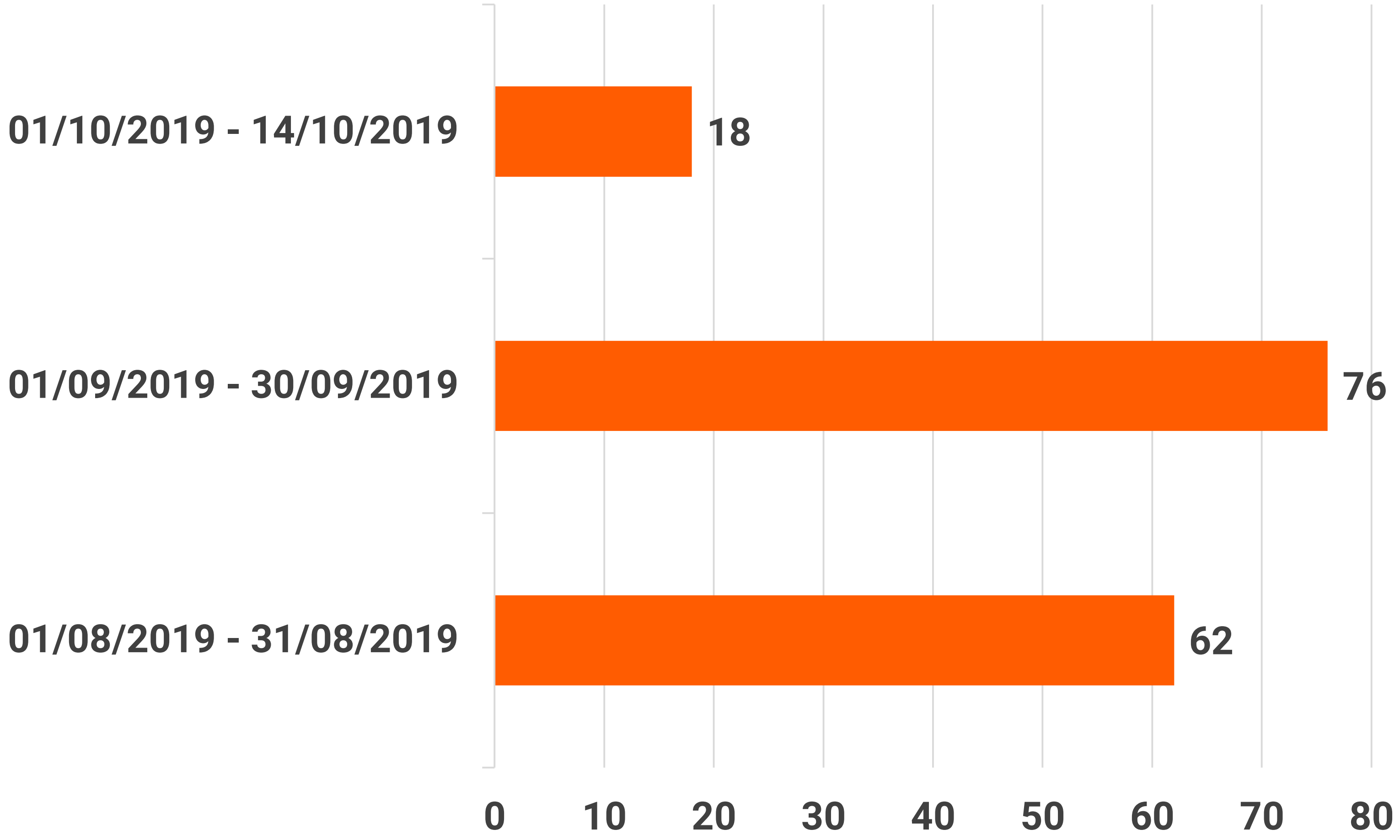
1 High School Dormitories

DORM E

6 Student Dormitories

DORM A DORM B
DORM C DORM D
DORM F DORM H

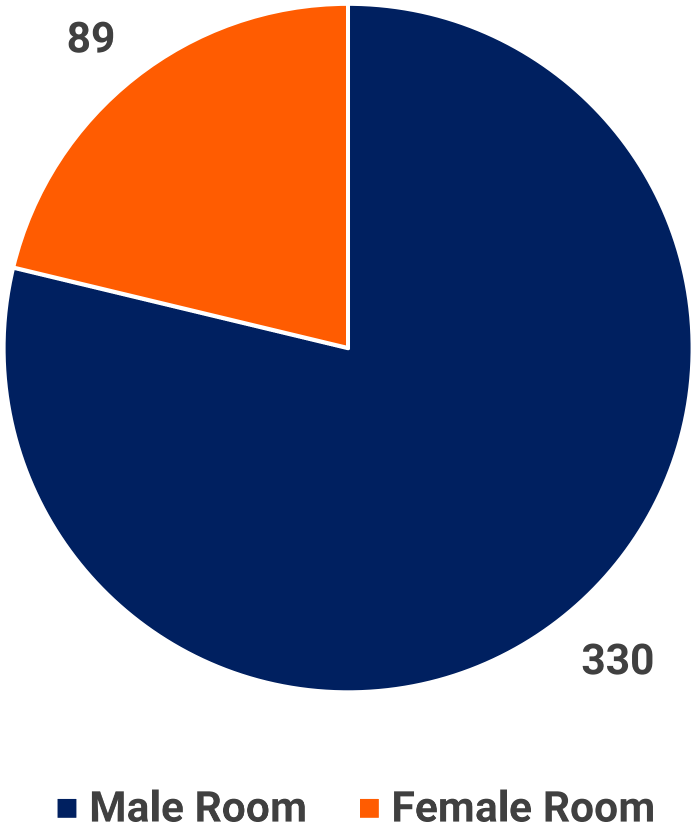
Student Checked-out from 01/08/2019 to 14/10/2019



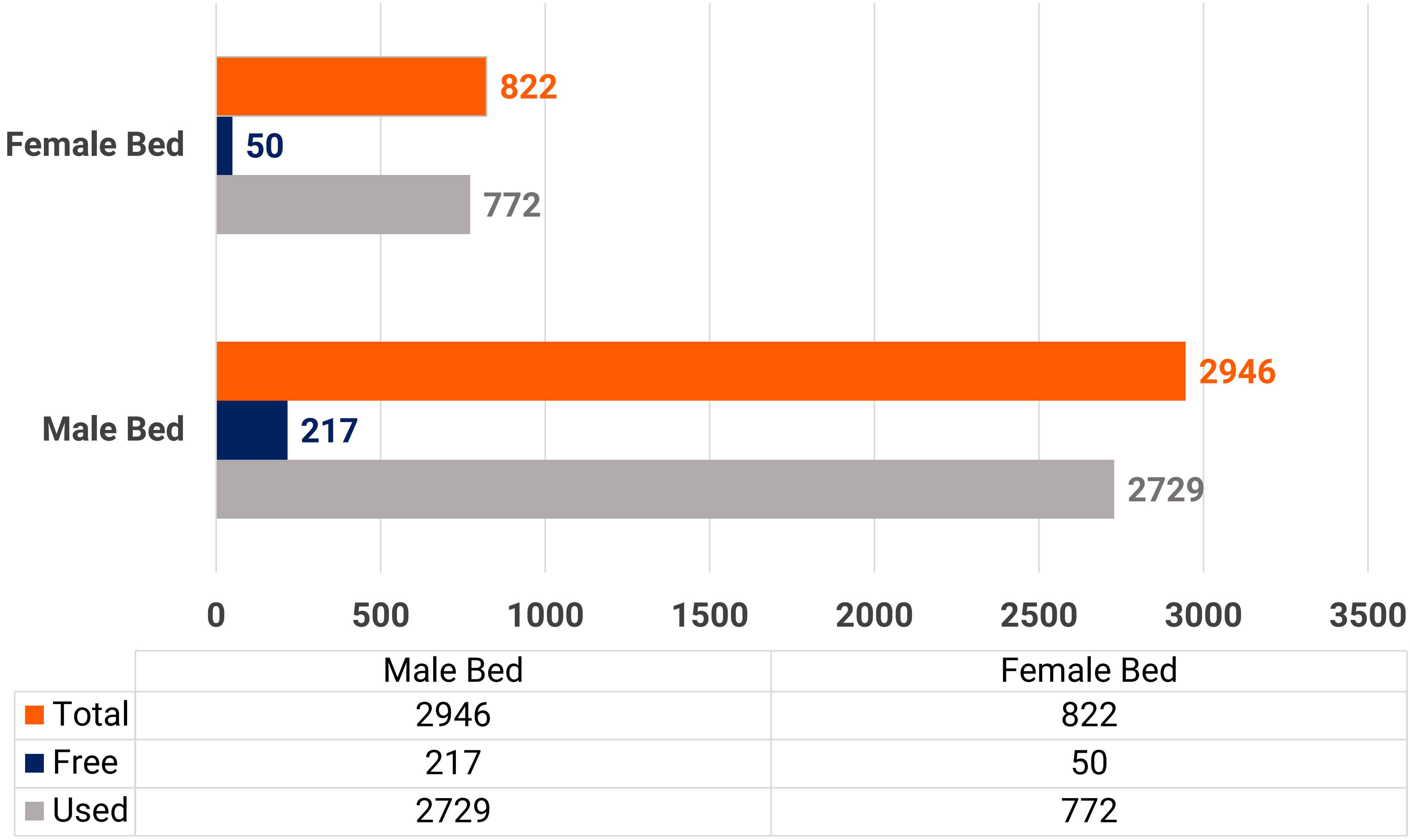
5 Floors per Dorm

14 Rooms per Floor

ROOM CHART



BED CHART

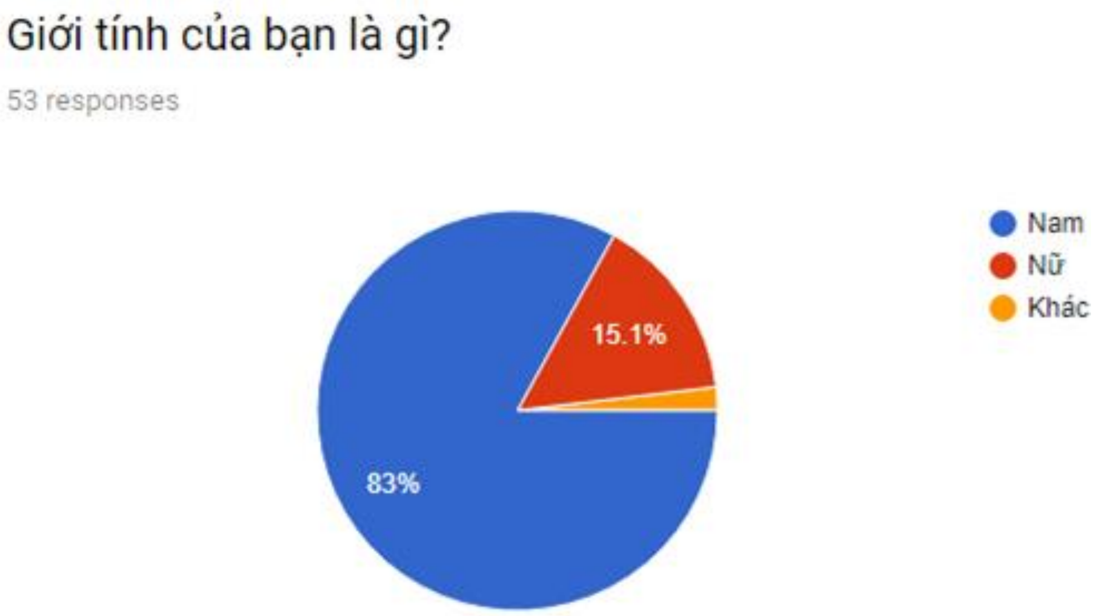


	Male Bed	Female Bed
🟧 Total	2946	822
🟦 Free	217	50
◻ Used	2729	772

2 RESEARCH

2.2 SURVEY

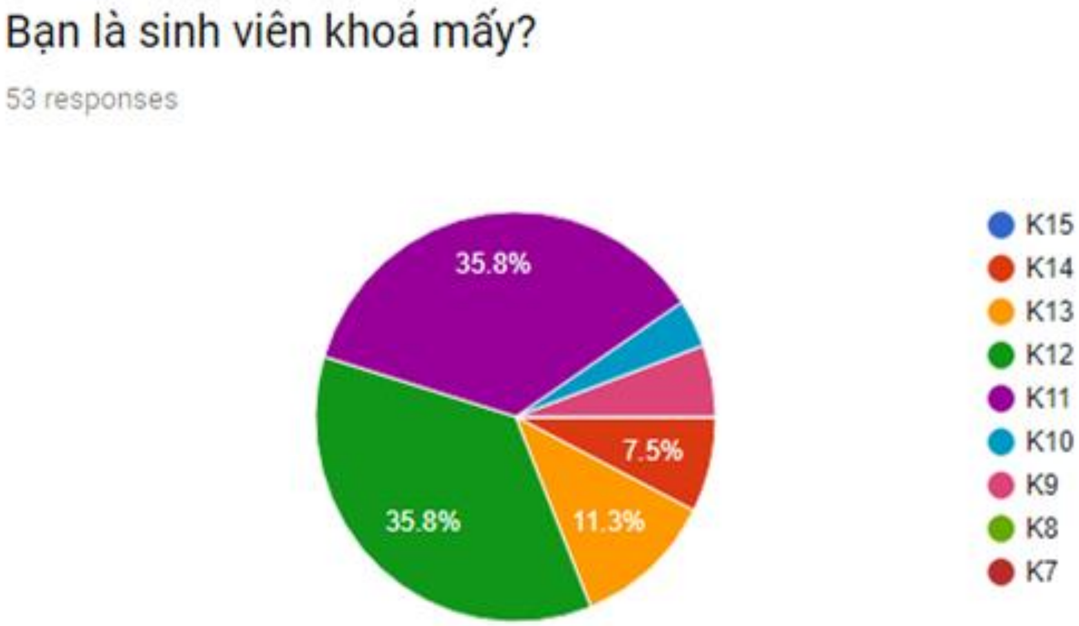
Gender



Giới tính của bạn là gì?

53 responses

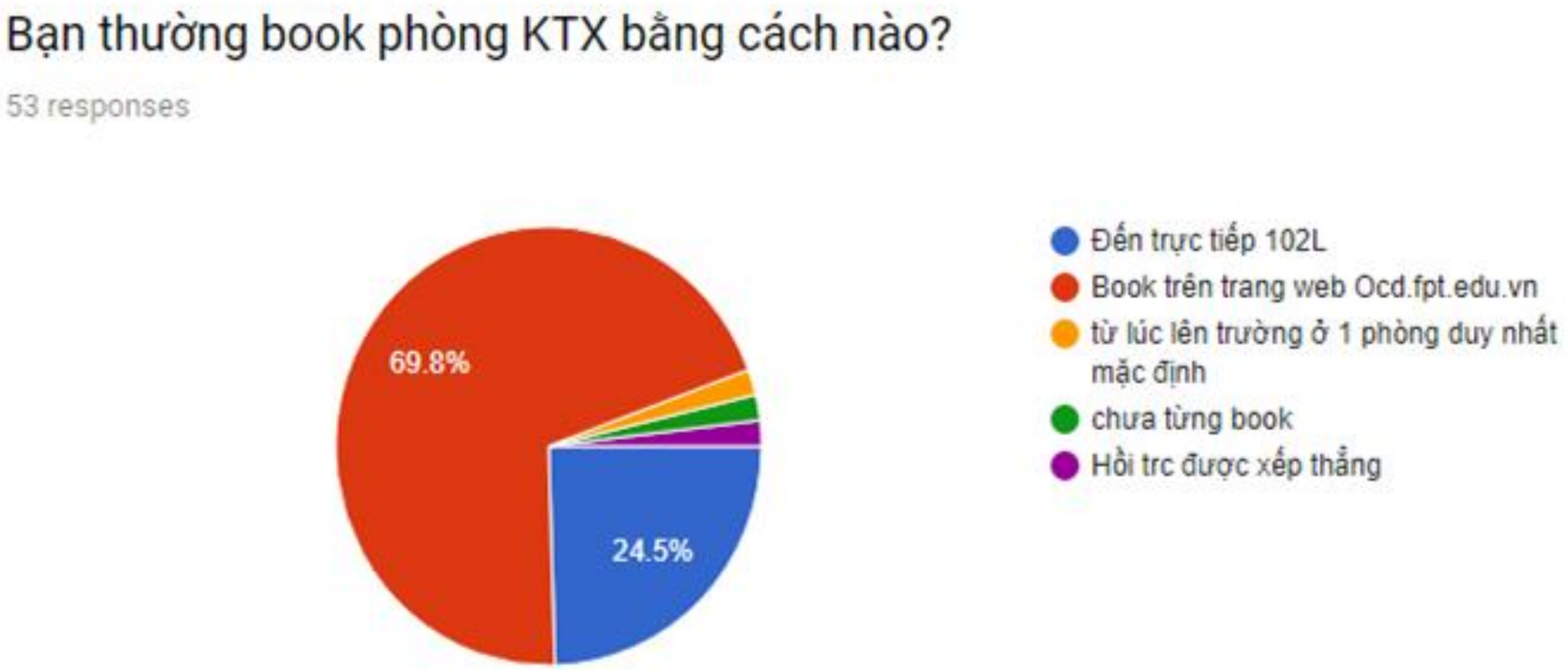
Course



Bạn là sinh viên khoá mấy?

53 responses

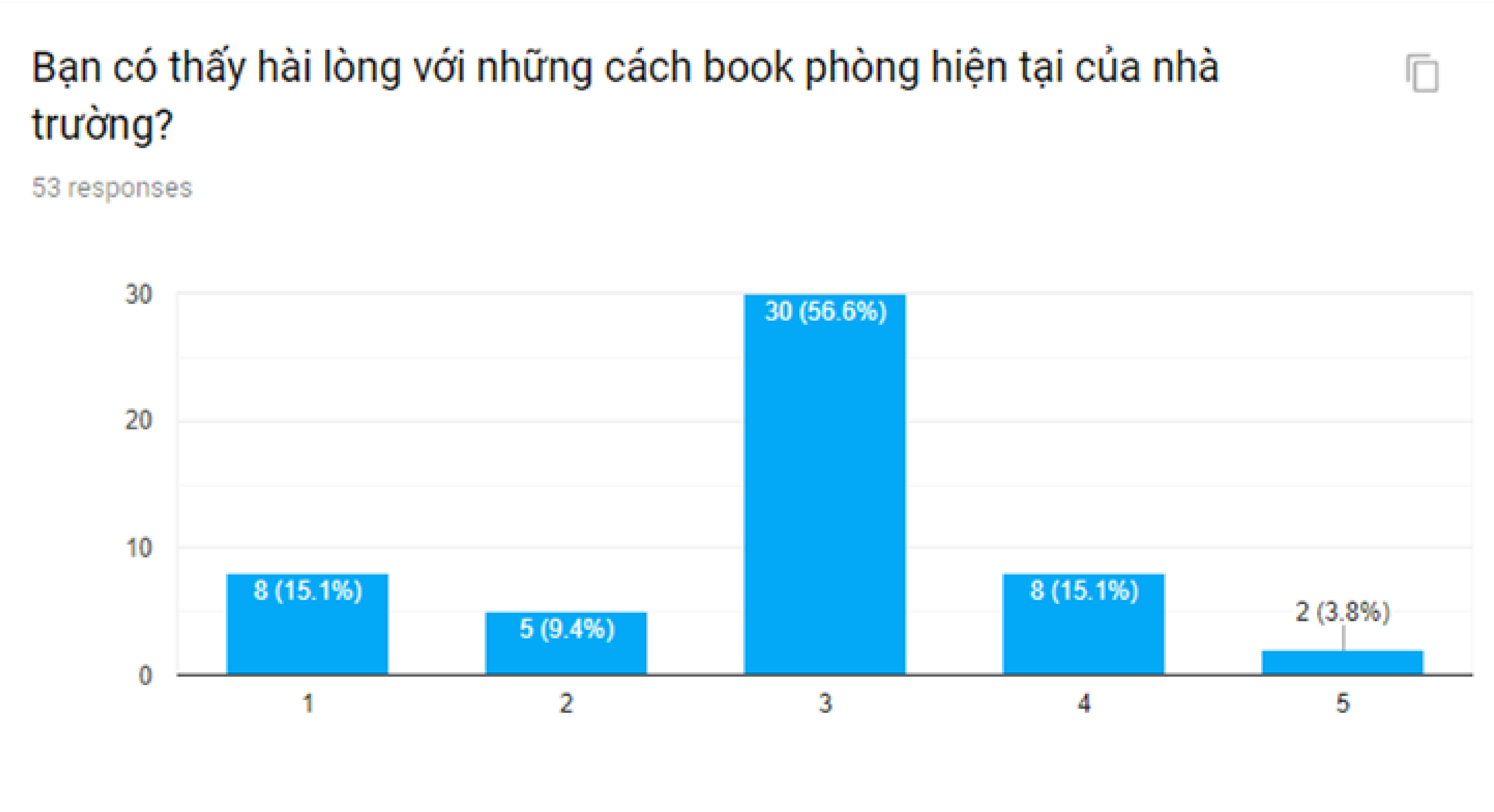
Booking Bed Method



Bạn thường book phòng KTX bằng cách nào?

53 responses

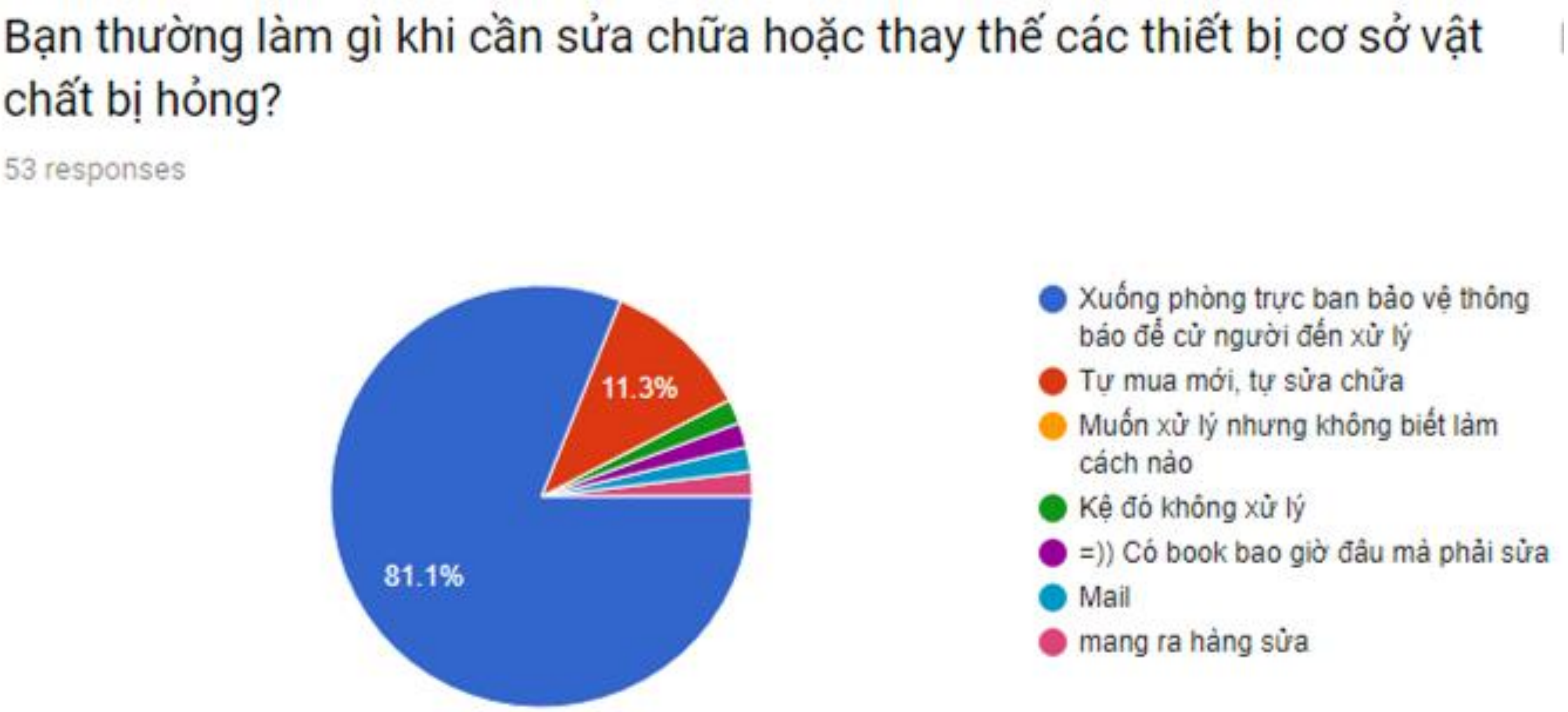
Bed booking process satisfaction



Bạn có thấy hài lòng với những cách book phòng hiện tại của nhà trường?

53 responses

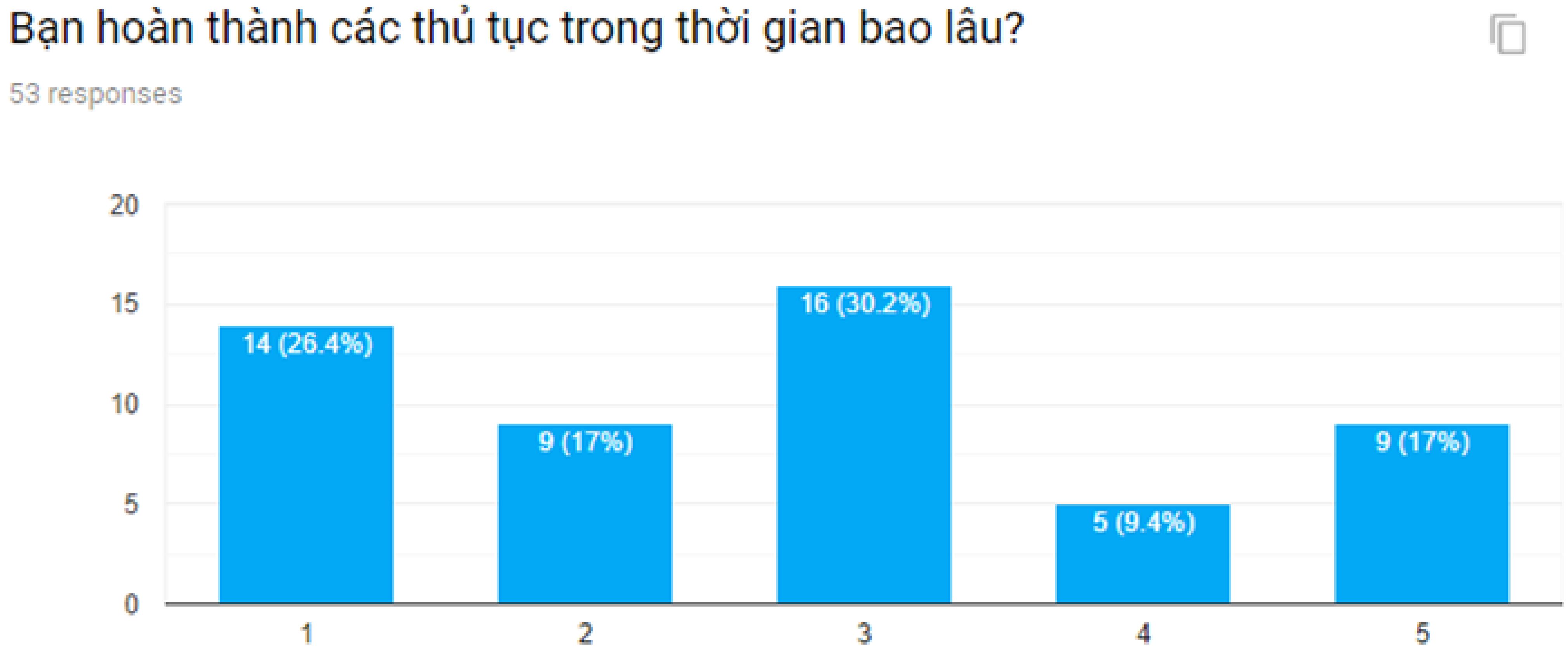
Process of Maintenance



Bạn thường làm gì khi cần sửa chữa hoặc thay thế các thiết bị cơ sở vật chất bị hỏng?

53 responses

Time of process



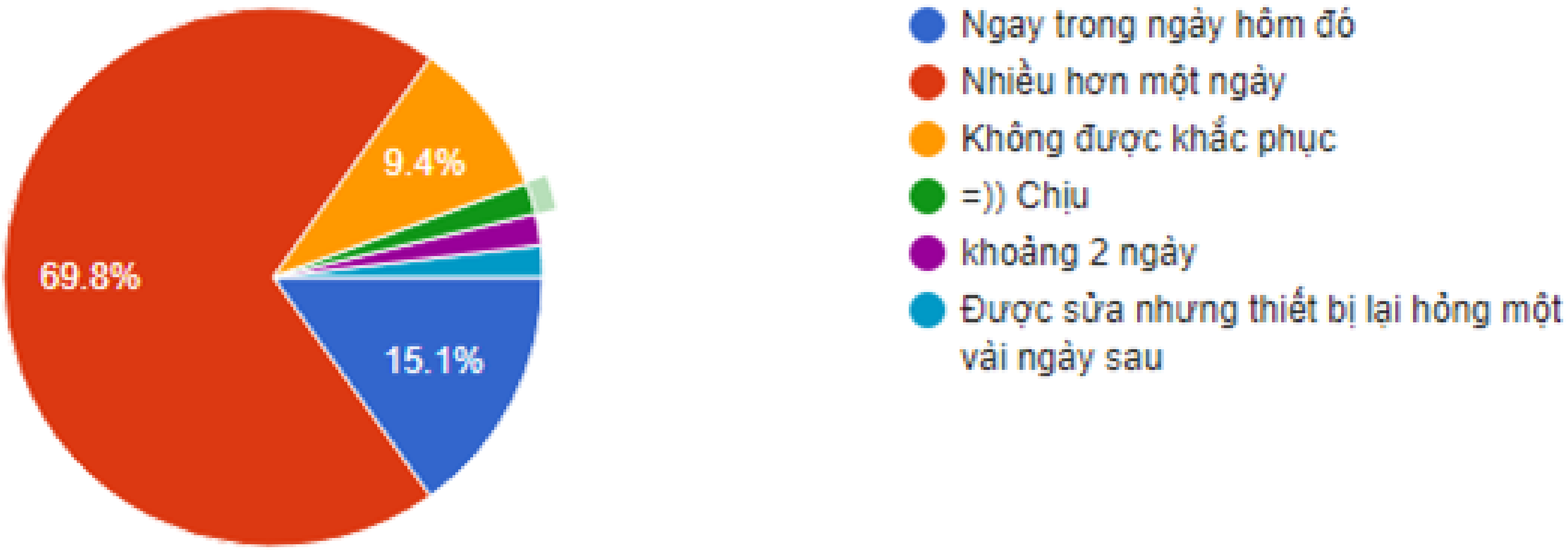
Bạn hoàn thành các thủ tục trong thời gian bao lâu?

53 responses

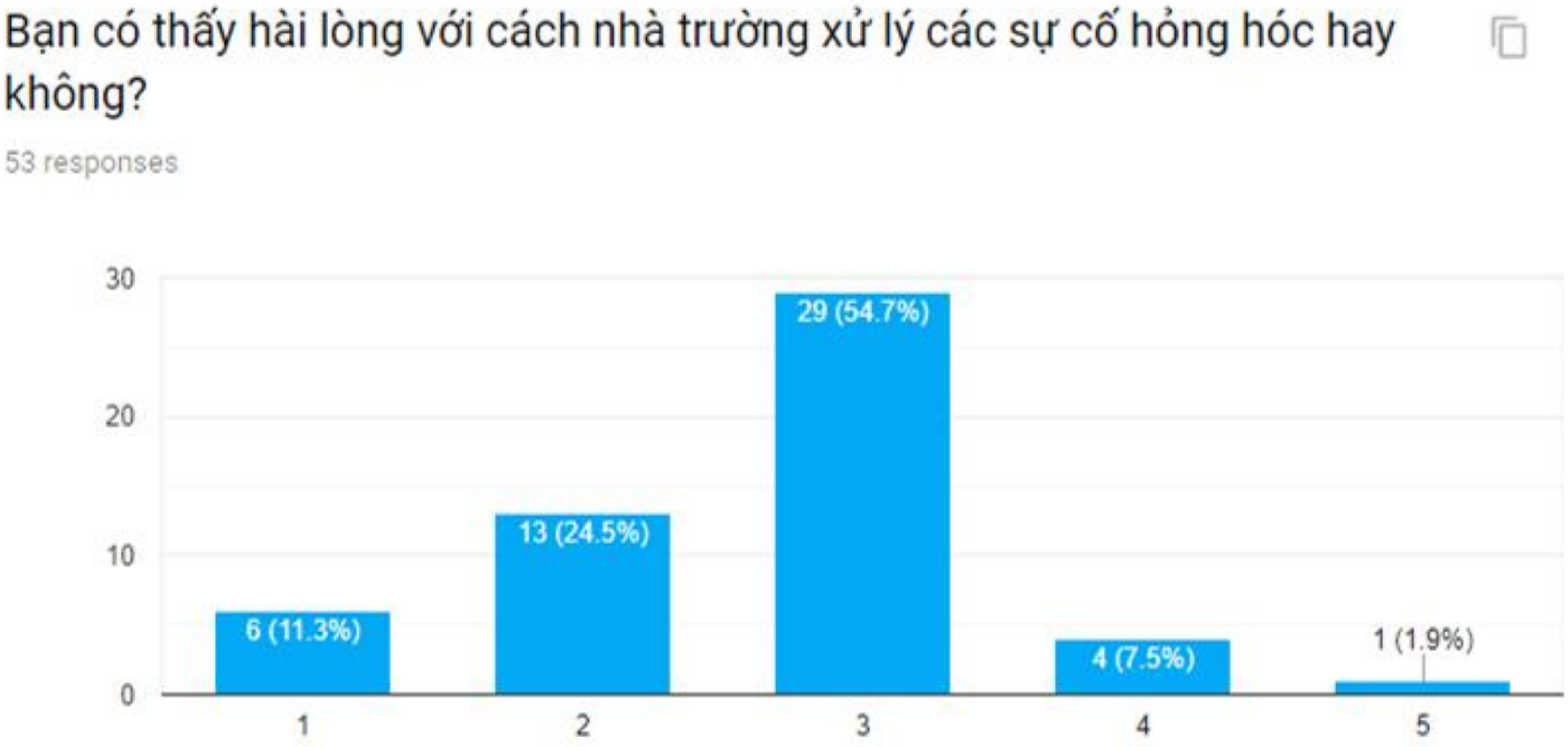
Time of maintenance

Thời gian được khắc phục hỏng hóc sau khi báo cáo khoảng bao lâu?

53 responses



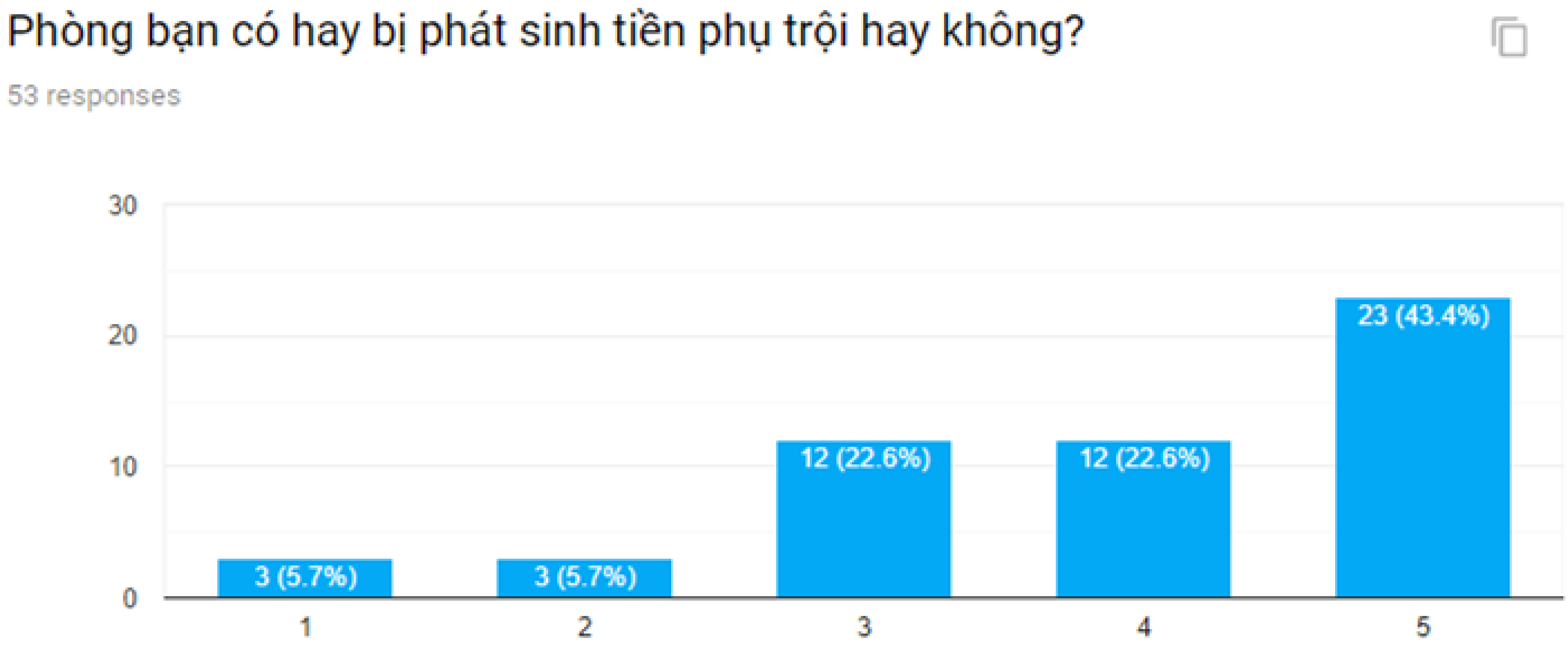
Maintenance request satisfaction



Bạn có thấy hài lòng với cách nhà trường xử lý các sự cố hỏng hóc hay không?

53 responses

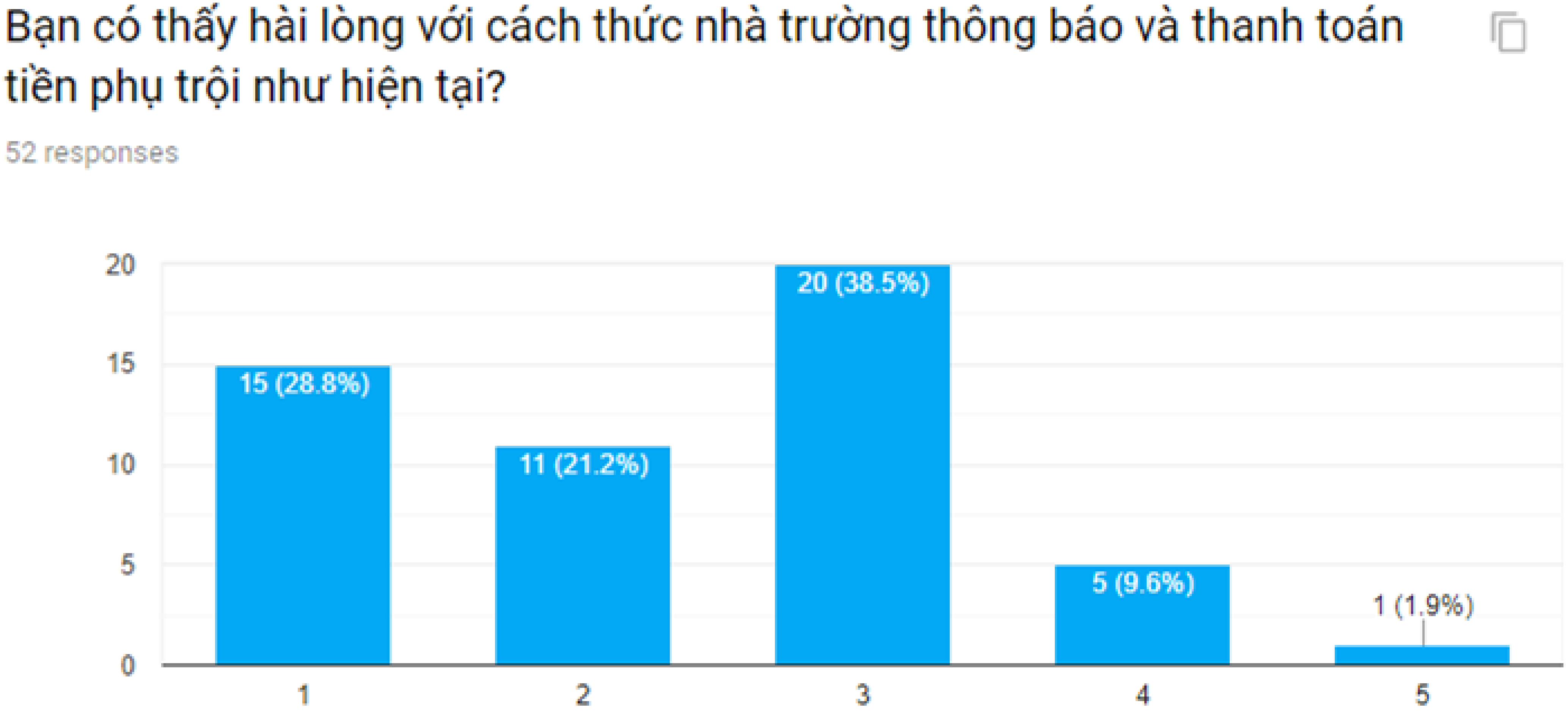
Frequency of overusage



Phòng bạn có hay bị phát sinh tiền phụ trội hay không?

53 responses

Overusage process satisfaction

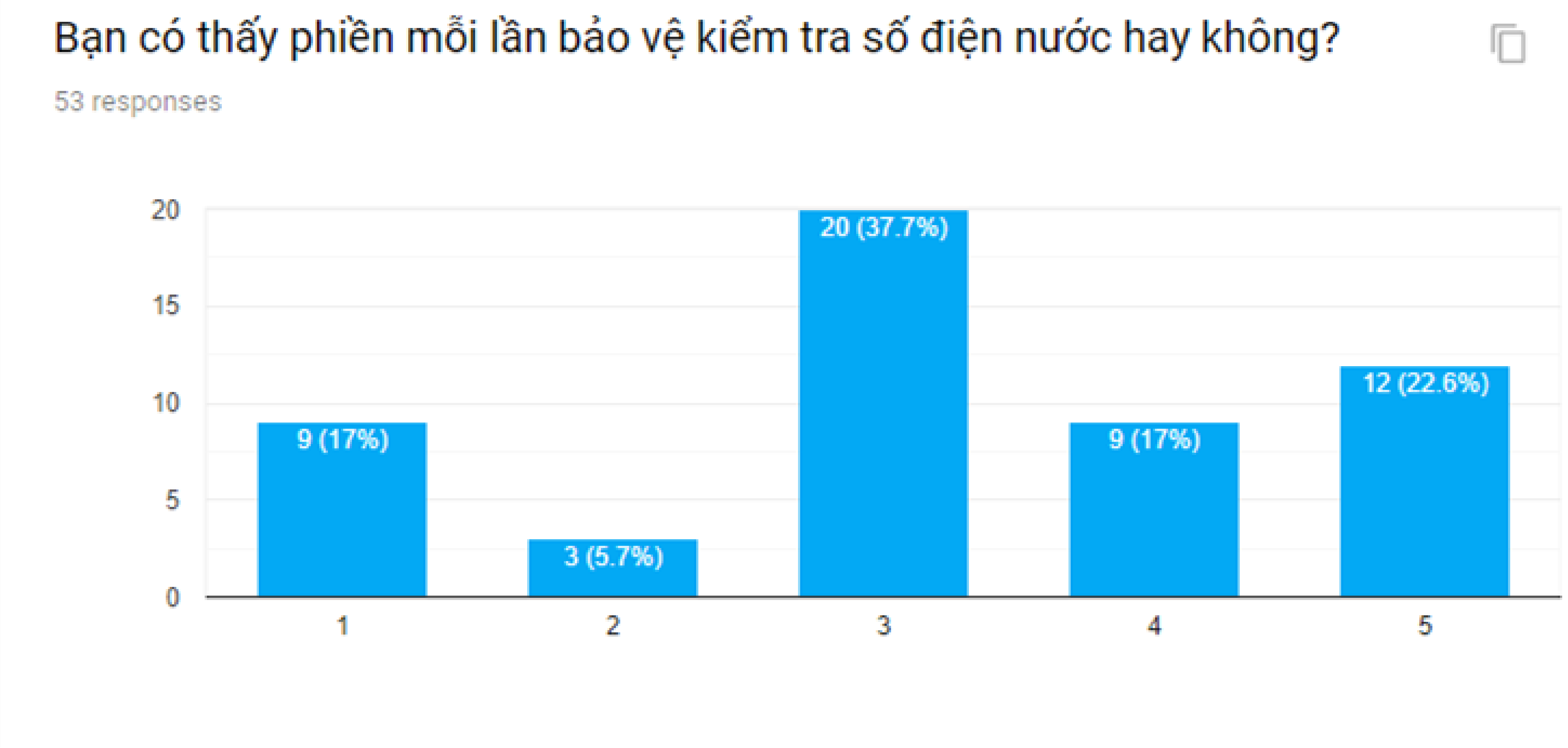


Bạn có thấy hài lòng với cách thức nhà trường thông báo và thanh toán tiền phụ trội như hiện tại?

52 responses

20
15
10
5
0
15 (28.8%)
11 (21.2%)
20 (38.5%)
5 (9.6%)
1 (1.9%)
1
2
3
4
5

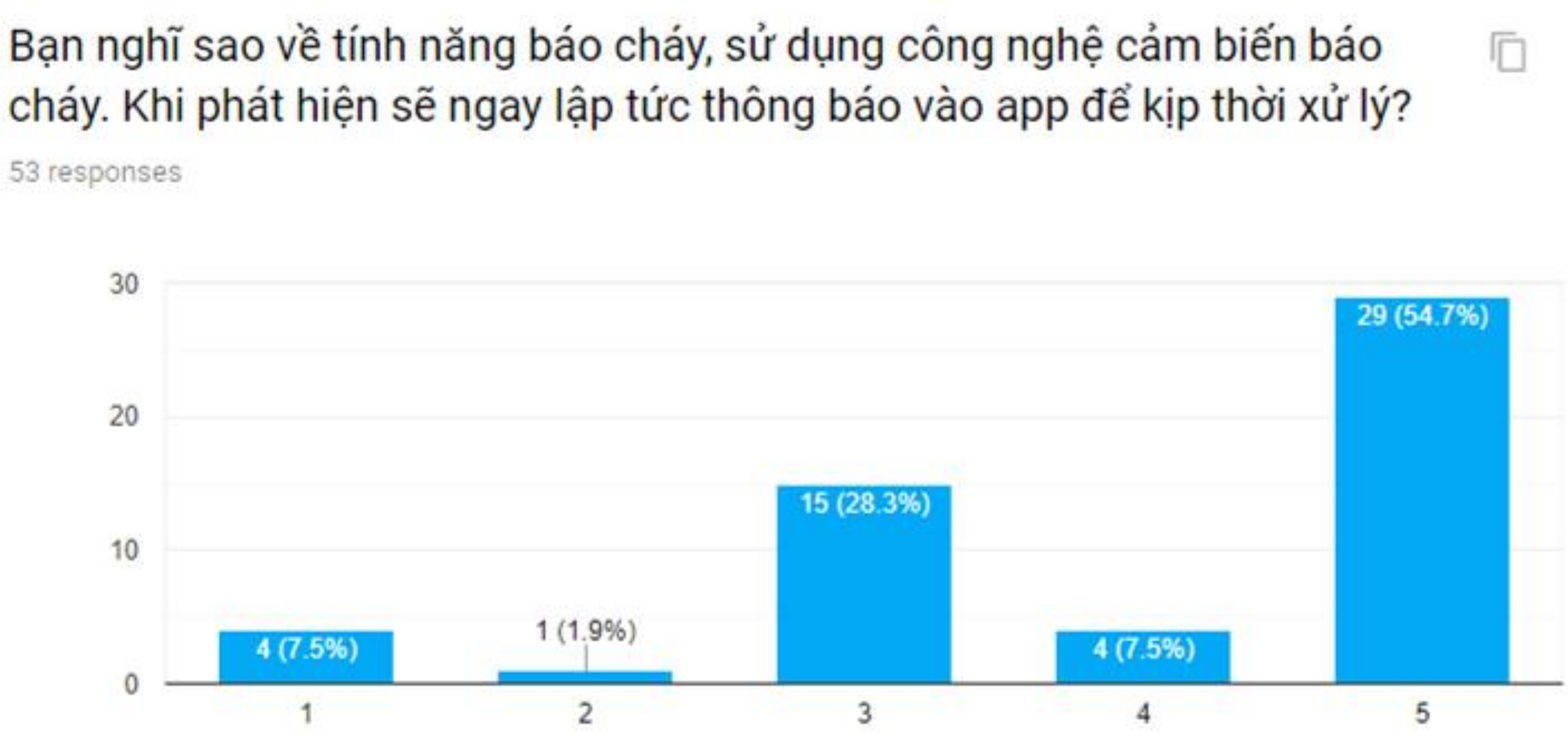
Privacy problem



Bạn có thấy phiền mỗi lần bảo vệ kiểm tra số điện nước hay không?

53 responses

Creative idea support



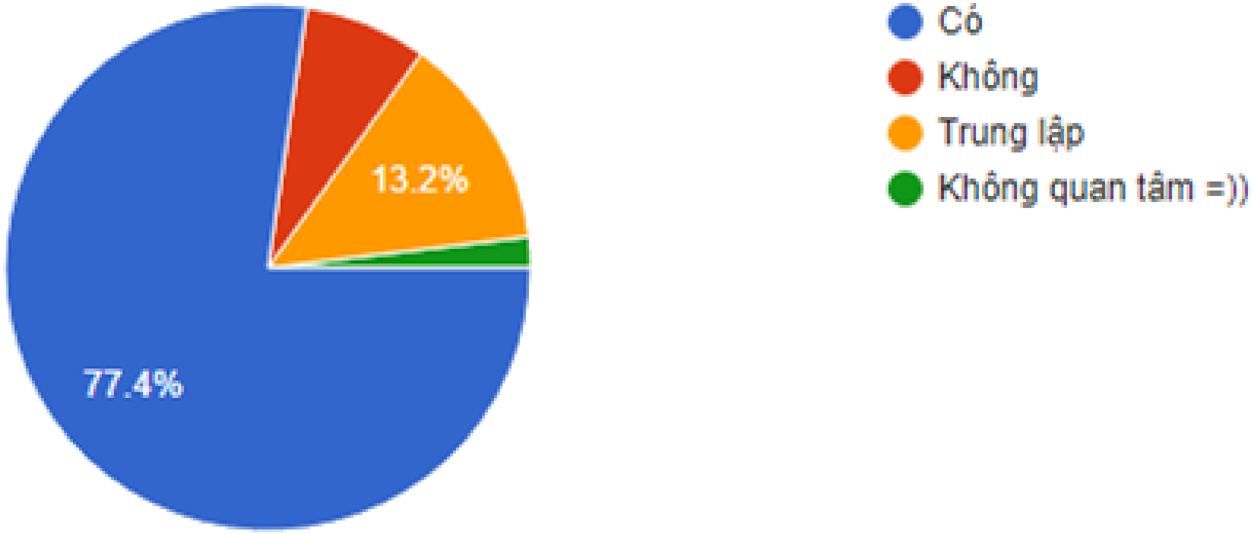
Bạn nghĩ sao về tính năng báo cháy, sử dụng công nghệ cảm biến báo cháy. Khi phát hiện sẽ ngay lập tức thông báo vào app để kịp thời xử lý?

53 responses

App approval

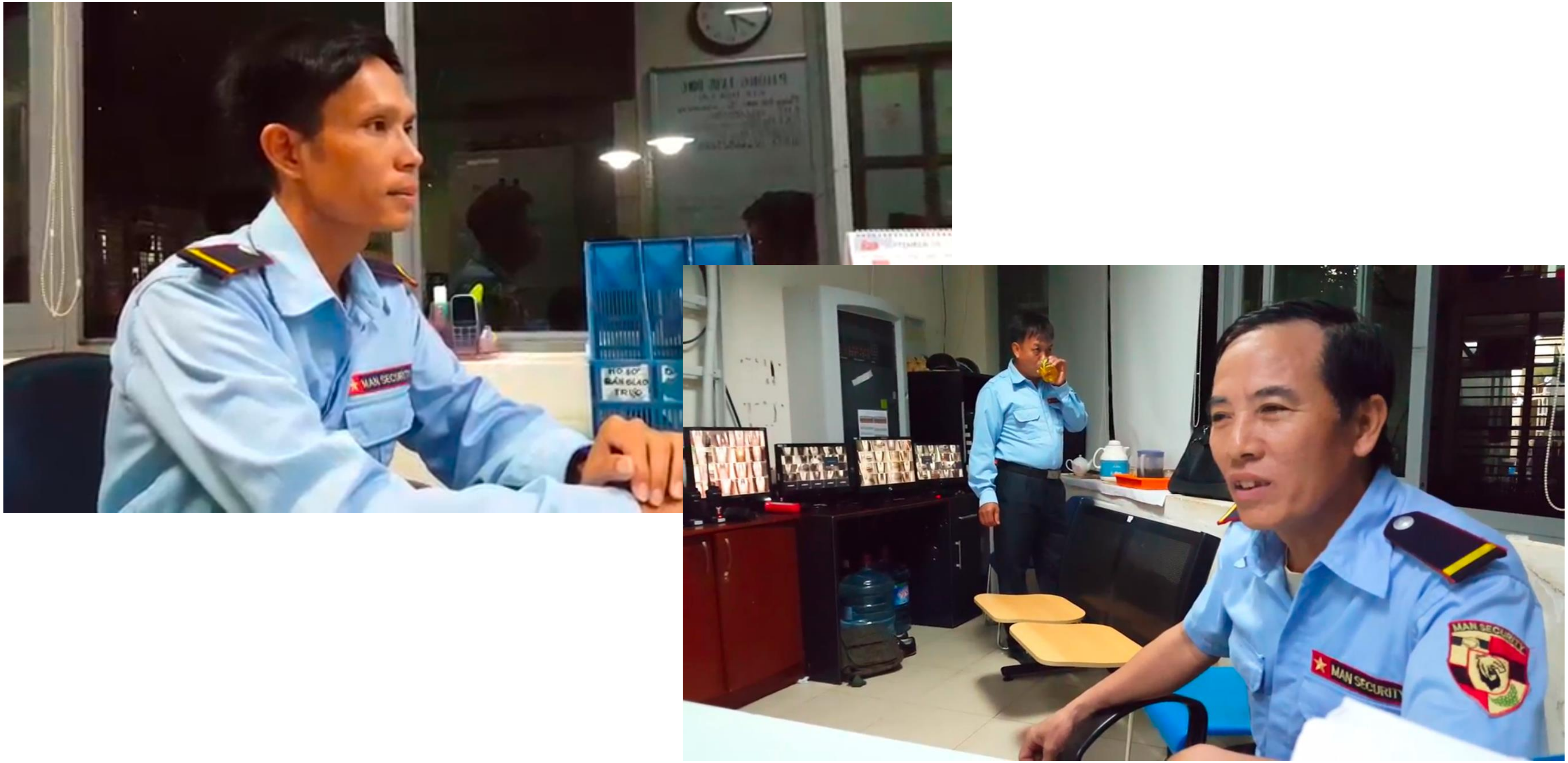
Bạn có muốn có một app để hỗ trợ quản lý kí túc xá (gồm các tính năng như book phòng, thông báo hỏng hóc, kiểm tra và thanh toán số điện nước,...) dành cho cả sinh viên và bảo vệ không?

53 responses



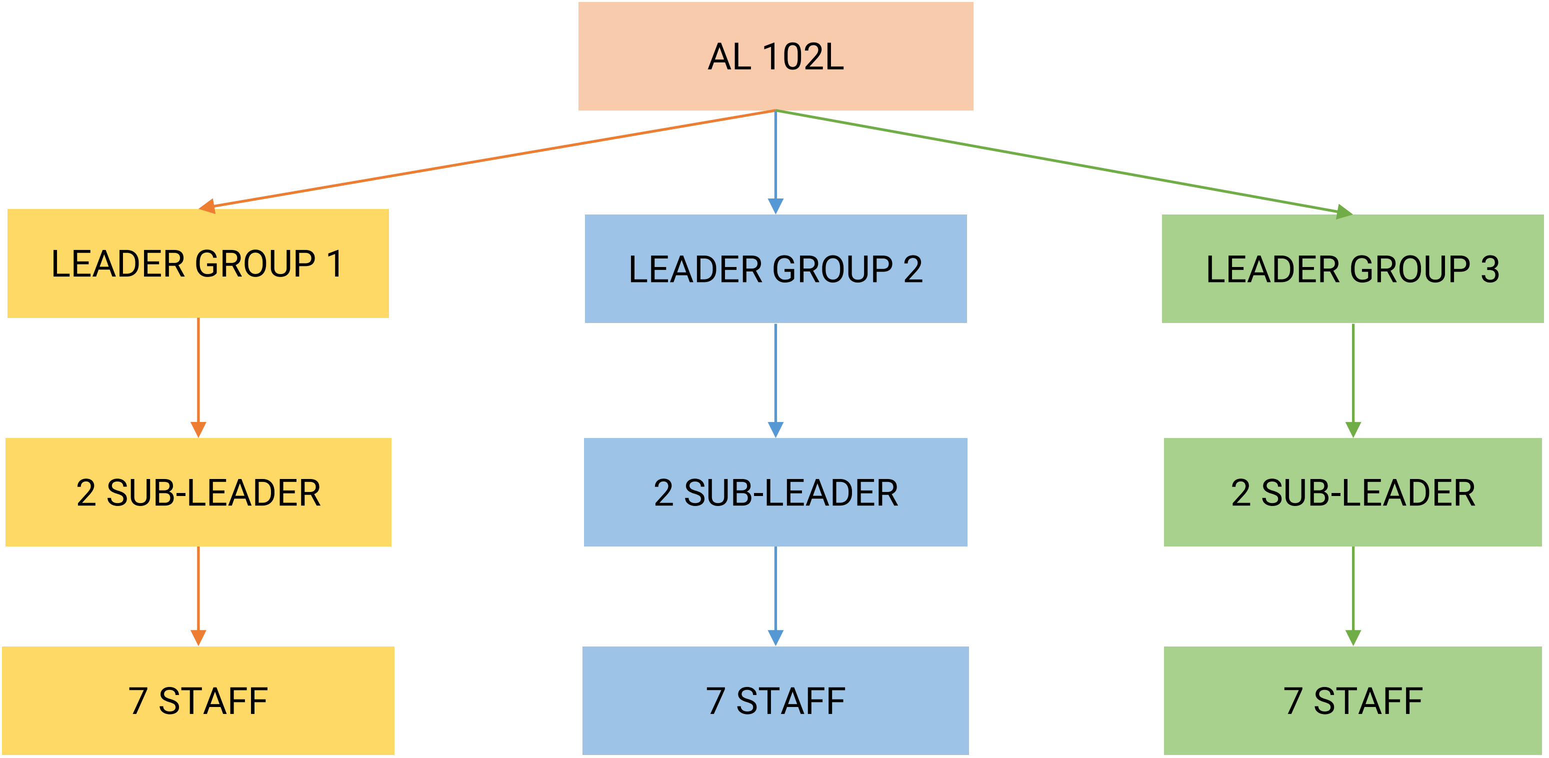
2 RESEARCH

2.3 INTERVIEW


MAN SECURITY
MAN SECURITY

Management working model: Total of 30 Guard, divided into 3 groups, 10 guards per group

Group model diagram


AL 102L

LEADER GROUP 1

LEADER GROUP 2

LEADER GROUP 3

2 SUB-LEADER

2 SUB-LEADER

2 SUB-LEADER

7 STAFF

7 STAFF

7 STAFF

Electricity and Water Usage collection process

Frequency

- Start on 16,17,18 monthly
- Takes 1 week to finish

Process Description

- Check Electricity Meter outside,
- Check Water Meter inside students' room
- Note down on Handbook
- Send the collections to AL102L for web submission

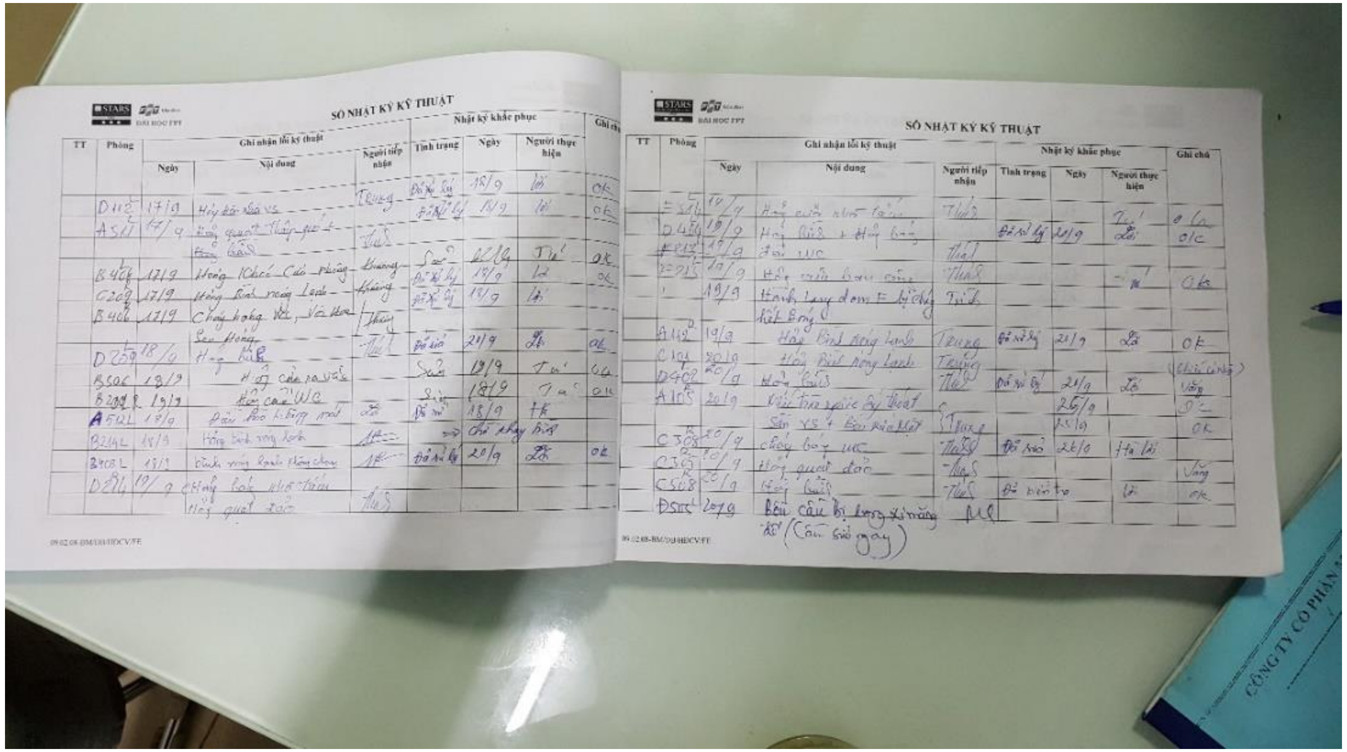
Maintenance process

Frequency

5 – 10 cases reported per day

Process Description

- Ask student leave information
- Contact technical staff



STARS ĐẠI HỌC FPT

SỔ NHẬT KÝ KỸ THUẬT

TT	Phòng	Ghi nhận lỗi kỹ thuật			Nhật ký khắc phục			Ghi chú
		Ngày	Nội dung	Người tiếp nhận	Tình trạng	Ngày	Người thực hiện	

Check-in, Check-out process

Process Description

- Follow AL102L and Leader
- Check out : + Check room & bed
  + Sign paper form Send
- Check in : + Receive new student list

OCD Creative idea and App interest
RECEIVE GREAT APPROVAL

2 RESEARCH

2.4 SIMILAR APPS

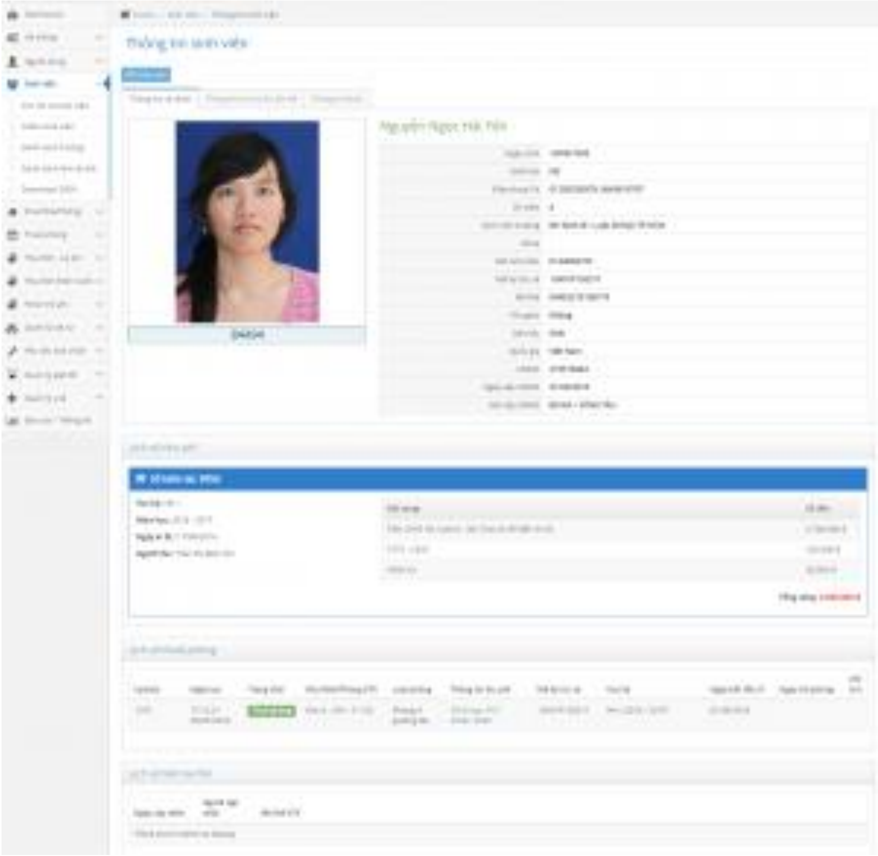
LIVINSOFT

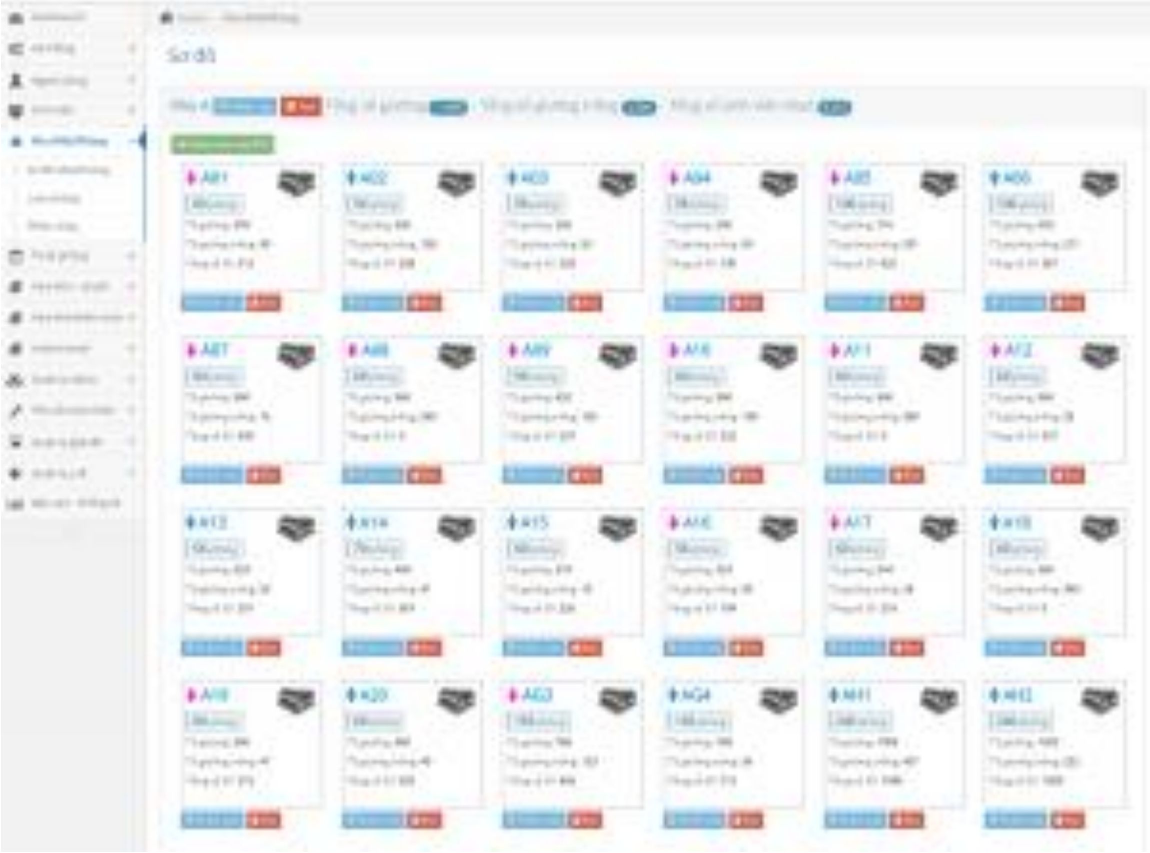
https://livinsoft.com

livinsoft
Yeni Kayıt
Öğrenci Listesi
Öğrenci Kartı

QUANG TRUNG DORMITORY MANAGEMENT SOFTWARE

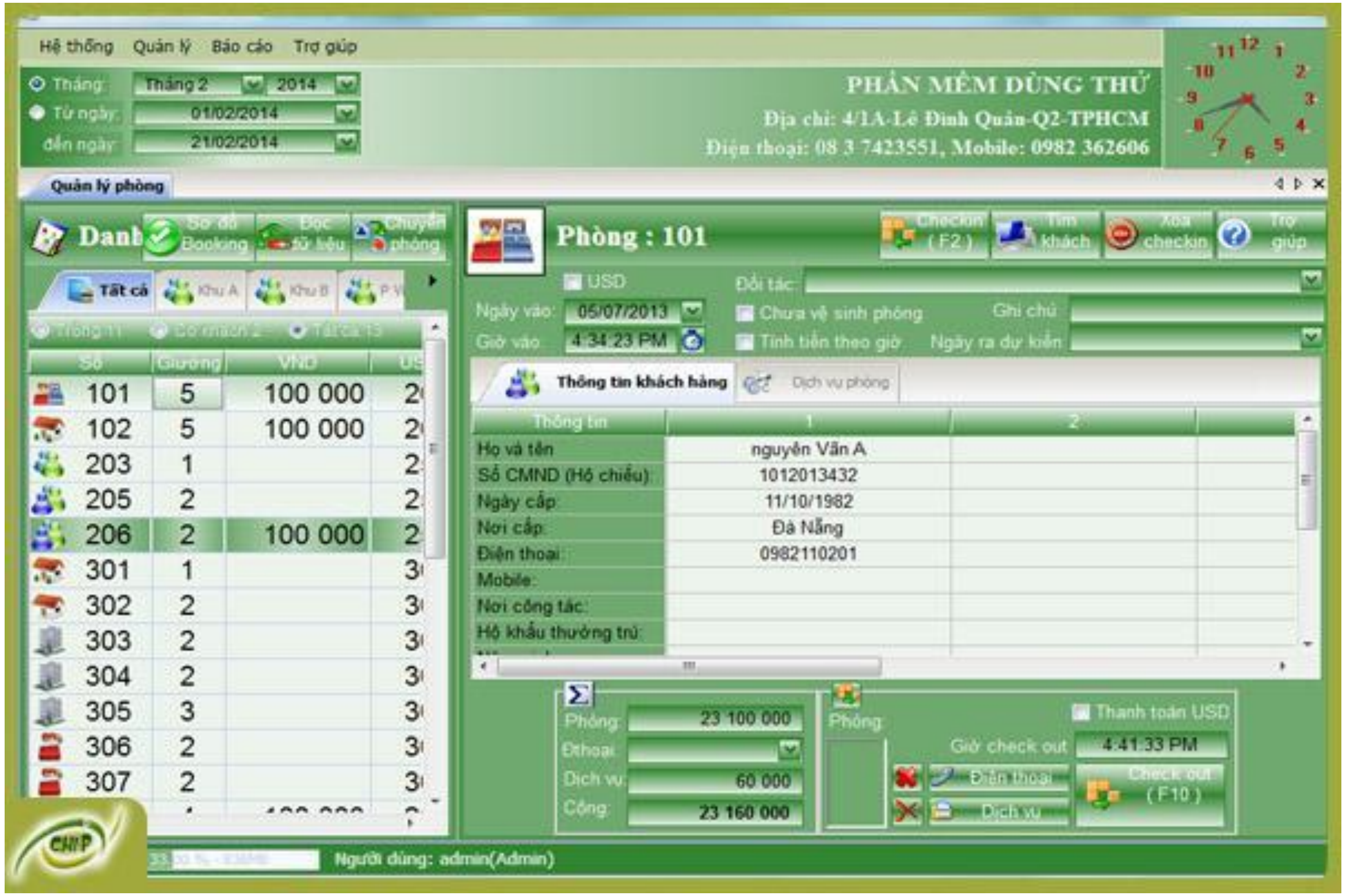
http://qtsoftware.vn/phan-mem-quan-ly-ky-tuc-xa/





CHIPCHIPSOFT DORMITORY MANAGEMENT

http://chipchipsoft.com/ccsKTX.aspx


Hệ thống
Quản lý
Báo cáo
Trợ giúp
Quản lý phòng
Danh
Sơ đồ Booking
Đọc dữ liệu
Chuyển phòng
Tất cả
Khu A
Khu B
P V
Checkin (F2)
Tìm khách
Xóa checkin
Trợ giúp
Thông tin khách hàng
Dịch vụ phòng
Điện thoại
Dịch vụ
Check out (F10)
CHIP

PHẦN MỀM DÙNG THỬ
Địa chỉ: 4/1A-Lê Đình Quân-Q2-TPHCM
Điện thoại: 08 3 7423551, Mobile: 0982 362606

● Tháng: Tháng 2 2014
○ Từ ngày: 01/02/2014
đến ngày: 21/02/2014

Phòng : 101

☐ USD
Ngày vào: 05/07/2013
Giờ vào: 4:34:23 PM
Đối tác:
☐ Chưa vệ sinh phòng
☐ Tính tiền theo giờ
Ghi chú:
Ngày ra dự kiến:

Số	Giường	VND
101	5	100 000
102	5	100 000
203	1	
205	2	
206	2	100 000
301	1	
302	2	
303	2	
304	2	
305	3	
306	2	
307	2	

Thông tin	1	2
Họ và tên	nguyên Văn A	
Số CMND (Hộ chiếu):	1012013432	
Ngày cấp:	11/10/1982	
Nơi cấp:	Đà Nẵng	
Điện thoại:	0982110201	
Mobile:		
Nơi công tác:		
Hộ khẩu thường trú:		

Phòng: 23 100 000
Đthoại:
Dịch vụ: 60 000
Cộng: 23 160 000

☐ Thanh toán USD
Giờ check out: 4:41:33 PM

Người dùng: admin(Admin)

COMPARISON TABLE

Nice, Good > Accepted > Normal > Not Good > Not Have

	LIVINSOFT	QTSW	CCSKTX
Users	*Std/Adm/Tenant/Landlord*	*Std/Admin*	*Std/Admin*
Dashboard	*Good*	*Good*	*Good*
Room booking	*Normal*	*Good*	*Not good*
Keep place	*Normal*	*Normal*	*Normal*
Payment	*Good / Online*	*Accepted/Online*	*Not good/Manual*
Security, Emergency	*Normal*	*Good*	*Not have*
Maintenance	*Good / Automatic*	*Normal / Manual*	*Not good/Manual*
Interface	*Nice*	*Normal*	*Not Good*
Information Management	*Accepted*	*Good / Use RFID*	*Good*
E/W Usage Management	*Not have*	*Good*	*Good*
Database	*Cloud-based*	*Cloud-based*	*Cloud-based*

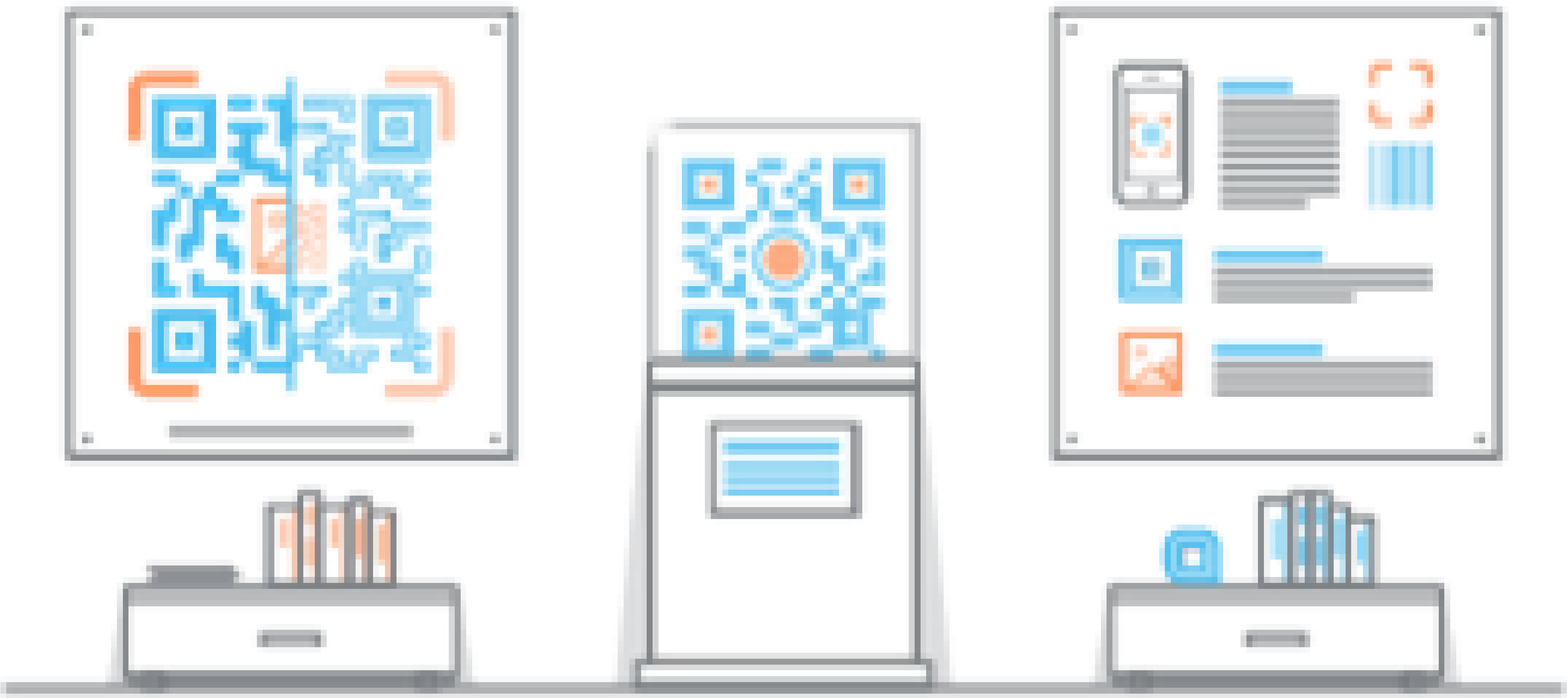
PROS/CONS TABLE

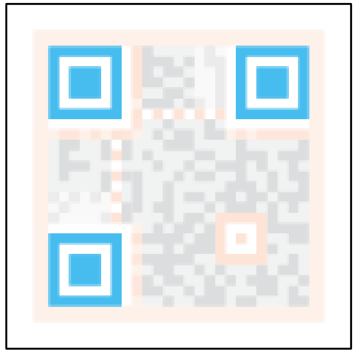
	LIVINSOFT	QTSW	CCSKTX
Pros	- Catchy design interface. Quite modern and easy to approach. - Payment is fast and correct - Management is good and provide users' needs.	- Has online payment. - Dormitory management is expert, extraordinary. - Simple, Friendly, Easy to use, full of functions	- Security is good. - Has both manual control and automatic control - Simple, easy to use - Management is quite reliable
Cons	- Not focus on dormitory management but renting house. - Not provide much service like a dormitory management should have. - Security cannot be applied in dormitory management model	- Outdated design - Does not have application, only pc software - Some functions are not needed	- More suitable for applying in hotel management - Bad design, bad interface - No app, just PC software - Students are not free to choose option because it is linked to study account to arrange - Payment is not online method.

2 RESEARCH

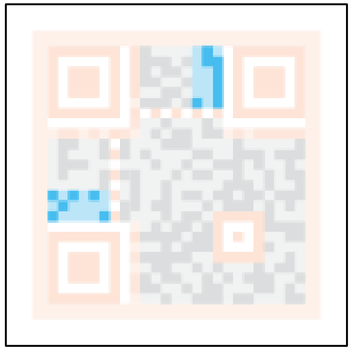
2.5 TECHNOLOGY

QR CODE

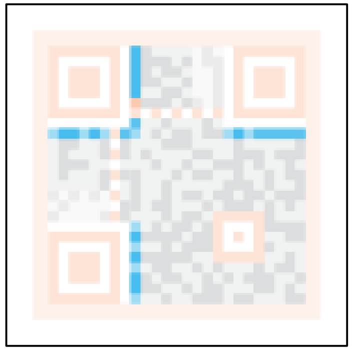




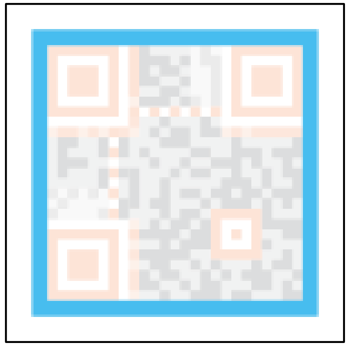
Positioning markings



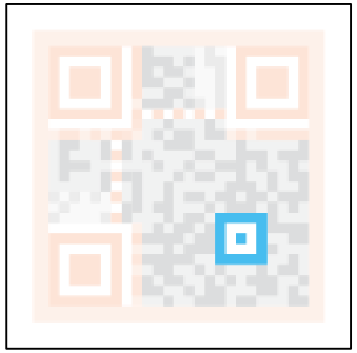
Version information



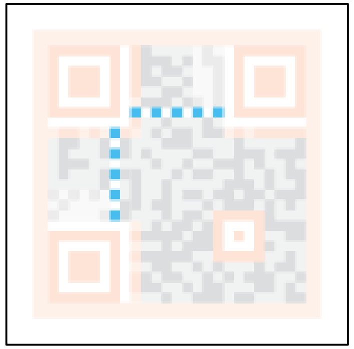
Format information



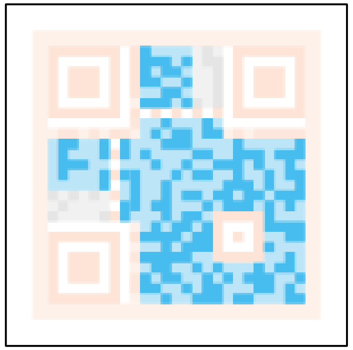
Quiet zone



Alignment markings



Timing pattern



Data and error correction keys

Self-duplications for protection and recovery

"QR" stands for "Quick Response”

7089 Digits
4296 Characters

High fault tolerance

2-dimensional version of barcode

CREATE: Few Seconds & Free Online

Available for everyone

SCAN: Various app with camera

Used popularly in

LOGISTICS & PRESERVATION

VOTING & SEARCHING

PURCHASING & SELLING

WIFI ACCESS

ADVERTISING

INFORMATION MANAGEMENT

SUBSCRIPTION

ENTERTAINMENT

Used in OCD APP

Create a QR code with the data of room name and type of meter

Eg: E-D311R

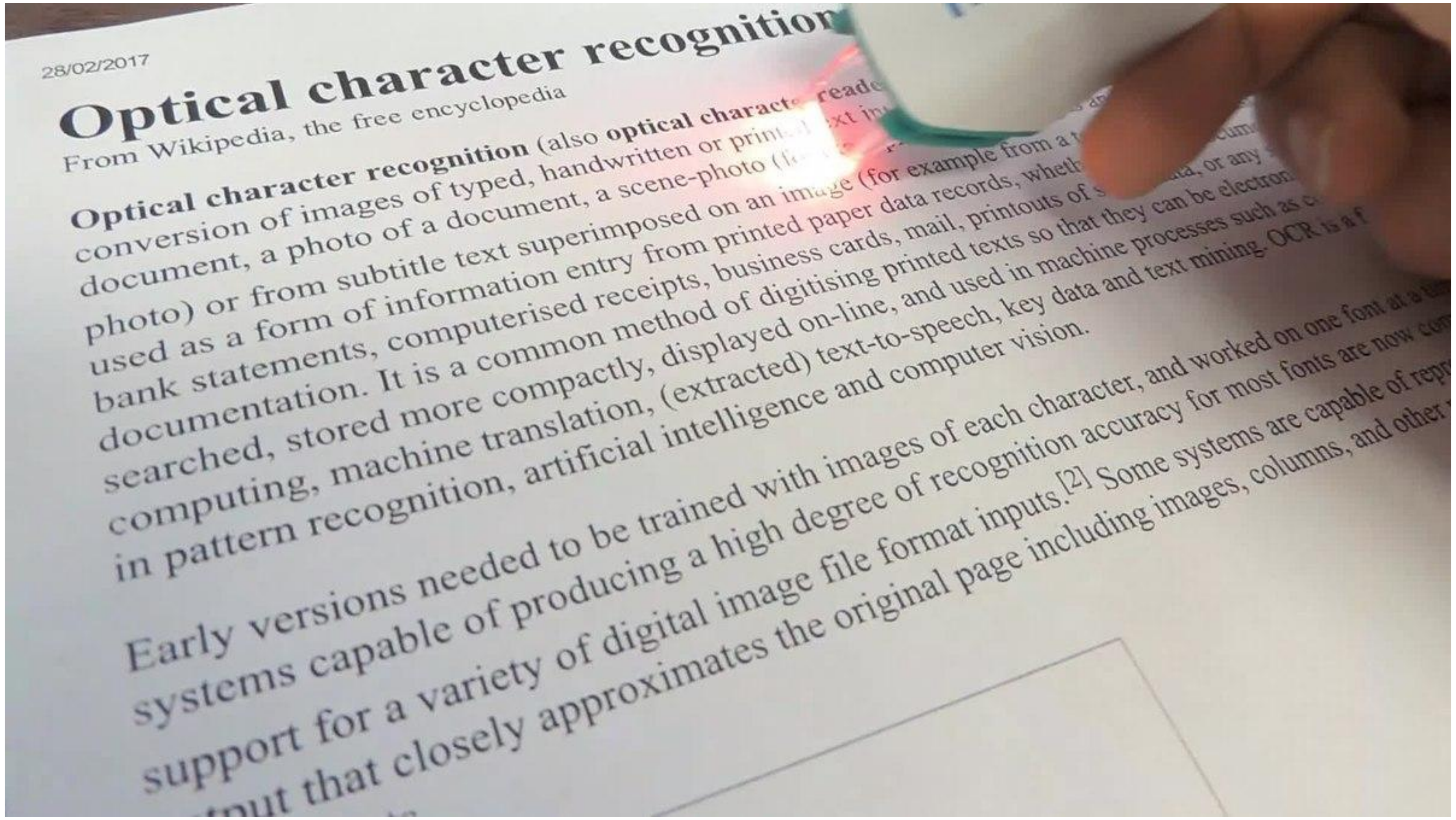
→

Stick the QR to a meter's front face

→

Use camera in OCD App to scan the QR to acquire the meter ID

OPTICAL CHARACTER RECOGNITION



28/02/2017

Optical character recognition

From Wikipedia, the free encyclopedia

Optical character recognition (also **optical charact** **reade**
conversion of images of typed, handwritten or print xt in
document, a photo of a document, a scene-photo (f
photo) or from subtitle text superimposed on an image (for example from a t
used as a form of information entry from printed paper data records, wheth a, or any
bank statements, computerised receipts, business cards, mail, printouts of s
documentation. It is a common method of digitising printed texts so that they can be electron
searched, stored more compactly, displayed on-line, and used in machine processes such as c
computing, machine translation, (extracted) text-to-speech, key data and text mining. OCR is a f
in pattern recognition, artificial intelligence and computer vision.

Early versions needed to be trained with images of each character, and worked on one font at a ti
systems capable of producing a high degree of recognition accuracy for most fonts are now com
support for a variety of digital image file format inputs.[2] Some systems are capable of repr
ut that closely approximates the original page including images, columns, and other

OCR read text on an image file into text format

OCR is used as a software integrated on a computer or directly into a certain hardware.

Used popularly in

SECURITY

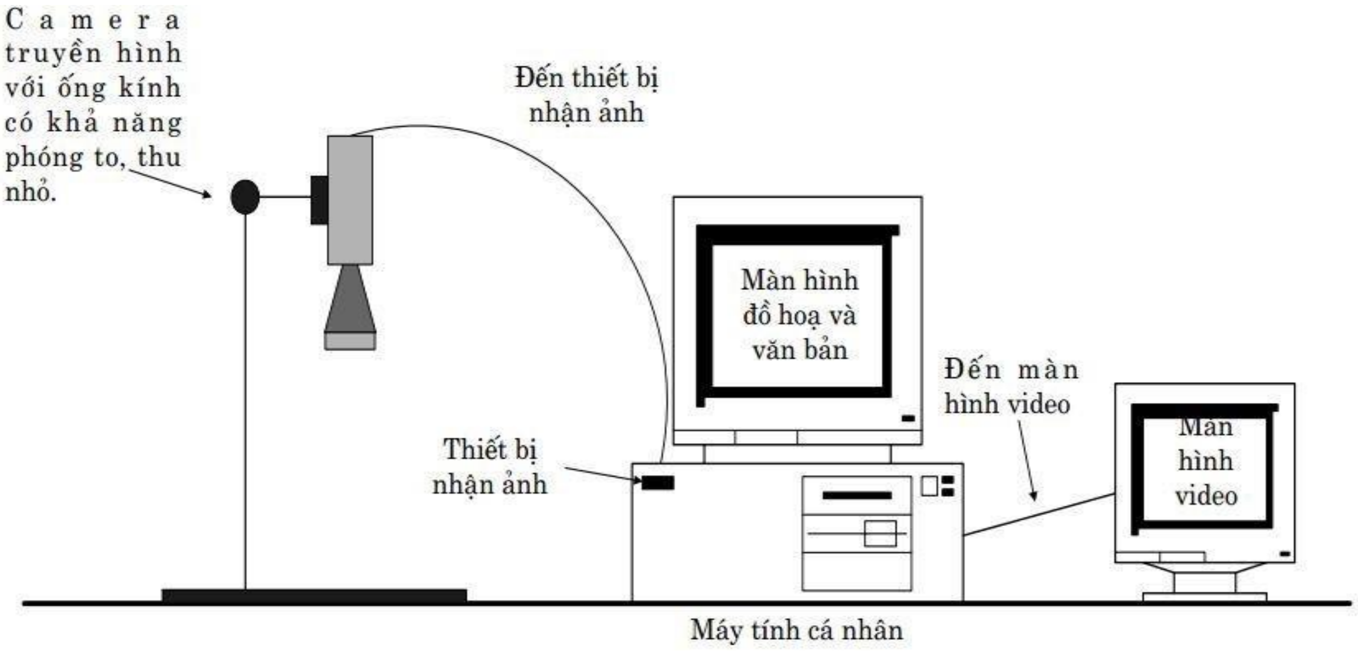
TRAFFIC

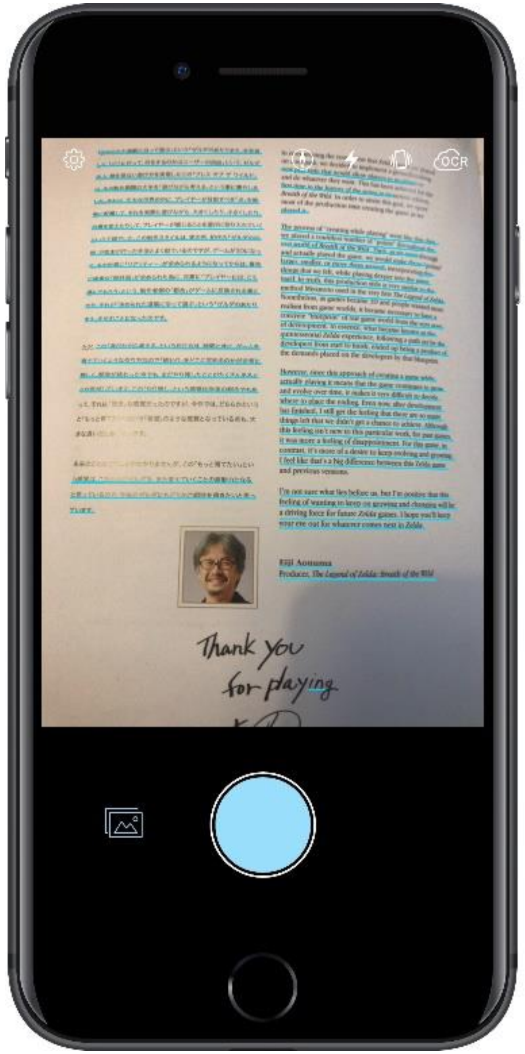
PRINTING

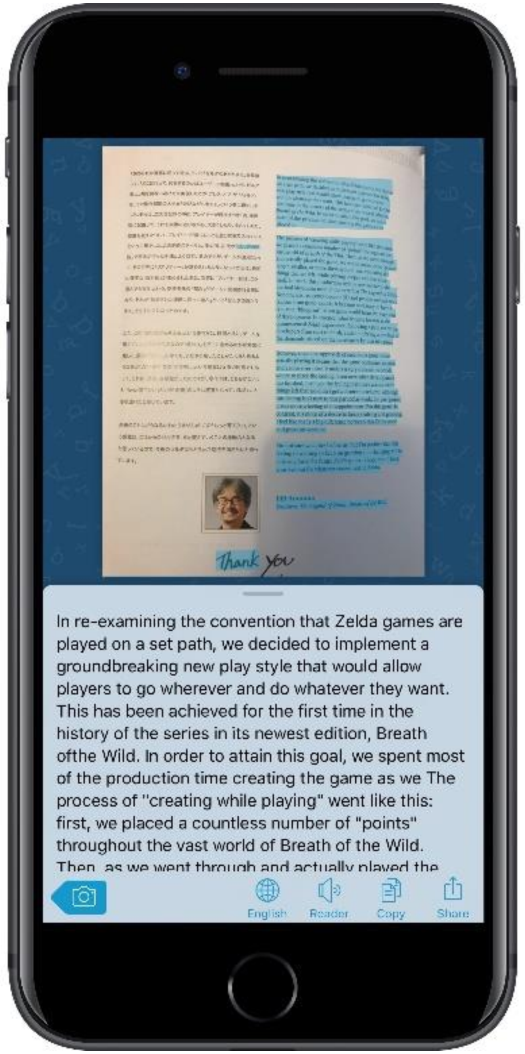
DATA RECOVERING

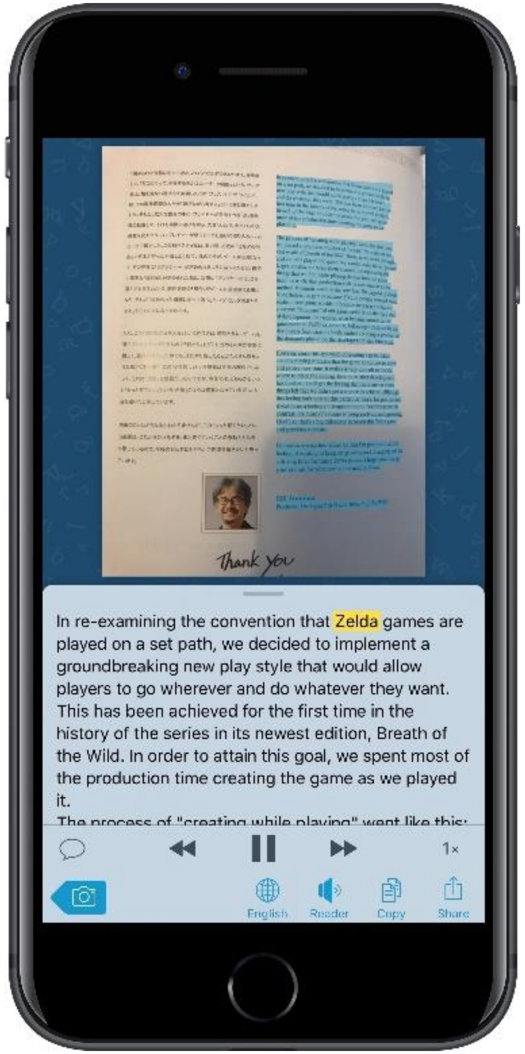
TRANSLATION

SCANNING DOCUMENTARY


Camera truyền hình với ống kính có khả năng phóng to, thu nhỏ.
Đến thiết bị nhận ảnh
Màn hình đồ hoạ và văn bản
Đến màn hình video
Thiết bị nhận ảnh
Màn hình video
Máy tính cá nhân




In re-examining the convention that Zelda games are played on a set path, we decided to implement a groundbreaking new play style that would allow players to go wherever and do whatever they want. This has been achieved for the first time in the history of the series in its newest edition, Breath ofthe Wild. In order to attain this goal, we spent most of the production time creating the game as we The process of "creating while playing" went like this: first, we placed a countless number of "points" throughout the vast world of Breath of the Wild. Then, as we went through and actually played the


In re-examining the convention that Zelda games are played on a set path, we decided to implement a groundbreaking new play style that would allow players to go wherever and do whatever they want. This has been achieved for the first time in the history of the series in its newest edition, Breath of the Wild. In order to attain this goal, we spent most of the production time creating the game as we played it.

The process of "creating while playing" went like this:

2 2.5

B1: Bắt hình từ camera

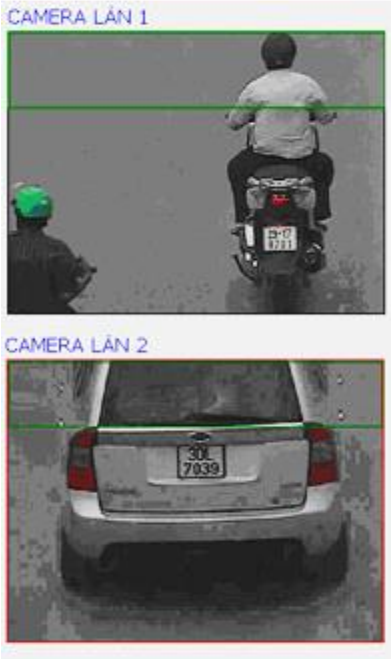
B2: Tiền xử lý ảnh

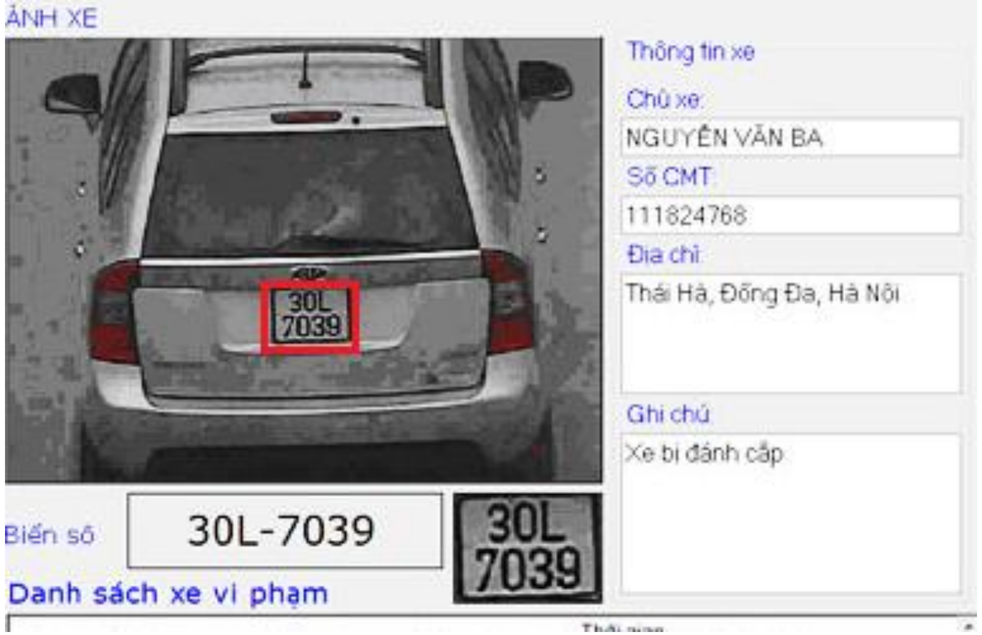
B3: Trích xuất vùng biển số xe

B4: Cô lập các kí tự trong biển số xe

B5: Nhận diện các ký tự bằng OCR

B6: So khớp biển số xe với hệ thống CSDL để truy vấn thông tin


CAMERA LÀN 1
CAMERA LÀN 2


ẢNH XE
30L 7039

Thông tin xe

Chủ xe: NGUYỄN VĂN BA

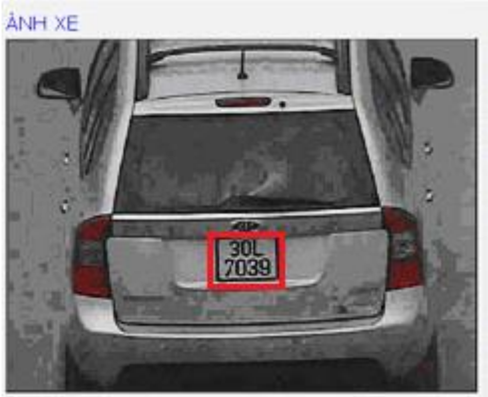
Số CMT: 111824768

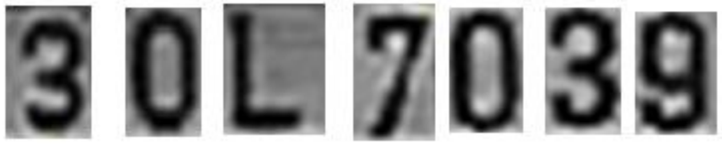
Địa chỉ: Thái Hà, Đống Đa, Hà Nội

Ghi chú: Xe bị đánh cắp

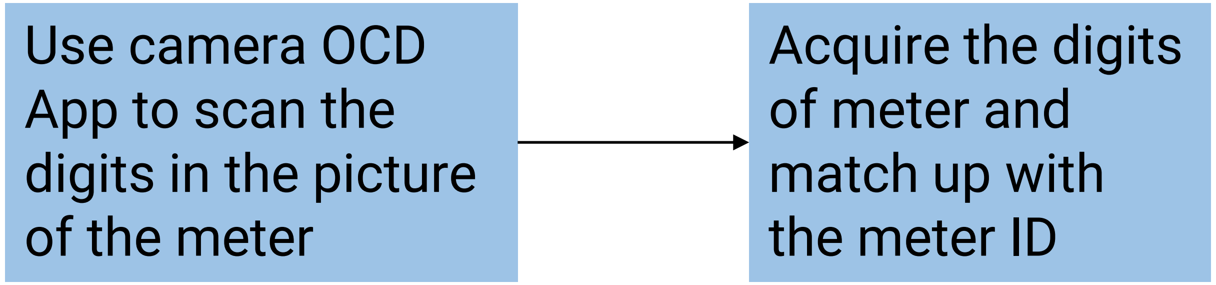
Biển số: 30L-7039

Danh sách xe vi phạm


ẢNH XE
30L 7039



Used in OCD APP

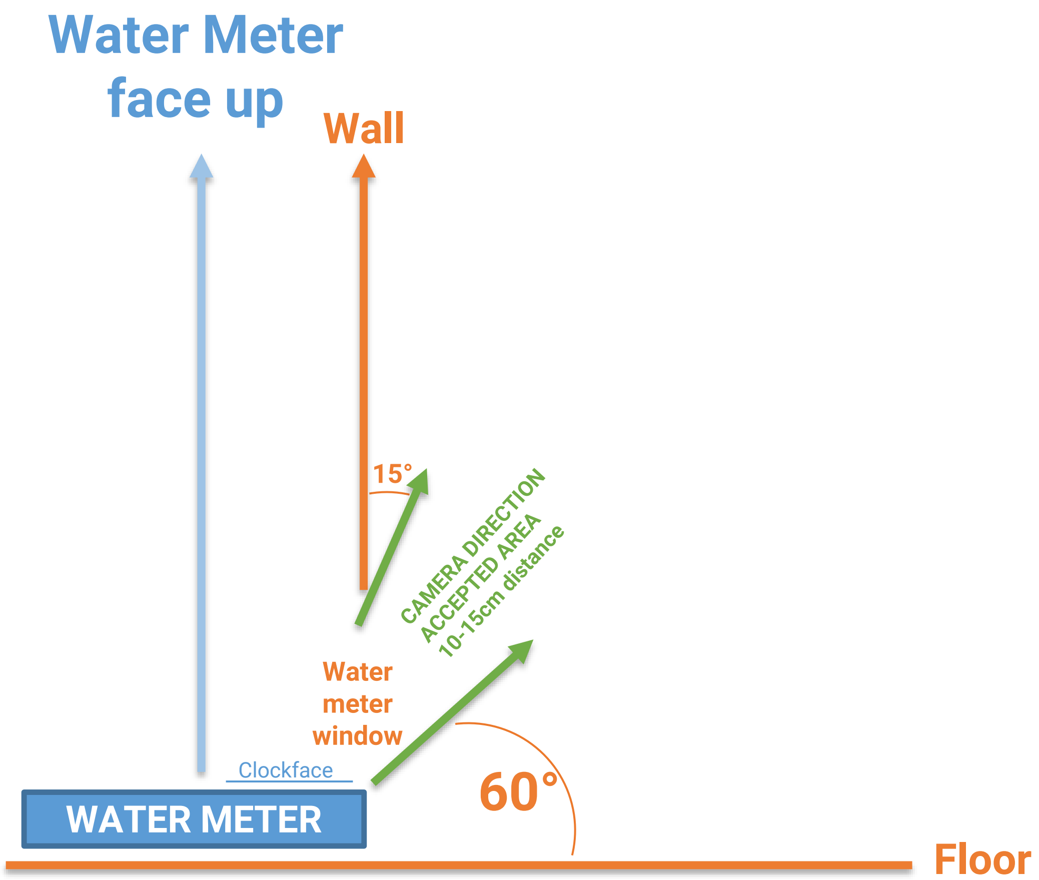


Use camera OCD App to scan the digits in the picture of the meter

Acquire the digits of meter and match up with the meter ID

PHOTO TAKING TECHNIQUE

(Must use Flashlight while taking photo)



Water Meter face up

Wall

15°

CAMERA DIRECTION
ACCEPTED AREA
10-15cm distance

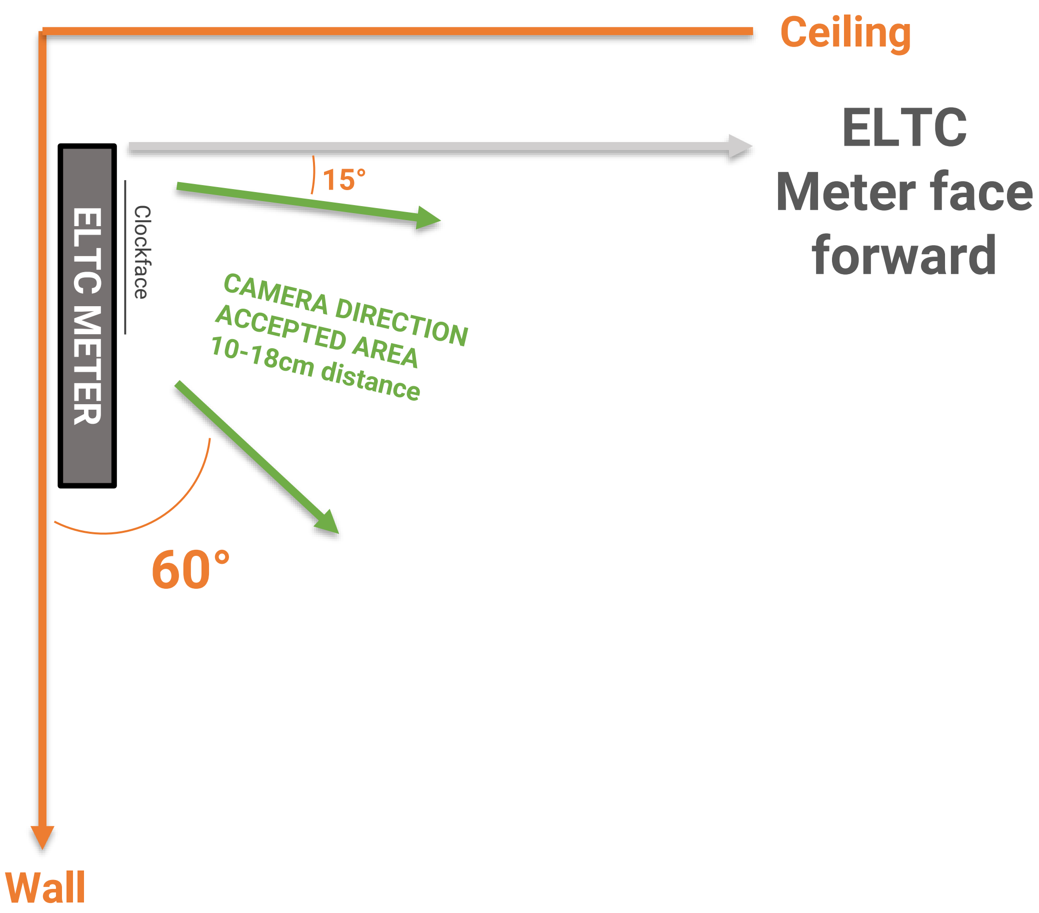
Water meter window

Clockface

WATER METER

60°

Floor



Ceiling

ELTC Meter face forward

15°

ELTC METER

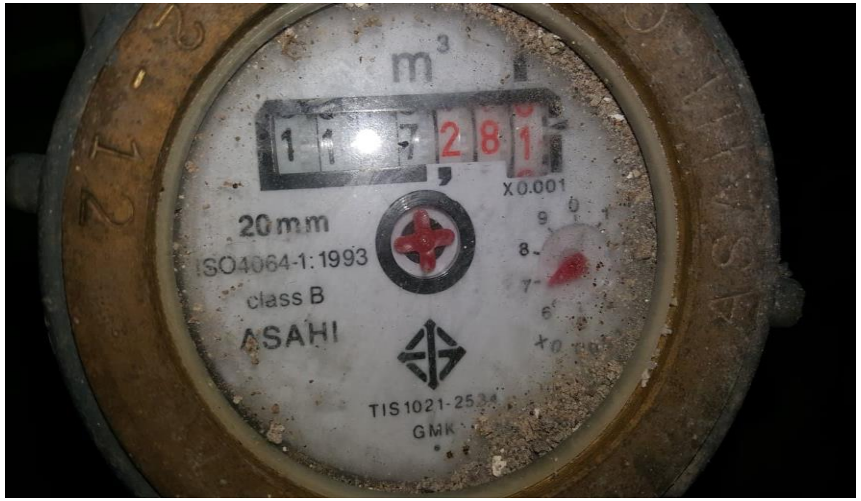
Clockface

CAMERA DIRECTION
ACCEPTED AREA
10-18cm distance

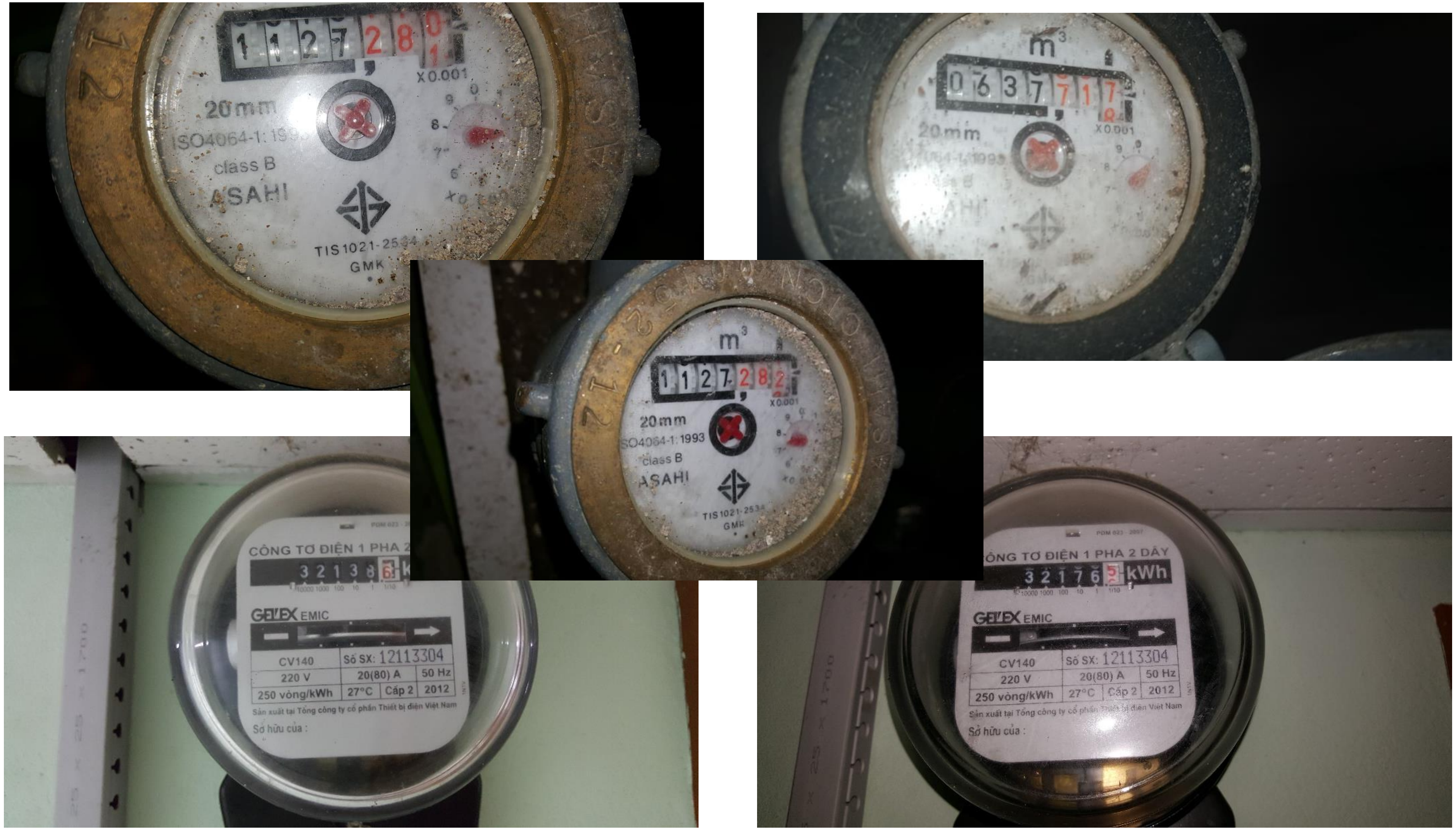
60°

Wall

Unqualified photos


m3
117281
X0.001
20 mm
ISO4064-1:1993
class B
ASAHI
TIS 1021-2534
GMK

Qualified photos


m³
20mm
ISO4064-1:1993
class B
ASAHI
TIS 1021-2534
GMK
X 0.001
CÔNG TƠ ĐIỆN 1 PHA 2 DÂY
kWh
GELEX EMIC
CV140
Số SX: 12113304
220 V
20(80) A
50 Hz
250 vòng/kWh
27°C
Cấp 2
2012
Sản xuất tại Tổng công ty cổ phần Thiết bị điện Việt Nam
Sở hữu của :

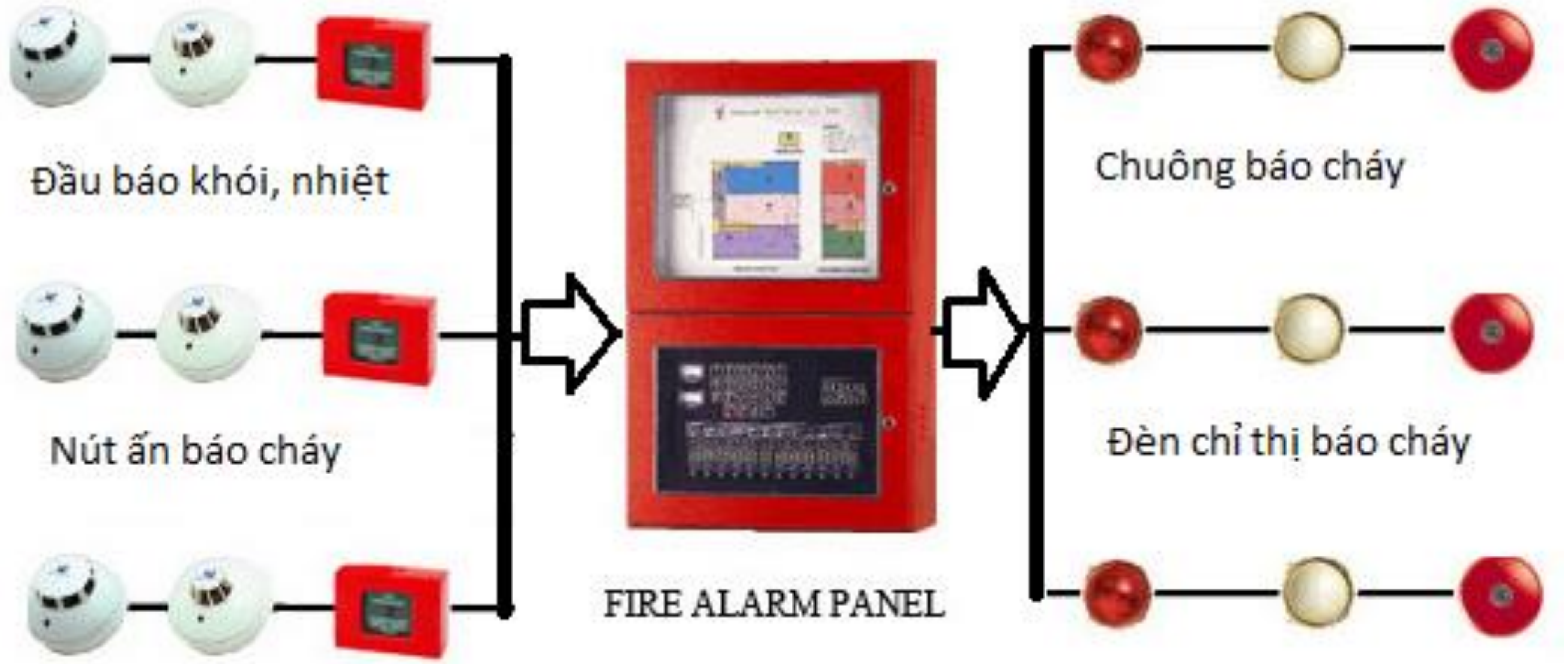
SUPPORTING SELFIE STICK

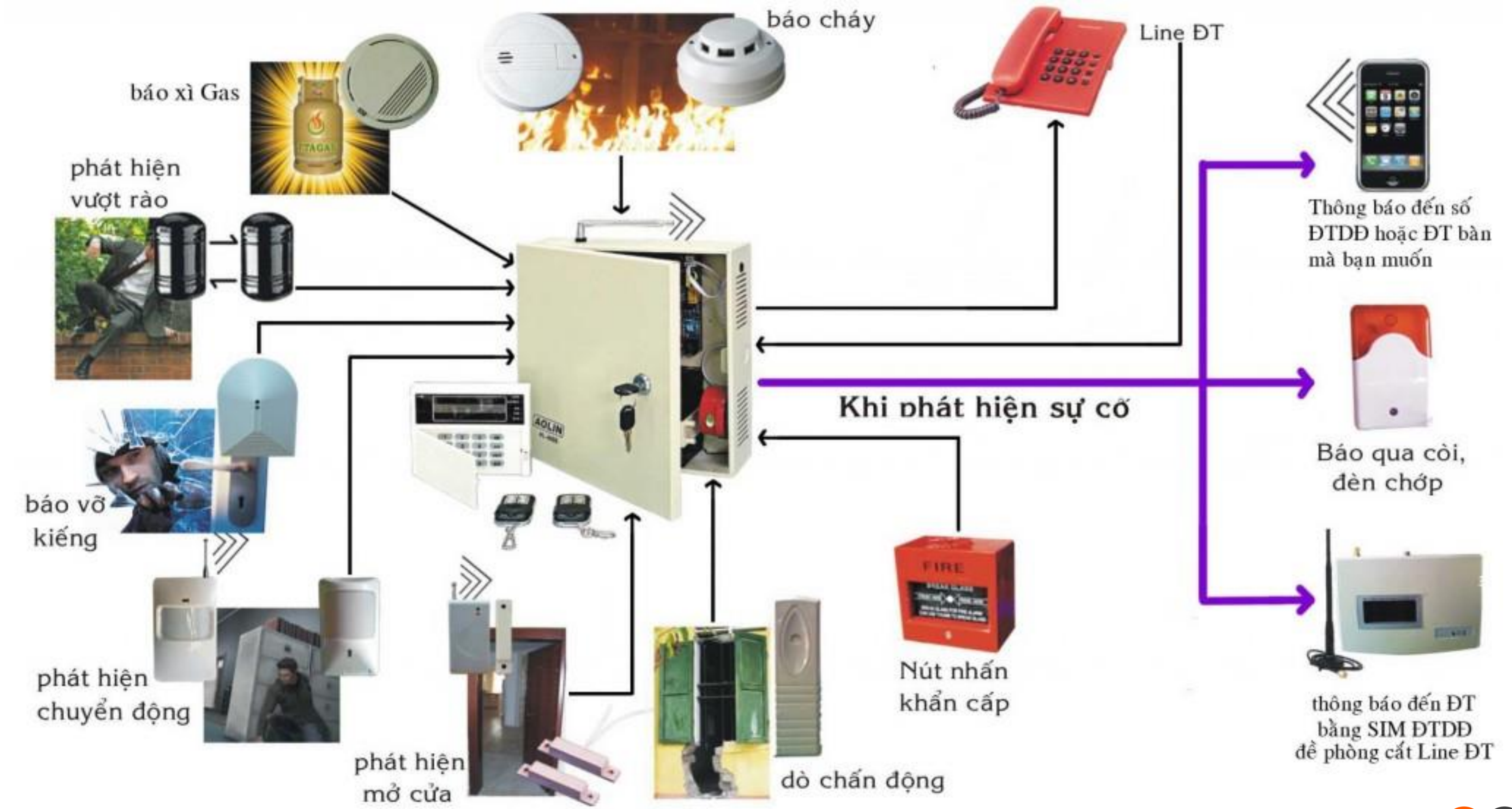
(For high position photos)

PRICE: 200.000 VND

Provide 3 sticks for
each groups of guard

FIRE ALERT SMART SYSTEM


Đầu báo khói, nhiệt
Nút ấn báo cháy
FIRE ALARM PANEL
Chuông báo cháy
Đèn chỉ thị báo cháy



báo xì Gas

báo cháy

Line ĐT

phát hiện
vượt rào

Thông báo đến số
ĐTDĐ hoặc ĐT bàn
mà bạn muốn

Khi phát hiện sự cố

Báo qua còi,
đèn chớp

báo vỡ
kiếng

Nút nhấn
khẩn cấp

phát hiện
chuyển động

thông báo đến ĐT
bằng SIM ĐTDĐ
để phòng cắt Line ĐT

phát hiện
mở cửa

dò chấn động

FireNET
HOCHIKI
Fire Alarm Control

System Armed
All Zones Secure

Đèn báo cháy

Còi báo cháy

Dò khói quang

Đầu dò khói nhiệt
kết hợp

Đầu dò khí carbon

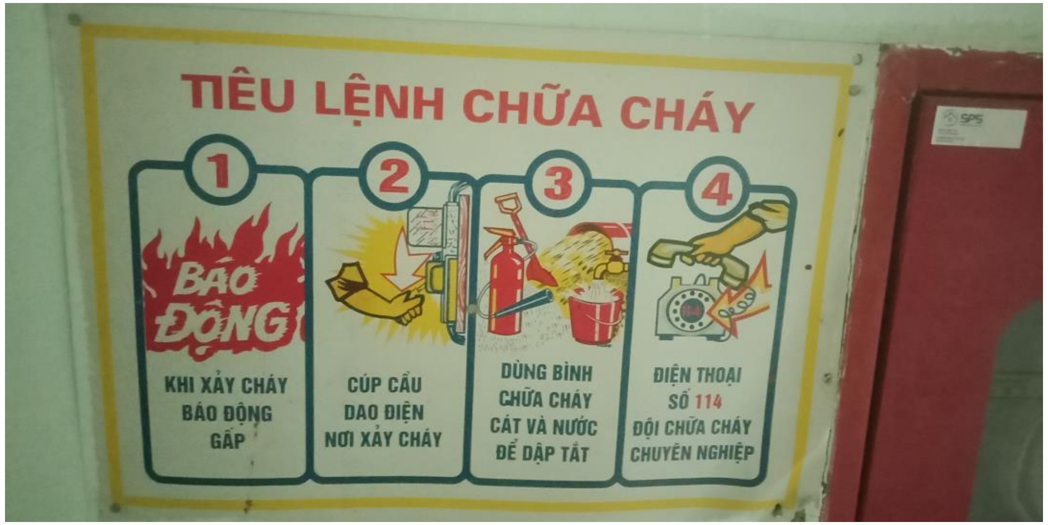
Đầu dò lửa

Đầu dò nhiệt
cố định

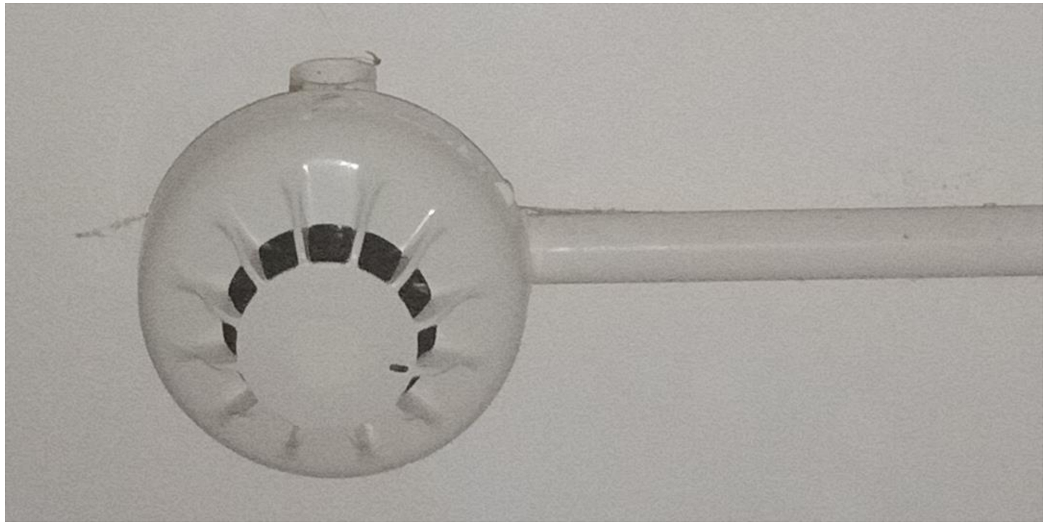
Đầu dò nhiệt
gia tăng

Chuông báo cháy

Nút nhấn khẩn


TIÊU LỆNH CHỮA CHÁY
1
BÁO ĐỘNG
KHI XẢY CHÁY BÁO ĐỘNG GẤP
2
CÚP CẦU DAO ĐIỆN NƠI XẢY CHÁY
3
DÙNG BÌNH CHỮA CHÁY CÁT VÀ NƯỚC ĐỂ DẬP TẮT
4
ĐIỆN THOẠI SỐ 114 ĐỘI CHỮA CHÁY CHUYÊN NGHIỆP

FPT Fire fight rules



FPT Smoke sensor

NỘI QUY
PHÒNG CHÁY CHỮA CHÁY
KHÔNG
HỘP CHỮA CHÁY
FIRE HOSEREEL

FPT Fire hosereel

Simplex
Fire Control
4010
ACK

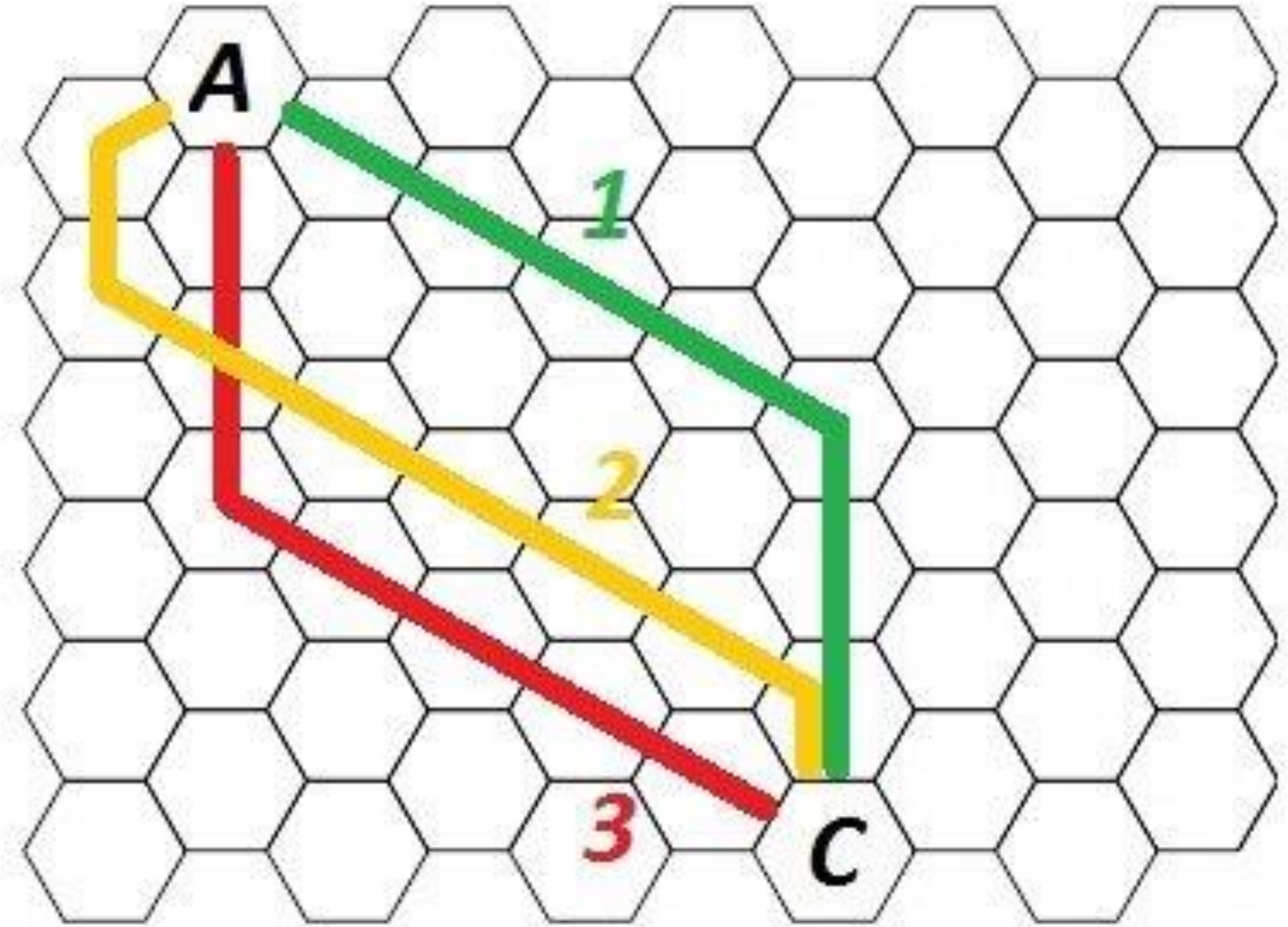
FPT Fire Control Panel

FIRE
FIRE ALARM
PUSH
PULL DOWN
Simplex

FPT Pull-down Station

ZIGBEE TECHNOLOGY

ZigBee
Control your world



Why ZIGBEE ?

- Easy Installation
- Internet connection
- Energy Saving
- Extremely Large and Easy Expansion
- High Security

Overview

Network Types

Star Topology
Mesh Topology
Cluster Topology

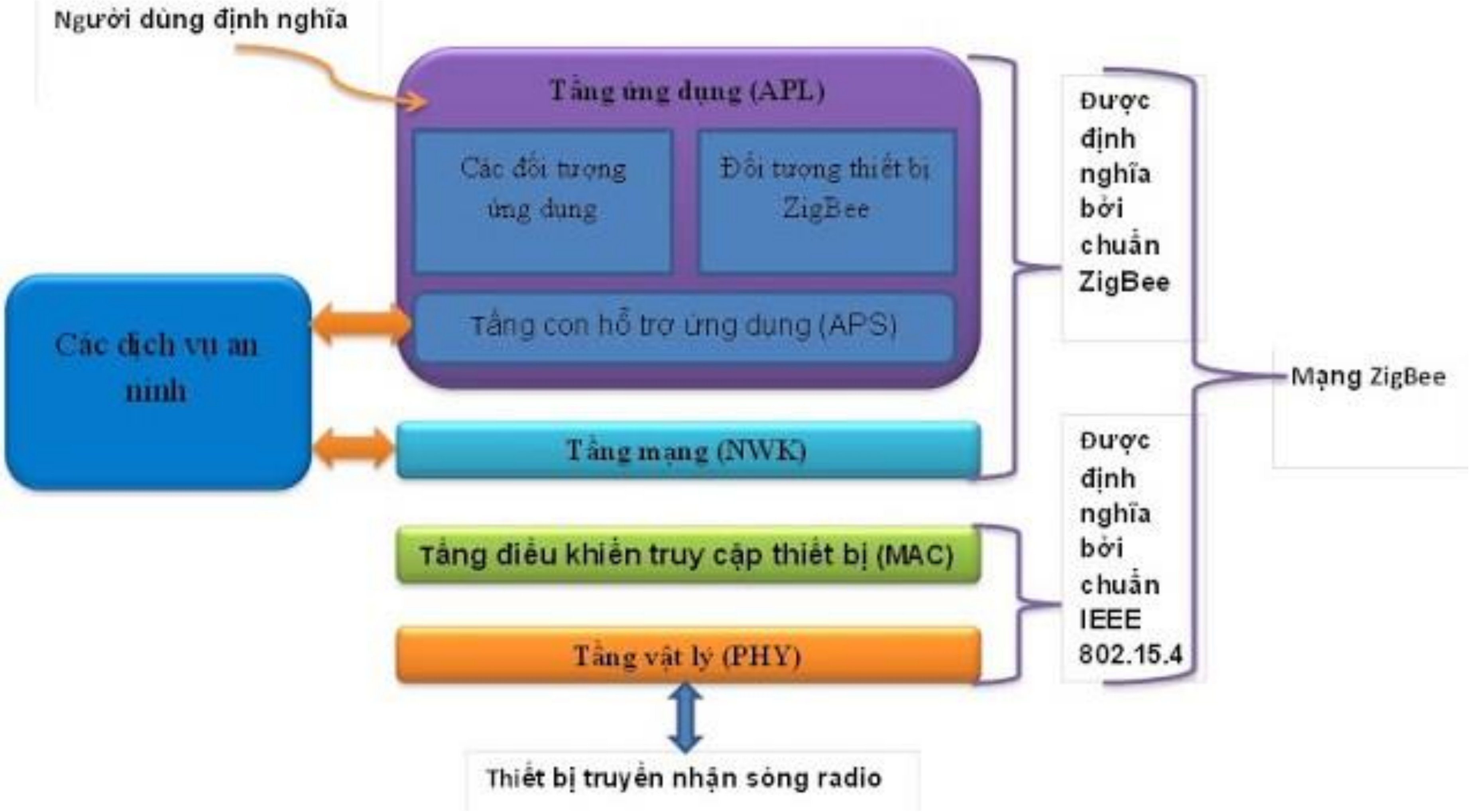
Structure

Physic Floor
Mac Floor
Web Floor
APS Floor
ZDO Floor
APO Floor

Components

ZC - Zigbee Coordinator
ZR - Zigbee Router
ZED - Zigbee End Device

Zigbee Working Process


Người dùng định nghĩa
Tầng ứng dụng (APL)
Các đối tượng ứng dụng
Đối tượng thiết bị ZigBee
Tầng con hỗ trợ ứng dụng (APS)
Các dịch vụ an ninh
Tầng mạng (NWK)
Tầng điều khiển truy cập thiết bị (MAC)
Tầng vật lý (PHY)
Thiết bị truyền nhận sóng radio
Được định nghĩa bởi chuẩn ZigBee
Được định nghĩa bởi chuẩn IEEE 802.15.4
Mạng ZigBee

Popular Application

SAMSUNG

PHILIPS

invensys

ember

Honeywell

MOTOROLA

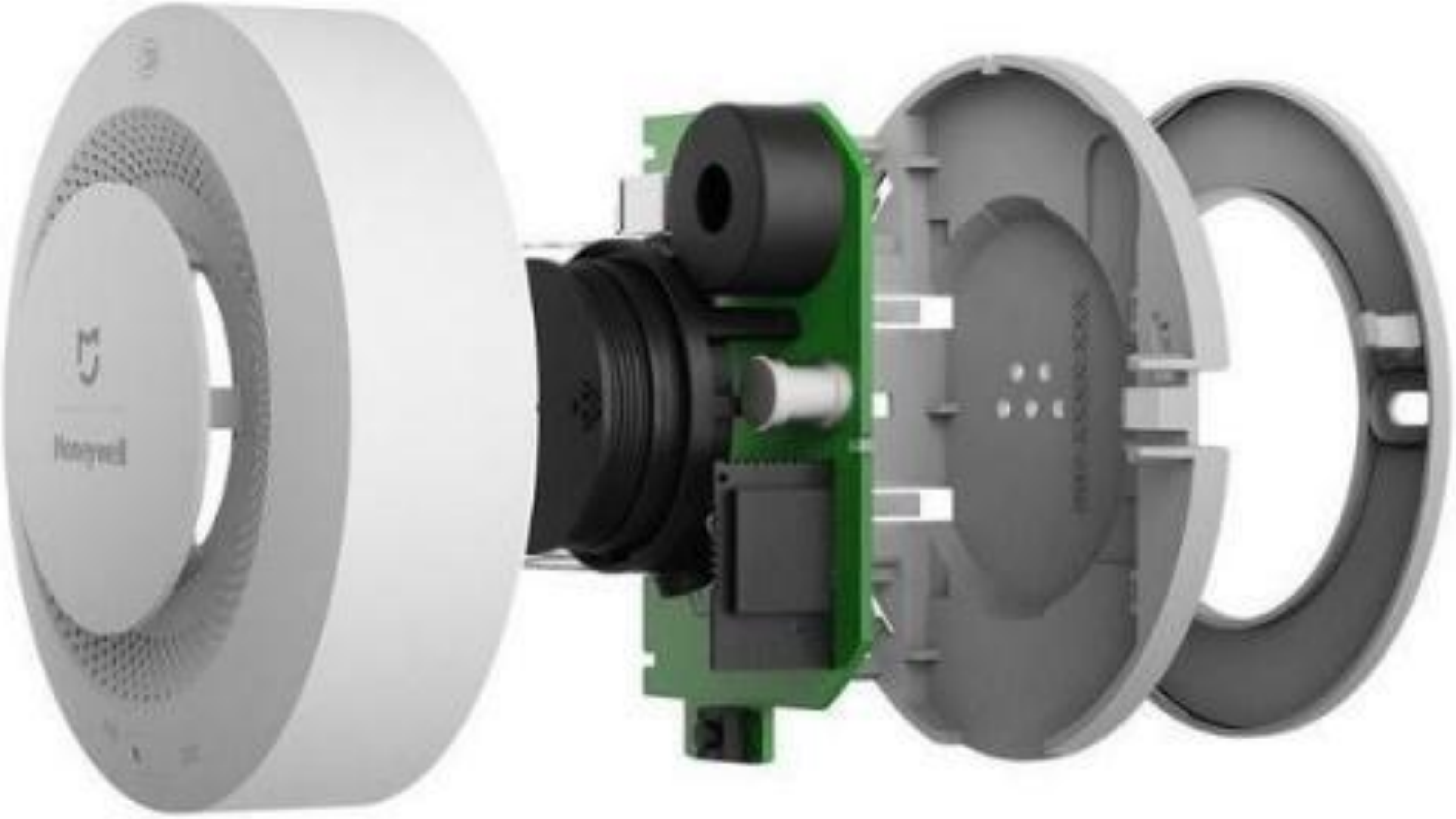
05.06.40
PERSONAL NUTRITION
SUGGESTED MEAL
ANALYSIS

ZIGBEE TECHNOLOGY – an indispensable wireless hi-tech in every smart house

XIAOMI HONEYWELL – FIRE ALERT APPLYING ZIGBEE SYSTEM

PRICE: 600.000 VND

Inner Structure



Xiaomi’s device control mobile app

3

SPECIFY REQUIREMENTS

Use QR for meter's ID assign

Use OCR to scan numbers then upload to database

Add automatical payment method for FAP wallet

Suitability for both Guards and Students

Provide wifi around the dormitory and university area

Account management for 2 kinds of users

Reduce Inaccuracies

Need a database for transferring information and alert

Simplify Usability and Accelerate all process

4 DESIGN PROPOSAL & PRE-DESIGN

4.1 USER SKETCH

Ages	18-24	35-65
Occupation	Student	Guard
Income	No Income / Low Average	Low average
Hobbies	- Using Smartphone for facebook and games - Using PC, laptop to play games, watch clips - Joining extracurricular activities - Drinking Coffee, eating junk food	- Reading Newspaper - Write down notes - Talking and Making Acquaintance - Using Smartphone for Radio and Watch TV or news - Drinking tea, smoking
Signature traits	- Hate complicated process - Usually get distracted from living environment. - Spend a lot of time on Social Networks. - Don't use the working time effectively.	- Bad Health - Hard to Read and See, usually make mistakes - Slow approach to Modernity - Takes long time to solve, usually disturbing - Old-fashioned - Work hard but ineffectively
Objectives	- Simple and Fast - Easy to Use - Fewer Mistakes	- Simple and Fast - Easy to Use - Easy to Read - Fewer Mistakes
Operating system	iOS, Android, MacOS, Window	iOS, Android

4 DESIGN PROPOSAL & PRE-DESIGN

4.2 EMPATHY MAP

Son-55, Guard

Says

- Is your name Trung? Your ID is SE05465 right ?
- Let's check the form now
- I have to collect your room monthly usage
- I have to see how is the status of your room items
- You have not thrown the garbage bags yet

Does

- Sign the form
- I have to submit all this usage to admin
- Notice the alert in dormitory
- Need to open the clock to see the number
- Check the room info
- Write down notes

Thinks

- There must be some other ways to do it faster
- Will I make any mistake?
- I'm so tired, but I have to finish it fast
- Will the students trick me? Will they listen to me ?
- wish i have some help
- No other ways to do it easier ?
- Just make it modern and fast

Feels

- The job is so tired
- I must not be lazy, it is compulsory for me
- I like this job, it's fine
- Mistakes are so troublesome

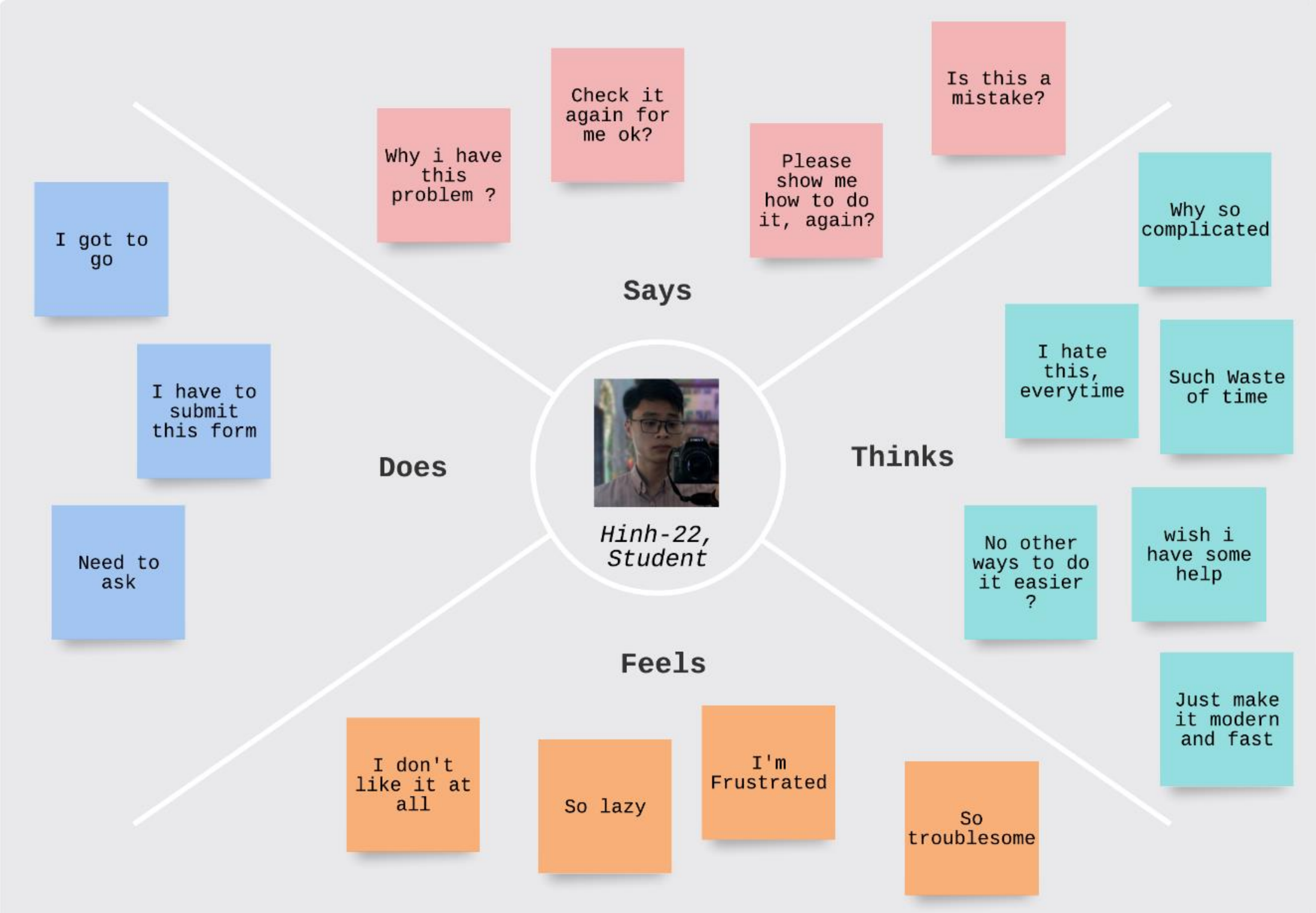
Pains

- *I'm exhausted sometimes*
- *Mistake happens usually*
- *Security is good but some student does not follow it*
- *It takes too much workforce from us to do the job by manual actions*

GUARD

Gains

- *I got good feedback from most of student*
- *Student helps me a lot in finishing my job*
- *This job is ok*
- *All is under control*
- *Mistake can be fixed*



Says

Why i have this problem ?

Check it again for me ok?

Please show me how to do it, again?

Is this a mistake?

Does

I got to go

I have to submit this form

Need to ask

Hinh-22, Student

Thinks

Why so complicated

I hate this, everytime

Such Waste of time

No other ways to do it easier ?

wish i have some help

Just make it modern and fast

Feels

I don't like it at all

So lazy

I'm Frustrated

So troublesome

Gains

- *Finally I can book my bed*
- *I want an easier access*
- *At least my ask is approved and my requirement has been fulfilled*

STUDENT

Pains

- *I'm so fed up with this process, I'm too lazy and tired to do, I have my own work to be busy for.*
- *Why always got me in trouble with wrong usage and payment?*
- *System interface is so ugly.*

4 DESIGN PROPOSAL & PRE-DESIGN

4.3 USER PERSONA

GUARD

Nguyễn Văn Sơn

Bảo vệ KTX FU-HL

"Tôi yêu công việc này. Tôi muốn nó được làm theo cách hiện đại nhưng hãy chỉ cho tôi hiểu theo cách của người già chúng tôi"

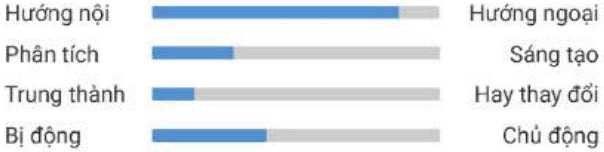
Demographics

Họ và Tên	Nguyễn Văn Sơn
Tuổi	55
Nghề nghiệp	Bảo vệ cty TN
Đơn vị	KTX FU-HL
Tình trạng QH	Đã lập gia đình

Bio

Bác Sơn là một bảo vệ có kinh nghiệm nghề nghiệp lâu năm. Hiện tại đã làm việc ở KTX - FU được gần một năm. Tuy nhiên vì bác cũng đã lớn tuổi nên đầu óc và trí nhớ có đôi chút giảm sút nên trong công việc bác đều phải rất tập trung và ghi chép lại mọi thứ thật kỹ lưỡng. Vì vậy sẽ tốn thêm nhiều thời gian hơn để hoàn thành các công việc.

Personality



Pain - Points

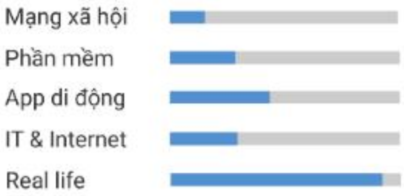
- Vì tuổi cao nên đầu óc và trí nhớ có đôi chút giảm sút
- Thị lực không còn tốt
- Sức khoẻ có chút giảm sút

Needs and Goals

- Có một ứng dụng có thể giúp quản lý và xử lý các vấn đề về KTX
- Ứng dụng dễ sử dụng
- Giao diện dễ nhìn, chữ và nút bấm to rõ ràng
- Ứng dụng có tính năng báo cháy để tăng độ an toàn cho KTX, khi xảy ra sự cố có thể thông báo ngay về điện thoại để kịp thời xử lý

Pattern Behavior

Công nghệ ưu tiên



Nhãn hiệu ưa thích

Google NOKIA

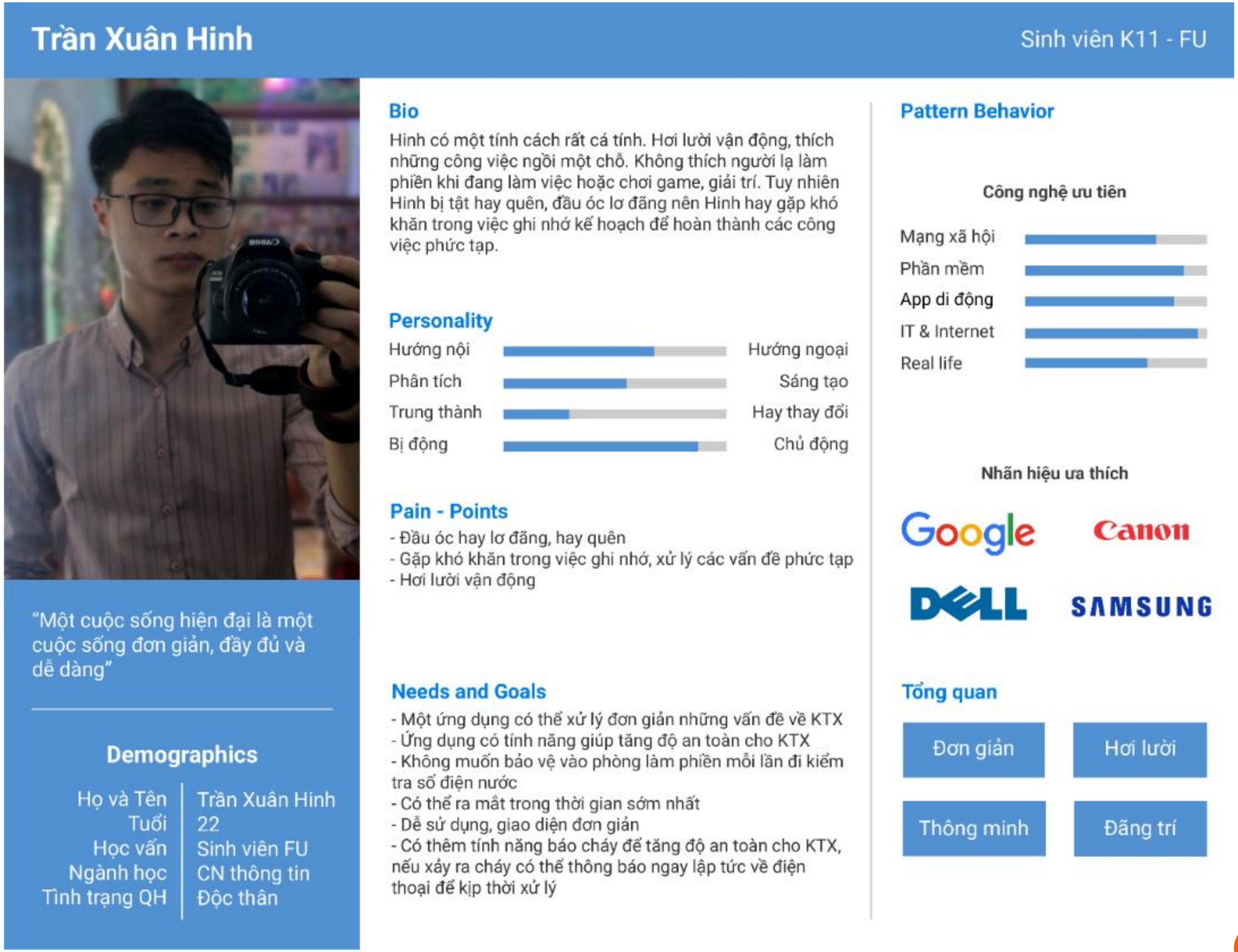
HONDA SAMSUNG

Tổng quan

Siêng năng | Tốt bụng

Cao tuổi | Đãng trí

STUDENT



Trần Xuân Hinh

Sinh viên K11 - FU

Bio

Hinh có một tính cách rất cá tính. Hơi lười vận động, thích những công việc ngồi một chỗ. Không thích người lạ làm phiền khi đang làm việc hoặc chơi game, giải trí. Tuy nhiên Hinh bị tật hay quên, đầu óc lơ đãng nên Hinh hay gặp khó khăn trong việc ghi nhớ kế hoạch để hoàn thành các công việc phức tạp.

Personality

Hướng nội	Hướng ngoại
Phân tích	Sáng tạo
Trung thành	Hay thay đổi
Bị động	Chủ động

Pain - Points

- Đầu óc hay lơ đãng, hay quên
- Gặp khó khăn trong việc ghi nhớ, xử lý các vấn đề phức tạp
- Hơi lười vận động

Needs and Goals

- Một ứng dụng có thể xử lý đơn giản những vấn đề về KTX
- Ứng dụng có tính năng giúp tăng độ an toàn cho KTX
- Không muốn bảo vệ vào phòng làm phiền mỗi lần đi kiểm tra số điện nước
- Có thể ra mắt trong thời gian sớm nhất
- Dễ sử dụng, giao diện đơn giản
- Có thêm tính năng báo cháy để tăng độ an toàn cho KTX, nếu xảy ra cháy có thể thông báo ngay lập tức về điện thoại để kịp thời xử lý

Pattern Behavior

Công nghệ ưu tiên

Mạng xã hội
Phần mềm
App di động
IT & Internet
Real life

Nhãn hiệu ưa thích

Google
Canon
DELL
SAMSUNG

Tổng quan

Đơn giản
Hơi lười
Thông minh
Đãng trí

"Một cuộc sống hiện đại là một cuộc sống đơn giản, đầy đủ và dễ dàng"

Demographics

Họ và Tên	Trần Xuân Hinh
Tuổi	22
Học vấn	Sinh viên FU
Ngành học	CN thông tin
Tình trạng QH	Độc thân

4 DESIGN PROPOSAL & PRE-DESIGN

4.4 USER JOURNEY MAP

GUARD

Persona

Bác Sơn, 55 tuổi, bảo vệ KTX - ĐH FPT

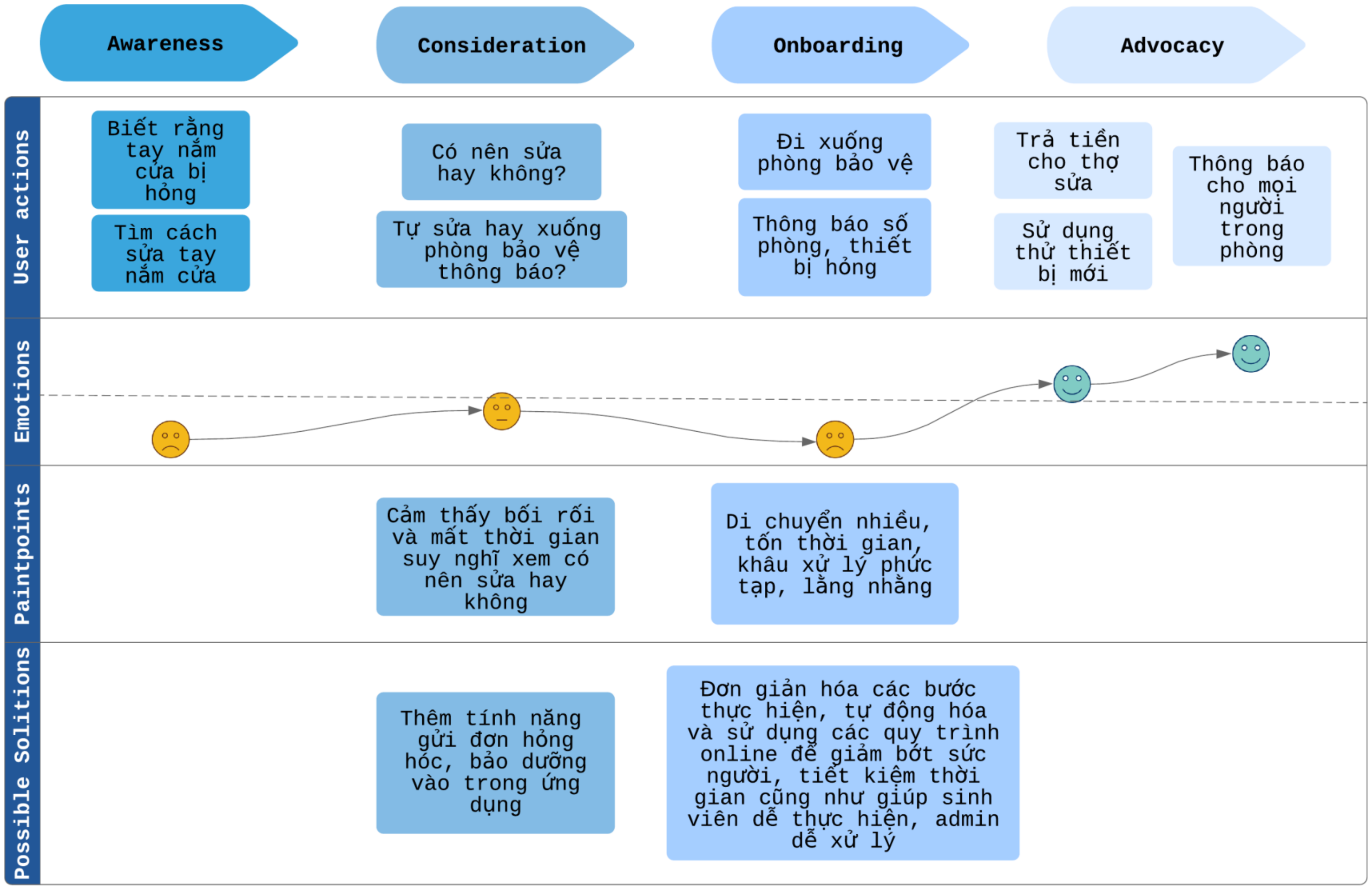
Scenario

Bác Sơn làm việc trong ktx của trường. Như thường lệ bác đi lấy số điện nước hàng tháng. Bác cần biết chính xác và nhanh chóng số điện nước tiêu thụ của phòng sinh viên đang ở.

	Awareness	Consideration	Onboarding	Advocacy
User actions	Biết rằng đã đến thời gian đi lấy số điện nước định kỳ hàng tháng Chuẩn bị những gì cần thiết để đi thu thập số điện nước	Mình có thể hoàn thành nhanh chóng và đúng tiến độ hay bị sai sót hay không Suy nghĩ không biết lần này mình có gặp sai sót gì không	Đi đến các phòng để thu thập số điện nước Kiểm tra số điện nước thủ công, ghi lại bằng giấy bút	Đem số liệu đã thu thập được về để tổng hợp Gửi lại số điện nước đã thu thập được cho nhà trường
Emotions	😐	☹	☹	☺
Paintpoints		Cảm thấy bối rối và suy nghĩ ko biết lần này có kịp tiến độ hoặc có bị sai sót gì hay không	Ghi chép lại một cách thủ công bằng giấy bút, gây tốn thời gian và độ chính xác không cao	
Possible Solitions		Thêm tính năng quét số điện nước bằng công nghệ	Đơn giản hóa các bước thực hiện, tự động hóa và sử dụng các quy trình online để giảm bớt sức người, tiết kiệm thời gian cũng như giúp bảo vệ dễ thực hiện, admin dễ xử lý	

STUDENT

Persona	Scenario
Hinh, 22t, sinh viên lập trình, ĐH FPT	Hinh sống trong ktx của trường. Một hôm phòng Hinh bị hỏng tay nắm cửa. Hinh cần thông báo hỏng thiết bị để phòng bảo vệ xử lý.



	Awareness	Consideration	Onboarding	Advocacy	
User actions	Biết rằng tay nắm cửa bị hỏng Tìm cách sửa tay nắm cửa	Có nên sửa hay không? Tự sửa hay xuống phòng bảo vệ thông báo?	Đi xuống phòng bảo vệ Thông báo số phòng, thiết bị hỏng	Trả tiền cho thợ sửa Sử dụng thử thiết bị mới	Thông báo cho mọi người trong phòng
Emotions	☹	😐	☹	☺	☺
Paintpoints		Cảm thấy bối rối và mất thời gian suy nghĩ xem có nên sửa hay không	Di chuyển nhiều, tốn thời gian, khâu xử lý phức tạp, lằng nhằng		
Possible Solitions		Thêm tính năng gửi đơn hỏng hóc, bảo dưỡng vào trong ứng dụng	Đơn giản hóa các bước thực hiện, tự động hóa và sử dụng các quy trình online để giảm bớt sức người, tiết kiệm thời gian cũng như giúp sinh viên dễ thực hiện, admin dễ xử lý		

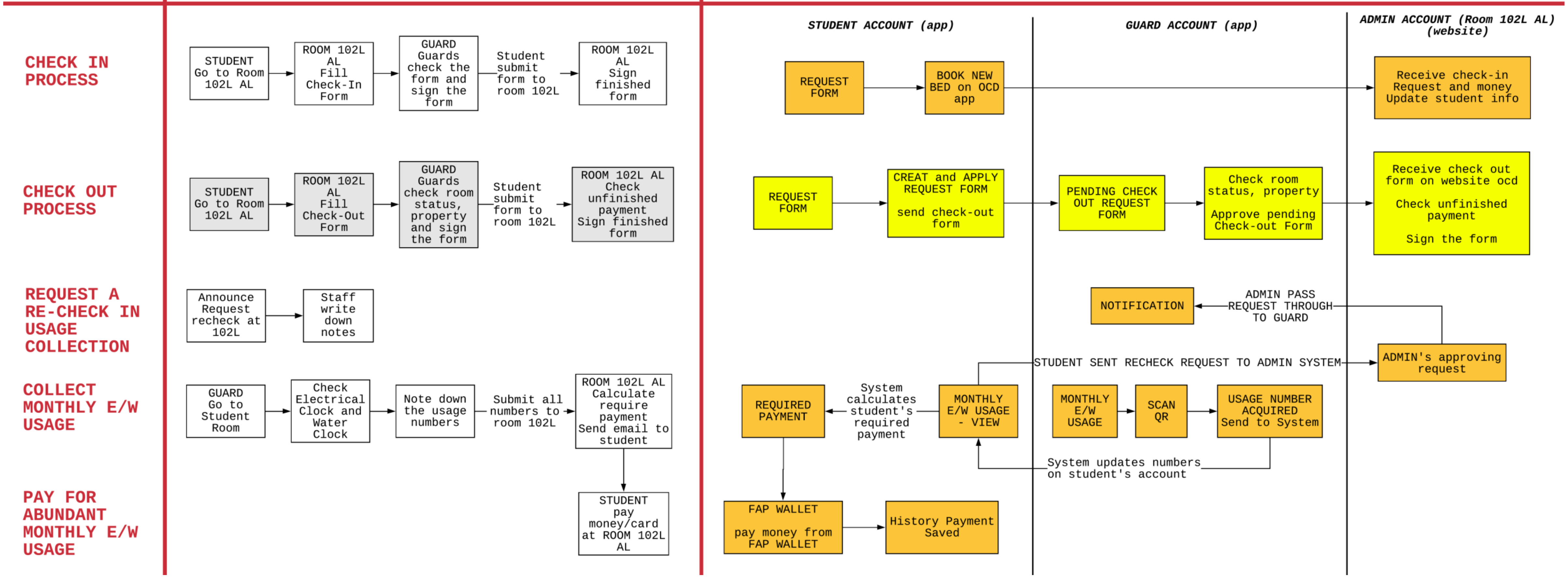
4 DESIGN PROPOSAL & PRE-DESIGN

4.5 WORKFLOW ANALYSIS

BEFORE OCD METHOD

AFTER OCD METHOD

(Some methods are developed idea compared with current OCD website)



STUDENT ACCOUNT (app)

GUARD ACCOUNT (app)

ADMIN ACCOUNT (Room 102L AL) (website)

CHECK IN PROCESS

STUDENT Go to Room 102L AL → ROOM 102L AL Fill Check-In Form → GUARD Guards check the form and sign the form → Student submit form to room 102L → ROOM 102L AL Sign finished form

REQUEST FORM → BOOK NEW BED on OCD app → Receive check-in Request and money Update student info

CHECK OUT PROCESS

STUDENT Go to Room 102L AL → ROOM 102L AL Fill Check-Out Form → GUARD Guards check room status, property and sign the form → Student submit form to room 102L → ROOM 102L AL Check unfinished payment Sign finished form

REQUEST FORM → CREAT and APPLY REQUEST FORM send check-out form → PENDING CHECK OUT REQUEST FORM → Check room status, property Approve pending Check-out Form → Receive check out form on website ocd Check unfinished payment Sign the form

REQUEST A RE-CHECK IN USAGE COLLECTION

Announce Request recheck at 102L → Staff write down notes

STUDENT SENT RECHECK REQUEST TO ADMIN SYSTEM → ADMIN's approving request → ADMIN PASS REQUEST THROUGH TO GUARD → NOTIFICATION

COLLECT MONTHLY E/W USAGE

GUARD Go to Student Room → Check Electrical Clock and Water Clock → Note down the usage numbers → Submit all numbers to room 102L → ROOM 102L AL Calculate require payment Send email to student

MONTHLY E/W USAGE → SCAN QR → USAGE NUMBER ACQUIRED Send to System → System updates numbers on student's account → MONTHLY E/W USAGE - VIEW → System calculates student's required payment → REQUIRED PAYMENT

PAY FOR ABUNDANT MONTHLY E/W USAGE

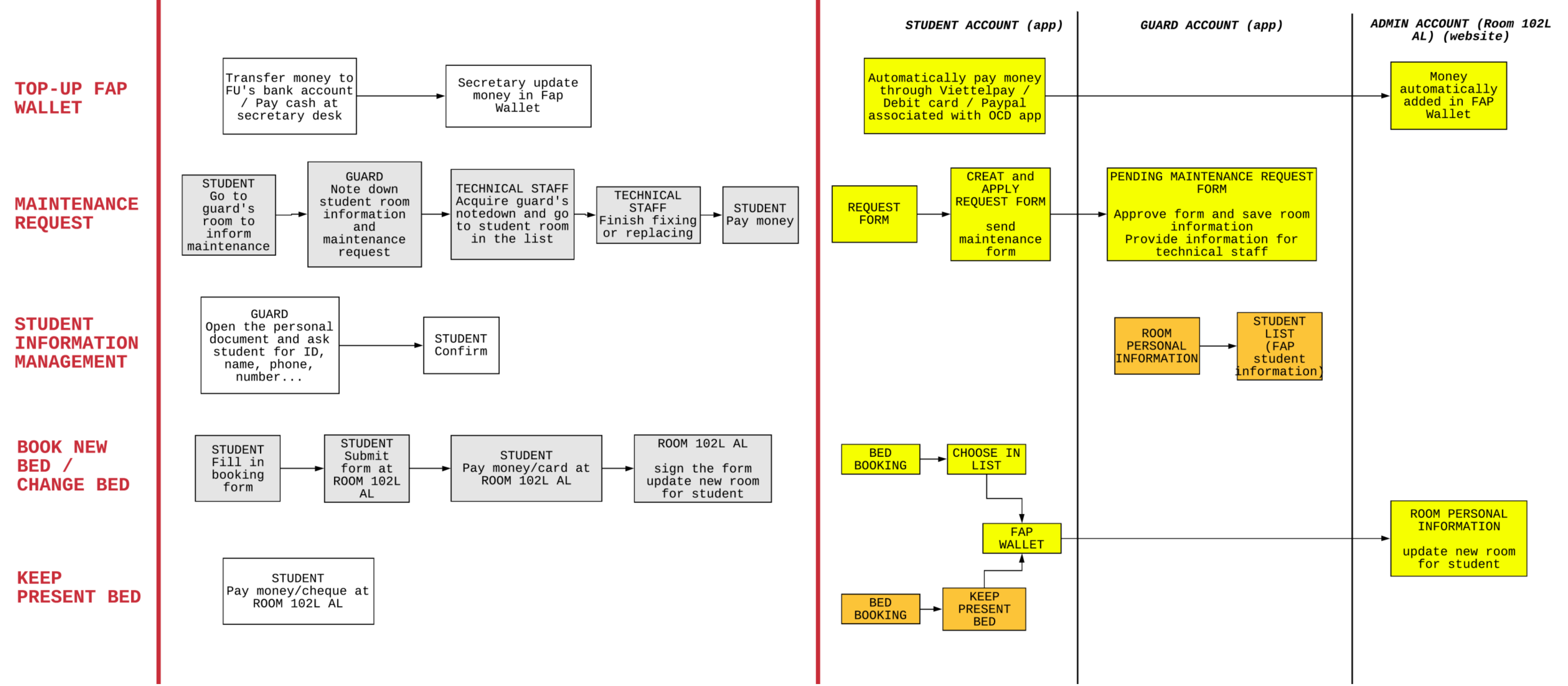
STUDENT pay money/card at ROOM 102L AL

REQUIRED PAYMENT → FAP WALLET pay money from FAP WALLET → History Payment Saved

BEFORE OCD METHOD

AFTER OCD METHOD

(Some methods are developed idea compared with current OCD website)



STUDENT ACCOUNT (app)

GUARD ACCOUNT (app)

ADMIN ACCOUNT (Room 102L AL) (website)

TOP-UP FAP WALLET

Transfer money to FU's bank account / Pay cash at secretary desk

Secretary update money in Fap Wallet

Automatically pay money through Viettelpay / Debit card / Paypal associated with OCD app

Money automatically added in FAP Wallet

MAINTENANCE REQUEST

STUDENT Go to guard's room to inform maintenance

GUARD Note down student room information and maintenance request

TECHNICAL STAFF Acquire guard's notedown and go to student room in the list

TECHNICAL STAFF Finish fixing or replacing

STUDENT Pay money

REQUEST FORM

CREAT and APPLY REQUEST FORM

send maintenance form

PENDING MAINTENANCE REQUEST FORM

Approve form and save room information

Provide information for technical staff

STUDENT INFORMATION MANAGEMENT

GUARD Open the personal document and ask student for ID, name, phone, number...

STUDENT Confirm

ROOM PERSONAL INFORMATION

STUDENT LIST (FAP student information)

BOOK NEW BED / CHANGE BED

STUDENT Fill in booking form

STUDENT Submit form at ROOM 102L AL

STUDENT Pay money/card at ROOM 102L AL

ROOM 102L AL

sign the form update new room for student

BED BOOKING

CHOOSE IN LIST

FAP WALLET

ROOM PERSONAL INFORMATION

update new room for student

KEEP PRESENT BED

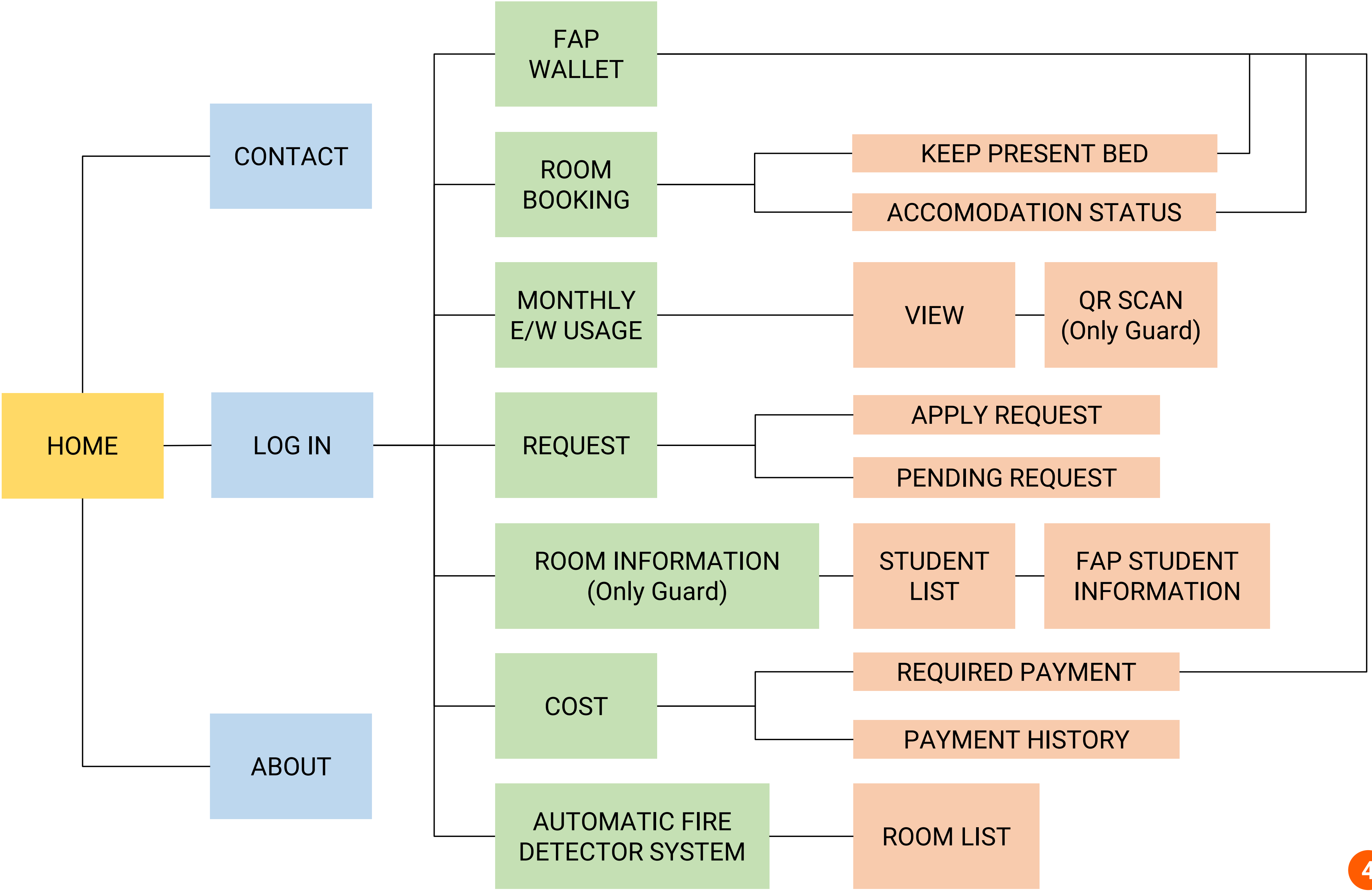
STUDENT Pay money/cheque at ROOM 102L AL

BED BOOKING

KEEP PRESENT BED

4 DESIGN PROPOSAL & PRE-DESIGN

4.6 FIRST SITEMAP



HOME

CONTACT

LOG IN

ABOUT

FAP WALLET

ROOM BOOKING

KEEP PRESENT BED

ACCOMODATION STATUS

MONTHLY E/W USAGE

VIEW

QR SCAN (Only Guard)

REQUEST

APPLY REQUEST

PENDING REQUEST

ROOM INFORMATION (Only Guard)

STUDENT LIST

FAP STUDENT INFORMATION

COST

REQUIRED PAYMENT

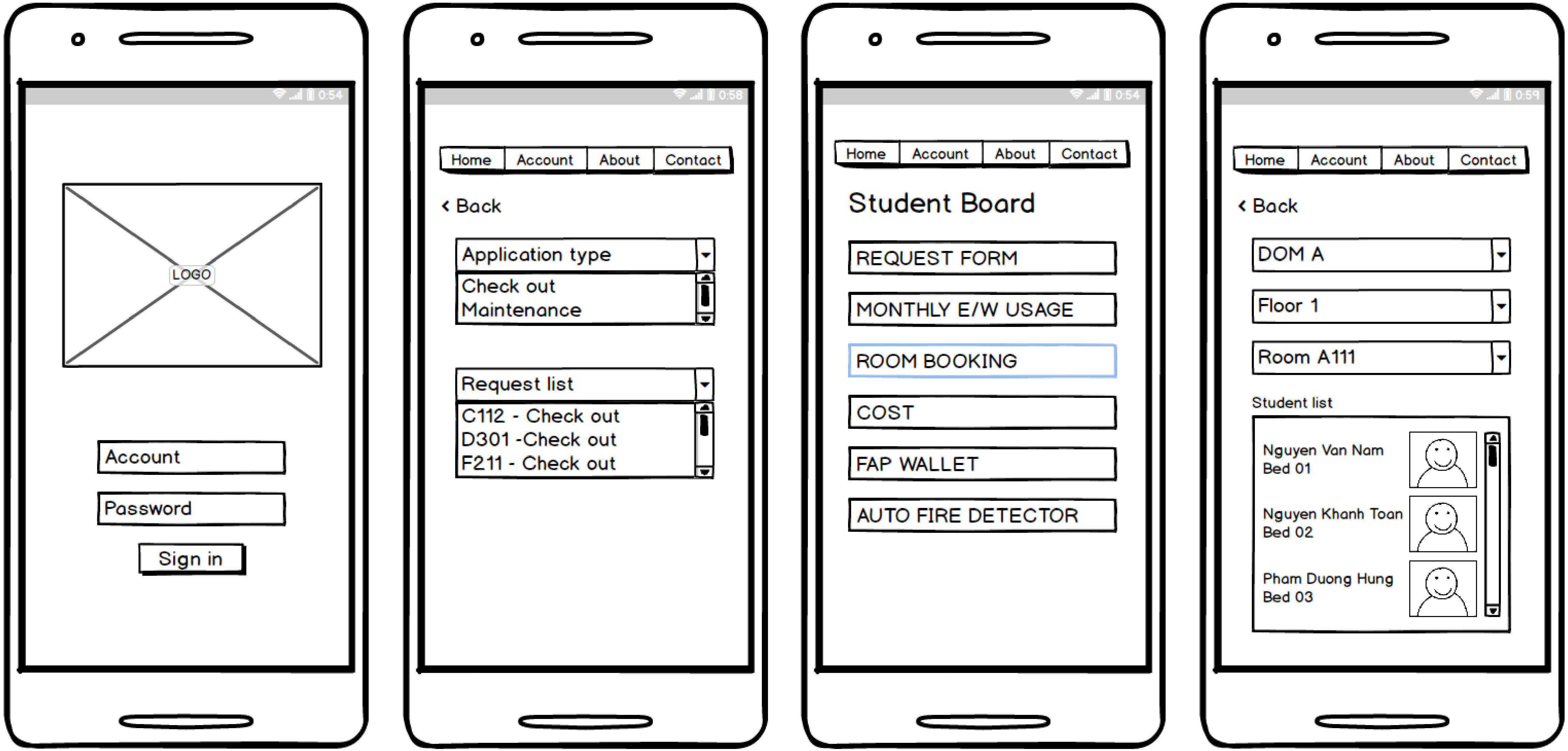
PAYMENT HISTORY

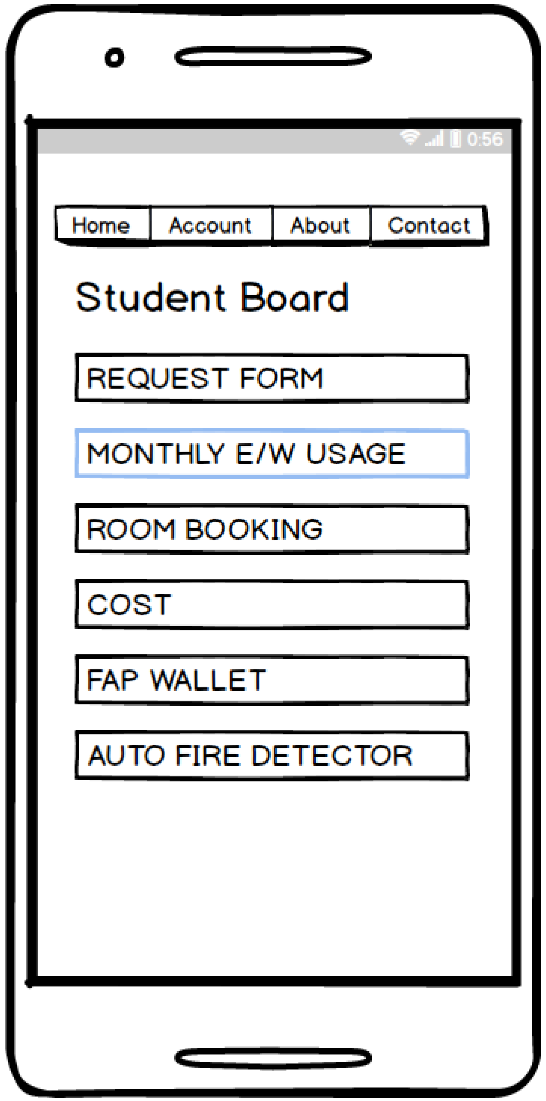
AUTOMATIC FIRE DETECTOR SYSTEM

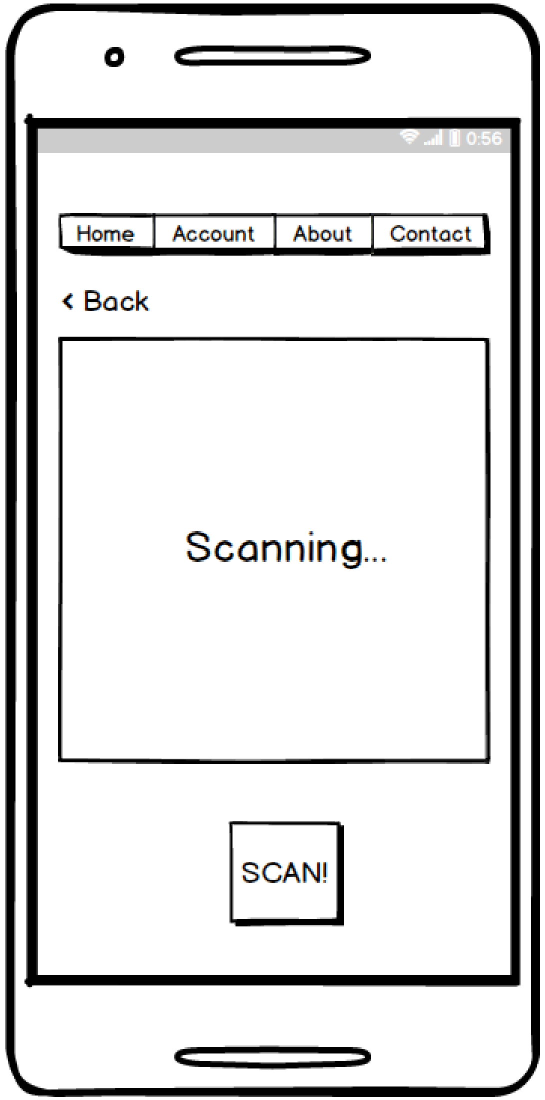
ROOM LIST

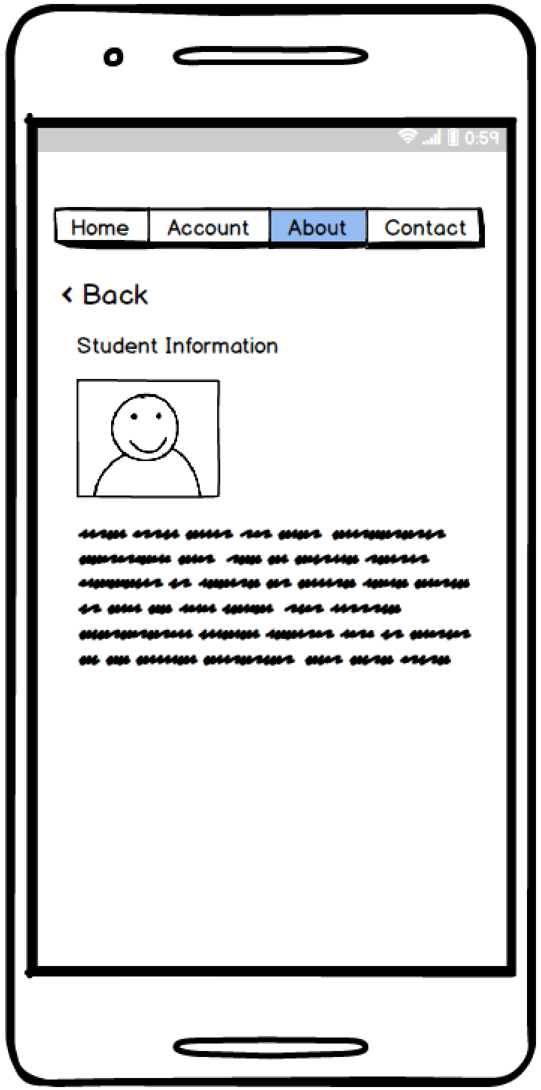
4 DESIGN PROPOSAL & PRE-DESIGN

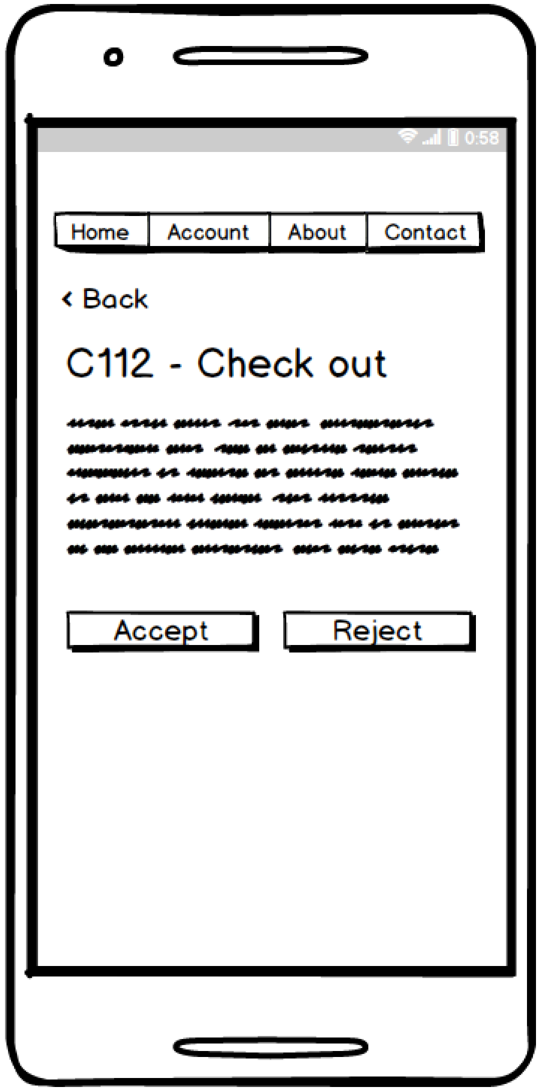
4.7 FIRST PROTOTYPE – BASIC BALSAMIQ


0:54
LOGO
Account
Password
Sign in
0:58
Home
Account
About
Contact
Back
Application type
Check out
Maintenance
Request list
C112 - Check out
D301 -Check out
F211 - Check out
0:54
Home
Account
About
Contact
Student Board
REQUEST FORM
MONTHLY E/W USAGE
ROOM BOOKING
COST
FAP WALLET
AUTO FIRE DETECTOR
0:59
Home
Account
About
Contact
Back
DOM A
Floor 1
Room A111
Student list
Nguyen Van Nam
Bed 01
Nguyen Khanh Toan
Bed 02
Pham Duong Hung
Bed 03


0:56
Home
Account
About
Contact
Student Board
REQUEST FORM
MONTHLY E/W USAGE
ROOM BOOKING
COST
FAP WALLET
AUTO FIRE DETECTOR


0:56
Home
Account
About
Contact
‹ Back
Scanning...
SCAN!


0:59
Home
Account
About
Contact
‹ Back
Student Information


0:58
Home
Account
About
Contact
‹ Back
C112 - Check out
Accept
Reject

FIRST TEST CONCLUSION & IMPROVEMENT

WEAKNESSES POINTED OUT	HOW WE FIX
Guard will not be able to read and understand english	Enlarge the font size for guard account Default Vietnamese
What happen when students cannot make an emergency call?	Add an emergency chat box for student to chat with guards
FAP Wallet should not let out on Home as a function, that's too redundant	Put FAP wallet inside payment. Just let balance show outside on a small cornet
Fire Alert is a special feature, should not let it out at HOME as a normal main function	Only let Fire Alert show up in a special pop-up, has its own design and only appear when needed
Spell Mistake	"Request" changed to "Form|
Guard will not be able to see clearly sometimes especially when doing some important process like USAGE COLLECTION	Add a voice to read for Guards.
RFID cannot be applicable due to uncessary and it brings back too much hardship. Also expensive, and impossible to add to recognize meter ID. Also many RFID chips near each other, producing same waves at the same time, can create many conflicting waves which makes smartphone confuse and cannot detect the write wave.	Omit RFID, change to QR code and OCR only
Sitemap must not add both account types together because the website will not work, and it's impossible to create two parallel kinds of user in one account.	Must let guard account and student account be seperated. Two sitemap would be considered.

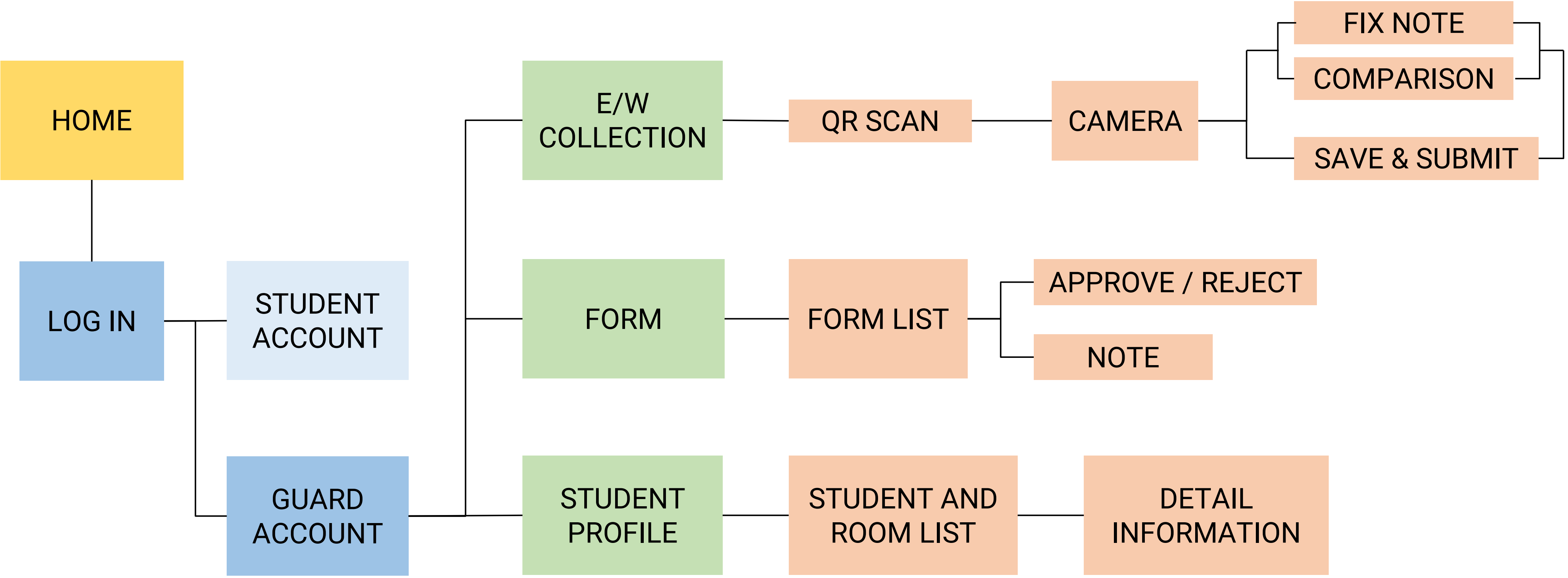
4

DESIGN PROPOSAL & PRE-DESIGN

4.8

FINAL SITEMAP

GUARD



HOME

LOG IN

STUDENT ACCOUNT

GUARD ACCOUNT

E/W COLLECTION

FORM

STUDENT PROFILE

QR SCAN

CAMERA

FIX NOTE

COMPARISON

SAVE & SUBMIT

FORM LIST

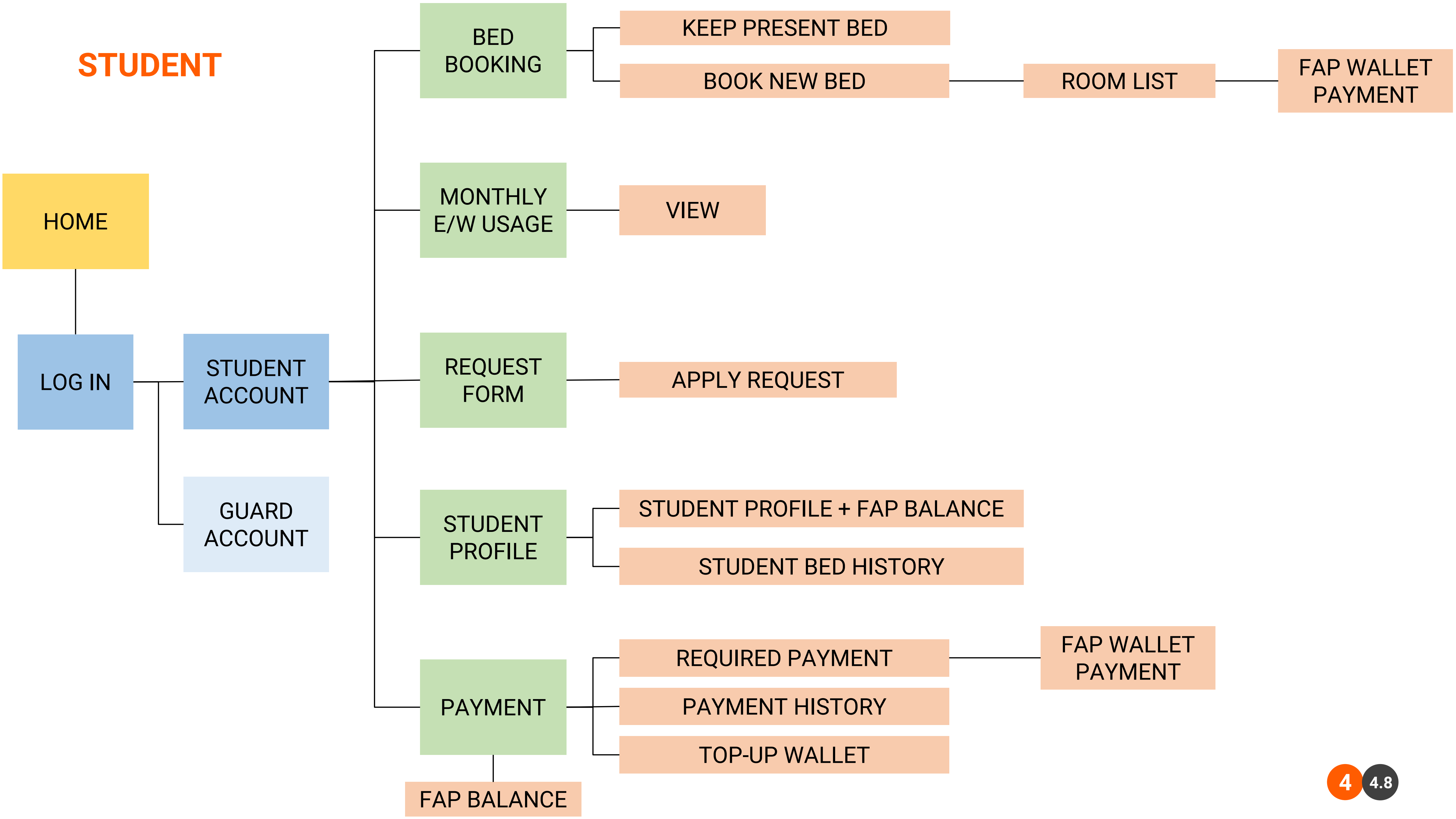
APPROVE / REJECT

NOTE

STUDENT AND ROOM LIST

DETAIL INFORMATION

STUDENT



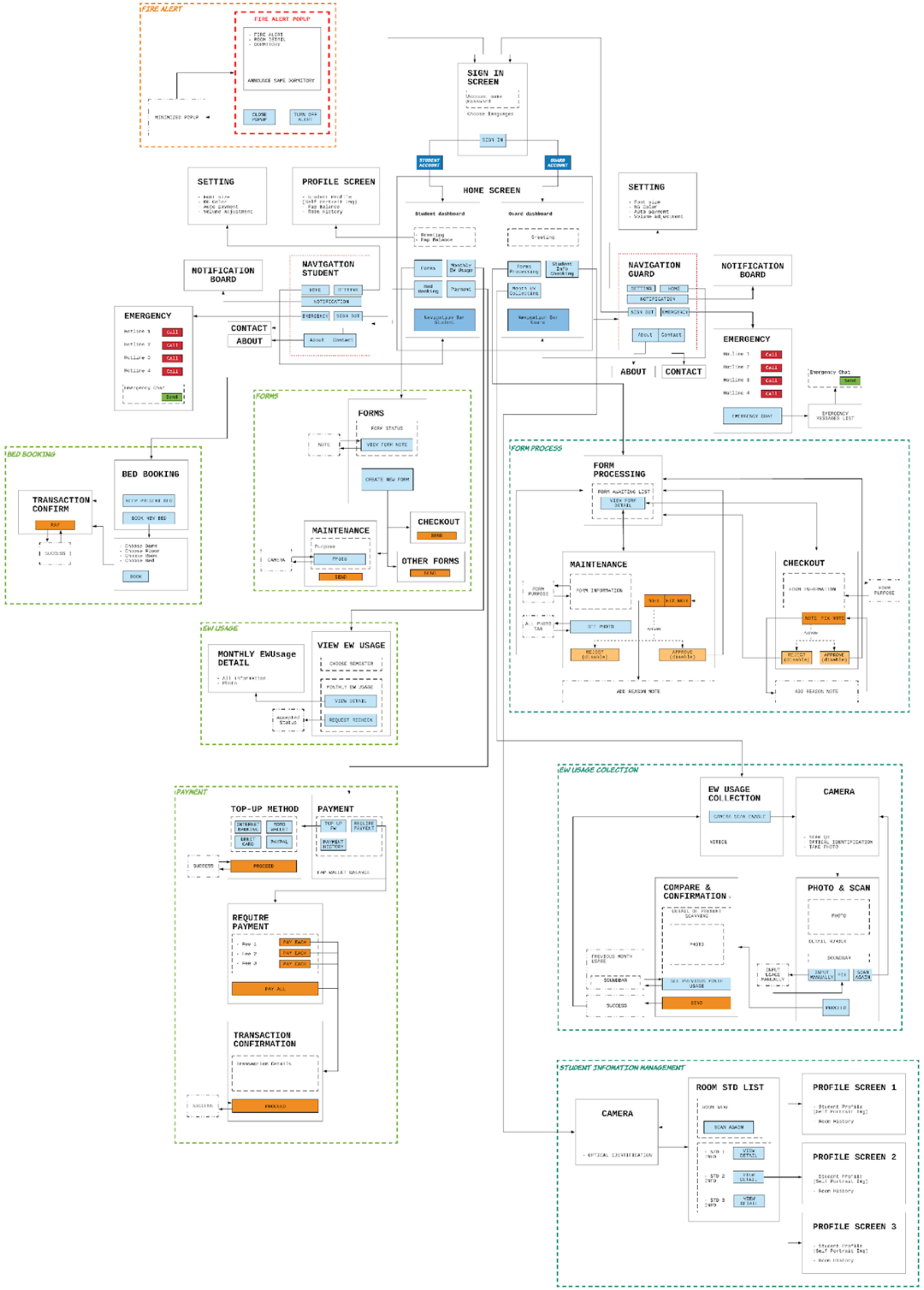
- HOME
  - LOG IN
    - STUDENT ACCOUNT
      - BED BOOKING
        - KEEP PRESENT BED
        - BOOK NEW BED
          - ROOM LIST
            - FAP WALLET PAYMENT
      - MONTHLY E/W USAGE
        - VIEW
      - REQUEST FORM
        - APPLY REQUEST
      - STUDENT PROFILE
        - STUDENT PROFILE + FAP BALANCE
        - STUDENT BED HISTORY
      - PAYMENT
        - FAP BALANCE
        - REQUIRED PAYMENT
          - FAP WALLET PAYMENT
        - PAYMENT HISTORY
        - TOP-UP WALLET
    - GUARD ACCOUNT

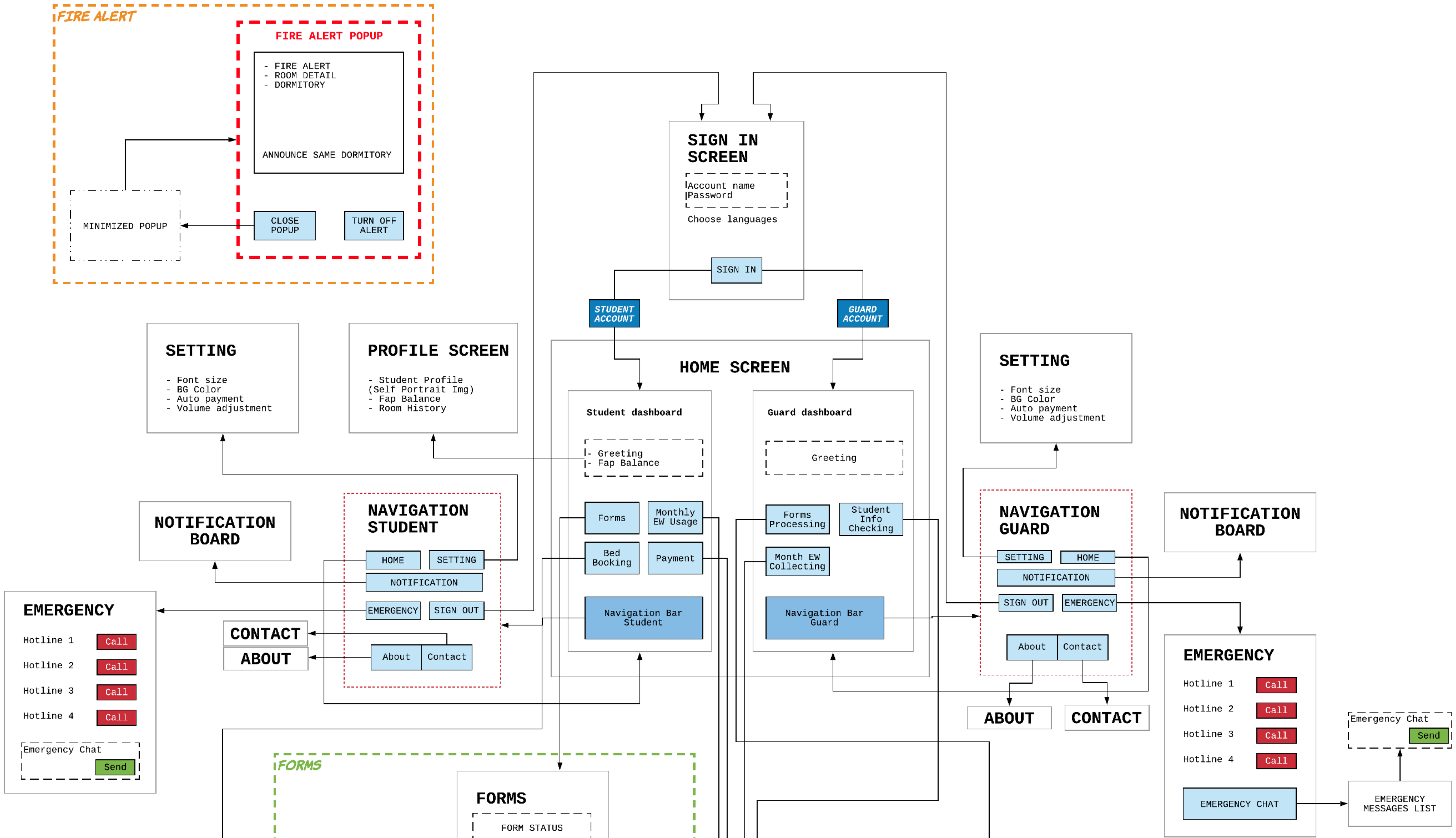
NAVIGATION BAR

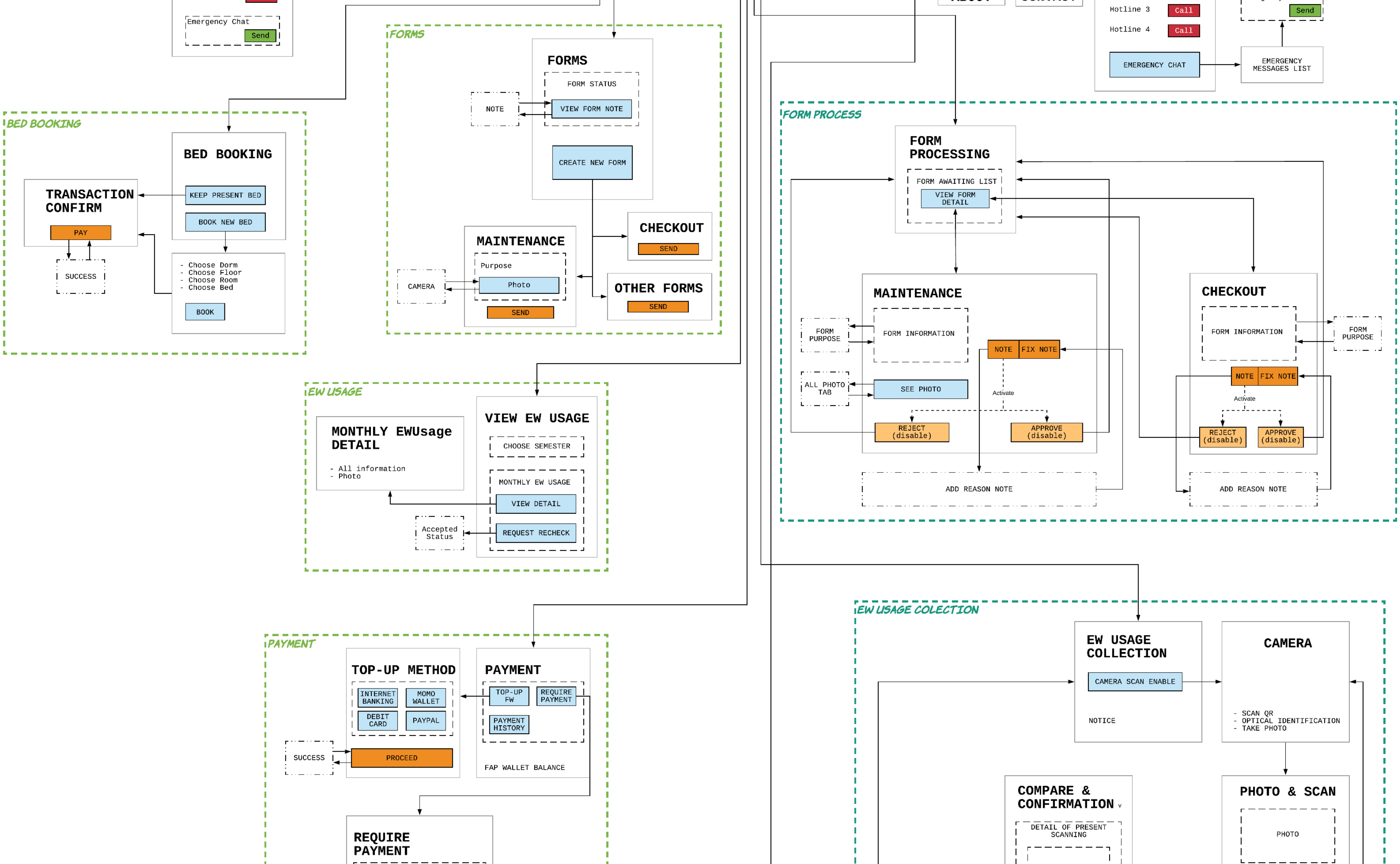
- EMERGENCY CALL
- HOME
- PROFILE
- NOTIFICATION
- SETTING
- EMERGENCY MESSAGE
- LOG OUT
- CONTACT
- ABOUT OCD
- FAP BALANCE

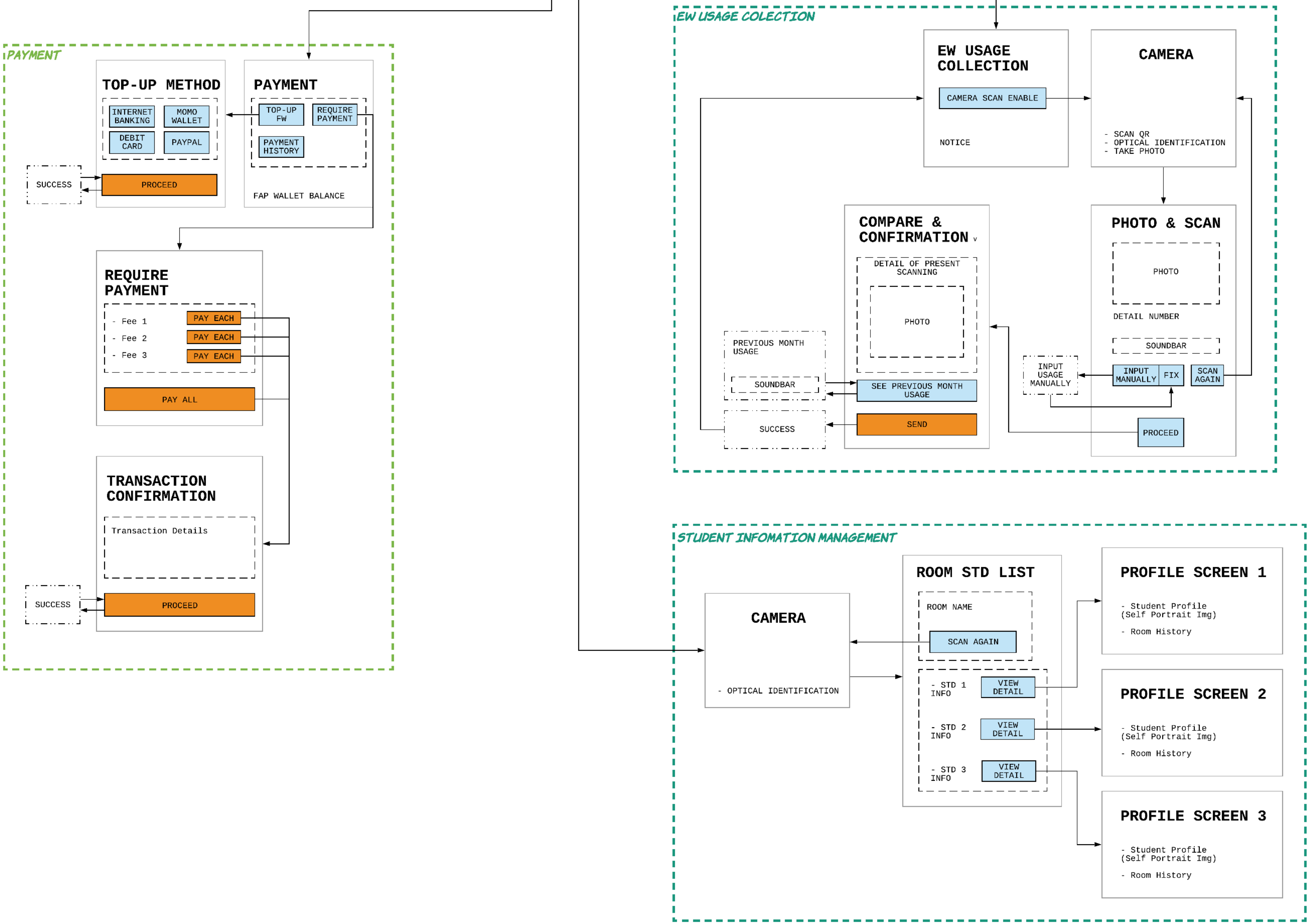
4 DESIGN PROPOSAL & PRE-DESIGN

4.9 SCREEN MAP


FIRE ALERT
FIRE ALERT POPUP
- FIRE ALERT
- ROOM DETAIL
- DORMITORY
ANNOUNCE SAME DORMITORY
CLOSE POPUP
TURN OFF ALERT
MINIMIZED POPUP
SIGN IN SCREEN
Account name password
Choose languages
SIGN IN
STUDENT ACCOUNT
GUARD ACCOUNT
HOME SCREEN
Student dashboard
- Greeting
- Fap Balance
Forms
Monthly EW Usage
Bed Booking
Payment
Navigation Bar Student
Guard dashboard
Greeting
Forms Processing
Student Info Checking
Month EW Collecting
Navigation Bar Guard
SETTING
- Font size
- BG Color
- Auto payment
- Volume adjustment
PROFILE SCREEN
- Student Profile (Self Portrait img)
- Fap Balance
- Room History
NOTIFICATION BOARD
NAVIGATION STUDENT
HOME
SETTING
NOTIFICATION
EMERGENCY
SIGN OUT
About
Contact
CONTACT
ABOUT
EMERGENCY
Hotline 1
Hotline 2
Hotline 3
Hotline 4
Call
Emergency Chat
Send
NAVIGATION GUARD
EMERGENCY CHAT
EMERGENCY MESSAGES LIST
BED BOOKING
TRANSACTION CONFIRM
PAY
SUCCESS
BOOK NEW BED
BOOK
FORMS
FORM STATUS
NOTE
VIEW FORM NOTE
CREATE NEW FORM
MAINTENANCE
CAMERA
SEND
CHECKOUT
OTHER FORMS
FORM PROCESS
FORM PROCESSING
FORM AWAITING LIST
VIEW FORM DETAIL
MAINTENANCE
FORM INFORMATION
ADD REASON NOTE
CHECKOUT
EW USAGE
MONTHLY EWUsage DETAIL
VIEW EW USAGE
CHOOSE SEMESTER
MONTHLY EW USAGE
VIEW DETAIL
REQUEST RECHECK
PAYMENT
TOP-UP METHOD
PROCEED
SUCCESS
PAYMENT
FAP WALLET BALANCE
REQUIRE PAYMENT DETAIL
PAY EACH
PAY ALL
TRANSACTION CONFIRMATION
EW USAGE COLLECTION
EW USAGE COLLECTION
CAMERA
PHOTO & SCAN
COMPARE & CONFIRMATION
SEND
SUCCESS
STUDENT INFOMATION MANAGEMENT
CAMERA
ROOM STD LIST
SCAN AGAIN
VIEW DETAIL
PROFILE SCREEN 1
PROFILE SCREEN 2
PROFILE SCREEN 3


FIRE ALERT
FIRE ALERT POPUP
- FIRE ALERT
- ROOM DETAIL
- DORMITORY
ANNOUNCE SAME DORMITORY
MINIMIZED POPUP
CLOSE POPUP
TURN OFF ALERT
SIGN IN SCREEN
Account name
Password
Choose languages
SIGN IN
STUDENT ACCOUNT
GUARD ACCOUNT
SETTING
- Font size
- BG Color
- Auto payment
- Volume adjustment
PROFILE SCREEN
- Student Profile
(Self Portrait Img)
- Fap Balance
- Room History
HOME SCREEN
Student dashboard
- Greeting
- Fap Balance
Forms
Monthly EW Usage
Bed Booking
Payment
Navigation Bar Student
Guard dashboard
Greeting
Forms Processing
Student Info Checking
Month EW Collecting
Navigation Bar Guard
SETTING
- Font size
- BG Color
- Auto payment
- Volume adjustment
NOTIFICATION BOARD
NAVIGATION STUDENT
HOME
SETTING
NOTIFICATION
EMERGENCY
SIGN OUT
About
Contact
CONTACT
ABOUT
EMERGENCY
Hotline 1
Call
Hotline 2
Call
Hotline 3
Call
Hotline 4
Call
Emergency Chat
Send
NAVIGATION GUARD
SETTING
HOME
NOTIFICATION
SIGN OUT
EMERGENCY
About
Contact
ABOUT
CONTACT
NOTIFICATION BOARD
EMERGENCY
Hotline 1
Call
Hotline 2
Call
Hotline 3
Call
Hotline 4
Call
EMERGENCY CHAT
Emergency Chat
Send
EMERGENCY MESSAGES LIST
FORMS
FORMS
FORM STATUS


Emergency Chat
Send
FORMS
FORMS
FORM STATUS
NOTE
VIEW FORM NOTE
CREATE NEW FORM
CHECKOUT
SEND
MAINTENANCE
Purpose
CAMERA
Photo
SEND
OTHER FORMS
SEND
BED BOOKING
BED BOOKING
TRANSACTION CONFIRM
KEEP PRESENT BED
BOOK NEW BED
PAY
SUCCESS
- Choose Dorm
- Choose Floor
- Choose Room
- Choose Bed
BOOK
EW USAGE
MONTHLY EWUsage DETAIL
- All information
- Photo
VIEW EW USAGE
CHOOSE SEMESTER
MONTHLY EW USAGE
VIEW DETAIL
Accepted Status
REQUEST RECHECK
PAYMENT
TOP-UP METHOD
INTERNET BANKING
MOMO WALLET
DEBIT CARD
PAYPAL
SUCCESS
PROCEED
PAYMENT
TOP-UP FW
REQUIRE PAYMENT
PAYMENT HISTORY
FAP WALLET BALANCE
REQUIRE PAYMENT
Hotline 3
Call
Hotline 4
Call
EMERGENCY CHAT
EMERGENCY MESSAGES LIST
Send
FORM PROCESS
FORM PROCESSING
FORM AWAITING LIST
VIEW FORM DETAIL
MAINTENANCE
FORM PURPOSE
FORM INFORMATION
ALL PHOTO TAB
SEE PHOTO
NOTE
FIX NOTE
Activate
REJECT (disable)
APPROVE (disable)
ADD REASON NOTE
CHECKOUT
FORM INFORMATION
FORM PURPOSE
NOTE
FIX NOTE
Activate
REJECT (disable)
APPROVE (disable)
ADD REASON NOTE
EW USAGE COLECTION
EW USAGE COLLECTION
CAMERA SCAN ENABLE
NOTICE
CAMERA
- SCAN QR
- OPTICAL IDENTIFICATION
- TAKE PHOTO
COMPARE & CONFIRMATION
DETAIL OF PRESENT SCANNING
PHOTO & SCAN
PHOTO

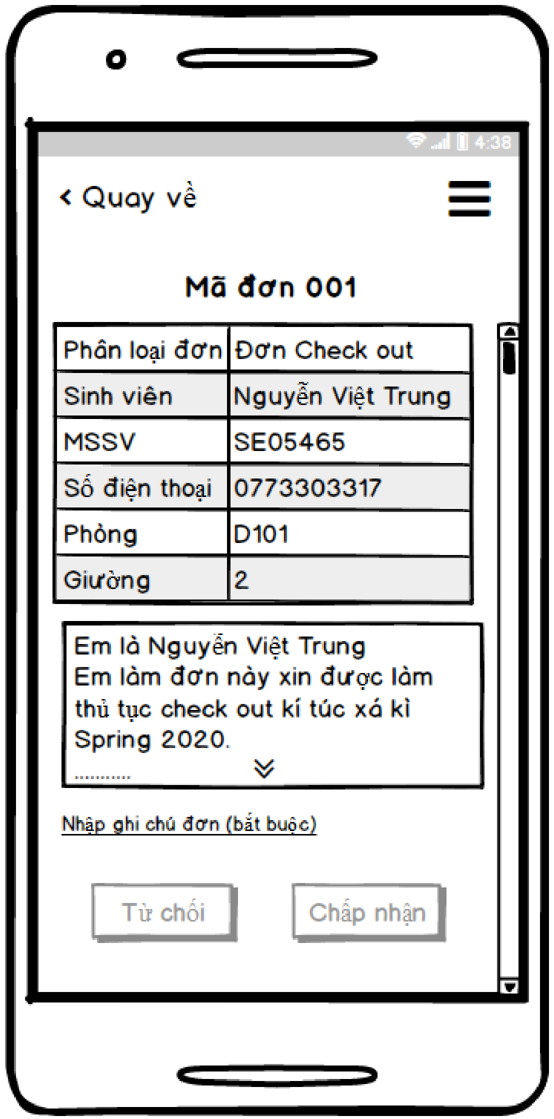

PAYMENT
TOP-UP METHOD
INTERNET BANKING
MOMO WALLET
DEBIT CARD
PAYPAL
SUCCESS
PROCEED
PAYMENT
TOP-UP FW
REQUIRE PAYMENT
PAYMENT HISTORY
FAP WALLET BALANCE
REQUIRE PAYMENT
- Fee 1
- Fee 2
- Fee 3
PAY EACH
PAY EACH
PAY EACH
PAY ALL
TRANSACTION CONFIRMATION
Transaction Details
SUCCESS
PROCEED
EW USAGE COLECTION
EW USAGE COLLECTION
CAMERA SCAN ENABLE
NOTICE
CAMERA
- SCAN QR
- OPTICAL IDENTIFICATION
- TAKE PHOTO
COMPARE & CONFIRMATION
DETAIL OF PRESENT SCANNING
PHOTO
PREVIOUS MONTH USAGE
SOUNDBAR
SEE PREVIOUS MONTH USAGE
SUCCESS
SEND
PHOTO & SCAN
PHOTO
DETAIL NUMBER
SOUNDBAR
INPUT USAGE MANUALLY
INPUT MANUALLY
FIX
SCAN AGAIN
PROCEED
STUDENT INFOMATION MANAGEMENT
CAMERA
- OPTICAL IDENTIFICATION
ROOM STD LIST
ROOM NAME
SCAN AGAIN
- STD 1 INFO
VIEW DETAIL
- STD 2 INFO
VIEW DETAIL
- STD 3 INFO
VIEW DETAIL
PROFILE SCREEN 1
- Student Profile (Self Portrait Img)
- Room History
PROFILE SCREEN 2
- Student Profile (Self Portrait Img)
- Room History
PROFILE SCREEN 3
- Student Profile (Self Portrait Img)
- Room History

4

DESIGN PROPOSAL & PRE-DESIGN

4.10

SECOND PROTOTYPE – DETAILED BALSAMIQ


4:38
‹ Quay về

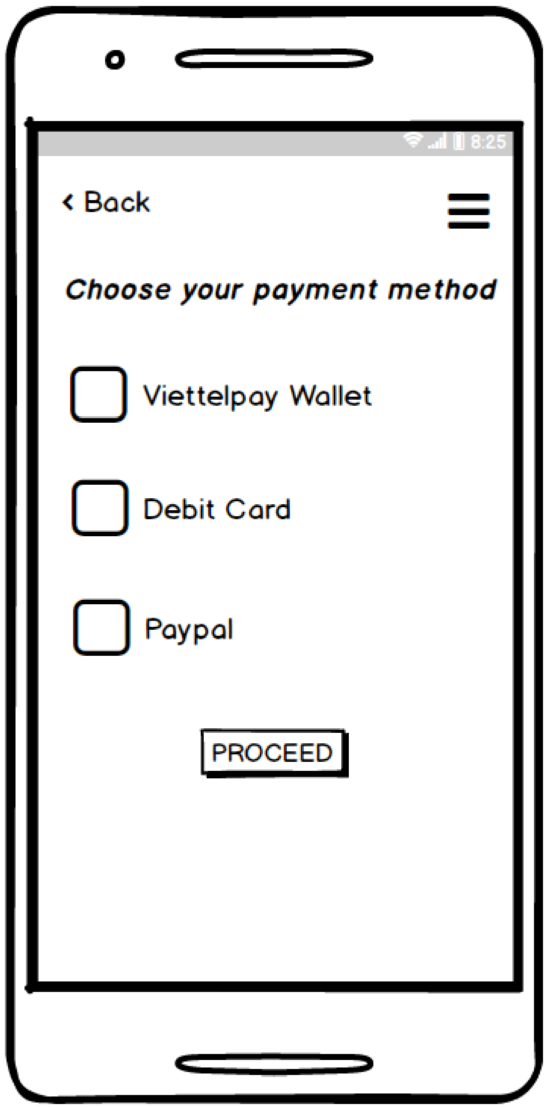
Mã đơn 001

Phân loại đơn	Đơn Check out
Sinh viên	Nguyễn Việt Trung
MSSV	SE05465
Số điện thoại	0773303317
Phòng	D101
Giường	2

Em là Nguyễn Việt Trung
Em làm đơn này xin được làm thủ tục check out kí túc xá kì Spring 2020.
....

Nhập ghi chú đơn (bắt buộc)

Từ chối
Chấp nhận


8:25
‹ Back

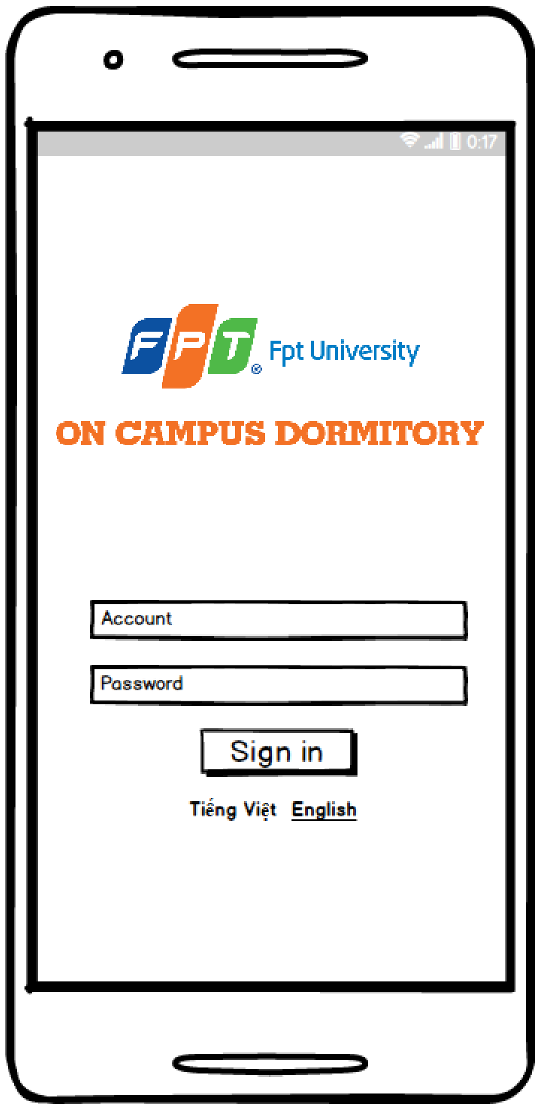
Choose your payment method

☐ Viettelpay Wallet

☐ Debit Card

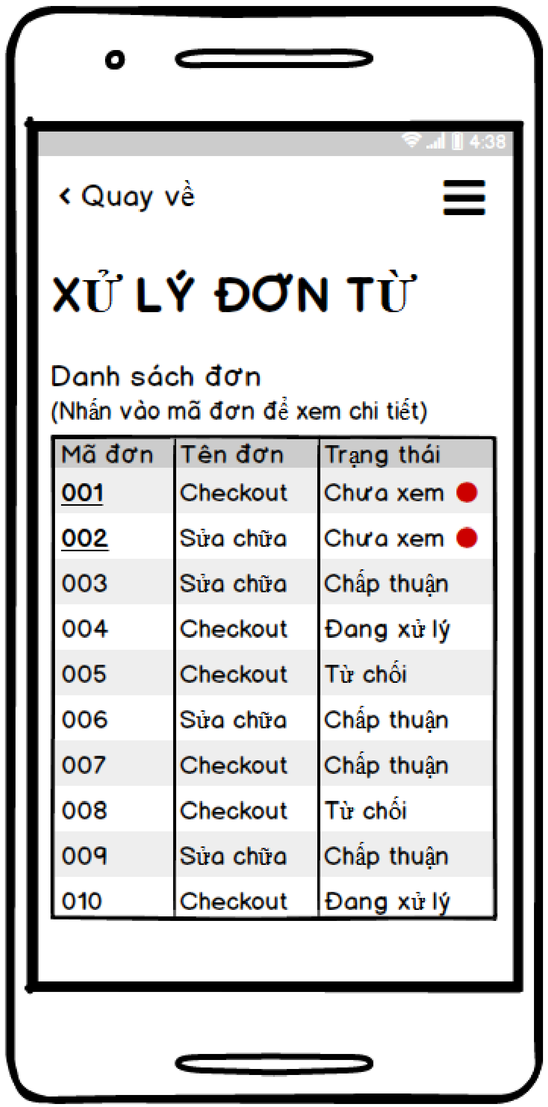
☐ Paypal

PROCEED


0:17
FPT Fpt University

ON CAMPUS DORMITORY

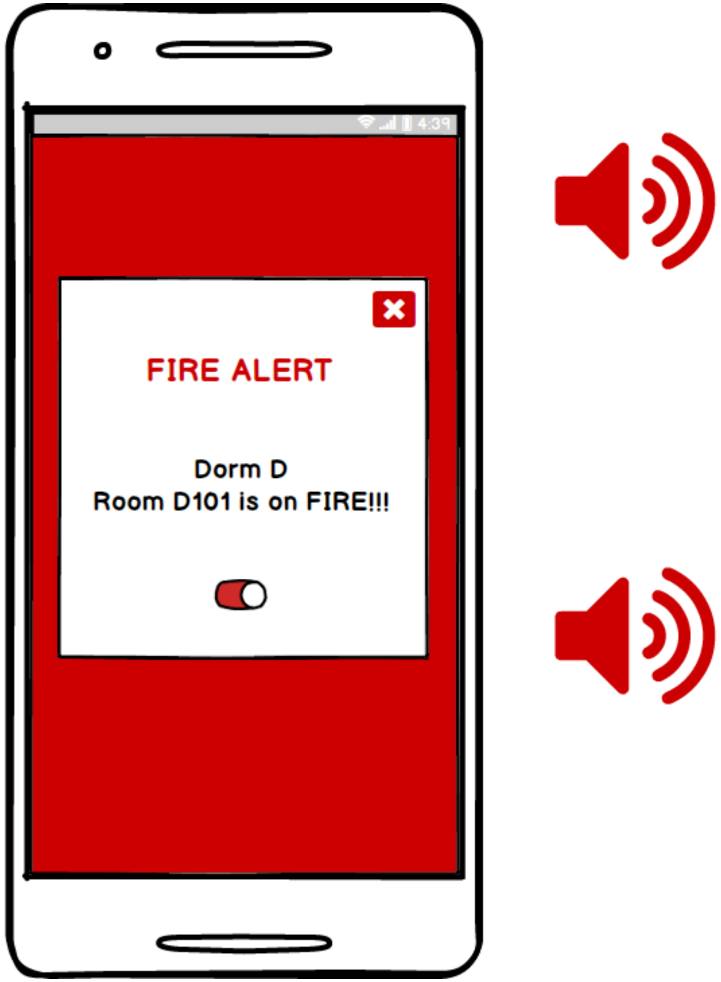
Account
Password
Sign in
Tiếng Việt
English



XỬ LÝ ĐƠN TỪ

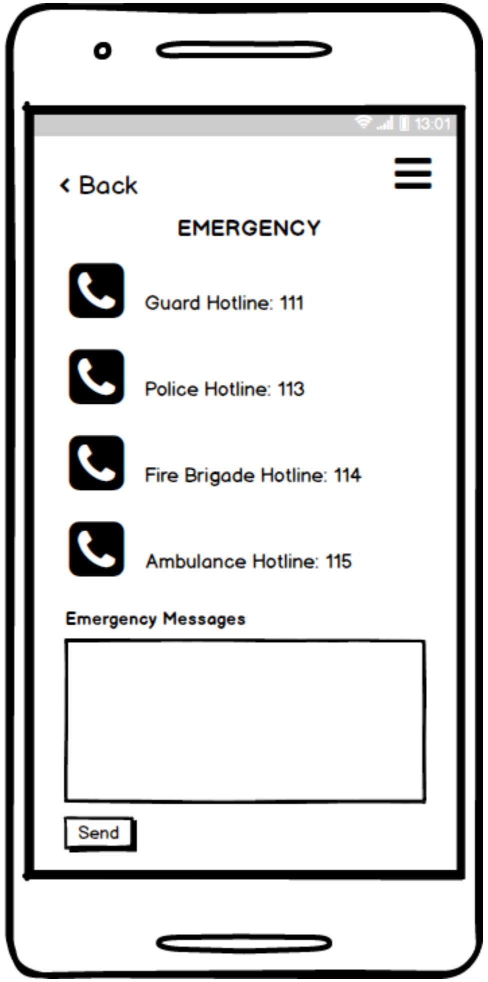
Danh sách đơn
(Nhấn vào mã đơn để xem chi tiết)

Mã đơn	Tên đơn	Trạng thái
001	Checkout	Chưa xem ●
002	Sửa chữa	Chưa xem ●
003	Sửa chữa	Chấp thuận
004	Checkout	Đang xử lý
005	Checkout	Từ chối
006	Sửa chữa	Chấp thuận
007	Checkout	Chấp thuận
008	Checkout	Từ chối
009	Sửa chữa	Chấp thuận
010	Checkout	Đang xử lý



FIRE ALERT

Dorm D
Room D101 is on FIRE!!!



EMERGENCY

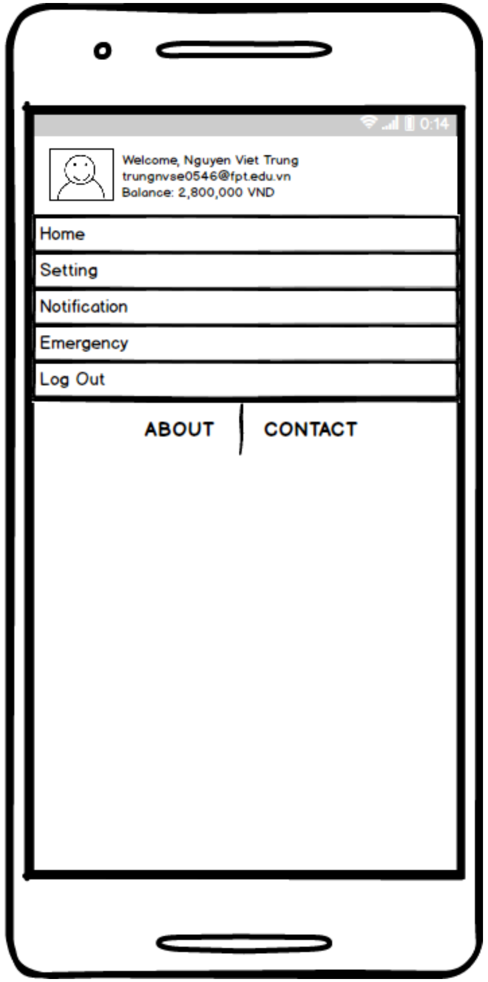
Guard Hotline: 111

Police Hotline: 113

Fire Brigade Hotline: 114

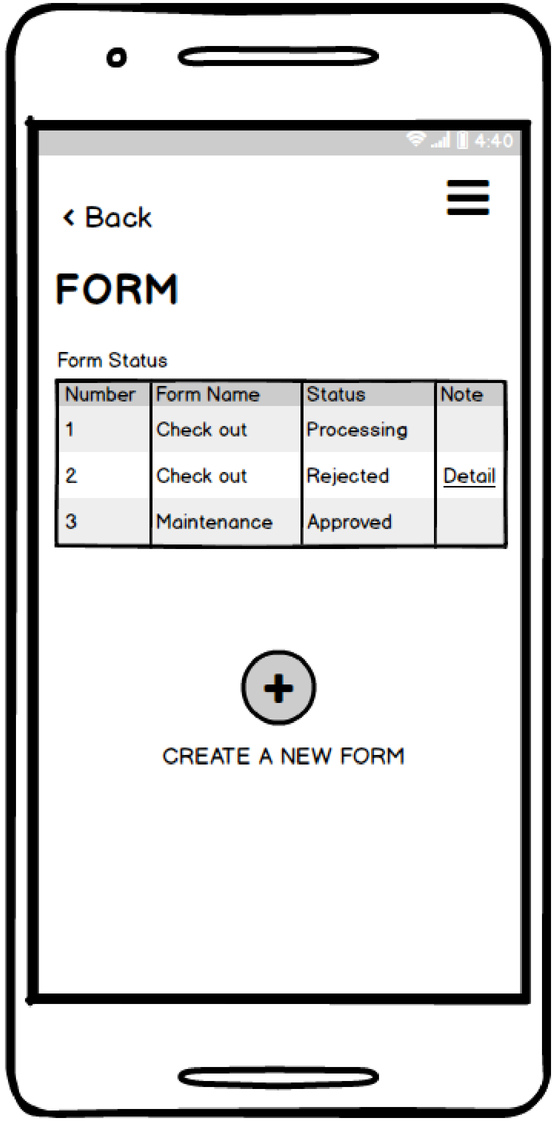
Ambulance Hotline: 115

13:01
‹ Back
Emergency Messages
Send



Welcome, Nguyen Viet Trung
trungnvse0546@fpt.edu.vn
Balance: 2,800,000 VND

0:14
Home
Setting
Notification
Emergency
Log Out
ABOUT
CONTACT



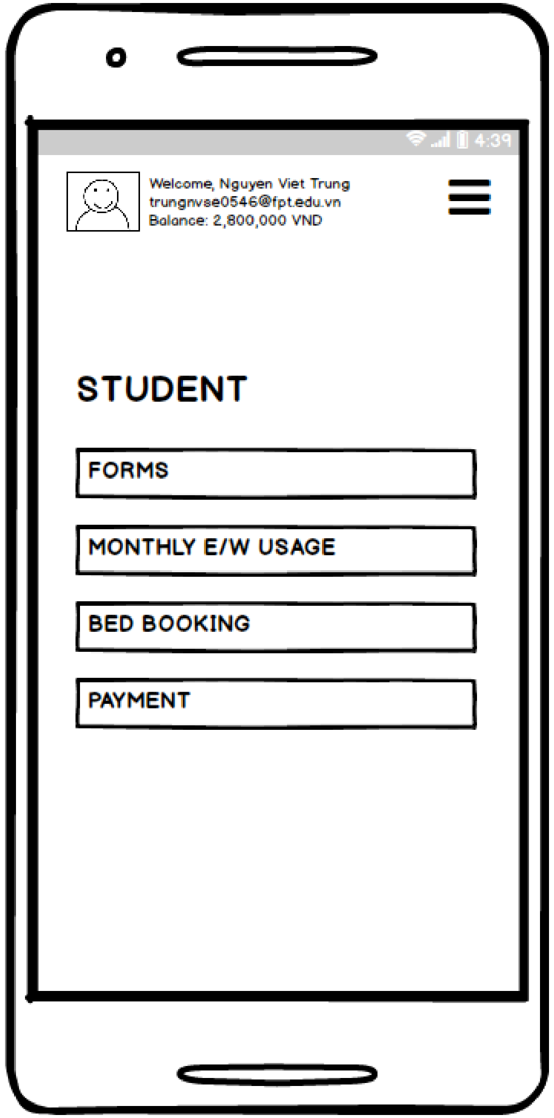
‹ Back

FORM

Form Status

Number	Form Name	Status	Note
1	Check out	Processing	
2	Check out	Rejected	Detail
3	Maintenance	Approved	

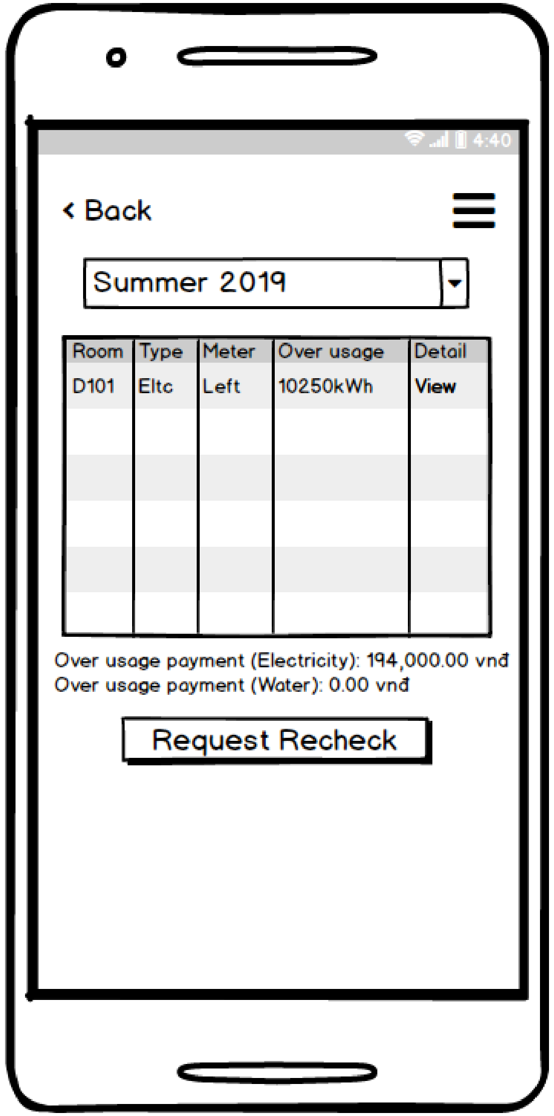
CREATE A NEW FORM


4:39

Welcome, Nguyen Viet Trung
trungnvse0546@fpt.edu.vn
Balance: 2,800,000 VND

STUDENT

FORMS
MONTHLY E/W USAGE
BED BOOKING
PAYMENT


4:40

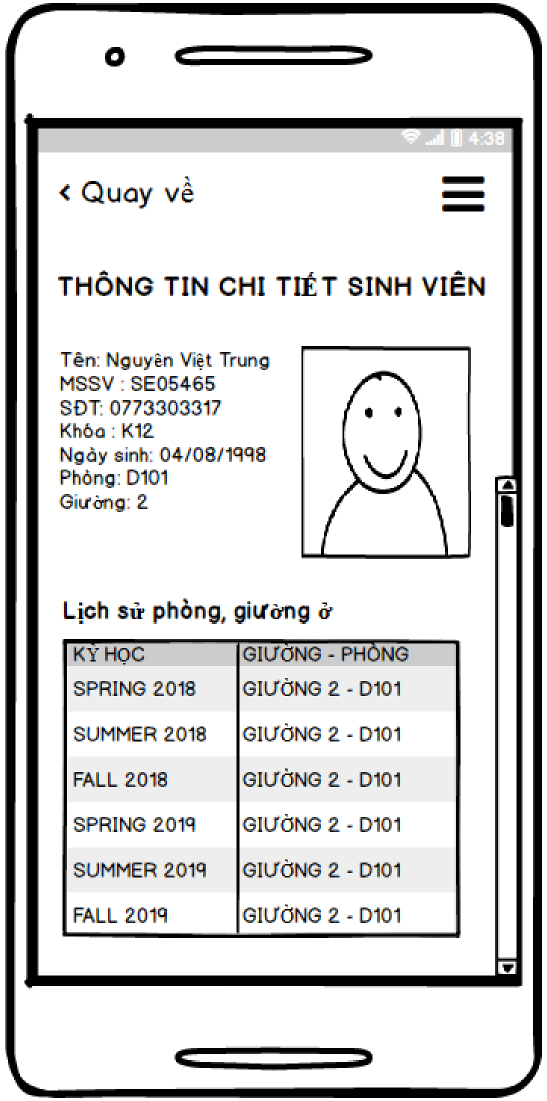
‹ Back

Summer 2019

Room	Type	Meter	Over usage	Detail
D101	Eltc	Left	10250kWh	View

Over usage payment (Electricity): 194,000.00 vnđ
Over usage payment (Water): 0.00 vnđ

Request Recheck



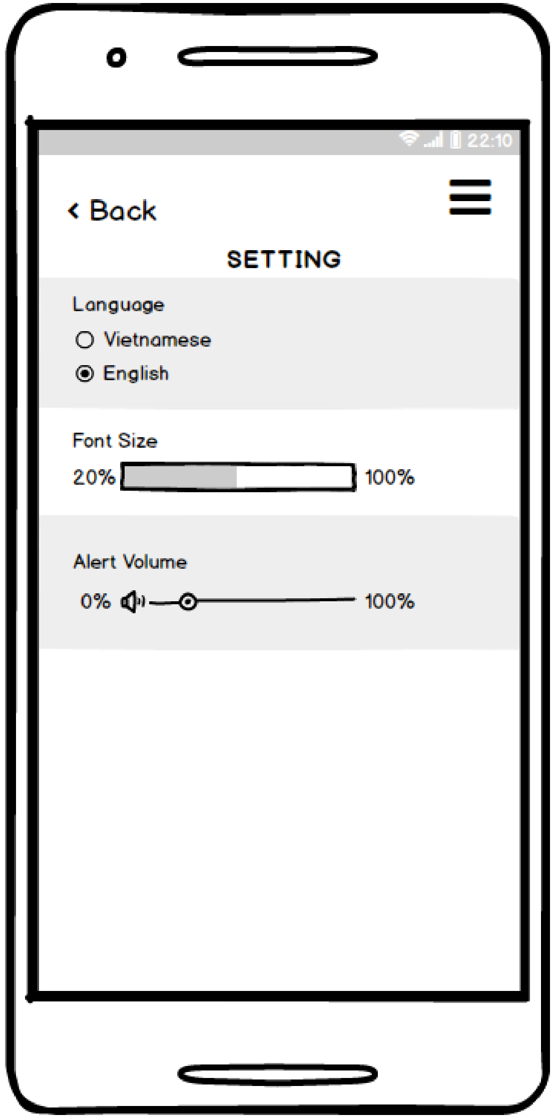
‹ Quay về

THÔNG TIN CHI TIẾT SINH VIÊN

Tên: Nguyên Việt Trung
MSSV : SE05465
SĐT: 0773303317
Khóa : K12
Ngày sinh: 04/08/1998
Phòng: D101
Giường: 2

Lịch sử phòng, giường ở

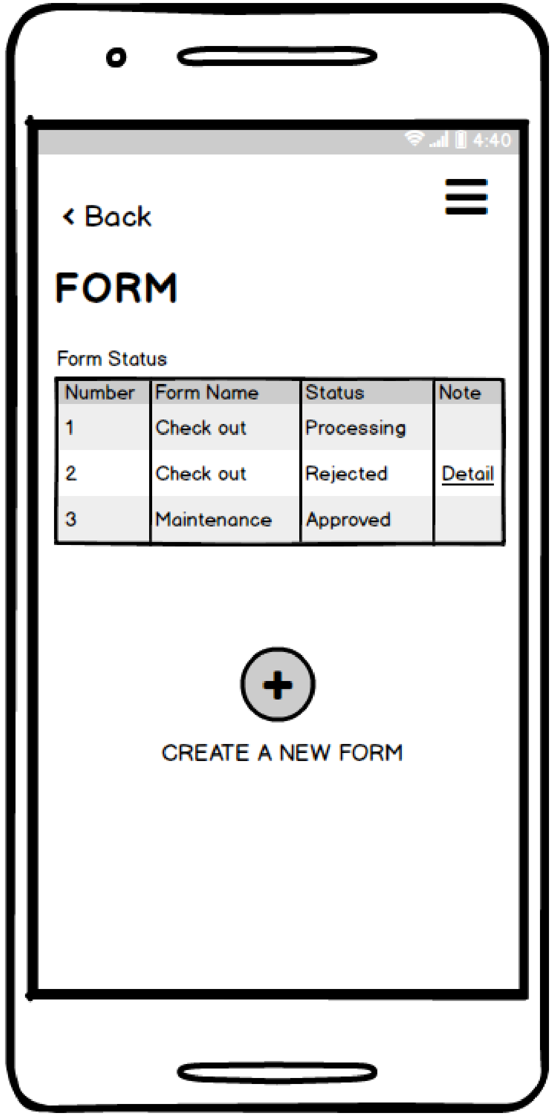
KỲ HỌC	GIƯỜNG - PHÒNG
SPRING 2018	GIƯỜNG 2 - D101
SUMMER 2018	GIƯỜNG 2 - D101
FALL 2018	GIƯỜNG 2 - D101
SPRING 2019	GIƯỜNG 2 - D101
SUMMER 2019	GIƯỜNG 2 - D101
FALL 2019	GIƯỜNG 2 - D101


22:10
‹ Back
SETTING

Language
○ Vietnamese
● English

Font Size
20% 100%

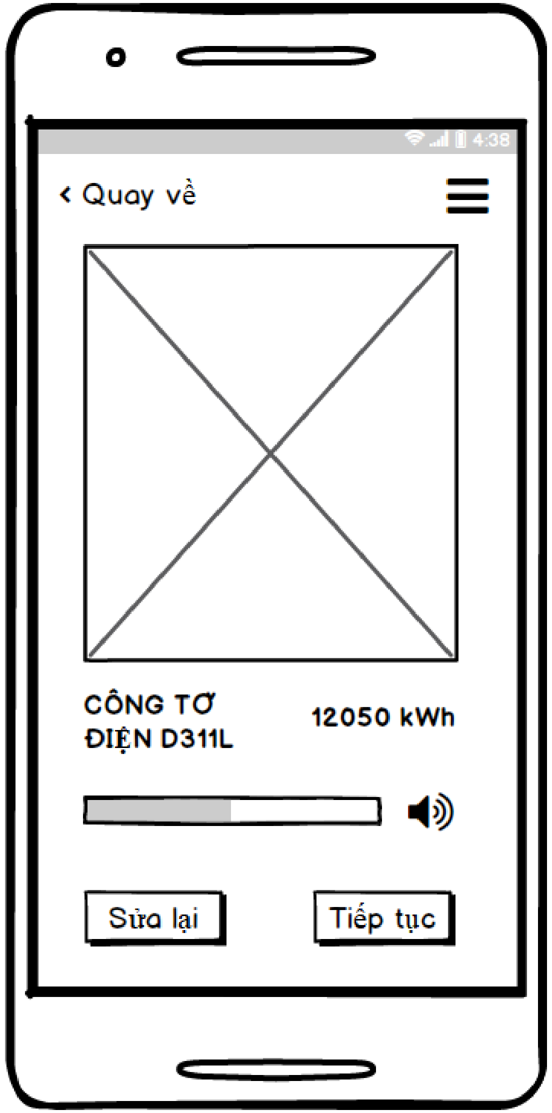
Alert Volume
0% 100%


4:40
‹ Back
FORM

Form Status

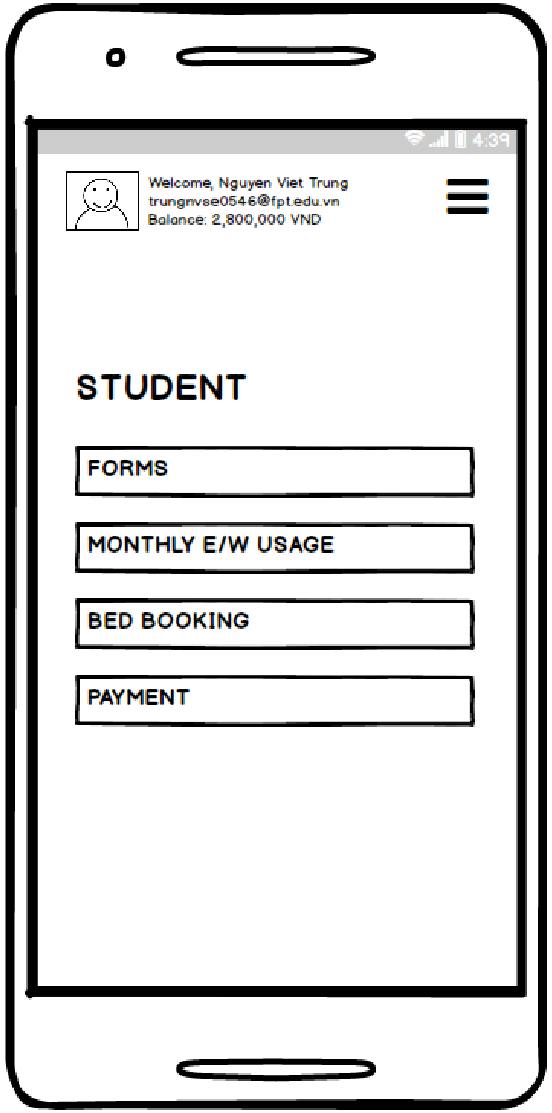
Number	Form Name	Status	Note
1	Check out	Processing	
2	Check out	Rejected	Detail
3	Maintenance	Approved	

CREATE A NEW FORM


4:38
‹ Quay về

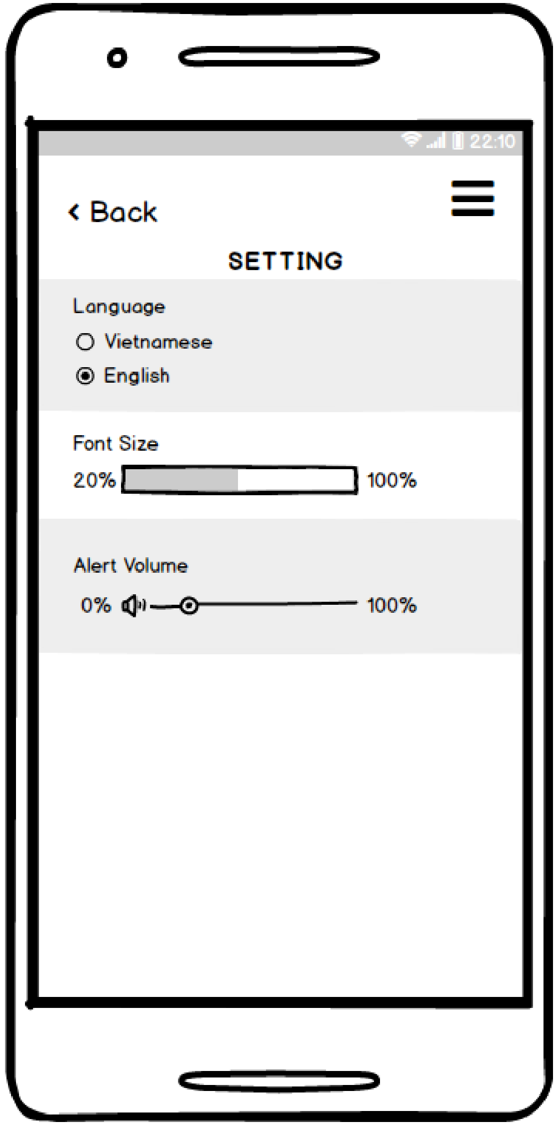
CÔNG TƠ ĐIỆN D311L 12050 kWh

Sửa lại
Tiếp tục


4:39

Welcome, Nguyen Viet Trung
trungnvse0546@fpt.edu.vn
Balance: 2,800,000 VND

STUDENT
FORMS
MONTHLY E/W USAGE
BED BOOKING
PAYMENT



SETTING

Language

○ Vietnamese

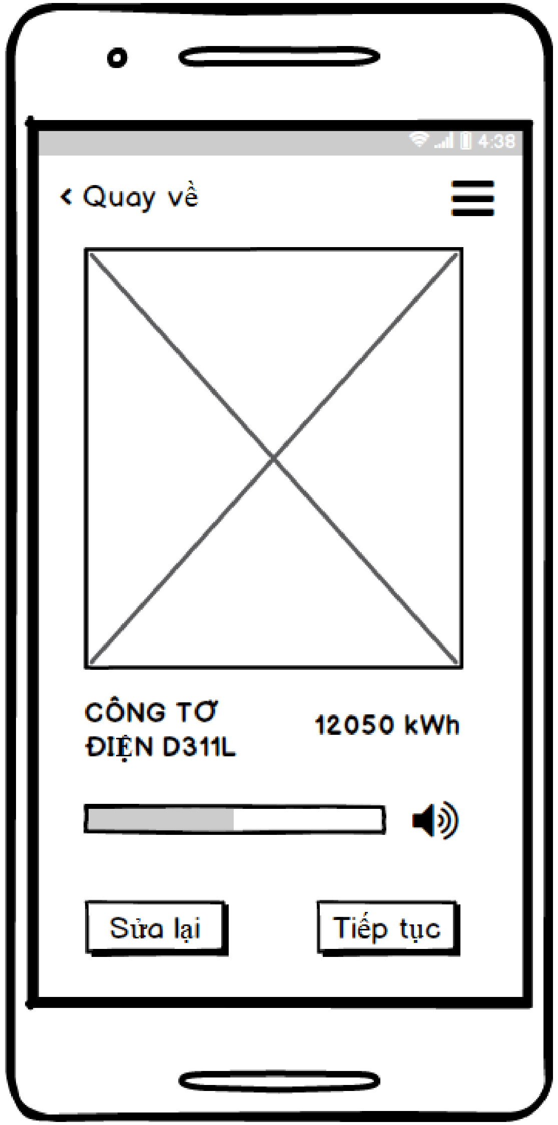
● English

Font Size

20% 100%

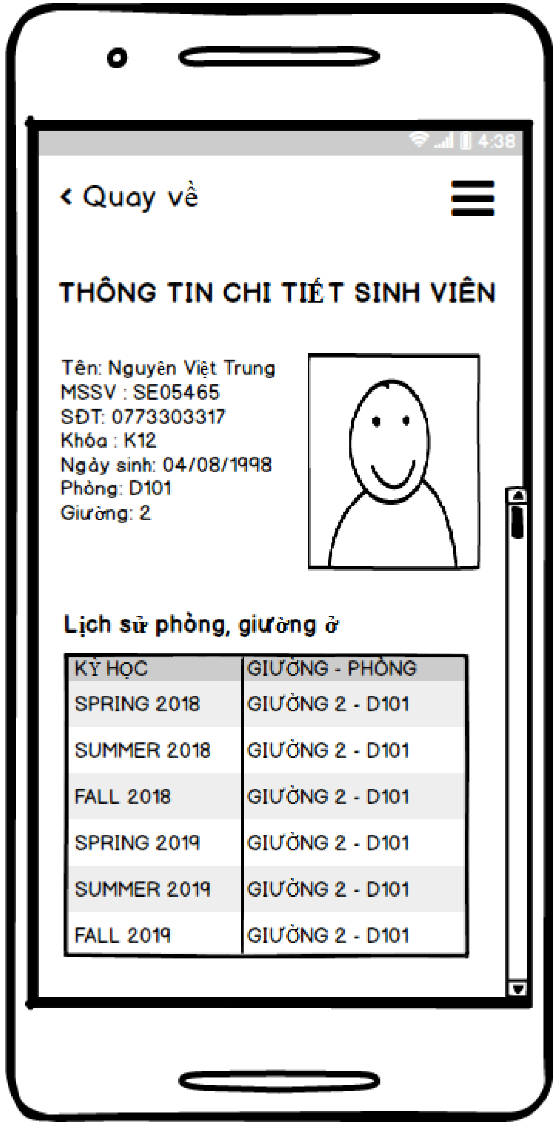
Alert Volume

0% 100%


4:38
‹ Quay về

CÔNG TƠ ĐIỆN D311L **12050 kWh**

Sửa lại
Tiếp tục

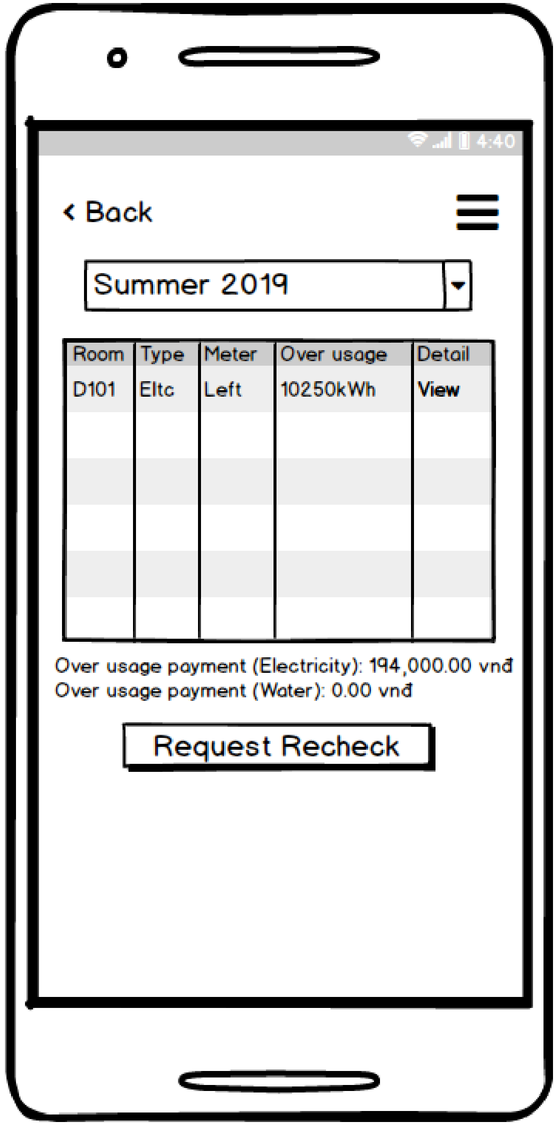


THÔNG TIN CHI TIẾT SINH VIÊN

Tên: Nguyễn Việt Trung
MSSV : SE05465
SĐT: 0773303317
Khóa : K12
Ngày sinh: 04/08/1998
Phòng: D101
Giường: 2

Lịch sử phòng, giường ở

KỲ HỌC	GIƯỜNG - PHÒNG
SPRING 2018	GIƯỜNG 2 - D101
SUMMER 2018	GIƯỜNG 2 - D101
FALL 2018	GIƯỜNG 2 - D101
SPRING 2019	GIƯỜNG 2 - D101
SUMMER 2019	GIƯỜNG 2 - D101
FALL 2019	GIƯỜNG 2 - D101


4:40
‹ Back

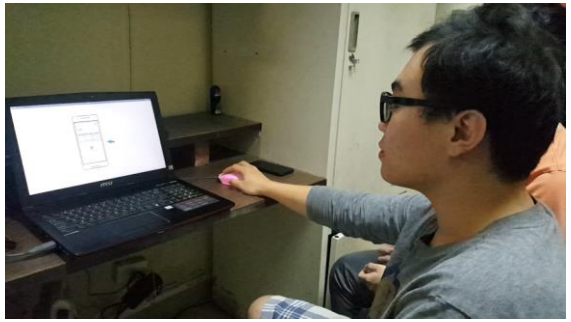
Summer 2019

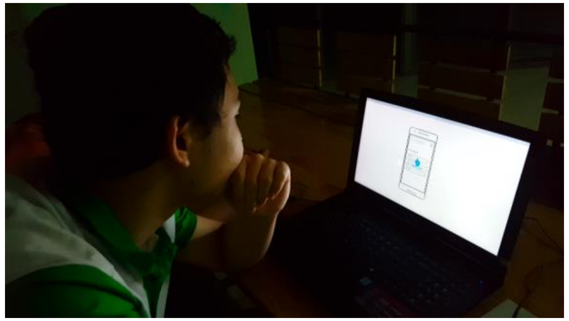
Room	Type	Meter	Over usage	Detail
D101	Eltc	Left	10250kWh	**View**

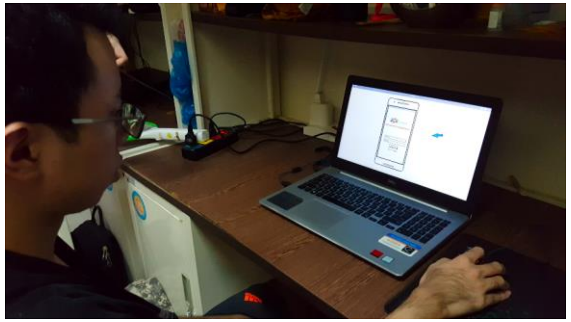
Over usage payment (Electricity): 194,000.00 vnđ
Over usage payment (Water): 0.00 vnđ

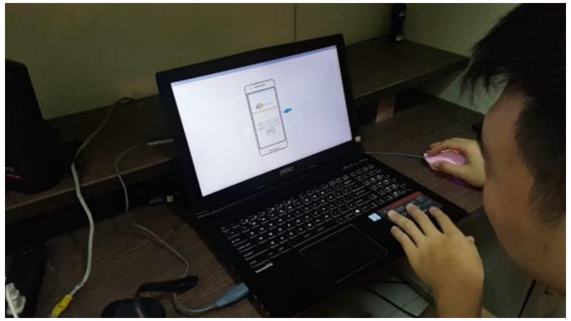
Request Recheck

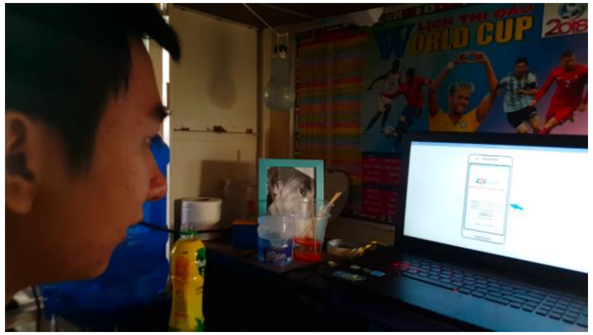
SECOND PROTOTYPE TEST


Trường


Hưng


Giang


Tú


WORLD CUP
2018
Trung

SECOND TEST RESULT ANALYSIS

QUESTIONS THAT TO BE ANSWERED	CONCLUSION ANSWERS AFTER TESTING
Do the testers like Fire Alert on app?	Yes, everyone show deep interest in this function, some tester like Trường and Hưng are eager to ask further about its technology and Trường also offer to code for this idea.
Can everyone approach the app function and navigation easily ?	Yes, absolutely smooth. 4/5 of them say the app is easy and simple to get along.
Is everything all seems to be fine?	Not really, there maybe some additional suggestions and also fix some small features.
All button's signs and words are working well right? No misuse ?	Yes they are. Not a single misuse. All test can finish all required task on the first attempt.
What are the small changes that they advise ? What are the further feedbacks?	-Trường want more photos able to be uploaded in maintenance form. -Trường love top-up online feature -Hưng want the alert pop up show people around that are going to help you. -Giang want to know if the new bed you book has anyone book at the same time with you or earlier than you a little bit -Tú want the omit the request check, just keep the input text box to send immediately -Tú want to create a new form instantly, no need to wait text box open after having done chosen the form type. -Tú show enthusiastic excitement about the Fire Alert on App feature -Trung show great support for the app -Trường also like the fire alert on app -Trường suggests that we should let user to fix or delete a form if it's still at unseen status.
How is the testers' emotion and feelings? What are their reactions?	-Trường and Tú are excited, 2 of them tend to discover more about the app and ask for more about the idea. - Hưng are eager to help. -Trung and Giang are neutral.

5

UI DESIGN & DESIGN FINALIZATION

5.1

MOODBOARD

5

UI DESIGN & DESIGN FINALIZATION

5.2

STYLEGUIDE

Color Palette

Main Colors

#F27123
Primary

#595959
Secondary

Additional Colors

#6EBD52

#EF2D38

#51B748

#BFBFBF

#FFFFFF

Background Colors

#F5F5F5

#FFFFFF

System Colors

#464646

#999999

#BFBFBF

#F5F5F5

#FFFFFF

Typography

Primary Font Family - Roboto

Weights:

Thin
Thin Italic
Light
Condensed Light
Light Italic
Condensed Light Italic
Condensed
Italic
Condensed Italic

Medium
Medium Italic
Bold
Condensed Bold
Bold Italic
Condensed Bold Italic
Black
Black Italic

Characters:

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890~!@#$%^&*()-_=+[]{};':",.<>/\?|

Headline Bold 01
Font size: 20px - Font weight: Bold

Headline Bold 02
Font size: 15px - Font weight: Bold

Headline Bold 03
Font size: 12px - Font weight: Bold

Headline Bold 04
Font size: 10px - Font weight: Bold

Headline Regular 01
Font size: 20px - Font weight: Regular

Headline Regular 02
Font size: 15px - Font weight: Regular

Headline Regular 03
Font size: 12px - Font weight: Regular

Headline Regular 04
Font size: 10px - Font weight: Regular

Typography

Paragraph

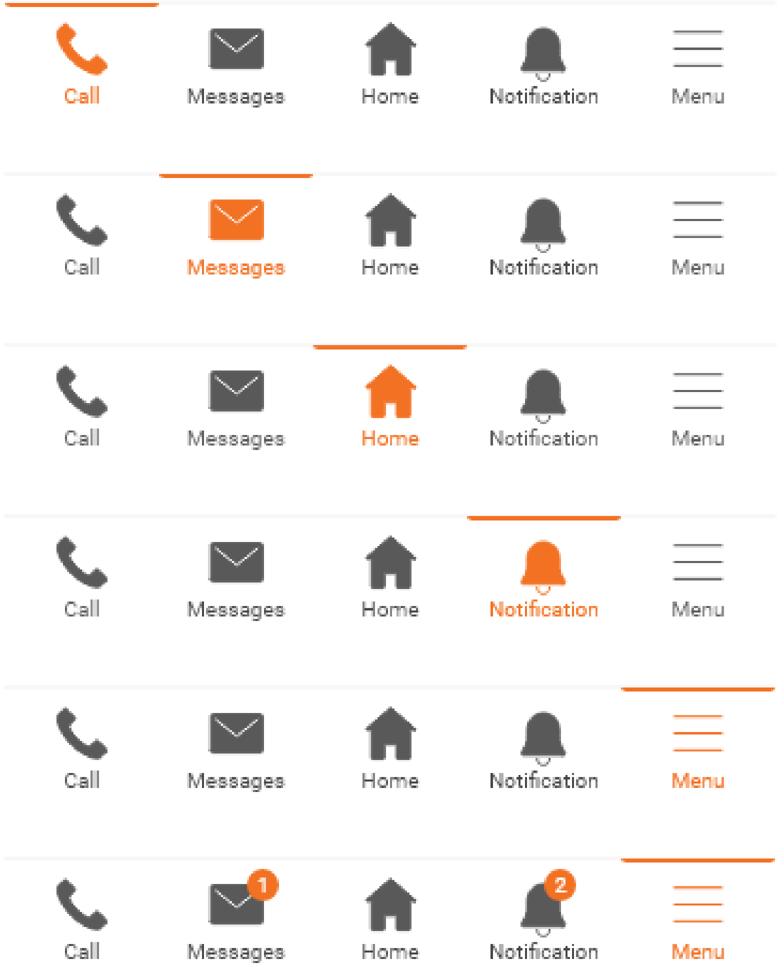
This is a paragraph using Roboto Regular at 15px, with a 18px Line Spacing in the colour #464646.
Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.

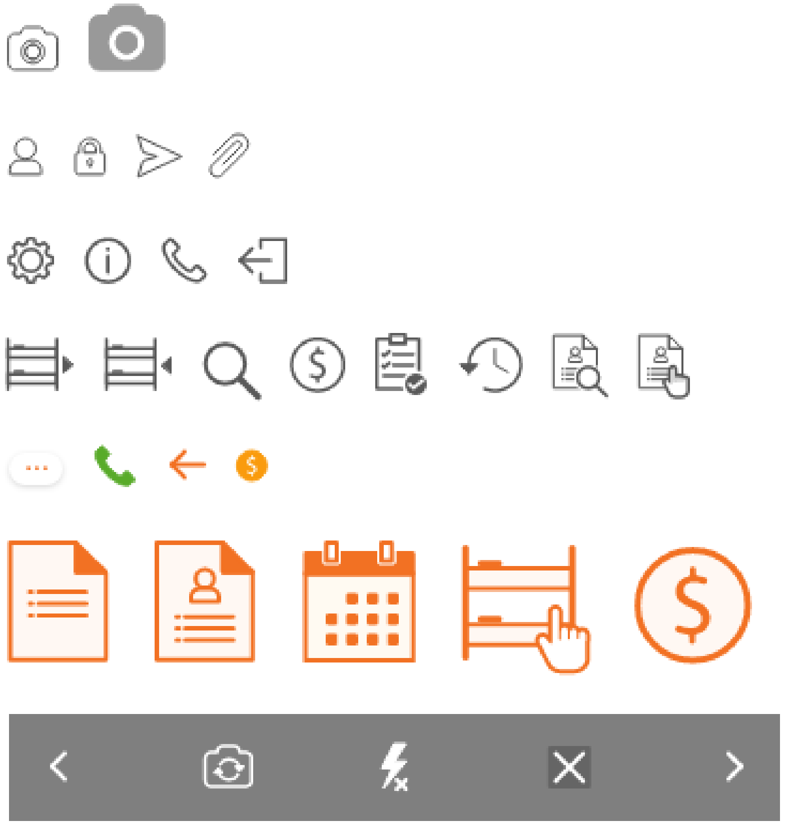
Note

*Lorem Ipsum is simply dummy text of the printing and typesetting industry.

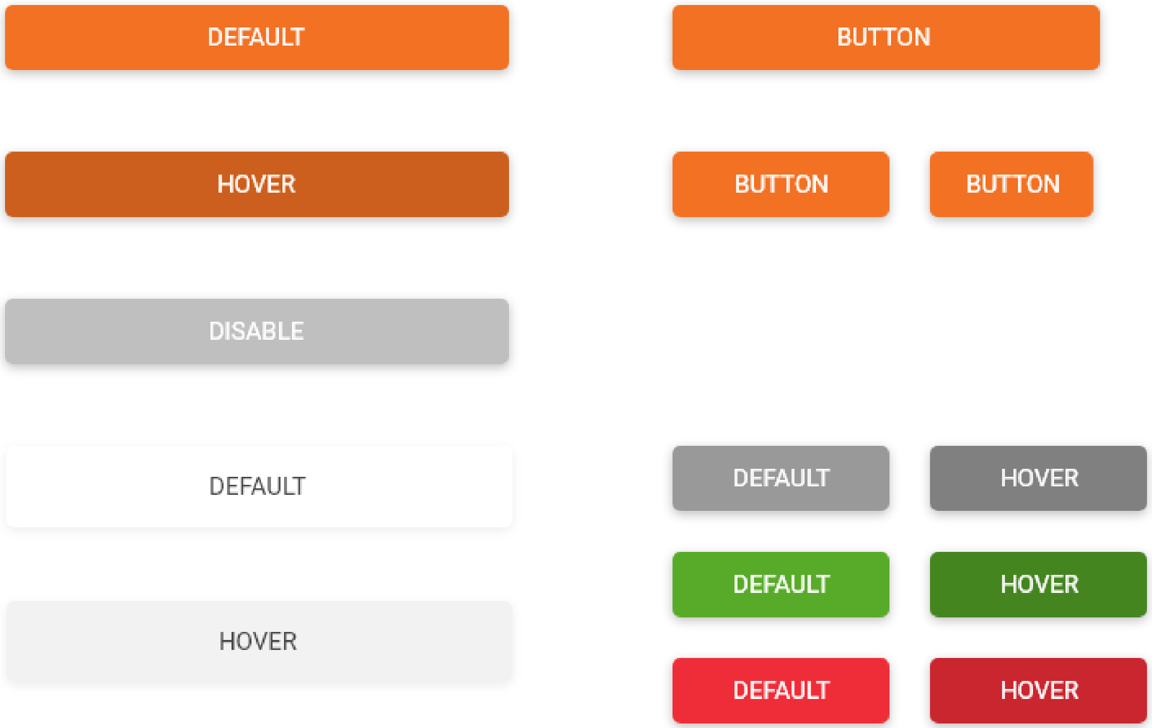
*Lorem Ipsum is simply dummy text of the printing and typesetting industry.

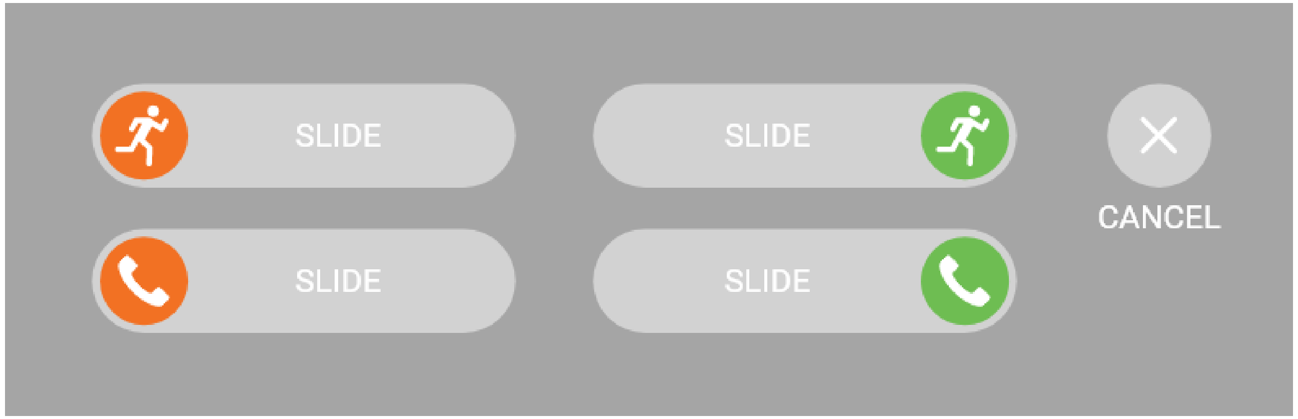
Icon


Call
Messages
Home
Notification
Menu
Call
Messages
Home
Notification
Menu
Call
Messages
Home
Notification
Menu
Call
Messages
Home
Notification
Menu
Call
Messages
Home
Notification
Menu
Call
1
Messages
Home
2
Notification
Menu



Button


DEFAULT
BUTTON
HOVER
BUTTON
BUTTON
DISABLE
DEFAULT
DEFAULT
HOVER
DEFAULT
HOVER
HOVER
DEFAULT
HOVER


SLIDE
SLIDE
CANCEL
SLIDE
SLIDE

Fields

Dropdown

Dropdown ▾

Action one (hover)

Action two

Value

Line

0.25px

0.5px

Label

● Label (Selected)

○ Label

☑ Label (Checked box)

☐ Label

Sound On

Sound Off

Active

Area

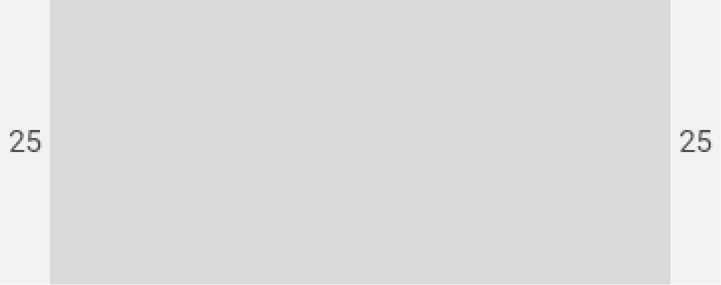
Purpose...

Table

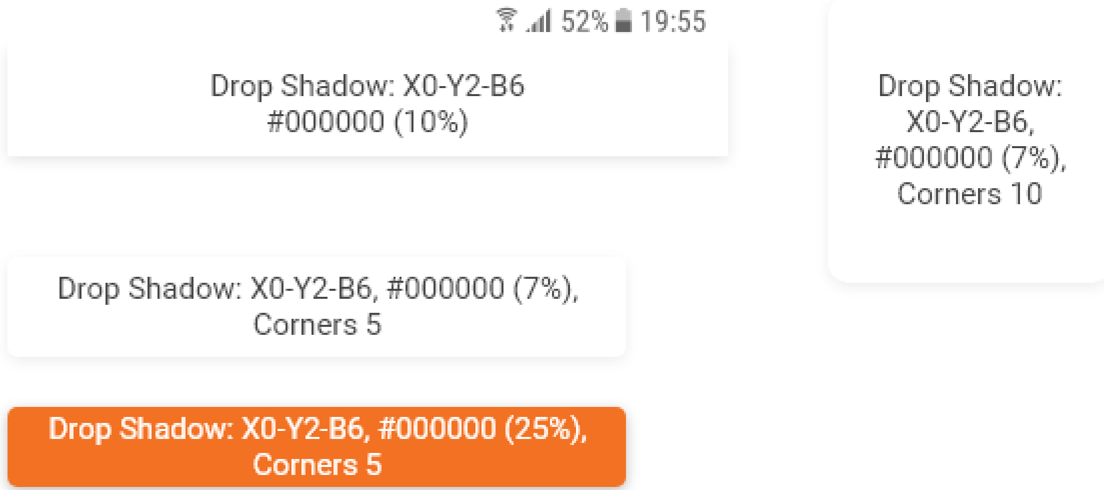
Abc	Abc	Abc	Abc	Detail
Abc	Abc	Abc	Abc	···
Abc	Abc	Abc	Abc	···
Abc	Abc	Abc	Abc	···
Abc	Abc	Abc	Abc	···

Grid

Linked left/right margins: 25px



Others



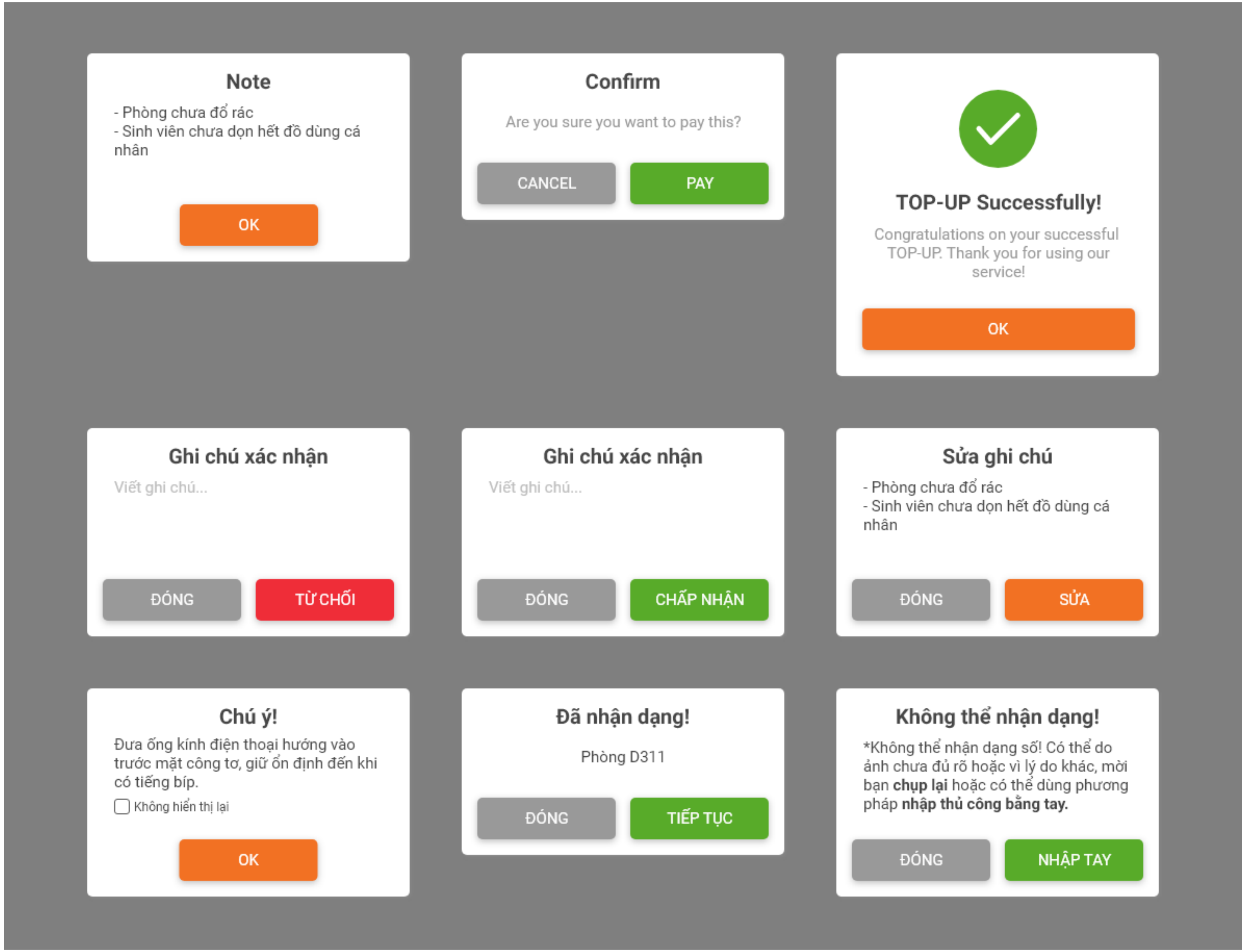
Drop Shadow: X0-Y2-B6
#000000 (10%)

Drop Shadow:
X0-Y2-B6,
#000000 (7%),
Corners 10

Drop Shadow: X0-Y2-B6, #000000 (7%),
Corners 5

**Drop Shadow: X0-Y2-B6, #000000 (25%),
Corners 5**

Pop-up



Note

- Phòng chưa đổ rác
- Sinh viên chưa dọn hết đồ dùng cá nhân

Confirm

Are you sure you want to pay this?

TOP-UP Successfully!

Congratulations on your successful TOP-UP. Thank you for using our service!

Ghi chú xác nhận

Viết ghi chú...

Ghi chú xác nhận

Viết ghi chú...

Sửa ghi chú

- Phòng chưa đổ rác
- Sinh viên chưa dọn hết đồ dùng cá nhân

Chú ý!

Đưa ống kính điện thoại hướng vào trước mặt công tơ, giữ ổn định đến khi có tiếng bíp.

☐ Không hiển thị lại

Đã nhận dạng!

Phòng D311

Không thể nhận dạng!

*Không thể nhận dạng số! Có thể do ảnh chưa đủ rõ hoặc vì lý do khác, mời bạn **chụp lại** hoặc có thể dùng phương pháp **nhập thủ công bằng tay.**

OK
CANCEL
PAY
OK
ĐÓNG
TỪ CHỐI
ĐÓNG
CHẤP NHẬN
ĐÓNG
SỬA
OK
ĐÓNG
TIẾP TỤC
ĐÓNG
NHẬP TAY

5 UI DESIGN & DESIGN FINALIZATION

5.3 LOGO

ocd

FPT On Campus Dormitory

Logo Typo & Logo Color

#FF3801 #FF8B00

FONT: TYPO GROTESK ROUNDED

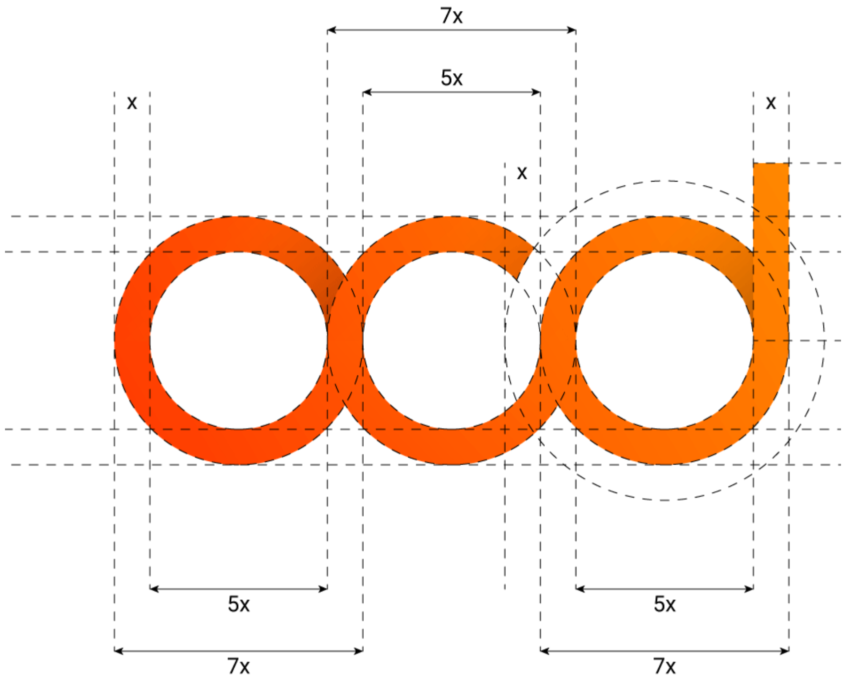
ABCDEFGHIKLMNOPQRSTUVWXYZ
abcdefghiklmnopqrstuvwxy
1234567890
!@#$%^&*()

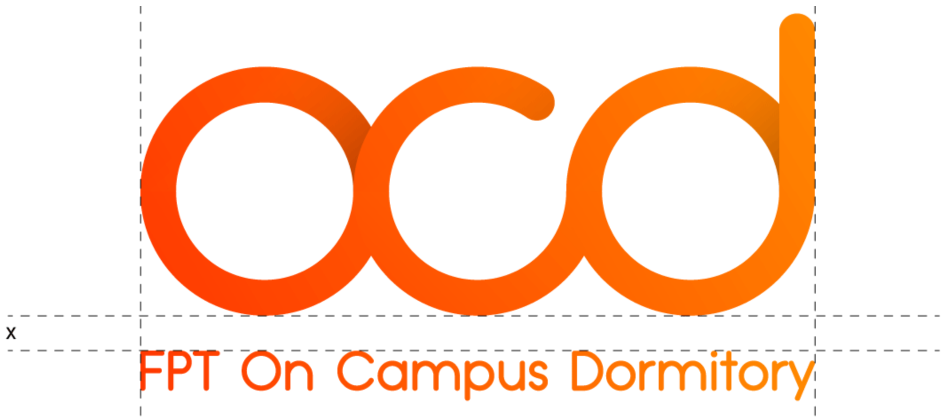
Logo Variations

ocd
FPT On Campus Dormitory

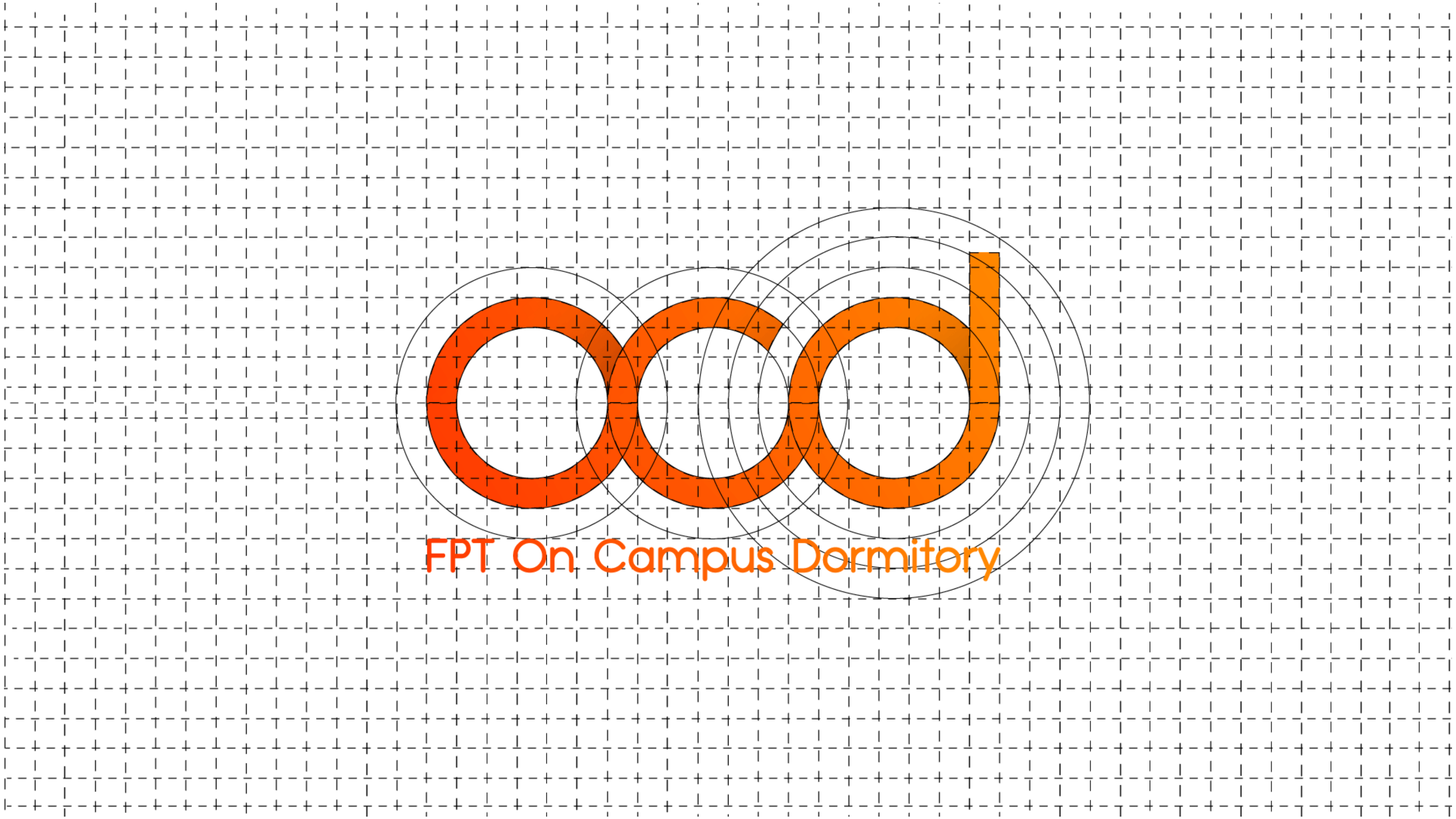
ocd

Logo Size and Distance Rule


7x
5x
x
x
x
5x
7x
5x
7x


x
FPT On Campus Dormitory

Logo in Grid

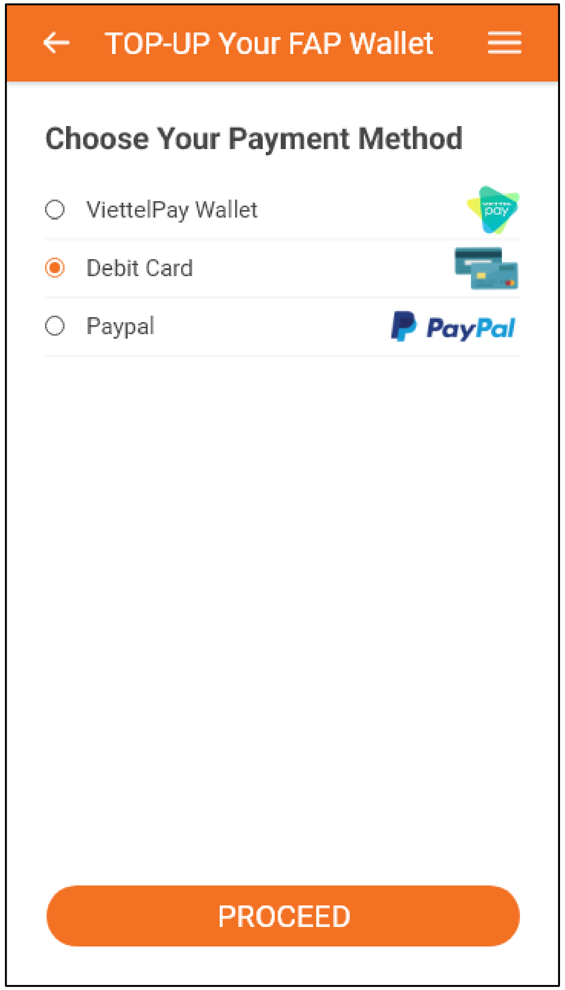

FPT On Campus Dormitory

5

UI DESIGN & DESIGN FINALIZATION

5.4

FIRST XD DESIGN PROTOTYPE



← TOP-UP Your FAP Wallet ☰

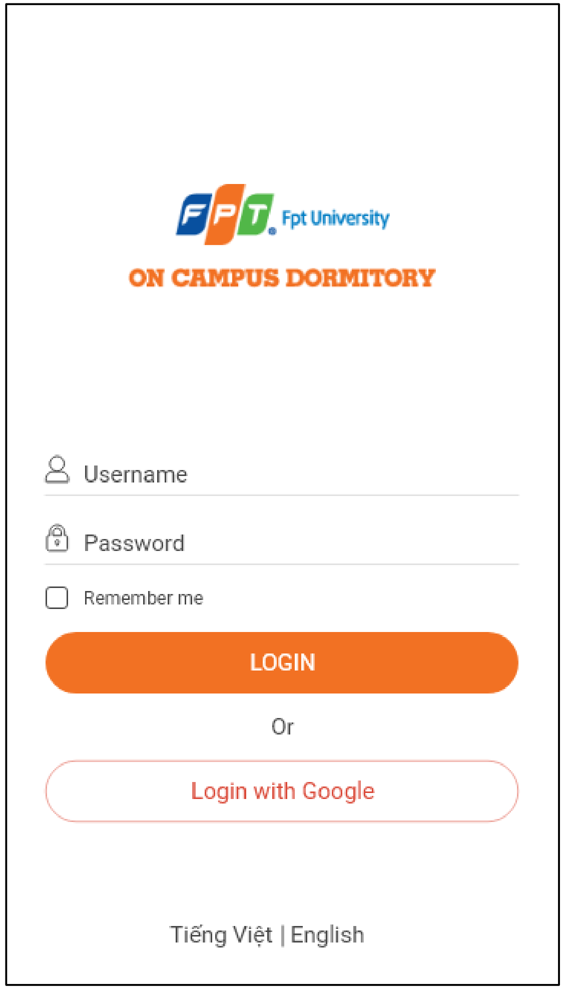
Choose Your Payment Method

○ ViettelPay Wallet

● Debit Card

○ Paypal

PROCEED



Fpt University

ON CAMPUS DORMITORY

Username

Password

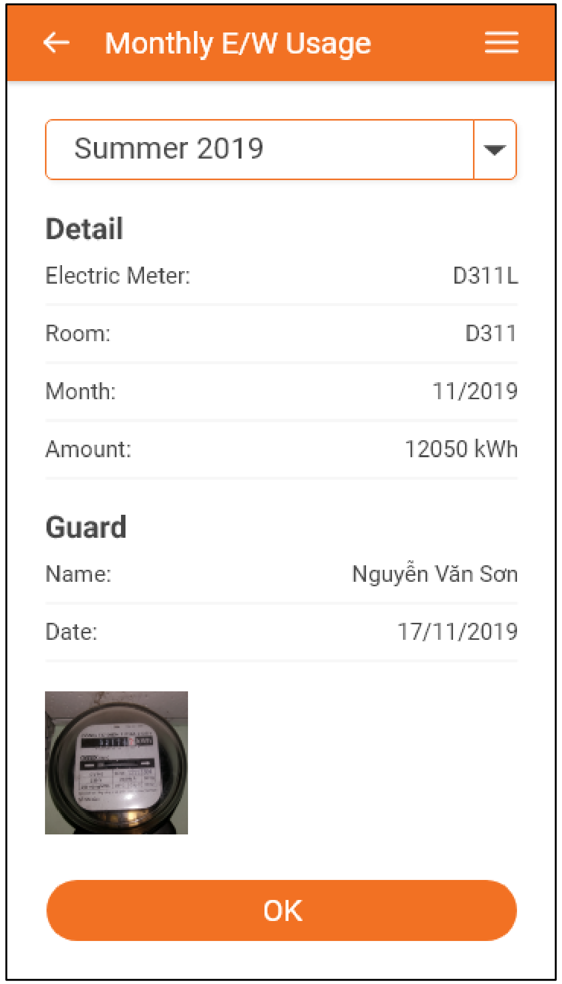
☐ Remember me

LOGIN

Or

Login with Google

Tiếng Việt | English



← Monthly E/W Usage ☰

Summer 2019 ▾

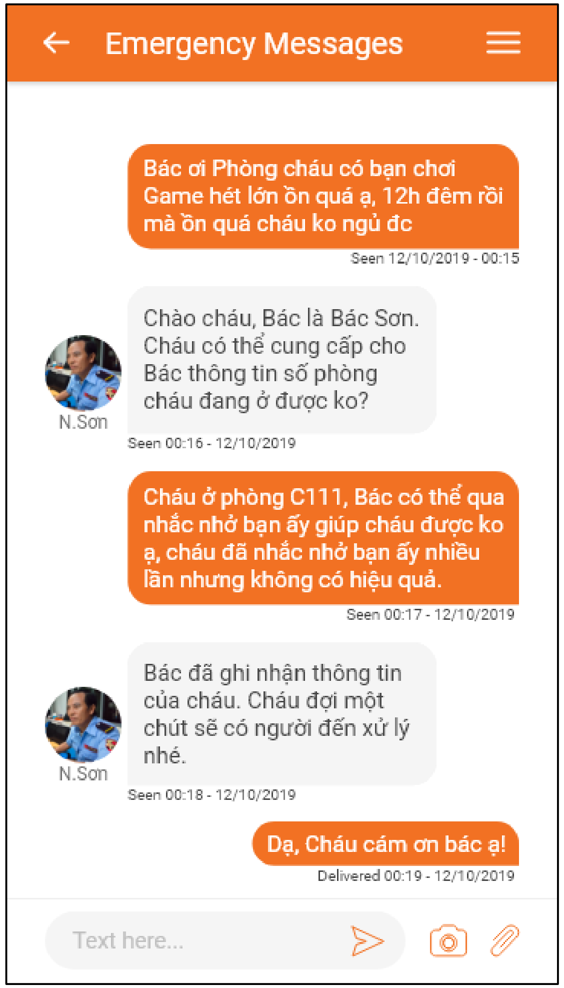
Detail

Electric Meter:	D311L
Room:	D311
Month:	11/2019
Amount:	12050 kWh

Guard

Name:	Nguyễn Văn Sơn
Date:	17/11/2019

OK



← Emergency Messages ☰

Bác ơi Phòng cháu có bạn chơi Game hét lớn ồn quá ạ, 12h đêm rồi mà ồn quá cháu ko ngủ đc

Seen 12/10/2019 - 00:15

N.Sơn: Chào cháu, Bác là Bác Sơn. Cháu có thể cung cấp cho Bác thông tin số phòng cháu đang ở được ko?

Seen 00:16 - 12/10/2019

Cháu ở phòng C111, Bác có thể qua nhắc nhở bạn ấy giúp cháu được ko ạ, cháu đã nhắc nhở bạn ấy nhiều lần nhưng không có hiệu quả.

Seen 00:17 - 12/10/2019

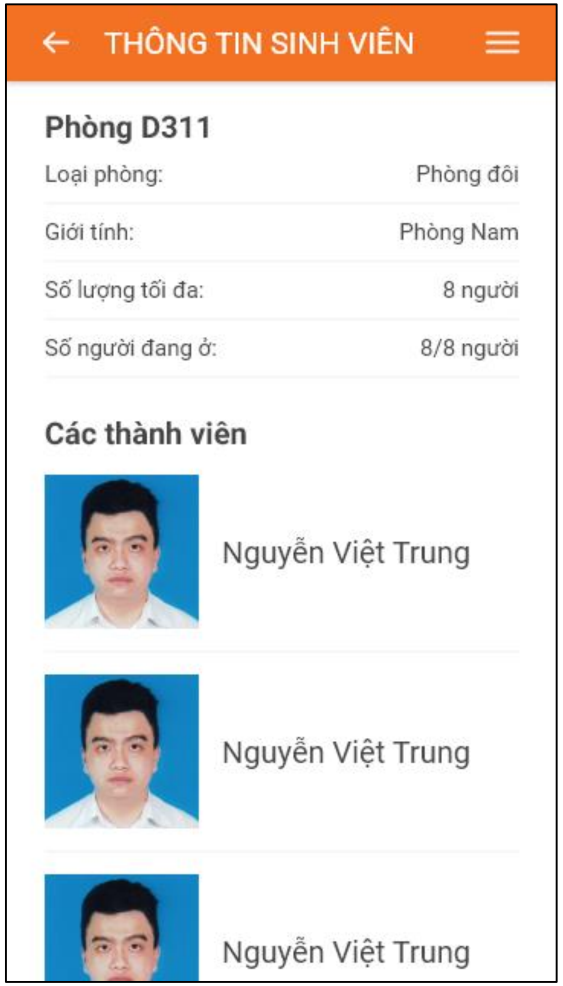
N.Sơn: Bác đã ghi nhận thông tin của cháu. Cháu đợi một chút sẽ có người đến xử lý nhé.

Seen 00:18 - 12/10/2019

Dạ, Cháu cám ơn bác ạ!

Delivered 00:19 - 12/10/2019

Text here...



THÔNG TIN SINH VIÊN

Phòng D311

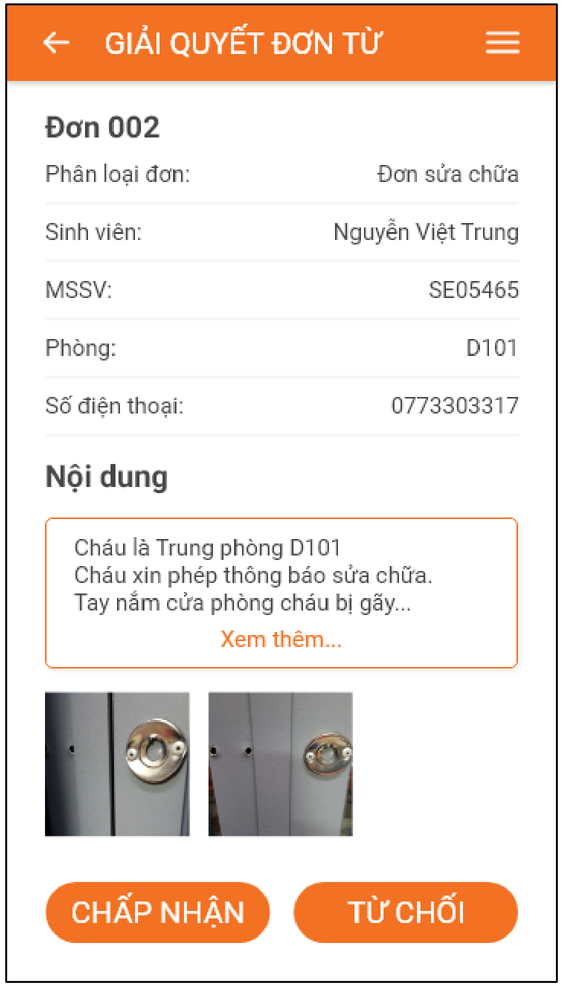
Loại phòng:	Phòng đôi
Giới tính:	Phòng Nam
Số lượng tối đa:	8 người
Số người đang ở:	8/8 người

Các thành viên

Nguyễn Việt Trung

Nguyễn Việt Trung

Nguyễn Việt Trung



GIẢI QUYẾT ĐƠN TỪ

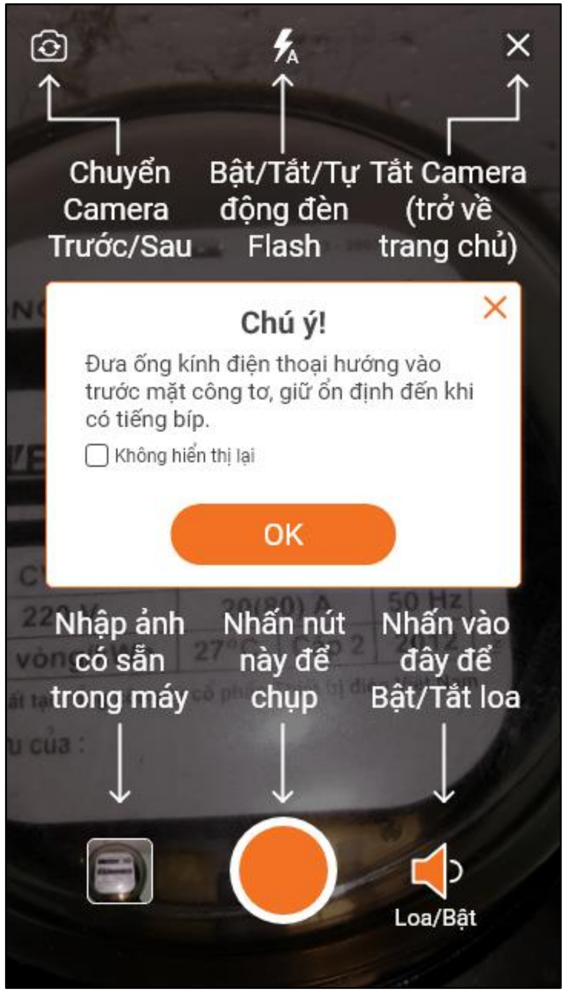
Đơn 002

Phân loại đơn:	Đơn sửa chữa
Sinh viên:	Nguyễn Việt Trung
MSSV:	SE05465
Phòng:	D101
Số điện thoại:	0773303317

Nội dung

Cháu là Trung phòng D101
Cháu xin phép thông báo sửa chữa.
Tay nắm cửa phòng cháu bị gãy...
Xem thêm...

CHẤP NHẬN
TỪ CHỐI



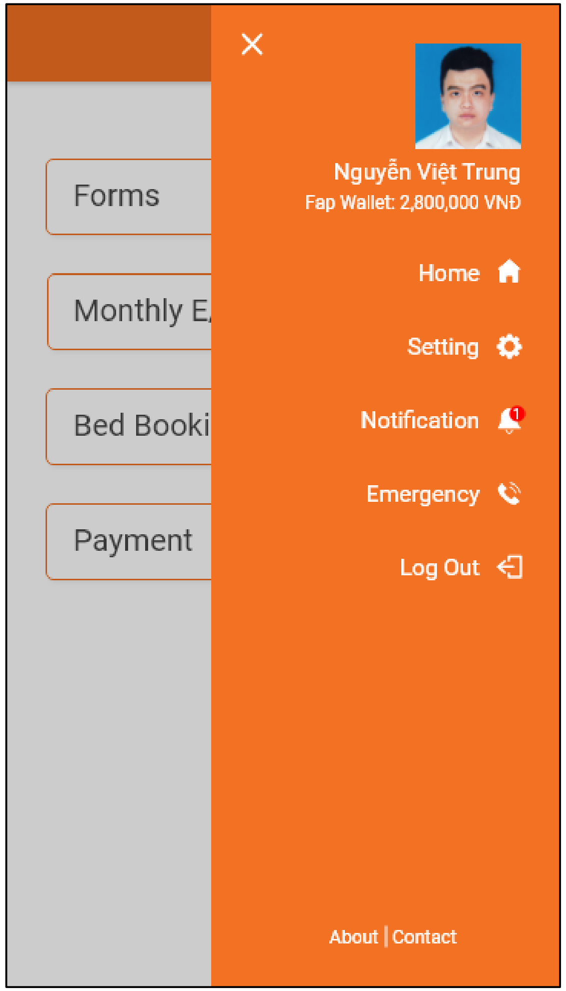
Chuyển Camera Trước/Sau
Bật/Tắt/Tự động đèn Flash
Tắt Camera (trở về trang chủ)
Nhập ảnh có sẵn trong máy
Nhấn nút này để chụp
Nhấn vào đây để Bật/Tắt loa
Loa/Bật

Chú ý!

Đưa ống kính điện thoại hướng vào trước mặt công tơ, giữ ổn định đến khi có tiếng bíp.

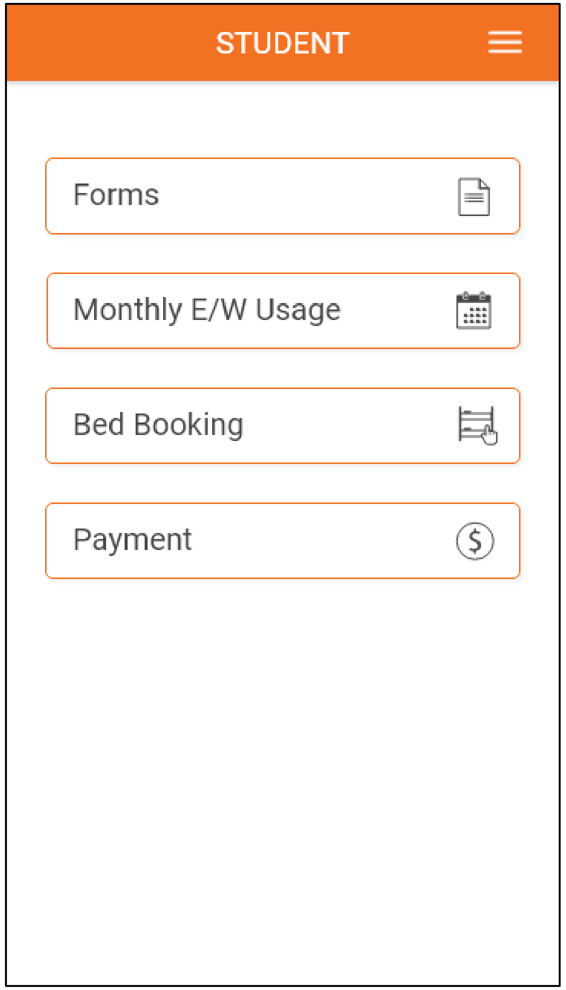
☐ Không hiển thị lại

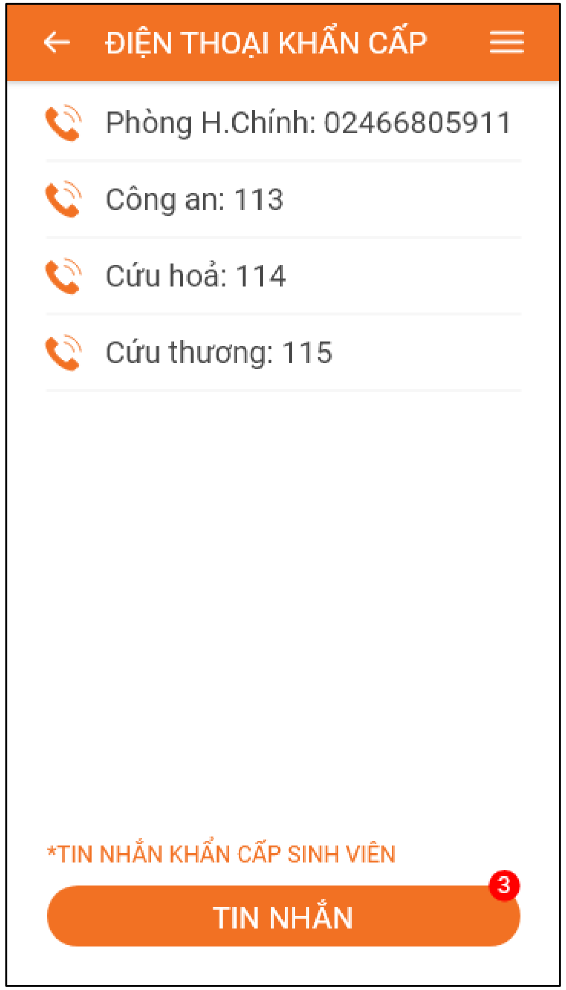
OK



Nguyễn Việt Trung
Fap Wallet: 2,800,000 VNĐ

Forms
Monthly E
Bed Booki
Payment
Home
Setting
Notification
Emergency
Log Out
About | Contact


STUDENT
Forms
Monthly E/W Usage
Bed Booking
Payment


ĐIỆN THOẠI KHẨN CẤP

Phòng H.Chính: 02466805911

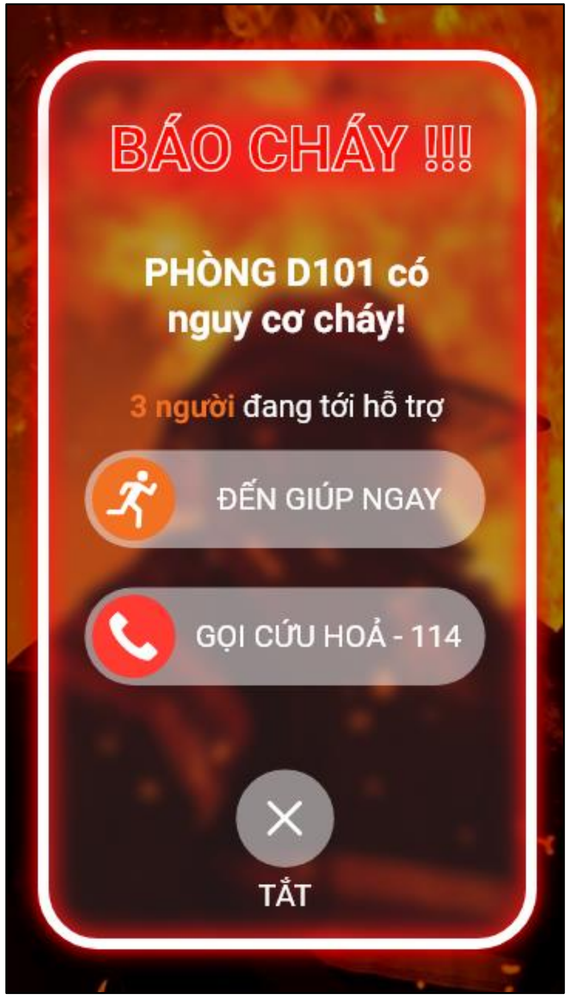
Công an: 113

Cứu hoả: 114

Cứu thương: 115

*TIN NHẮN KHẨN CẤP SINH VIÊN

3
TIN NHẮN

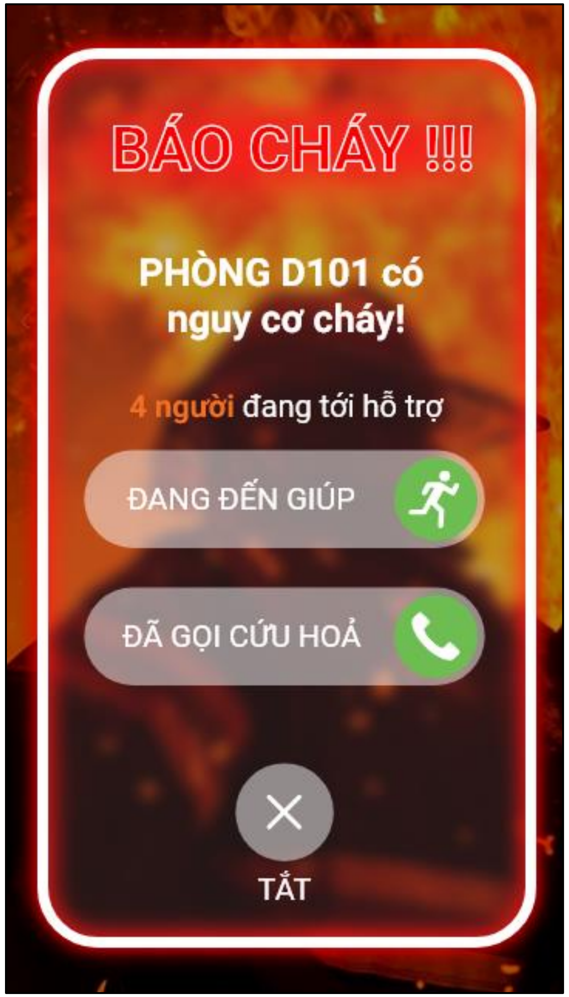


BÁO CHÁY !!!

PHÒNG D101 có nguy cơ cháy!

3 người đang tới hỗ trợ

ĐẾN GIÚP NGAY
GỌI CỨU HOẢ - 114
TẮT



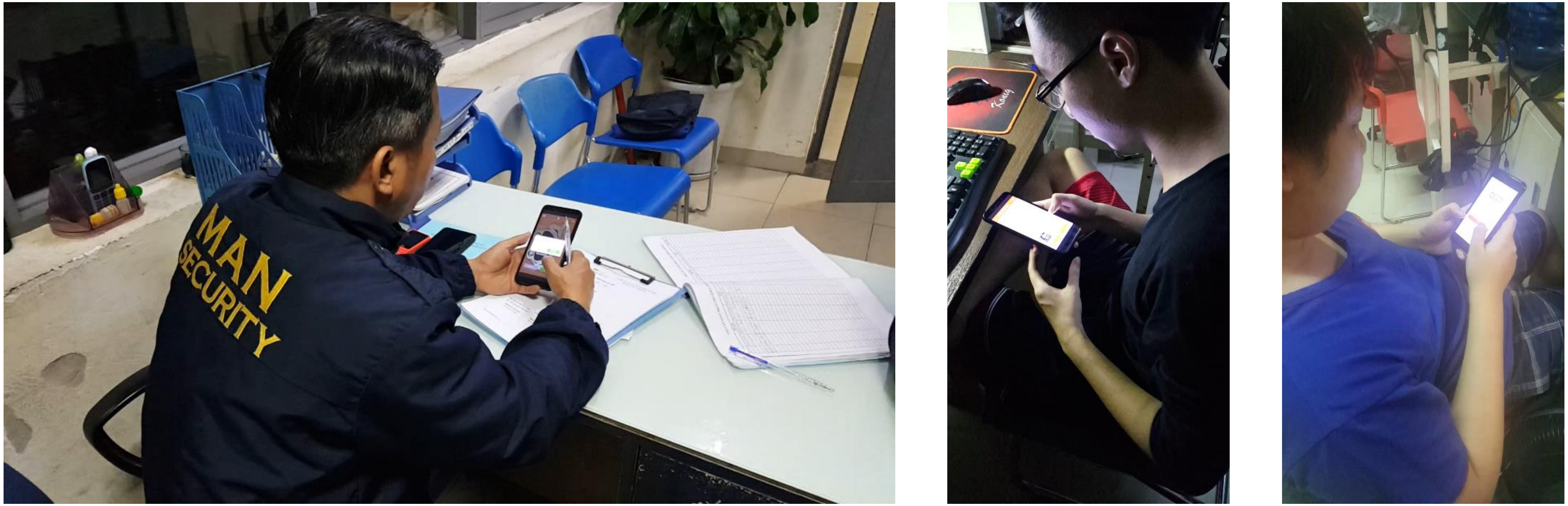
BÁO CHÁY !!!

PHÒNG D101 có nguy cơ cháy!

4 người đang tới hỗ trợ

ĐANG ĐẾN GIÚP
ĐÃ GỌI CỨU HOẢ
TẮT

SECOND PROTOTYPE WITH INTERFACE TEST


MAN
SECURITY

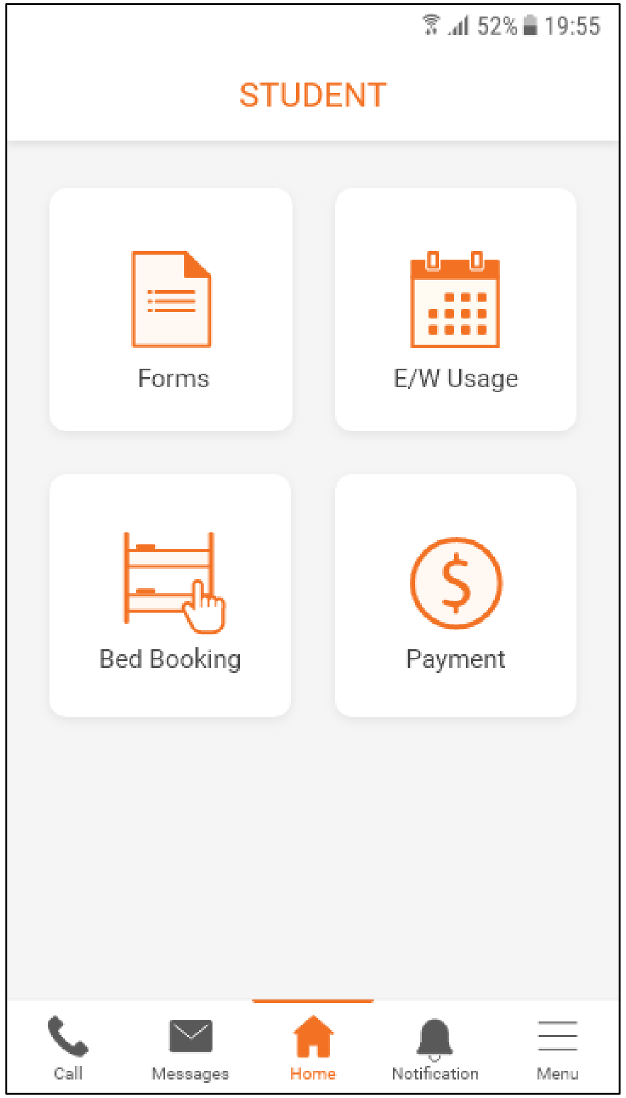
What 3 testers say about the interface	What we do
- Change colors and designs, draw more pictures, app too many words - Difficult buttons, enlarge - The app looks monotonous, old fashion, poor aesthetics, looks poor - The major and minor parts are not clear - Redesigned fire alarm screen for stand out more - The book bed section needs to add the empty bed list - The tables are uncomfortable, look like the stock market table - The color looks so eye-hurting - Don't understand the table to see if the electricity and water numbers are by period or by month, and how to perform? - Add/omit some information in Checkout/Maintenance form of Guard account - Add student/room list to check directly to guard account.	- Redesign most screens - Draw more icon and image to replace words - Apple more shadow and add more boxes or cards - Change the way use colors - Change composition to make it clearer - Change table and components color, style - Change buttons style and active button area - Add/omit information in checkout/maintenance form - Add student/room list to guard account - Change EW Usage View of Student to view each month instead of semester - Add warning for guard if the usage collected is too large or negative comparing to last month’s usage

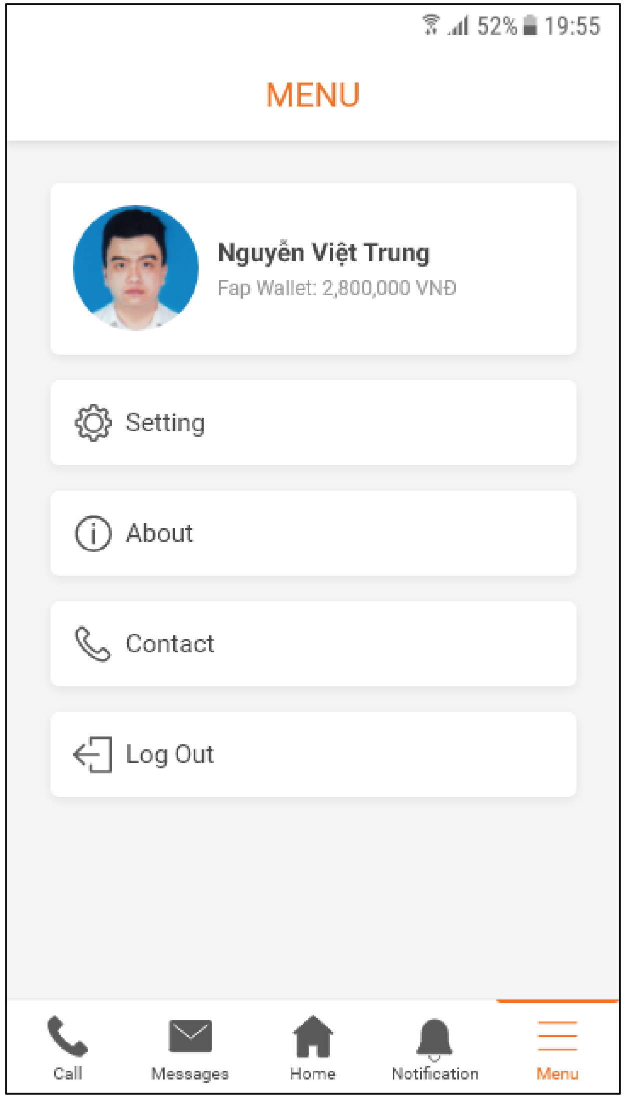
5

UI DESIGN & DESIGN FINALIZATION

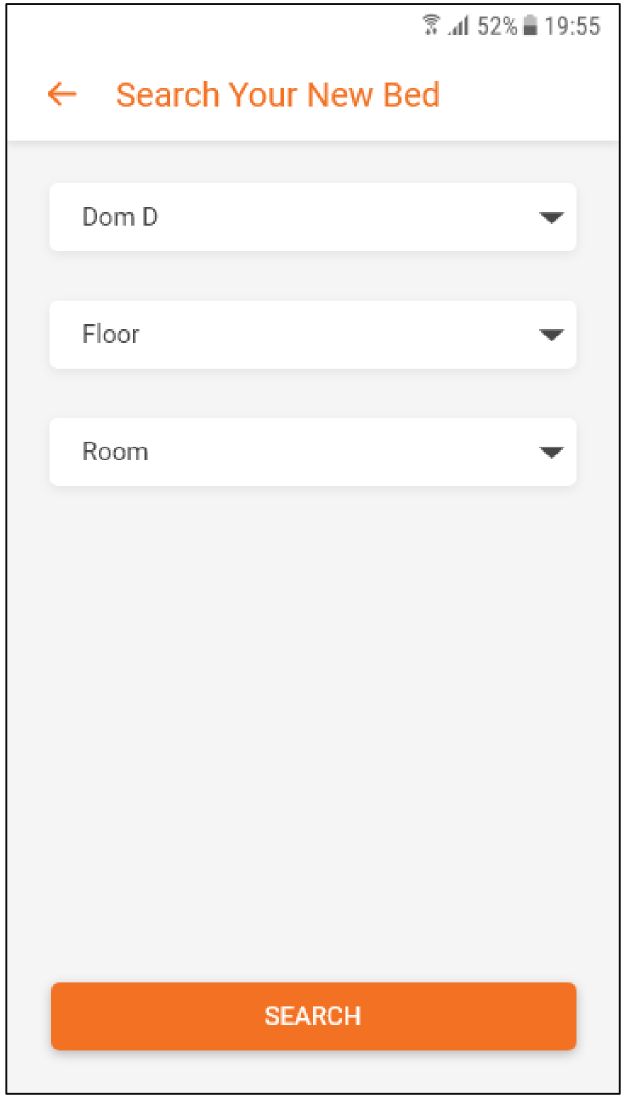
5.5

FINAL XD DESIGN PROTOTYPE

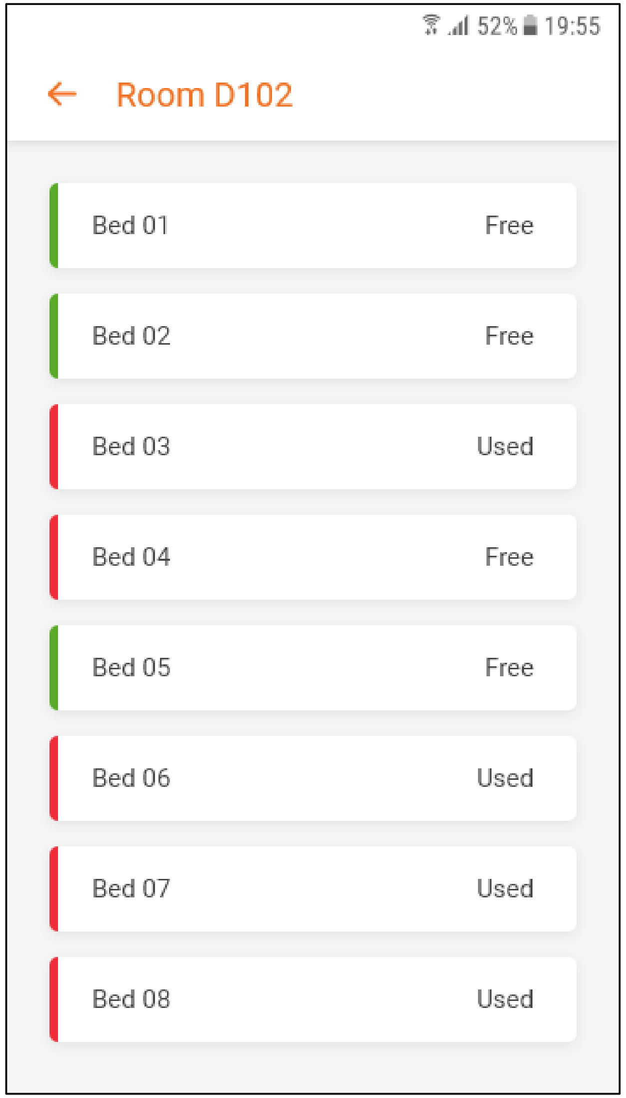

52% 19:55
STUDENT
Forms
E/W Usage
Bed Booking
Payment
Call
Messages
Home
Notification
Menu


52% 19:55
MENU
Setting
About
Contact
Log Out
Call
Messages
Home
Notification
Menu

Nguyễn Việt Trung
Fap Wallet: 2,800,000 VNĐ

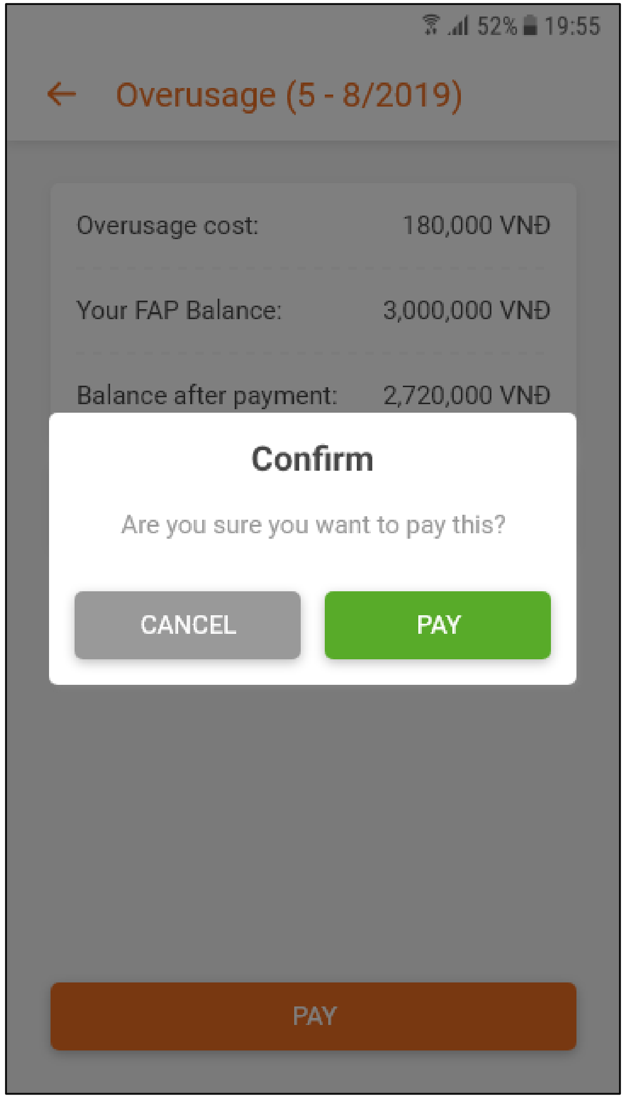

52% 19:55
Search Your New Bed
Floor
Room
SEARCH

Dom D



Room D102

Bed 01	Free
Bed 02	Free
Bed 03	Used
Bed 04	Free
Bed 05	Free
Bed 06	Used
Bed 07	Used
Bed 08	Used

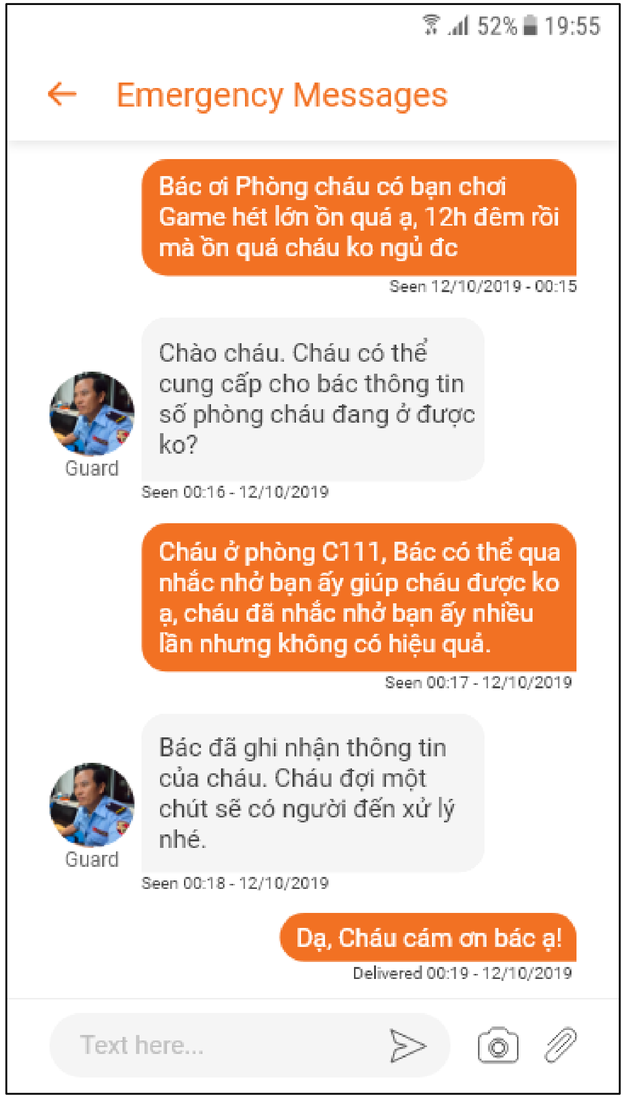


Overusage (5 - 8/2019)

Overusage cost:	180,000 VNĐ
Your FAP Balance:	3,000,000 VNĐ
Balance after payment:	2,720,000 VNĐ

Confirm

Are you sure you want to pay this?



Emergency Messages

Bác ơi Phòng cháu có bạn chơi Game hét lớn ồn quá ạ, 12h đêm rồi mà ồn quá cháu ko ngủ đc

Seen 12/10/2019 - 00:15

Guard: Chào cháu. Cháu có thể cung cấp cho bác thông tin số phòng cháu đang ở được ko?

Seen 00:16 - 12/10/2019

Cháu ở phòng C111, Bác có thể qua nhắc nhở bạn ấy giúp cháu được ko ạ, cháu đã nhắc nhở bạn ấy nhiều lần nhưng không có hiệu quả.

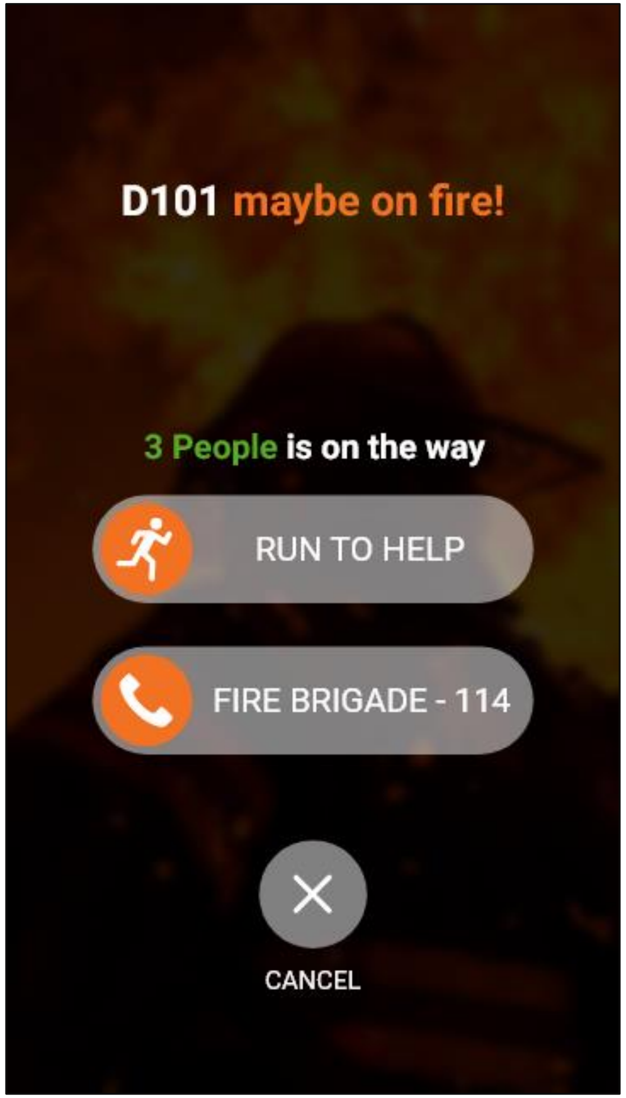
Seen 00:17 - 12/10/2019

Guard: Bác đã ghi nhận thông tin của cháu. Cháu đợi một chút sẽ có người đến xử lý nhé.

Seen 00:18 - 12/10/2019

Dạ, Cháu cám ơn bác ạ!

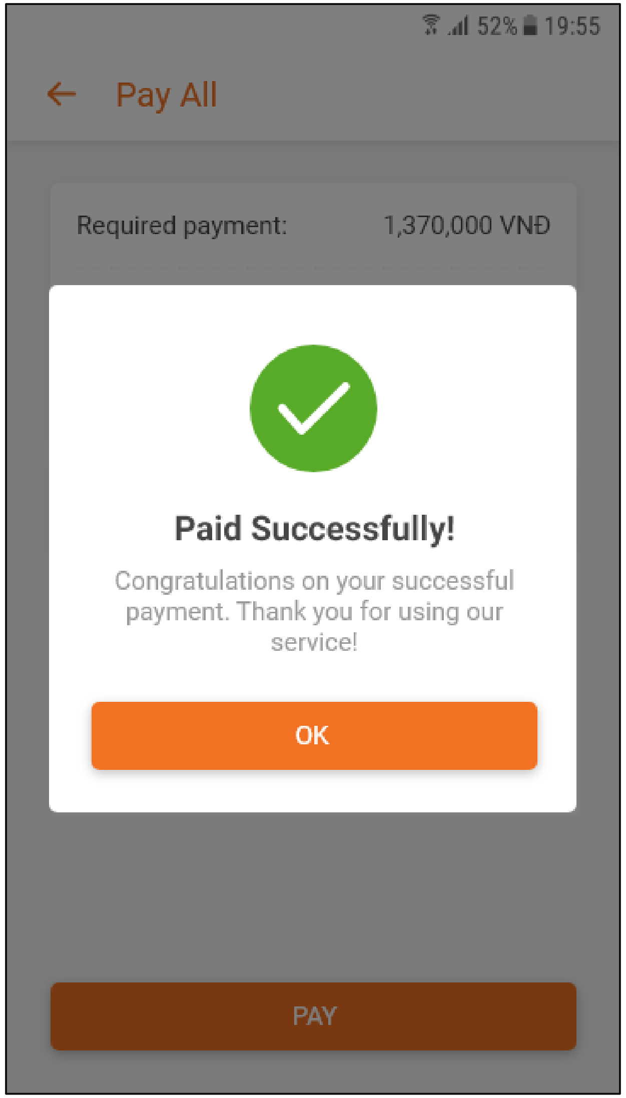
Delivered 00:19 - 12/10/2019



D101 maybe on fire!

3 People is on the way

RUN TO HELP
FIRE BRIGADE - 114
CANCEL



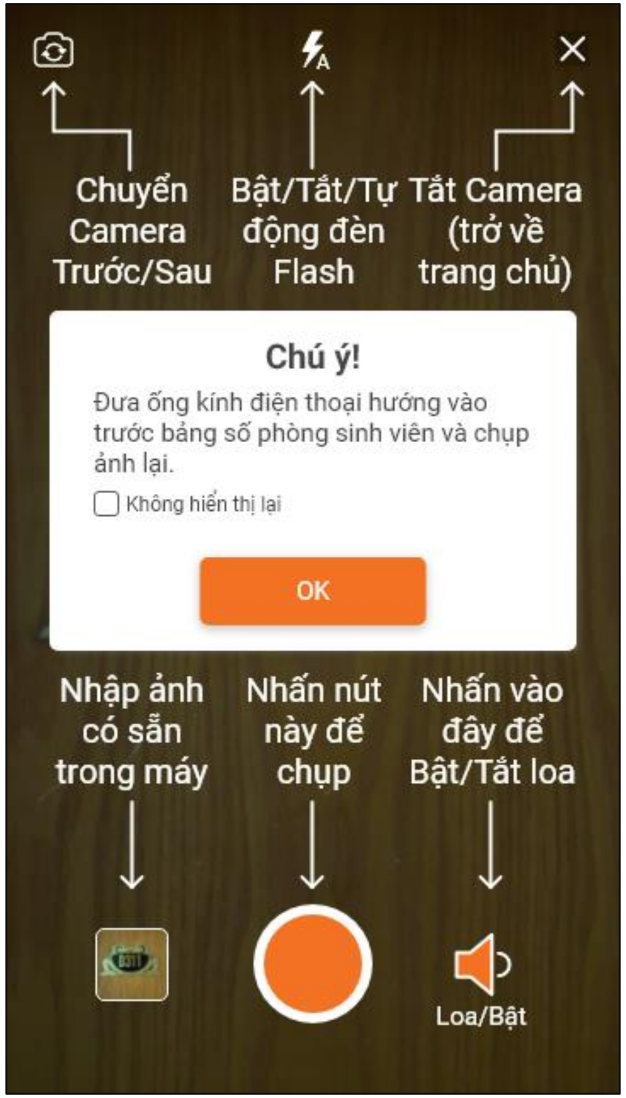
52% 19:55
Pay All

Required payment: 1,370,000 VNĐ

Paid Successfully!

Congratulations on your successful payment. Thank you for using our service!

OK
PAY



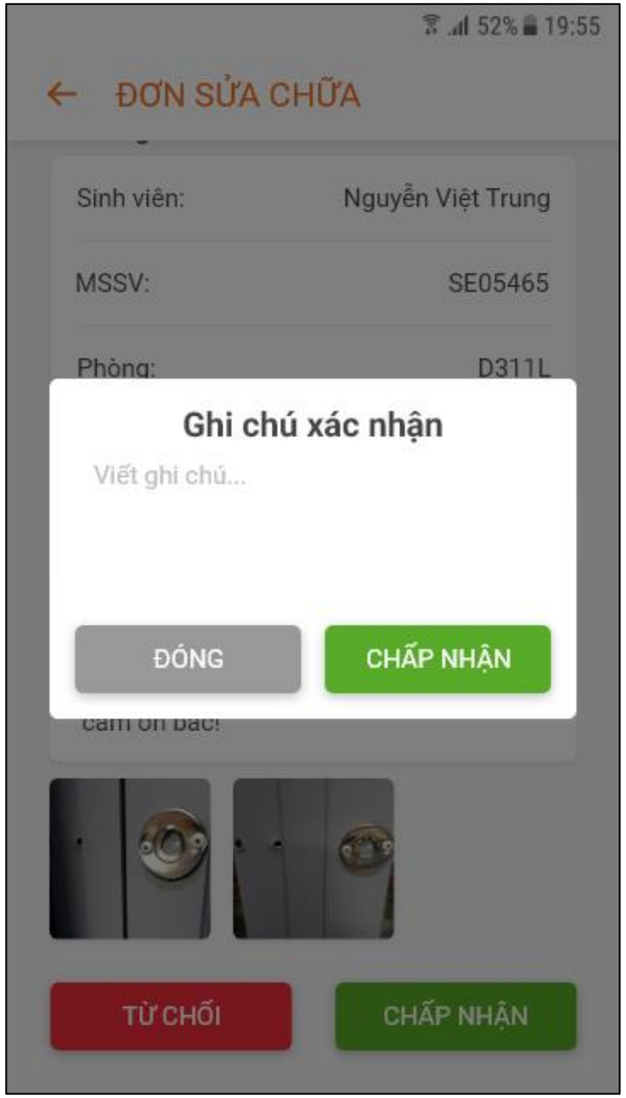
Chuyển Camera Trước/Sau
Bật/Tắt/Tự động đèn Flash
Tắt Camera (trở về trang chủ)

Chú ý!

Đưa ống kính điện thoại hướng vào trước bảng số phòng sinh viên và chụp ảnh lại.

☐ Không hiển thị lại

OK
Nhập ảnh có sẵn trong máy
Nhấn nút này để chụp
Nhấn vào đây để Bật/Tắt loa
Loa/Bật


52% 19:55
← ĐƠN SỬA CHỮA

Sinh viên: Nguyễn Việt Trung

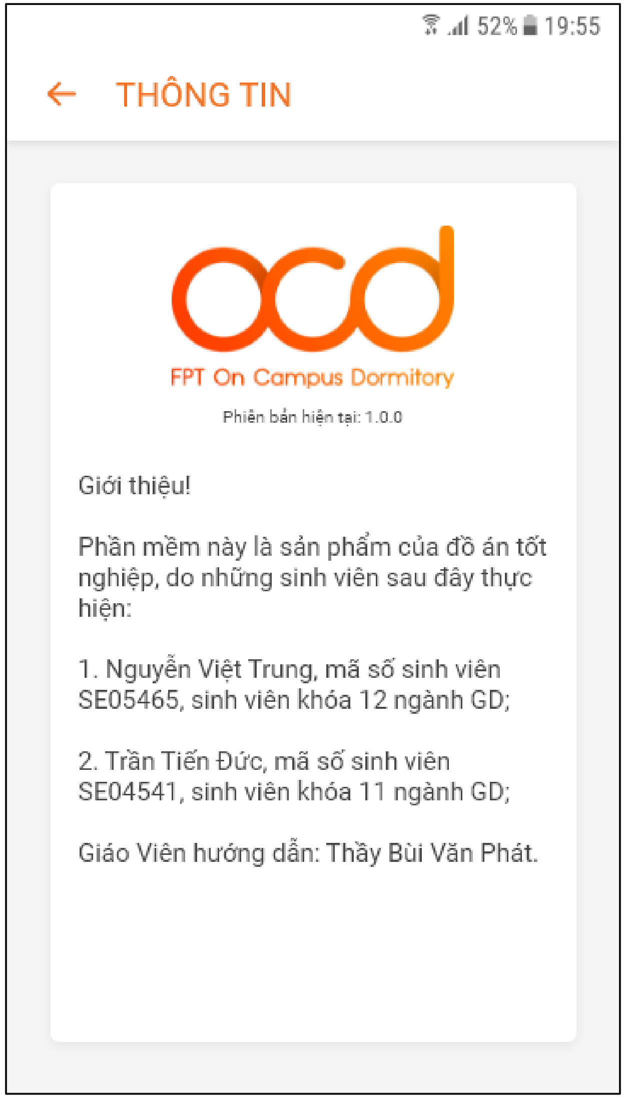
MSSV: SE05465

Phòng: D311L

Ghi chú xác nhận

Viết ghi chú...

ĐÓNG
CHẤP NHẬN
cảm ơn bác!
TỪ CHỐI
CHẤP NHẬN


52% 19:55
← THÔNG TIN
ocd
FPT On Campus Dormitory

Phiên bản hiện tại: 1.0.0

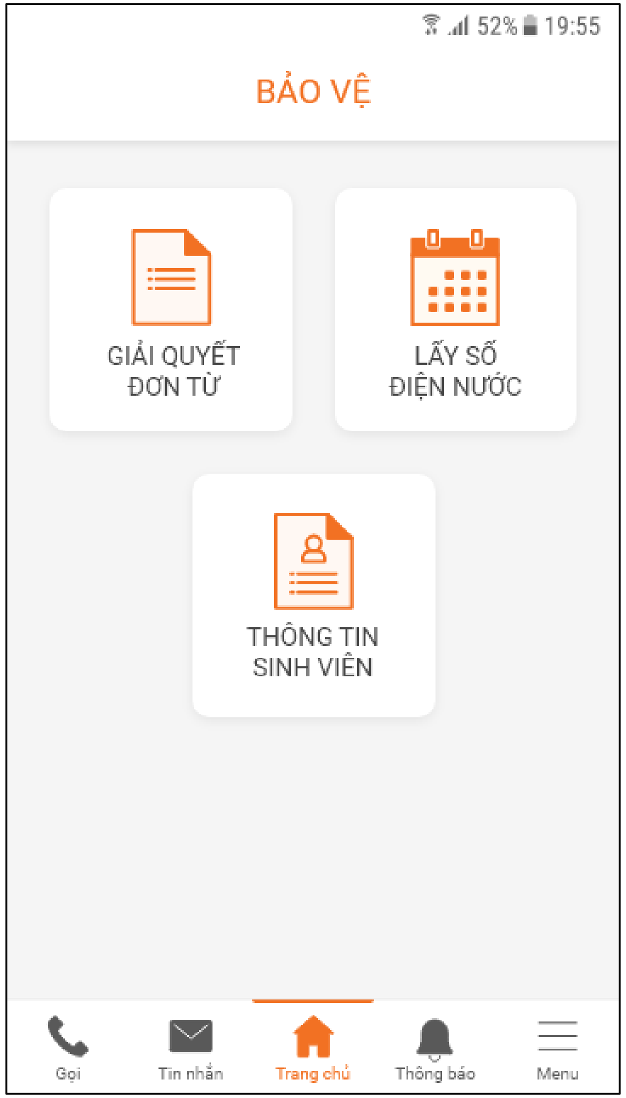
Giới thiệu!

Phần mềm này là sản phẩm của đồ án tốt nghiệp, do những sinh viên sau đây thực hiện:

1. Nguyễn Việt Trung, mã số sinh viên SE05465, sinh viên khóa 12 ngành GD;

2. Trần Tiến Đức, mã số sinh viên SE04541, sinh viên khóa 11 ngành GD;

Giáo Viên hướng dẫn: Thầy Bùi Văn Phát.


52% 19:55
BẢO VỆ
GIẢI QUYẾT ĐƠN TỪ
LẤY SỐ ĐIỆN NƯỚC
THÔNG TIN SINH VIÊN
Gọi
Tin nhắn
Trang chủ
Thông báo
Menu

FINAL PROTOTYPE TEST

FINAL TEST SUS SCORE

	Mạnh	Quyền	Trường	Tú	Hưng	Trung	Guard
1. I think that I would like to use this system frequently.	Agree	Totally Agree	Neutral	Agree	Neutral	Agree	Totally Agree
2. I found the system unnecessarily complex.	Agree	Neutral	Disagree	Disagree	Neutral	Totally Disagree	Totally Disagree
3. I found the system unnecessarily complex.	Agree	Totally Agree	Agree	Neutral	Agree	Totally Agree	Totally Agree
4. I think that I would need the support of a technical person to be able to use this system.	Totally Agree	Agree	Disagree	Neutral	Disagree	Disagree	Agree
5. I found the various functions in this system were well integrated.	Neutral	Totally Agree	Totally Agree	Neutral	Totally Agree	Totally Agree	Neutral
6. I thought there was too much inconsistency in this system.	Agree	Neutral	Disagree	Disagree	Disagree	Neutral	Neutral
7. I would imagine that most people would learn to use this system very quickly.	Neutral	Totally Agree	Agree	Agree	Agree	Totally Agree	Totally Agree
8. I found the system very cumbersome to use.	Neutral	Totally Disagree	Disagree	Totally Disagree	Disagree	Disagree	Disagree
9. I felt very confident using the system.	Disagree	Totally Agree	Neutral	Neutral	Neutral	Totally Agree	Totally Agree
10. I needed to learn a lot of things before I could get going with this system.	Totally Agree	Totally Agree	Disagree	Disagree	Disagree	Disagree	Disagree

FINAL TEST SUS SCORE

	O/E	Mạnh	Quyền	Trường	Tú	Hưng	Trung	Guard
1. I think that I would like to use this system frequently.	-1	3	4	2	3	2	3	4
2. I found the system unnecessarily complex.	5-	4	2	1	1	2	0	0
3. I found the system unnecessarily complex.	-1	3	4	3	2	3	4	4
4. I think that I would need the support of a technical person to be able to use this system.	5-	4	3	1	2	1	1	3
5. I found the various functions in this system were well integrated.	-1	2	4	4	2	4	4	2
6. I thought there was too much inconsistency in this system.	5-	3	2	1	1	1	2	2
7. I would imagine that most people would learn to use this system very quickly.	-1	2	4	3	3	3	4	4
8. I found the system very cumbersome to use.	5-	2	0	1	0	1	1	1
9. I felt very confident using the system.	-1	1	4	2	2	2	4	4
10. I needed to learn a lot of things before I could get going with this system.	5-	4	4	1	1	1	1	1
MARK (Sum*2.5)		35	72.5	72.5	67.5	70	85	77.5
AVERAGE MARK		68.6						

6

SIMULATION FUNCTION