



**ĐẠI HỌC FPT**

**FPT UNIVERSITY**  
Capstone Project Document



# SeasonJob

*Application Design*

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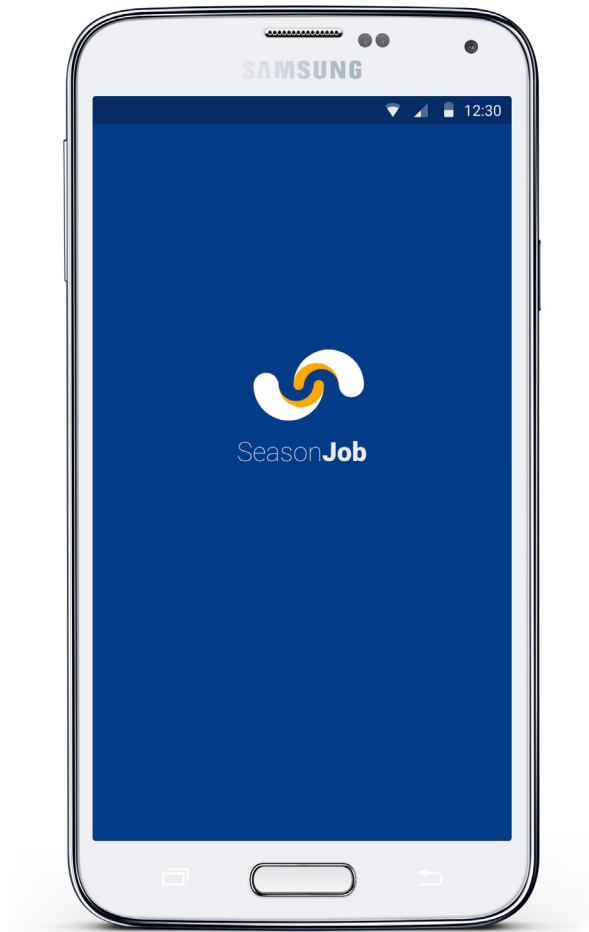


01

# Project Proposal



## 1.1.1 Name of project



**SeasonJob** - The name represents features that our app wants users towards. This is an application to help find seasonal jobs and seasonal workers. We bring new experiences with user-oriented functions: You can find yourself a short-term job, do it during the day and can get paid right after the job is done.

## 1.1.2 Problem Abstraction

One day at the end of April, we met to discuss the upcoming 4-month project. We talked about everything mixed with different moods: worries, concerns, regrets. And in those stories, we talked about difficulties in recruiting workers. When the issue was discussed, we realized that there were many information channels linking long-term jobs, but for short-term jobs, it seemed to be left open.

Nowadays, seasonal work is quite popular because anyone can become a seasonal worker. Especially, there are many seasonal jobs which not require proficiency or other rigorous requirements. However, for each job that seasonal workers have experience working in that position, it will take priority. After that, we decided to work together in order to overcome the inconveniences in the process of connecting labor supply and demand in the most convenient, cheapest and most effective form.



## 1.2.1 Defind Problem

Missing an abundant source of labor in big cities are wasting a lot of time and money to complete jobs that not require long-term work. Subjects participating in seasonal jobs such as:

Students who not have a job, are on vacation, or have plenty of free time during the day, want to find seasonal jobs to get more income to cover their daily living expenses, facilities or can cover more about tuition fees.

Those who have graduated from lower and upper secondary schools but haven't found suitable jobs. Currently, they are very difficult to get jobs that require qualifications, can only participate in common labor jobs and have a low salary. So this object is very difficult to find a suitable job. Seasonal jobs are a good choice while looking for a new opportunity for you.

Middle-aged workers are looking for jobs to increase their income without too much effort. Those who have flexible time funds can rotate their working positions to do seasonal work in a short time. These people will often have to determine how to allocate time funds appropriately to perform the main job as well as seasonal work in a reasonable and highly effective way.



# 1.2.2 Market Research

## Market Trend

### Market services are the main driver of job growth

The share of agriculture in total employment is being narrowed in all national income groups.

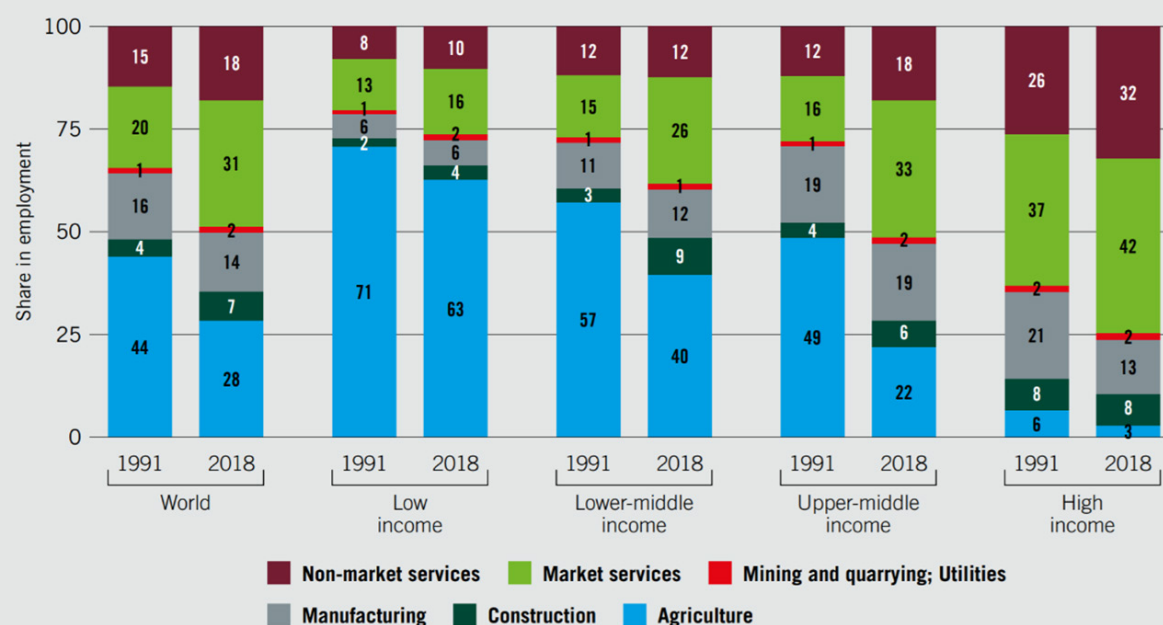
Globally, the share of agriculture has decreased from 44% in 1991 to 28% in 2018.

In low-income countries, 63% of workers still work in the agricultural sector in 2018, down 8% since 1991. Extensive sectors are supposed that construction and non-service sectors, market and most importantly market services. At the global level, these services account for nearly half of all jobs in 2018.

A unit is considered to render non-market services when it provides them free of charge or at prices which aren't economically significant. These service activities are found in education, health, social work and administration.

Market services are defined as those services produced to sell on the market with price which intended to cover production costs and provide a profit for the producer.

Distribution of employment by aggregate sectors, global and by country income group, 1991 and 2018 (percentages)



Note: The categories of aggregate economic activities are defined in the documentation for the ILOSTAT database ([https://www.ilo.org/ilostat-files/Documents/description\\_ECO\\_EN.pdf](https://www.ilo.org/ilostat-files/Documents/description_ECO_EN.pdf)).

Source: ILO modelled estimates, November 2018.

# 1.2.2 Market Research

## Labor force in Vietnam

The labor structure in the sectors is shifting from the Agriculture, Forestry and Fisheries sector to the Industry and Construction sector and Services.

Workers aged 15 and over have jobs in the Industry and Construction sector of 15.6 million, accounting for 28.6%; Service area is 19.5 million people, accounting for 36.0%.

"Simple labor" attracts the most human resources in the labor market in Vietnam, accounting for 35.0% of the employed population nationwide. The rate of people doing simple jobs is still high in the context of technical and professional training (from the level of "primary vocational training" or higher) for employees is still low (about 22.5% for the labor force and 22.2% for employed workers).

According to the General Statistics Office, the number of people in working age but underemployed in Vietnam by the first quarter of 2019 was 1,109,200 people. This will be the amount of potential customers who will use the App later. In addition, the number of more than 54 million employed people can still use the App to find jobs in their free time to earn extra income.

	Workforce aged 15 and over (Thousand people)	Workers aged 15 and over are working (Thousand people)
First quarter of 2015	53 643,9	52427,0
First quarter of 2016	54 404,9	53 288,8
First quarter of 2017	54 505,1	53 363,5
First quarter of 2018	55 099,3	53 992,8
First quarter of 2019	55 431,2	54 322,0

# 1.2.2 Market Research

## Benefits of seasonal jobs

**Seasonal jobs** are jobs that can only be done in a short period of time and benefit immediately to both parties. When it comes to resolving urgent issues, organizations tend to hire outsiders in a short period of time to complete work on schedule.

- Flexible Schedules
- Try something new
- Learn new skills
- Networking



- Flexible Workforce
- Save time
- Reduce work pressure

## 1.2.2 Market Research

### Seasonal jobs are popular in Vietnam

Below are the results obtained when referring to websites that list popular seasonal jobs. We have filtered back and see which jobs appear more and more frequently on those sites. Next is to choose jobs that don't require too much expertise.

- 1 Service staff
- 2 Domestic help, babysitting
- 3 Hand out flyers
- 4 Activists, advertising models
- 5 Shipper
- 6 Write articles online
- 7 Repairing and installing household goods

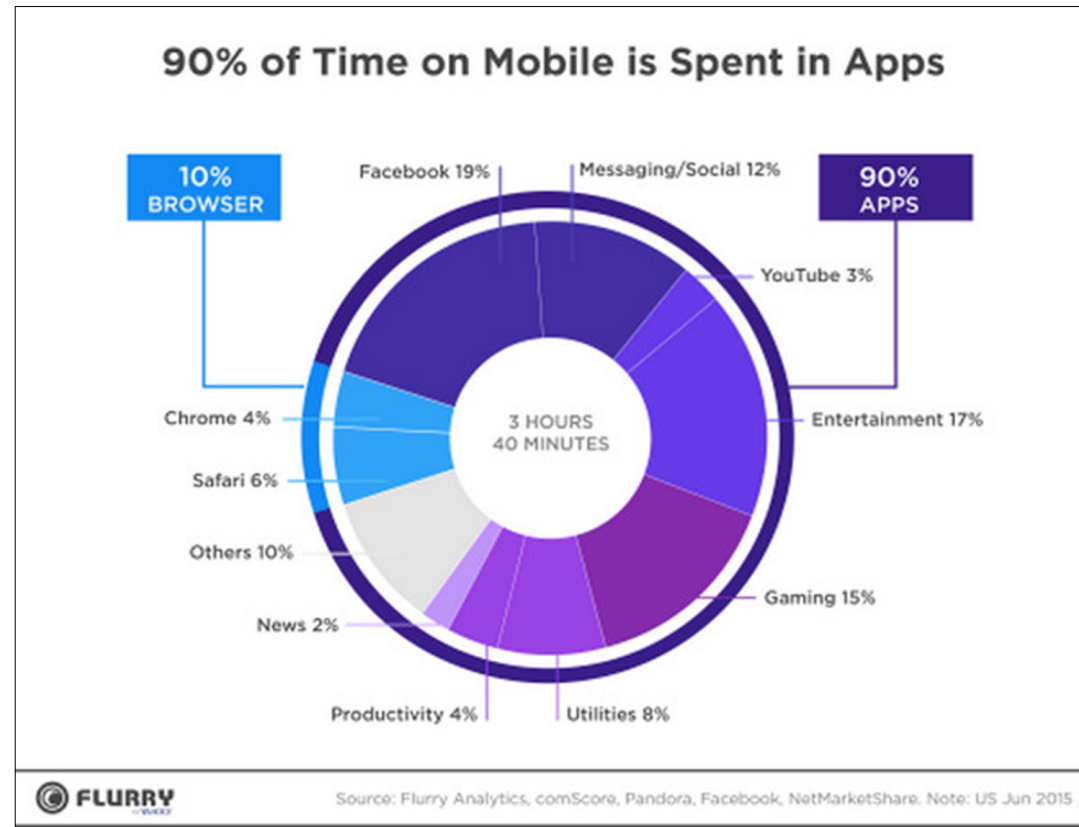
## 1.2.2 Market Research

### The advantages of Mobile Application

The following advantages will help you understand why Seasonjob is made on mobile app platform instead of a website or mobile web.

- Popularity and mobility features
- Mobile app is more personal
- The ease of sending notifications to users
- Use mobile device features
- Freedom of design
- Customers do not have to wait long to access information
- Increase brand value and brand awareness

**In addition,** the most recent study by Flurry Analytics shows that 90% of the time users use phones are interacting with mobile applications, only 10% use the browser to access the internet.



# 1.2.2 Market Research

## The impact of mobile devices on hiring and finding jobs

In 2017, This Way — a hiring solutions company — released an infographic that showcases recruiting statistics and hiring trends that are occurring all over the globe. Among the hottest trends in the recruiting landscape is mobile recruiting technology.

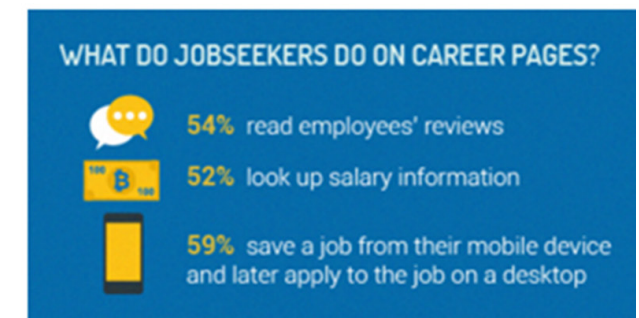
45% of job seekers search for jobs daily on their mobile device  
89% of job seekers think mobile devices play a critical role in the job hunting process

### What do job seekers do on career pages?

54% read employees' reviews  
52% look up salary information  
59% say it is important to save a job from their mobile device and later apply to the job on a desktop

### What companies are optimising for mobile?

Careers website: 39%  
Job postings: 36%  
Application process: 36%



## 1.2.2 Market Research

### Smartphone operating system popular in Vietnam

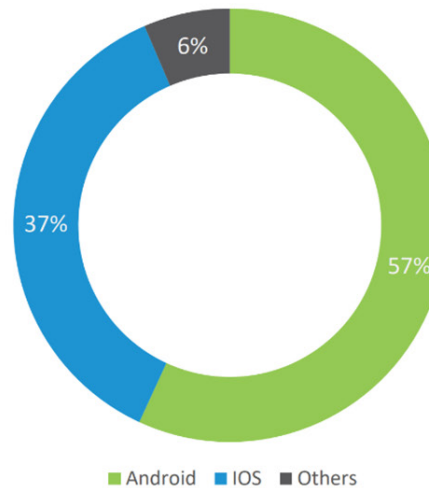
A survey of Appota performed on 96 million population (6/2018) of Vietnam show that:

App developers who want to offset the scale mass must be present on Google Play Store as the Android OS share over 57% of total market, and 63% new smartphone sale in the first quarter of 2018 Android runs.

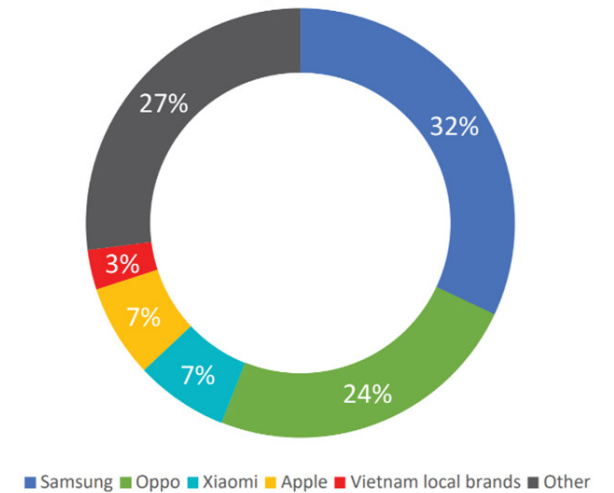


#### MOBILE OS TREND

Vietnam Mobile OS Share, end of 2017



Vietnam Smartphone Sale – Q1 2018



## 1.2.3 Competitor Research





App	Advantages	Disadvantages
 <b>Freelancer</b>	<ul style="list-style-type: none"> <li>• There is no charge when posting</li> <li>• There are national flags in each country</li> <li>• Edit professional skills based on column chart</li> </ul>	<ul style="list-style-type: none"> <li>• Only for online jobs: design, writing code, writing articles, ...</li> <li>• Because there is no charge, it is difficult to control the reliability of each application.</li> </ul>
 <b>Wonolo</b>	<ul style="list-style-type: none"> <li>• Show clearly the steps of implementation, easy to manage</li> <li>• Detailed worker information (how many jobs have been done, number of jobs canceled, evaluated)</li> </ul>	<ul style="list-style-type: none"> <li>• Still a job posting form</li> <li>• Only limited to the United States</li> <li>• Seasonal employer cannot actively find people to work</li> </ul>
 <b>Hozo</b>	<ul style="list-style-type: none"> <li>• Clear division of work types</li> <li>• Wallet function</li> <li>• Useful location positioning function</li> </ul>	<ul style="list-style-type: none"> <li>• Users must register an account for the first time using the app</li> <li>• Job posting form is only 1 type fixed</li> <li>• Not strict in authenticating user identity</li> </ul>
 <b>Tidy</b>	<p>The professions that require expertise, the app suggests questions to properly identify professions.</p>	<ul style="list-style-type: none"> <li>• The application only supports finding workers</li> <li>• Little user information, poor authentication issues.</li> </ul>

Table 1. Analysis of competitors

## 1.2.4 Technology

- **Android Systems**

Android is an open-source Linux-based operating system designed for mobile devices with touch screens such as smartphones and tablets.

Open source, along with a non-binding license, allows device, mobile network and developers to adjust and distribute Android freely. These factors have helped Android become the most popular smartphone platform in the world.

- **Google FireBase**

Firebase is a cloud-based real-time database service provided by Google to help developers quickly develop applications by simplifying database operations. Firebase offers many services to support developers to build their applications. Integrating Firebase into the application can lower developers' worries at the coding level, especially, developers writing web-related applications.

- **GPS**

Global Positioning System (GPS) is a system that determines the location based on the position of artificial satellites, designed, built, operated and managed by the US Department of Defense. At the same time, the coordinates of a point on the ground will be determined if the distance from that point to at least three satellites is determined.

- **OTP code**

OTP stands for One Time Password, which means that the password is used only once. It is a series of randomly generated characters or digits that are sent to the user's phone number for additional confirmation when the user performs online transactions.

- **QR code**

The QR Code application mainly used in inventory management in many different and most used industries in Japan, but today its application is developed in almost every field and spread to many countries around the world.

QR codes are used in SeasonJob to confirm employee information when they arrive at work.



Android System



Google Firebase



GPS



OTP code



QR code

# 1.2.5 Survey

## Overview

- **Investigation time:**

From 12h, 27/5/2019 to 23h, 31/05/2019 (Phase 1);  
From 16/06/2019 to 19/06/2019 (Phase 2)

- **Survey form:**

online survey form (Google survey)

- **Purpose of the survey**

To find out the status of seasonal workers and search for current seasonal jobs.

- **There are 3 types of questions we have used in the survey:**

1. Questions about anthropology
2. Questions about experience
3. Questions about the views and opinions of the surveyed people.

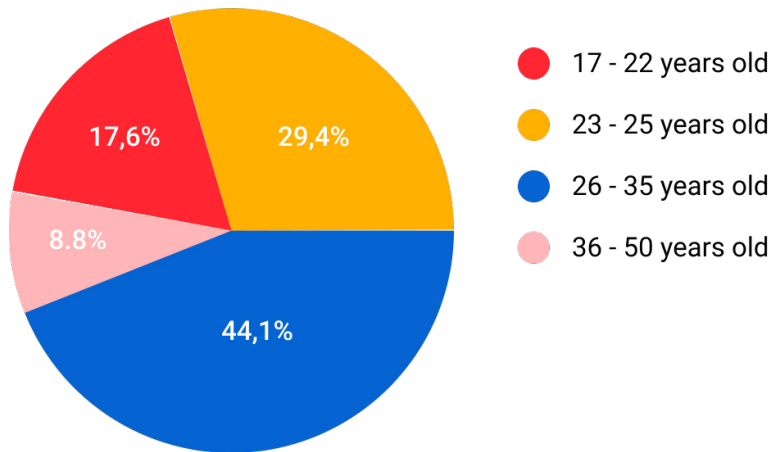
	Actual data (People)	Rate (%)
Number of participants	184	100
Detail		
Seasonal Employer	34	18.47
Seasonal Worker	76	41.30
The rest	74	40.23

Table 2. Summary of the number of people doing the survey

# 1.2.5 Survey

## Seasonal Employer

### How old are you?



### What difficulties do you have when finding seasonal workers?

There is no ground to determine the competency of worker

27

Distance issues between workers and work place.

5

It is difficult to give a payoff because of not knowing

16

Long search time there is no interaction with workers

15

### What difficulties do you have when using a finding seasonal worker app?

Complex usage

8

It takes a lot of time in the waiting seasonal worker

10

Advertising a lot

10

Candidate authentication issues are not guaranteed

13

Register, login complex

5

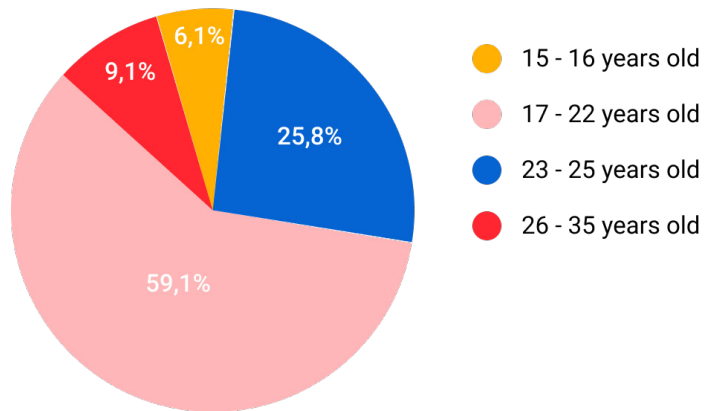
Trouble payment function

5

# 1.2.5 Survey

## Seasonal Worker

How old are you?



What difficulties do you have when finding seasonal jobs?

There is no ground to determine the competency of worker

17

Distance issues between me and work place.

14

It is difficult to give a payoff because of not knowing

15

Long search time there is no interaction with employers

10

The capacity is unsatisfactory

1

Other

1

## 1.2.5 Survey

### Result

From the survey's result, we really understand more about the special things that can affect the functions of the application we are trying to create. Those are the specific characteristics of the users; difficulties when they finding seasonal jobs or finding seasonal workers; the experiences they give us that we will certainly be able to apply to our application, ...

**The following is a summary of the survey results of two potential users of SeasonJob:**

Seasonal Employer	
Age	From 26 to 35
Current place of residence	City
Academic level	University
Characteristics	<ul style="list-style-type: none"><li>- The main job is many, can not do the next task.</li><li>- Many jobs cannot be done by themselves and must rely on people with more expertise.</li></ul>
Need	<ul style="list-style-type: none"><li>- Quickly find suitable people</li><li>- Know the appropriate pay rate</li></ul>
How to find good people to use	<ul style="list-style-type: none"><li>- <b>Ask acquaintances to find households, introduce</b></li><li>- Post job postings on social networks</li><li>- Use the job search website</li></ul>
Difficulties in finding people	There is no ground to determine the capacity of employees
Evaluate important factors	<ul style="list-style-type: none"><li>- <b>Most importantly:</b> working attitude; evaluation from others; skills</li><li>- Normal: Professional, Health, CV</li></ul>

Table 3. Survey result about seasonal employer

## 1.2.5 Survey

### Result

Seasonal Worker	
Age	From 18 to 22
Current place of residence	City
Academic level	High School
Characteristics	<ul style="list-style-type: none"><li>- Have more free time during the day</li><li>- Do not have a lot of professional experience so want to find simple things, do not require skills and expertise</li><li>- Often find out and learn by themselves</li></ul>
Need	<ul style="list-style-type: none"><li>- Increase salary</li><li>- Find jobs to limit free time</li></ul>
How to find good people to use	<ul style="list-style-type: none"><li>- <b>Ask acquaintances to find households, introduce</b></li><li>- Use websites to finding job</li><li>- Finding job application is not really popular</li></ul>
Difficulties in finding people	There is no ground to verify the accuracy and reliability of work
Evaluate important factors	<ul style="list-style-type: none"><li>- <b>Most important:</b> pay; accuracy and reliability of work</li><li>- Normal: work nature (online, indoor, outdoor); geographical distance; Professional ability</li></ul>

Table 4. Survey result about seasonal worker

## 1.2.6 Interview

After conducting a survey, job shadowing and contextual interviews are our next step to define our target users. We interviewed people who were in the survey results and made 8 empathy suitable for SeasonJob.

Traditional empathy maps are split into 4 quadrants (Says, Thinks, Does, and Feels) with the user. Empathy maps provide a glance into who a user is as a whole and are not chronological or sequential.

Empathy maps are used throughout the UX process to establish common ground among team members and to understand and prioritize user needs. In user-centered design, empathy maps are best used from the very beginning of the design process.



# 1.2.6 Interview

## Empathy Mapping - Seasonal Employer

Here are 2 empathy featured and closest to our user needs.

### *Bien's hearing*

- (What influences the customer?)
- Friends, colleagues, family
  - Smartphone
  - Laptops (Social Networks, Websites, Forums, ...)

### *Bien's thinking and feeling*

- What is important to the customer?  
What are his hopes, dreams or fears?)
- **Important:**
  - Deadline
  - Quality workers
  - Salary

### *Bien's seeing*

- (What is the customer's environment like?)
- Colleagues
  - Family
  - Notice of facebook / websites
  - The call comes from the applicant to confirm the information

### *Bien's pains*

- Information of applicants is not correct
- Authentication interview again takes a lot of time while in urgent need
- Being bothered by information authentication calls

- **Hope:**
- Find the right person for the missing position
- It does not take long to redefine the skills of the applicant
- Applicants have good working attitude

- **Fear:**
- Many times write post to find people to do but the amount of interaction is low
- It takes a lot of time to wait for people to apply

### *Bien's gains*

- Find an app that focuses on seasonal jobs
- Find the necessary number of employees in a short time
- Applicants have good attitude and skills
- Feeling satisfied, trusting
- Quick and simple online payment. There are receipts that have been clearly paid.

## 1.2.6 Interview

### Empathy Mapping - Seasonal Worker



## 1.2.7 Personas

### Seasonal Employer 1



Age : 30  
Family : Married  
Current residence : Hanoi

#### Bio

Hanh is an office worker. She is married and has a child. Since she is busy with work, there is not much time to clean up the house.

#### Needs

- Workers have good working attitude
- Easily find people to hiring

#### Pain Points

- Workers cancels the appointment without notice
- Bad attitude
- The quality of work is not good.

#### Goals

- Be proactive in making a time appointment
- Easily exchange jobs information with seasonal workers
- No additional charge when the price has been exchanged
- Seasonal workers have good personality
- Feeling trusting and safe

## 1.2.7 Personas

### Seasonal Employer 2



Age : 32  
Family : Married  
Current residence : Hanoi

#### Bio

Tung is the owner of a small restaurant. The number of customers usually increases at rush hour lunch and dinner, which causes problem that store not enough people service staff. He often hired more people who serve by the hour to solve workload problem increased many times in some time frame.

#### Needs

- Find one person per day
- Applicants have good working attitude

#### Pain Points

- Information of applicants is not correct
- Authentication interview again takes a lot of time while in urgent need
- Being bothered by information authentication calls

#### Goals

- Find an app that focuses on seasonal jobs
- Find the necessary number of employees in a short time
- Applicants have good attitude and skills
- Feeling satisfied, trusting and safe
- Quick and simple online payment. There are receipts that have been clearly paid.

# 1.2.7 Personas

## Seasonal Worker 1



Age : 20  
Family : Single  
Current residence : Hanoi

### Bio

Binh is a university student in Hanoi city. He only studied for half a day and the remaining half-day time he often did more freelance work to increase the income beside his parents' allowance.

### Needs

- Jobs capable of doing
- jobs must match the free time
- Worthy pay

### Pain Points

- Difficulty in making payment due to lack of experience
- There is no ground to verify the accuracy and reliability of work

### Goals

- Location of work near the residence
- Feel confident, safe and interested in working
- Find jobs that match your free time

## 1.2.7 Personas

### Seasonal Worker 2



Age : 22  
Family : Single  
Current residence : Hanoi

#### Bio

Lan has just graduated from a university in tourism. Since she did not have much work experience, Lan did not find the right job to study at the school. Lan is having difficulties in financial and daily spending.

#### Needs

- Do extra jobs with wages paid in the same day
- Most suitable home jobs
- Increase monthly income

#### Pain Points

- Many jobs done at night and night
- Do many things so often tired, affecting health.
- Cheated

#### Goals

- The jobs in the house, do not require high health, suitable for women.
- Flexible working time

# 1.3.1 Specify Requirements

## Business Requirements

### a, Our SeasonJob application includes 2 main user objects:

- Seasonal employers: Use SeasonJob to find the most suitable seasonal worker for your job based on the standard filter set.
- Seasonal workers: SeasonJob supports seasonal workers to find the right jobs that are suitable for their specialties and skills, with appropriate time periods. Besides, the search function around the work will really bring a new experience.

### b, Goal of SeasonJob application

- 1: Solve the problem of finding people to work and find seasonal jobs, contributing to reducing the current alarming unemployment rate
- 2: Build a habit of solving work as planned
- 3: Improve life for people who have not had stable jobs currently living in big cities
- 4: Build trust from users, ensure trust when using the suggestions of the application like a relative introduce.

### c, What are the benefits of SeasonJob application?

Understanding the needs of our customers, we strive to create a platform to serve the needs of our customers.

- *Demand-based options*: Regardless of simple or complex work, from needing one person to needing a group of people, SeasonJob is the place to meet your business needs.
- *Reliable workers*: We believe that authentication is a top concern of our customers. Therefore, we offer the evaluation criteria, the level of completion or the high reliability of the identity of the employees as well as the work to ensure service quality.
- *Actively control*: You post job postings, you receive application offers and you will decide who to help you complete the job.

# 1.3.1 Specify Requirements

## Problems – Solutions

Through questions for users when they search for seasonal work or find seasonal workers and learn about similar applications, we have synthesized key issues and solutions.

Users' Pain Points	Possible solutions
Create an account as soon as you first use the application	Allows users to preview basic information, not going into the important information without creating an account
Job posting form is only 1 type fixed, does not go into the requirements of each industry job	Dividing specific sectors with each different expertise, using each form for each professional job
Not strict in authenticating user identity	Seasonal employers: require authentication by phone number and security Seasonal workers: Encourage submission of authentication information, capacity
Job management has not optimized the main information, secondary information	Manage jobs by hour, day, week, month, ...
There are no auction options	For jobs that are not fixed or do not know how much to pay, the auction function will help employers solve this problem.
There are no job offers near the user location	GPS
There is no post fee, so the post is not well controlled	Use down payment to control quality
The seasonal employer does not know the reasonable wage to pay	The auction function will help employers solve this problem.

Table 5. Problems and solution

## Functional Requirements

Function	Seasonal worker	Seasonal employer
<b>Search</b>	<ul style="list-style-type: none"> <li>- Search by job group</li> <li>- Search by keyword</li> <li>- GPS</li> </ul>	<ul style="list-style-type: none"> <li>- Search by keyword</li> <li>- GPS</li> </ul>
<b>Post</b>	Fill in the job description information that can be done	Post articles for each type of job
<b>View</b>	Posts: job details	Posts: job details Candidate profile
<b>Contact / communication</b>	Chat Call	Chat Call
<b>Push notification</b>	Notification from admin Notification from posts	Notification from admin Notification from posts
Manage work progress	<ul style="list-style-type: none"> <li>- CV</li> <li>- Portfolio</li> </ul>	Manage work progress
Manage profile	Profile	Profile
<b>Pay</b>	<ul style="list-style-type: none"> <li>- Online wallet</li> </ul>	<ul style="list-style-type: none"> <li>- Online wallet</li> <li>- Down payment</li> </ul>
Evaluation	<ul style="list-style-type: none"> <li>- Employers evaluating</li> <li>- Work evaluating</li> </ul>	<ul style="list-style-type: none"> <li>- workers evaluating</li> </ul>
Log out / login		

Table 6. Function



02

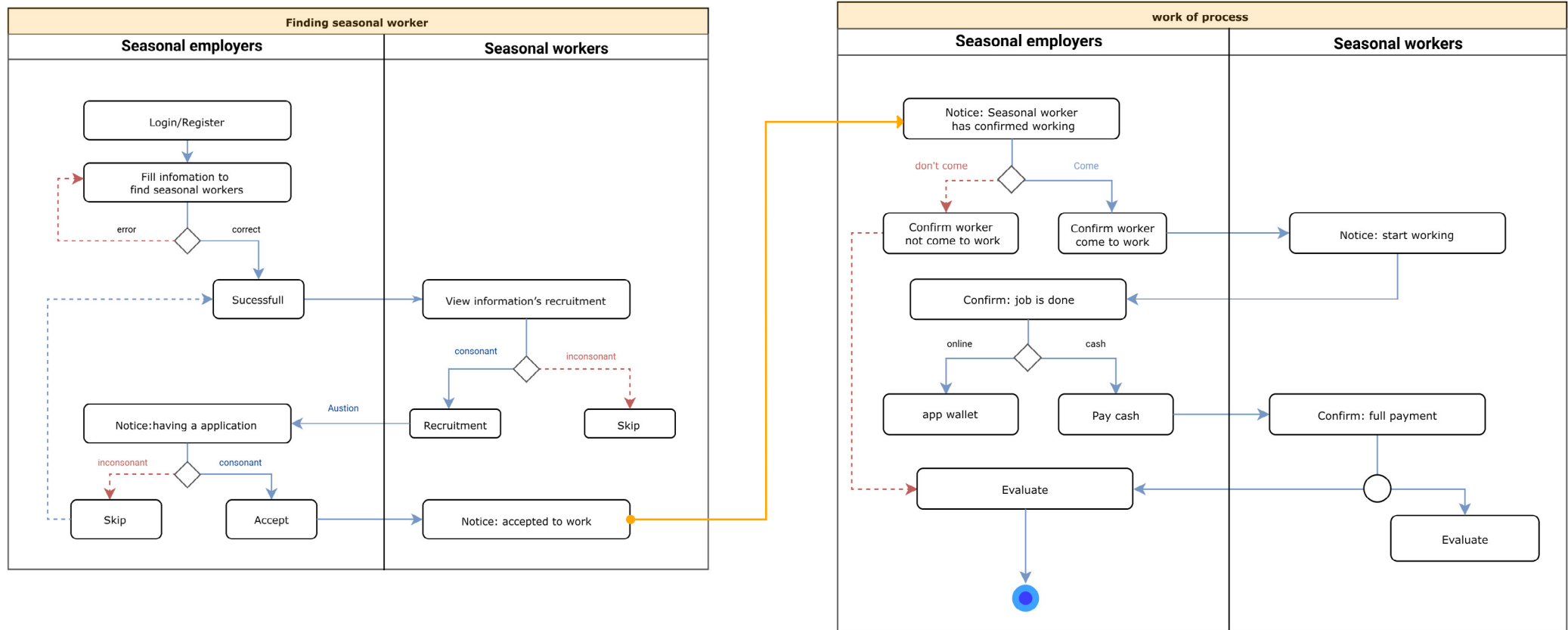
**Design  
Proposal**



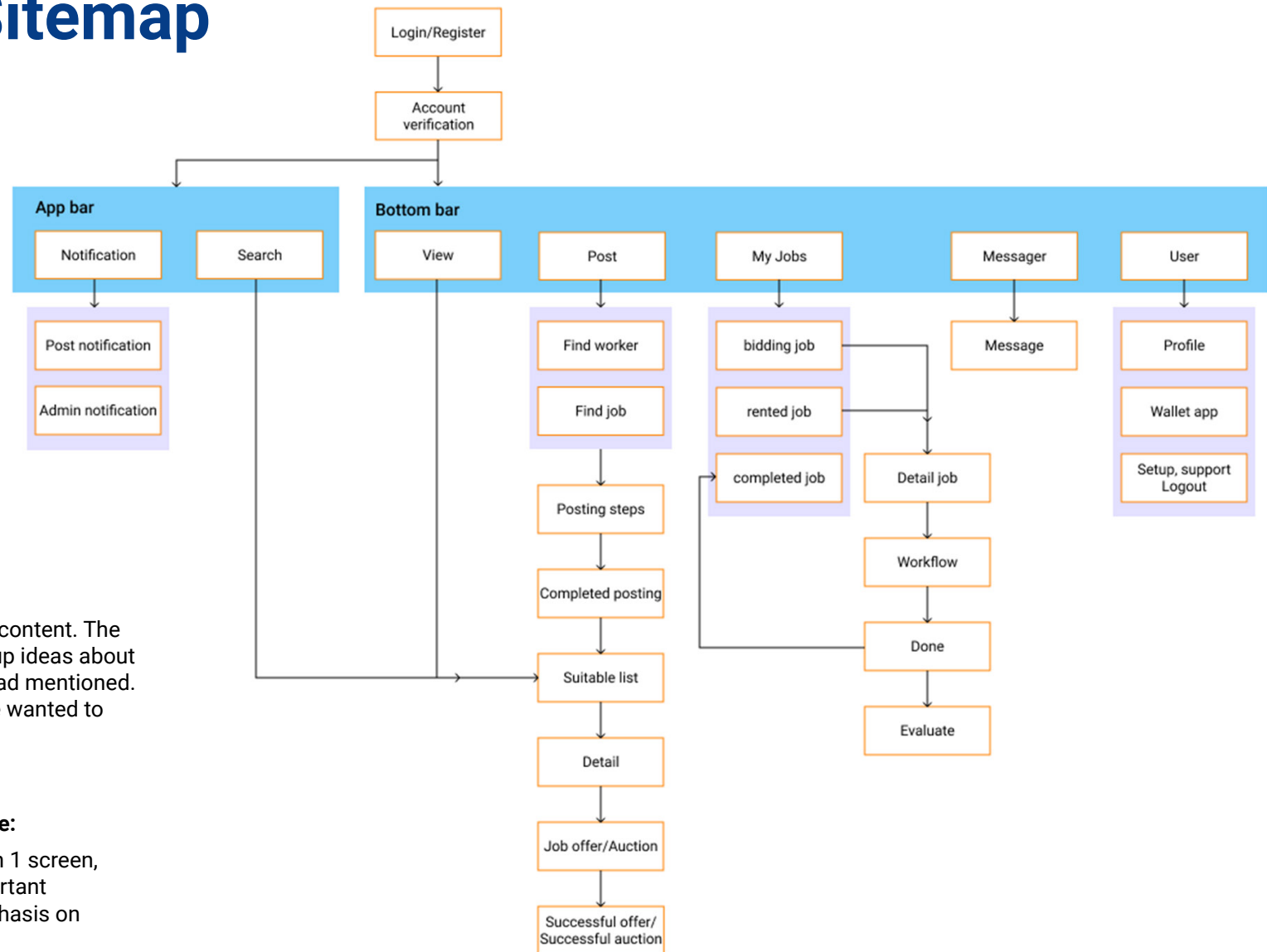
# 2.1 The First Workflow

## Seasonal Employer/ Seasonal Worker

Workflow is a basic visual process of hiring workers and the process of managing work progress. Looking here, we can understand easily how the application works, how to handle the system for each user operation.



## 2.2 The First Sitemap



The sitemap is representing all of the app's content. The first sitemap was built from our first came up ideas about SeasonJob. It has all the features that we had mentioned. This sitemap also showed which feature we wanted to focus on and how it worked.

**Support software:** illustrator

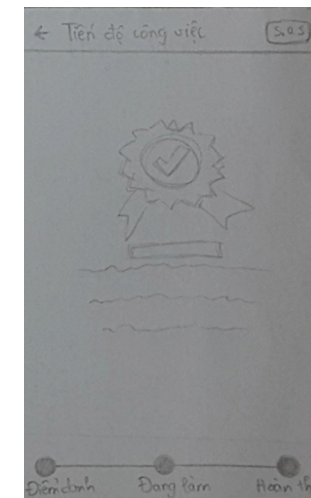
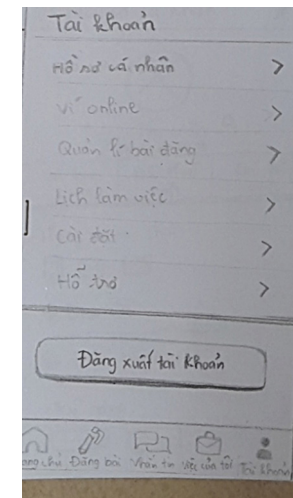
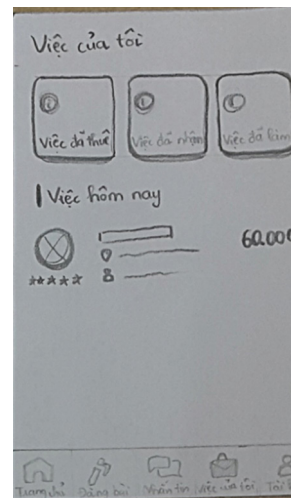
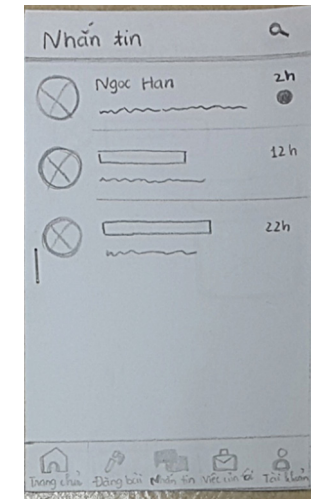
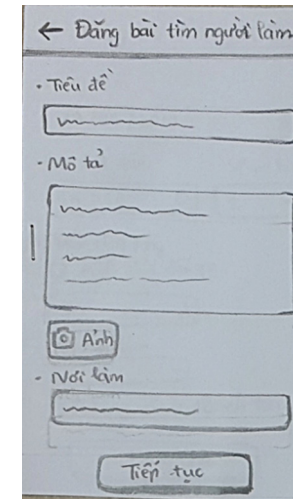
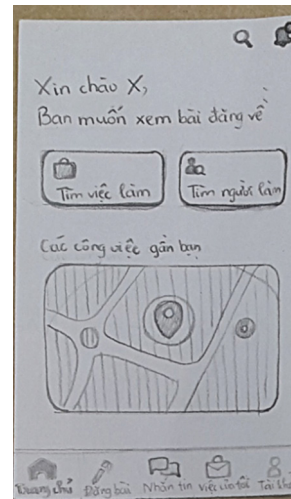
**After completing this sitemap, we recognize:**

- Sitemap is still parallel to 2 user objects on 1 screen, not switching roles. There are many unimportant functions and we really don't put much emphasis on these functions.

## 2.3 The First Paper Prototype

Paper prototyping is sketching screenshots on paper as substitutes for digital representations. What you might not have guessed, there are actually different levels of complexity.

The most basic paper prototypes are sketches of each screen. In a demonstration or usability test, the sketches are switched according to user actions.



## 2.3 The First Paper Prototype

### Results

The paper prototype 1 of seasonJob is very simple, we don't know how to take advantage of the phone. So we didn't perform the user test but consulted the instructor to improve the next paper prototype.

Problems	Solutions
many parts have to enter text	Further analysis of each type of information, improvements in many types of options (select, radio button, ...) rather than text input
Haven't used the features of the phone yet, like website more..	Enhance GPS, camera, call, sensor, voice, ... in the cases.
Unordered information displayed	Interview about the information that users want to see first, the most important informations, ...
Users are waiting, taking a long time to find workers	Applications should Push notifications by the system will display a list of results
The fixed price is still limited, so it should be auctioned, or there must be a list of listed prices	Auction methods, it creates opportunities, fair competition

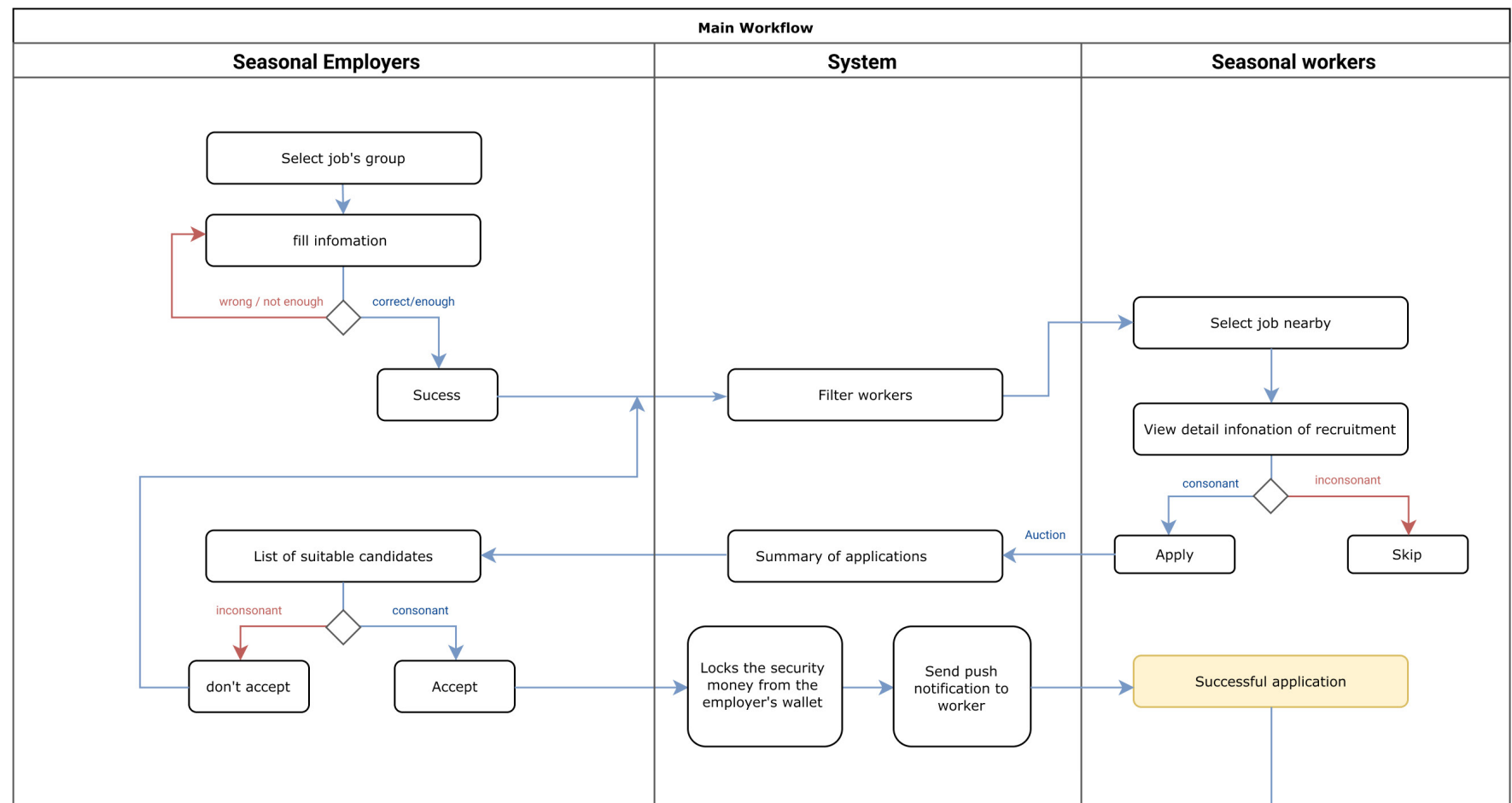
Table 7. Test results of paper prototype

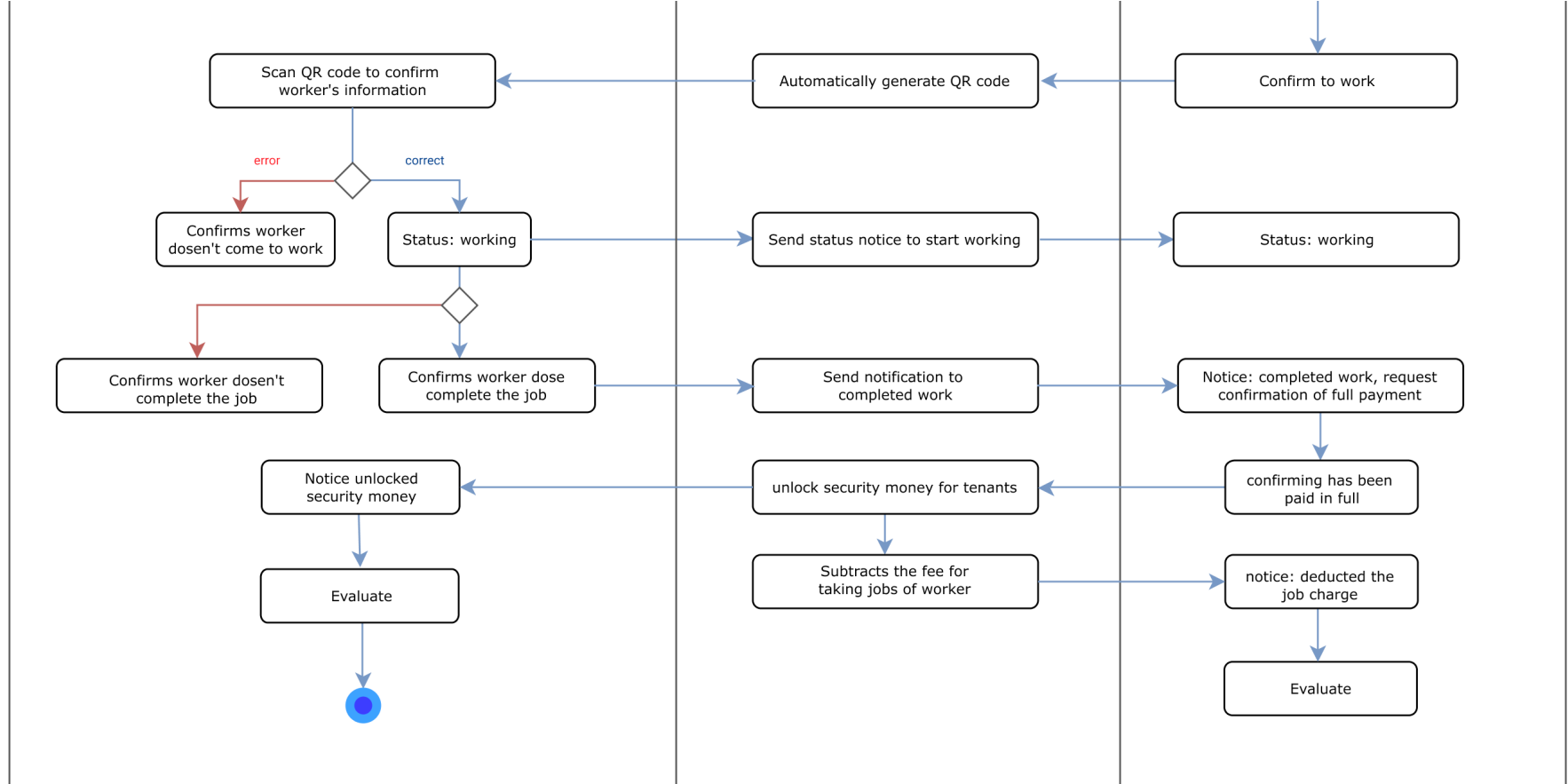
## 2.4 The Second Workflow

### Seasonal Employer

The team improved the disadvantages of phase 1 to release the workflow version for phase 2. First, the workflow's mainstream users improved on the additional work of the Application system. Next, work progress is done in more detail, focusing on each stage.

**Support software:** Draw.io





In the workflow, there is security money so what is it means?

**Security money** is the amount of money on the SeasonJob application to verify the reliability of a job that a user wants to find a worker. Besides, this amount also ensures the progress of the work to be carried out according to the plan. security money appears when the tenant confirms the successful delivery of the job. The system will automatically lock this security money from the tenant's app wallet. Therefore, the app wallet must maintain the default amount given by the system right from the login.

**Calculator formula security money:**

Security money = 20% \* (estimated total wages)

### 1. The first condition to become a seasonal partner with SeasonJob

There are phones running Android operating system from 5.0 or more, with 3G or wifi sim, go to CH Play to download SeasonJob application.

There are full tools for each job.

### 2. Steps to become a seasonal worker in SeasonJob

Step 1: Meet the first eligibility

Step 2: Prepare a complete application file to the address for receiving documents.

Step 3: Interview.

Step 4: Browse the profile immediately after the interview, grant the account login to SeasonJob Application.

Step 5: Quick class on How to use SeasonJob Application.

Step 6: Work on SeasonJob application.

### 3. Resume and registration papers

Resume and registration papers	Student	Other objects
Identity card or Citizen ID	- The ID card is valid for 15 years from the date of issue - The valid identity card is printed on the card	
	Student card	Profile
Judicial record or certificate of no criminal record	- Duration of 1 year from the date of issue	
Proof of capacity (if any)		

### In addition, the system will charge a fee to accept the job of the seasonal worker.

Acceptance fee is the amount of money the employee must pay for the system. Acceptance fees are considered brokerage costs when the system seeks jobs for users.

Acceptance fee appears after the employer confirms receipt of sufficient remuneration from the tenant.

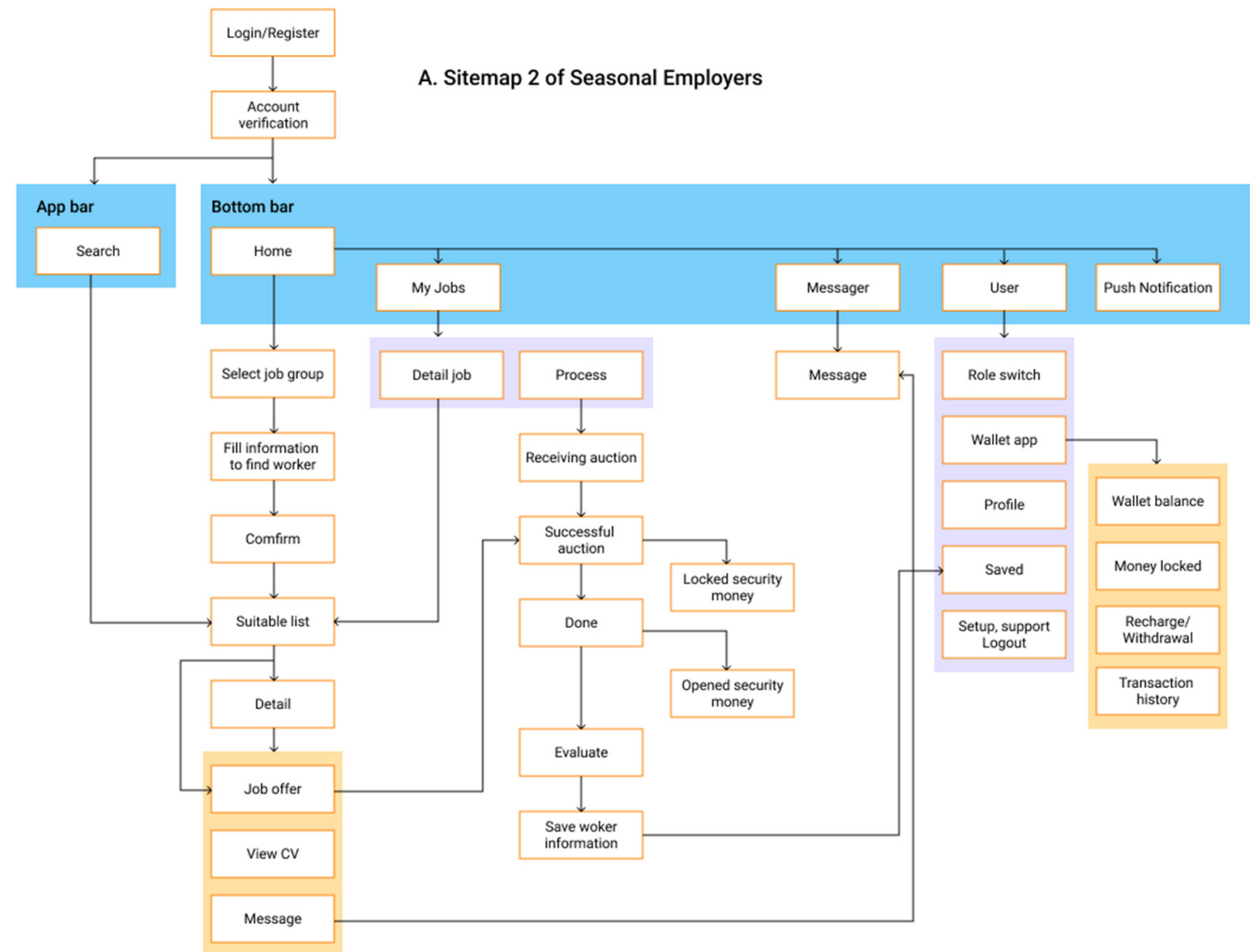
Formula to calculate the fee for taking a job:

**Acceptance fee** = 5% \* (estimated total wages)

## 2.5 The Second Sitemap

### Seasonal Employer

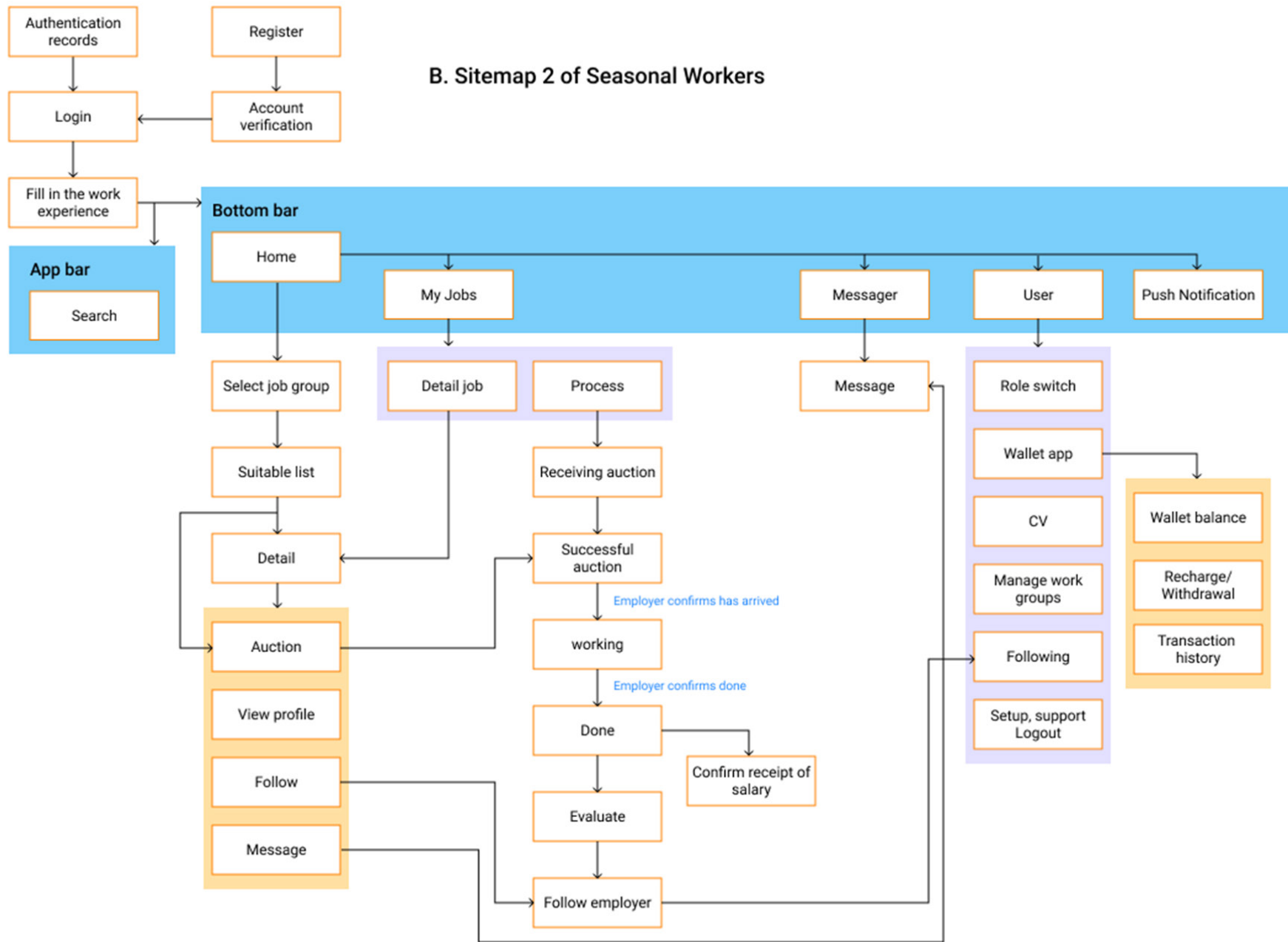
A. Sitemap 2 of Seasonal Employers



The Sitemap 2 has been developed and improved from the previous one, it is clear and helps us see how the functions are in the app. The most important thing in this version is the separation of two roles seasonal workers and seasonal employers with the role switching feature available in the User screen.

Besides, the improvement in my Job management has been remarkable, clearer in each category: job delivery, ongoing recruitment, completed work, canceled, ...

The work progress follows the progress of a job: from the time of recruitment until the job is delivered successfully, the job is completed.

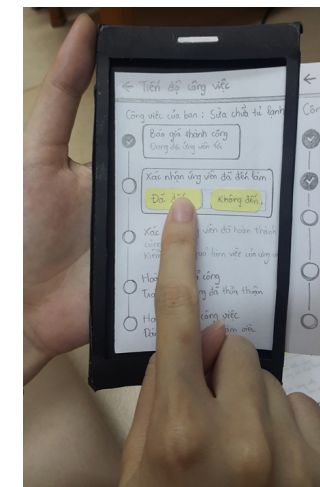
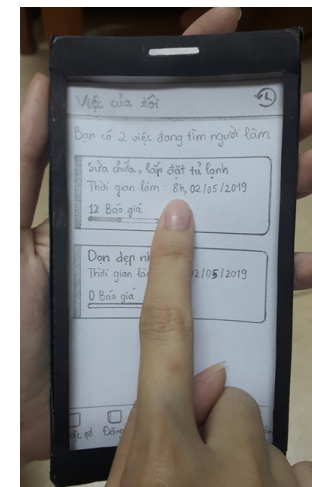
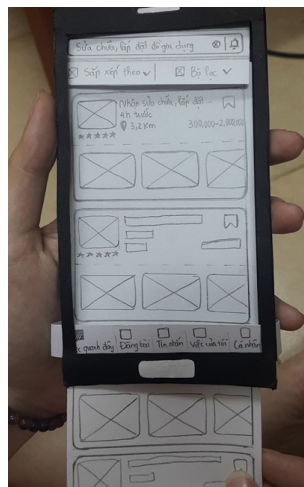
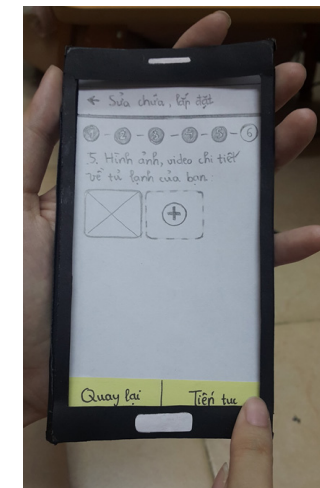
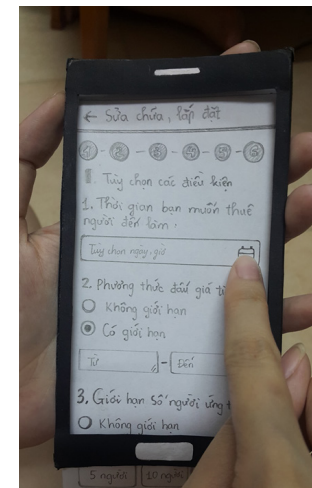
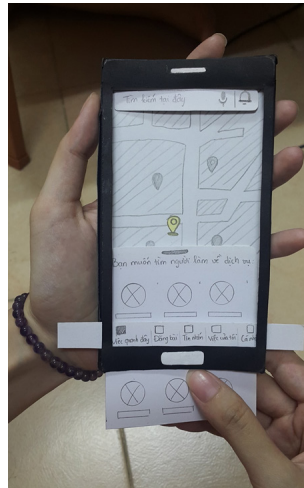


## 2.6 The Second Paper Prototype

Due to the popularity of prototyping on paper, several advanced tools are available to facilitate the process. We used stencils to quickly and accurately recreate buttons and icons, using notepaper with colors to make buttons or card view and mock phone cases to better depict how the product form will look.

Paper is drawn according to the flow of seasonal employers when they finding seasonal workers: GPS search, post search, status management, and work progress.

**Drawing tools:** White paper, Colored paper, pencil, ruler, pencil remover, tape, ...



## 2.6 The Second Paper Prototype

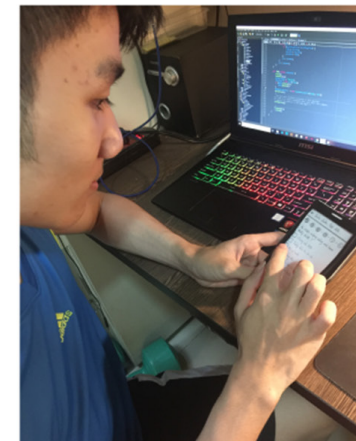
### Usability testing

With the second paper prototype, we used it to test 6 users. With their contributions, we have seen the advantages and disadvantages currently existing in the system and then we have provided better user experiences for the next phase.

Testers: 6

Average score: 76.16 / 100

Average usage time: 7 minutes



## 2.6 The Second Paper Prototype

### Results

Problems	Solutions
Depending on the time, the number of workers is little or not, so it is not sure to find workers immediately after completing the recruitment information.	The system will constantly filter to find a suitable worker and push notifications to them.
The types of work are not clearly separated	Dividing the tab in My Job and attach the calendar so that users can easily control the types of works
Complaints of a worker when the work is not in accordance with the original agreement.	Add report button
"Confirmation of acceptance" is redundant because when you recruit many people, you must confirm many and not necessary.	"Confirmation of acceptance" will be removed
The job detail have a lot of text	Add icons and rearrange the information
On seasonal employer, the bottom title is "job around" will be confusing.	Change the name to "Find worker" on the seasonal employer and "find job" on the seasonal worker

Table 8. Test results of paper prototype 2



03

Pre-  
Design



## 3.1 Wireframe

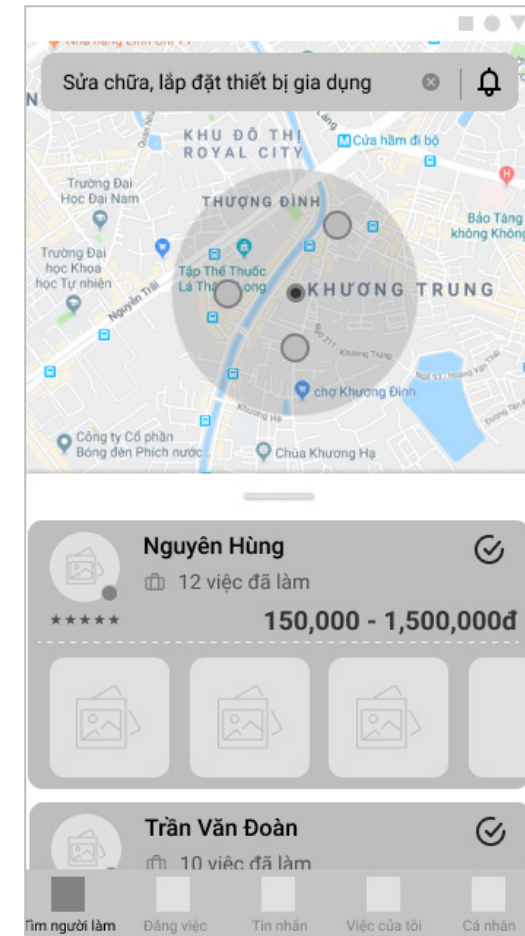
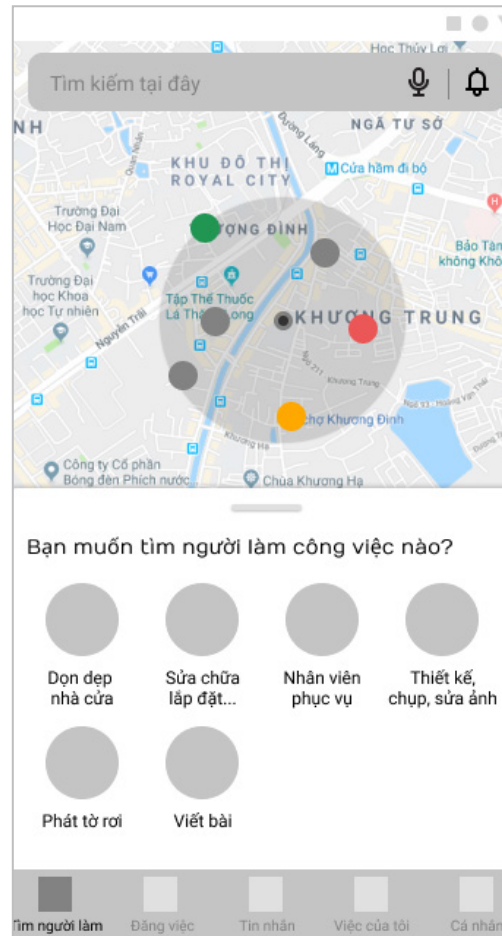
**Wireframe** is a way to design a website service at the structural level. A wireframe is commonly used to layout content and functionality on a page that takes into account user needs and user journeys. Wireframes are used early in the development process to establish the basic structure of a page before visual design and content are added.

After testing the user of the second paper prototype, HaliTeam started editing on the wireframe version.

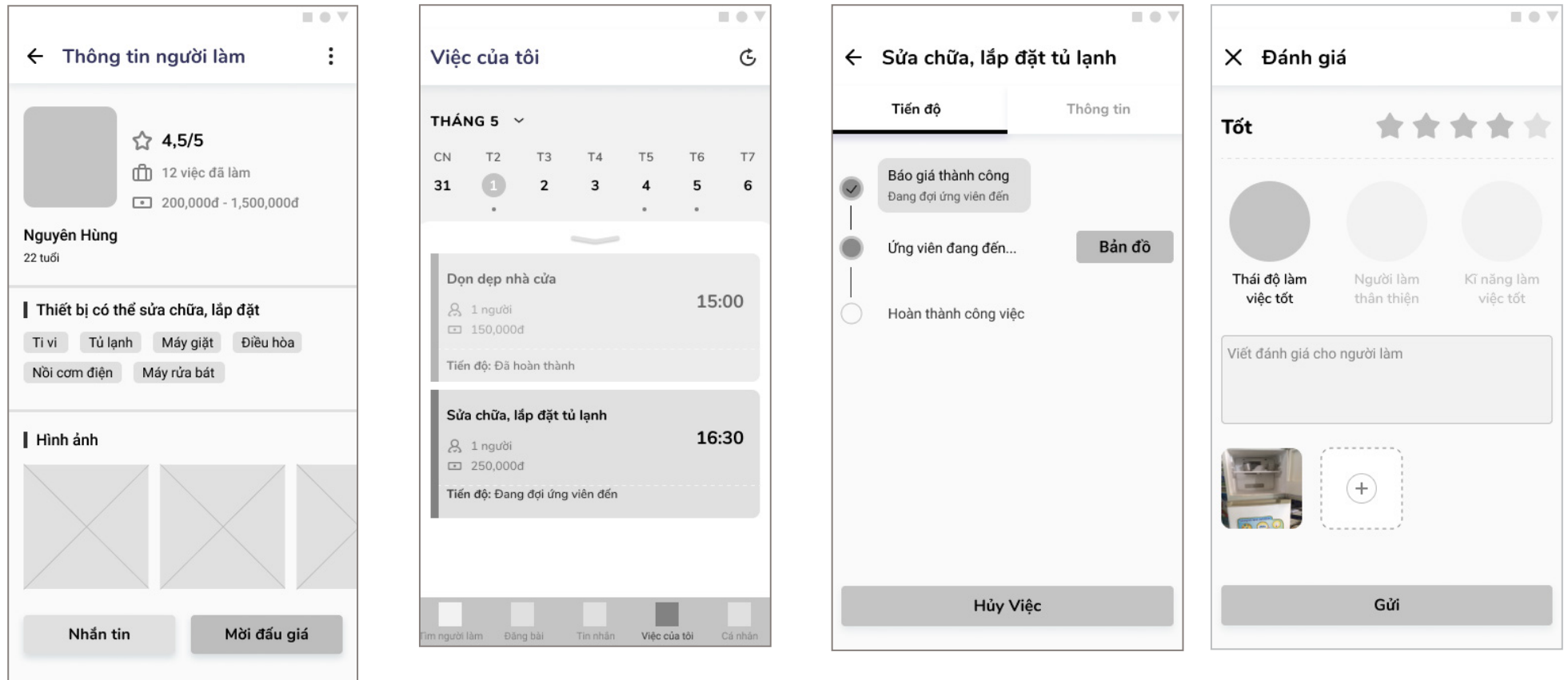
Wireframes are simple black and white layouts that outline the specific size and placement of page elements, app features, conversion areas, and navigation of Seasonjob

They are devoid of color, font choices, logos or any real design elements that take away from purely focusing on an app's structure.

We often say that they are much like a blueprint to a home, where you can easily see the structural placement of your plumbing, electrical and other structural elements without any interior design treatments.



## 3.1 Wireframe



# 3.1 Wireframe

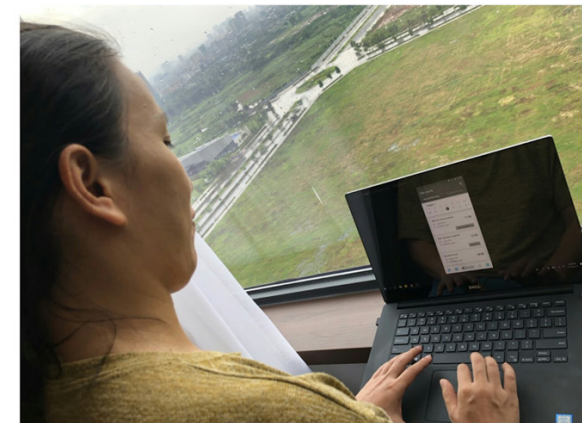
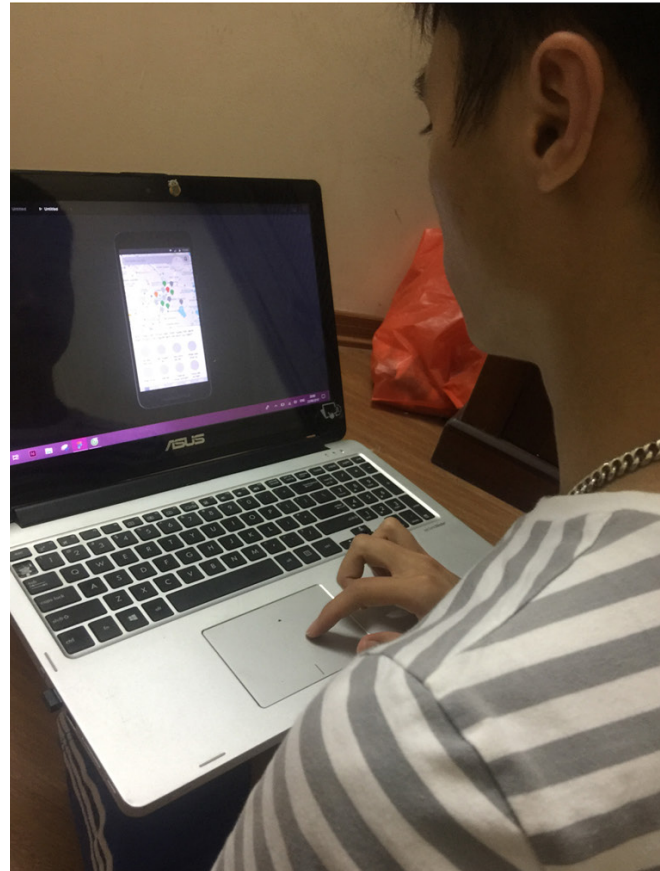
## Usability testing

After finishing the wireframe, chúng tôi conducts user tests to ask them about the layouts, the content order displayed and the buttons in the application.

The group conducted tests on 4 users, namely:

- Hieu (Male) - 21 years old - Student
- Tran Van (Male) 22 years old - Student
- Nguyen Thi Hong Nhung (Female) - 31-year-old - Officer
- Chu Van Bien (Male) - 33-year-old - Officer

With the Results of this usability testing, we have obtained many useful comments. After summarizing the problems that testers comment, we have a table about the advantages and disadvantages of Seasonjob.



# 3.1 Wireframe

## Results

Pros	Cons
Clear layout Find people by industry groups very well, fast.	My post-management and my job are repeated
How to bid well, save costs (only for seasonal employer)	Do not know where to review the list of employees that tenants have invited
Simple, easy to use	Difficult to see the location of the cancelled
	In the job details section will be divided into 2 tabs: Progress and Job Information including the list of employees.
	There should be a way to save the information of seasonal worker when the user wants to rent it again

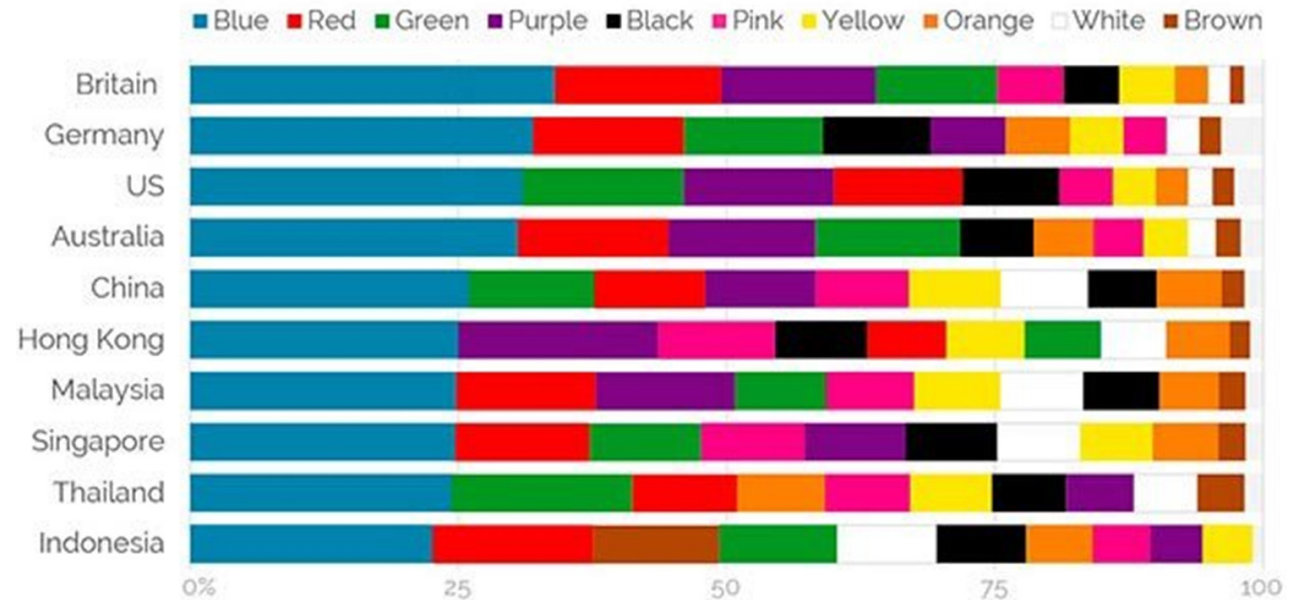
Table 9. Test results of wireframe

## 3.2 Visual Language

### Colour research

The results of Joe Hallock (2003) show that there are many factors that affect how people spend special interest in blue. Joe Hallock conducted this study in 22 countries to produce the final result. **Worldwide, blue is considered the safest color.**

Research has also been done to see whether age is an important factor in color selection. As a result, at all ages, most people love blue.



Most Liked	Blue	Green	Purple	Red	Black	Pink	Yellow	Orange	Other	Brown	White
Young Adults	21%	14%	17%	10%	13%	8%	2%	5%	5%	1%	4%
Adults	37%	14%	10%	9%	14%	7%	2%	4%	1%	4%	0%
Middle Aged	30%	16%	16%	16%	7%	3%	6%	2%	2%	2%	2%
Seniors	39%	14%	10%	14%	4%	5%	7%	1%	3%	2%	1%

Least Liked	Pink	Brown	Orange	Other	Yellow	Purple	Red	Black	Green	White	Blue
Young Adults	16%	24%	13%	12%	13%	3%	3%	1%	5%	5%	4%
Adults	21%	18%	17%	11%	9%	5%	6%	5%	2%	4%	1%
Middle Aged	18%	14%	14%	14%	11%	9%	6%	7%	3%	3%	1%
Seniors	19%	10%	17%	15%	10%	8%	4%	4%	8%	4%	2%

## 3.2 Visual Language

### Colour research

#### a, Blue in brand identity

This is one of the most widely used colors in the company logo. It has professional meaning, serious spirit, integrity, sincerity and calmness. The blue sea is also associated with strength and success, and for this reason, it is used by both financial institutions and government agencies. The majority of blue brings a sense of trust, understanding, loyalty and clarity while helping us to calm down and reduce stress.

For example, facebook, the world's largest social network uses blue. For a company with core values that are transparent and reliable, this is an ideal choice.

#### Blue system:

- *Light blues* can be refreshing and friendly, are often relaxed and calming.
- *Dark blues* are more strong and reliable.
- *Bright blues* can be energizing and refreshing.

# Blue

**Psychology of Blue:**  
• *Trusted • Conservative • Staid • Dependable • Honesty • Calm • Secure • Cool*



**Notable:** *Most popular corporate color. Evokes trust so used frequently for online businesses & financial institutions. Masculine color.*

## 3.2 Visual Language

### Colour research

#### b, orange in the brand identity

This is the color that is considered to be the color of innovation and modern thinking. It also has the meaning of youth, fun, reasonable price and accessibility. Orange often creates energy that fosters community cohesion, creating a sense of belonging, joy, openness, and vitality. It can be said that orange is the color that inherits the power of red and combines with the happiness of yellow.

# Orange

**Psychology of Orange:**  
• Happy • Energetic • Sociable • Friendly • Affordable • Enthusiastic • Sunny



**Notable:** Orange is thought to stimulate appetite. Orange is used in some warning labels. Used frequently in retail. Often used a "call to action."

## 3.2 Visual Language

### Design Inception worksheet

SeasonJob's design orientation is based on 4 factors: Color, Space, Shape, Movement.

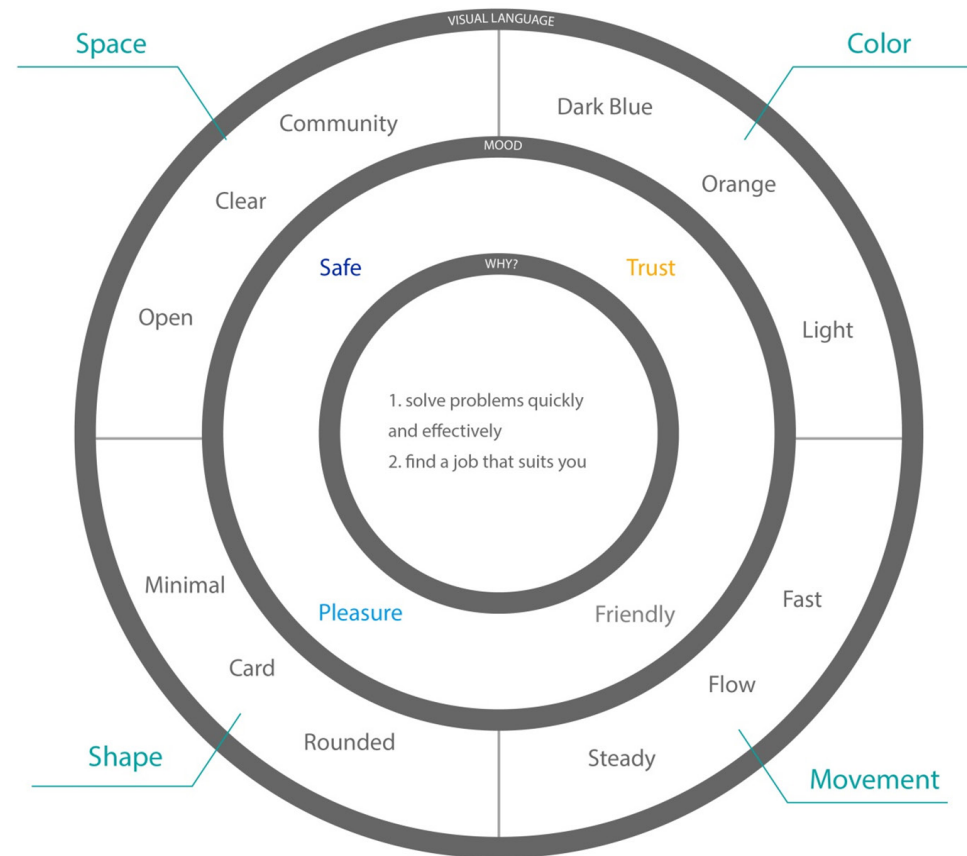
First, the purpose of SeasonJob is to help users:

- Solve problems quickly and effectively
- Find a suitable job

So the feelings that SeasonJob wants users to feel are Safe, Trust, Friendly, Pleasure.

Next, the app's Space will be Open, Clear, and Community.

The shape used in the app will be minimal. The shape has round edges to create a user-friendly feel.

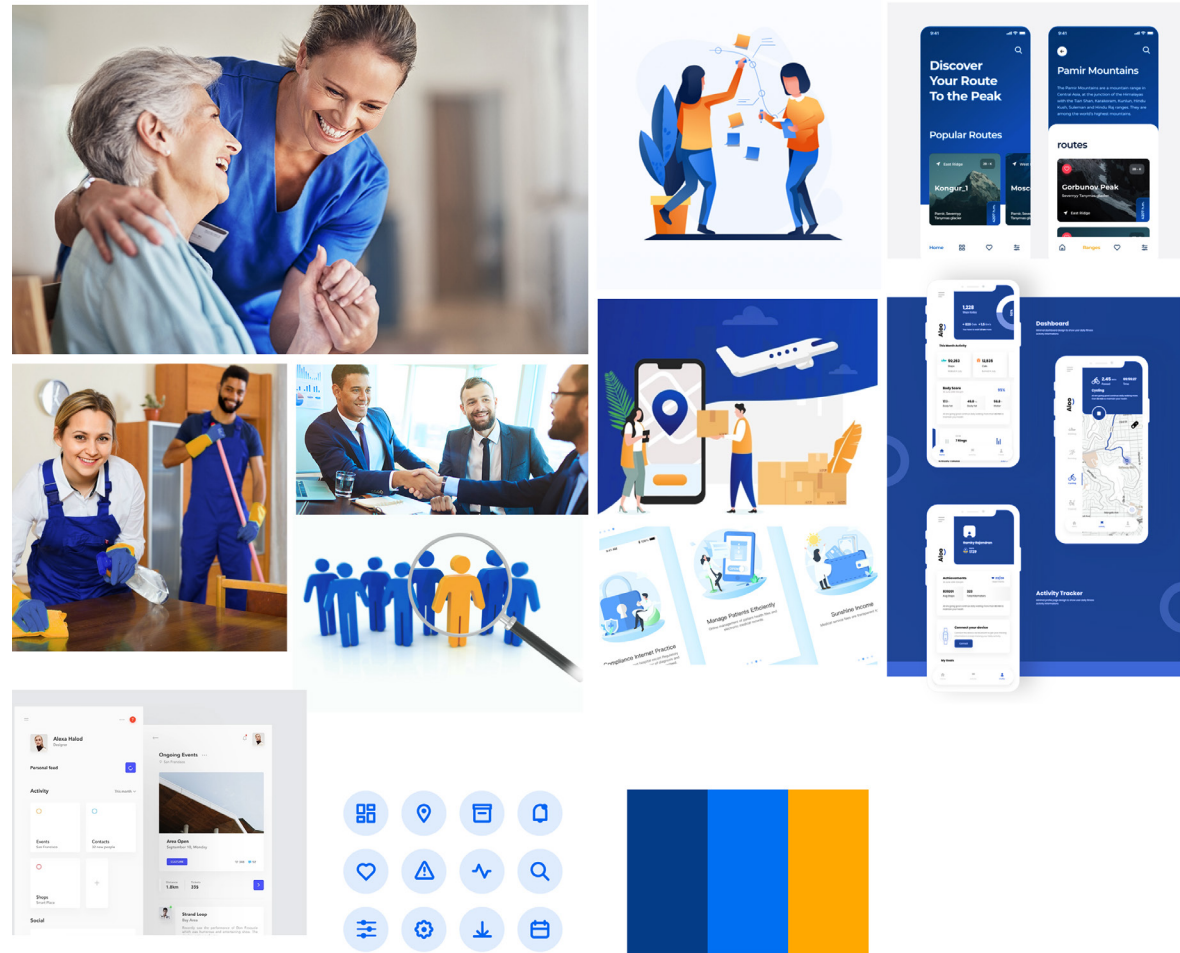


## 3.2 Visual Language

### Mood board

SeasonJob's mood board is a collage consisting of images, text, and patterns of objects that are closely linked to the idea of design. It was created with blue and orange themes, images of seasonal work, showing a cheerful, cheerful, hardworking mood.

You can imagine SeasonJob consisting of two main colors: green and orange, bright, clean white spaces, arranged in a square and rectangular shapes.



## 3.3 Branding

### Logo

#### a, Idea

The SeasonJob logo is a simplified handshake action under the form of an "S" (short for SeasonJob in the Application name). The logo represents the trust and friendship cooperation that the application wants users to see and feel.

Besides, we create a logo of a discrete "S" instead of seamless because the application is aimed at short-term, seasonal jobs.

#### b, Brand personality

The personality of the logo: "Trust - Safe - Friendly", partly reflects the characteristics of SeasonJob

- Trust between users with application developer; Trust between workers and employers.
- Safe in all information given in the Application
- Friendly in all circumstances keeping workers with employers; Friendly at main design in Application.

#### c, Style

The logo uses the two main colors of the app and the Roboto thin font, Roboto bold font



## 3.3 Branding

### Logo

c, Logo in grid system



## 3.3 Branding

### Logo

d, Logo with different color combinations



Single colour - Blue



Single colour - Orange



Single colour - White



Single colour - Black









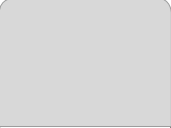
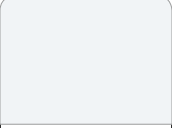








## 3.4 Style Guide

### Colors are used in-app

Over the course of research and learning about colours, the team has released the main colour set for SeasonJob. The application uses 2 colours Blue and orange will create moderate contrast, thereby creating accents, impressive points in each screen used.

In addition, the group also combined the use of other color systems to support the main colors and regulations for the use of those color systems. By using diverse colors together, SeasonJob application does not have a monotonous design.

 <b>Primary</b> #053C88	 <b>Secondary</b> #FFA800				
 <b>Accent 1</b> #00185A	 <b>Accent 2</b> #0358CC	 <b>Accent 3</b> #006FF2			
 <b>Text 1</b> #000000 87%	 <b>Text 2</b> #000000 54%	 <b>Text 3</b> #000000 38%	 <b>Line</b> #D8D8D8	 <b>Background</b> #F1F4F6	
 <b>Support 1</b> #13665C	 <b>Support 2</b> #49aa2d	 <b>Support 3</b> #27AE9E	 <b>Support 4</b> #ff1e27	 <b>Support 5</b> #ff686e	 <b>Support 6</b> #ffaeb1

## 3.4 Style Guide

### The typography used in-app

#### History

Roboto was designed entirely internally at Google by Christian Robertson, Google's interface designer.

#### About

- Roboto Font is currently used by default for both Android and Chrome OS, appearing with Android 4.0 ICS, this font is also an important component in Google's new Material Design language.
- Roboto is a sans-serif type of anchor-grotesque type.
- Google describes this as a "modern, easily accessible" font and "rich in emotion". The entire Roboto font family is licensed under the Apache license and officially allows free download from January 12, 2012, on the Android Design website.

#### Roboto Fonts

Rr

ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz  
0123456789  
'? "!" (%) [#] {@} /&\ <-+= ; :|\_

Roboto

Headline Regular 24pt

Title Medium 20pt

Subheader Regular 16pt

Body 2 / Menu / Button Medium 14pt

Body 1 Regular 14pt

Caption Regular 12pt

Overline Regular 10pt

## 3.4 Style Guide

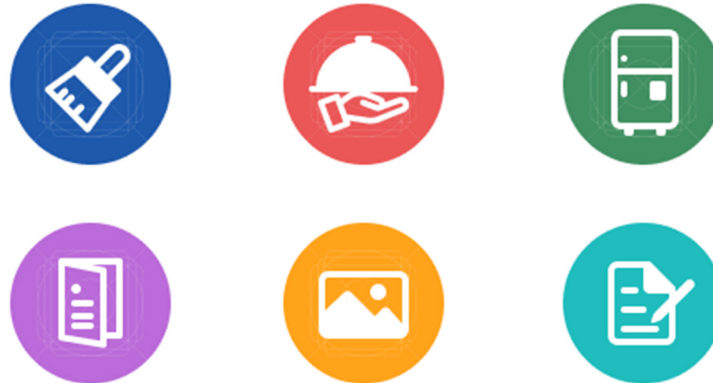
### Icons system

#### a, Set of seasonal job group icons

Minimum size: 40dp x 40dp

Location set:

- Sector list in the "job management" directory
- List in the Home screen of 2 subjects: seasonal employer and worker.



#### b, Set of seasonal job group icons on the map

Minimum size: 15dp x 18dp

Location of use:

Display directly on the map corresponding to each industry group



## 3.4 Style Guide

### Icons system

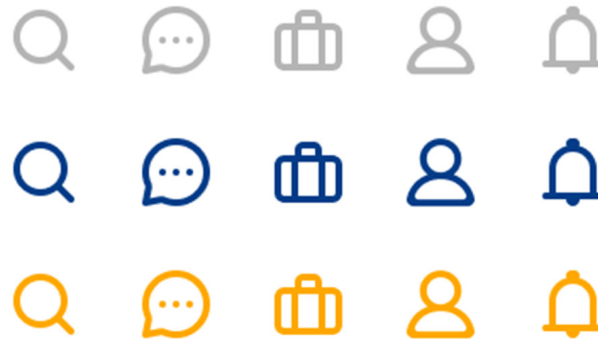
#### c, Icon set bottom bar

Minimum size: 24dp x 24dp

Location of use:

Displaying on the bottom bar in each case:

Disabled; Employer; Worker



#### d, Icon set support title, subheader

Depending on the location, the support icon set has a minimum size: 24dp x 24dp

Location of use:

Display to add thoughts of title, subheader, and enrich the eye-catching display image in SeasonJob.



## 3.4 Style Guide

### Icons system

#### e, Orient icons set

Minimum size: 24dp x 24dp

Effect: helps guide the user to the next screen in the correct direction only.

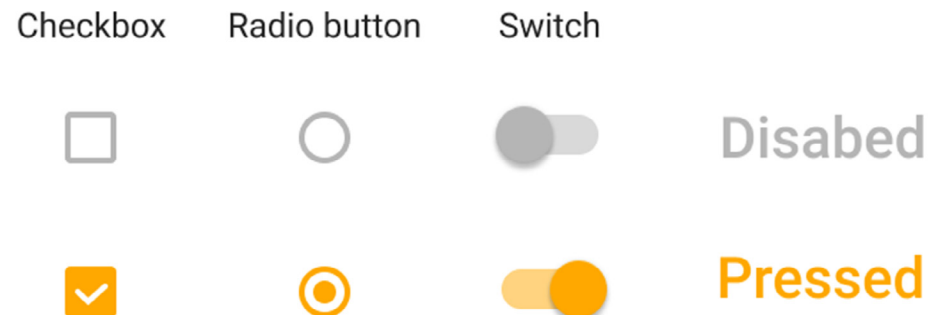
Colors use depending on the background color.



#### f, Switch, radio button, checkbox icons

Minimum size: 24dp x 24dp

Effect: Status options, allowing users to choose from a list of questions.



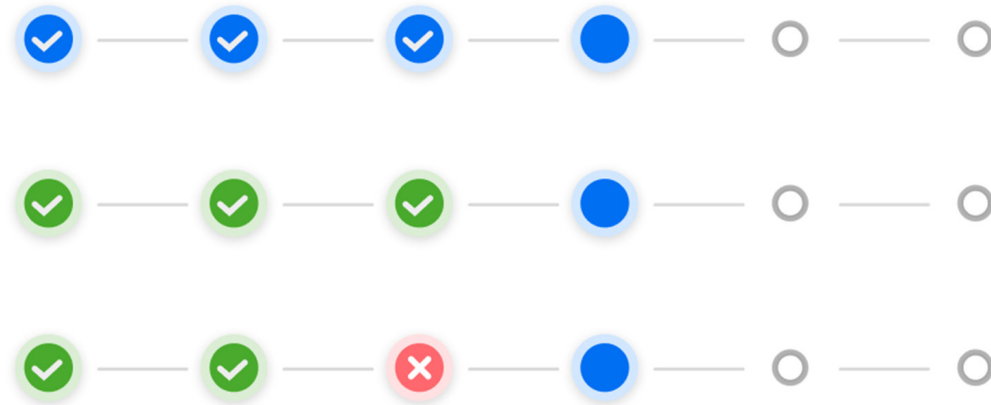
## 3.4 Style Guide

### Icons system

#### g, Timeline icons

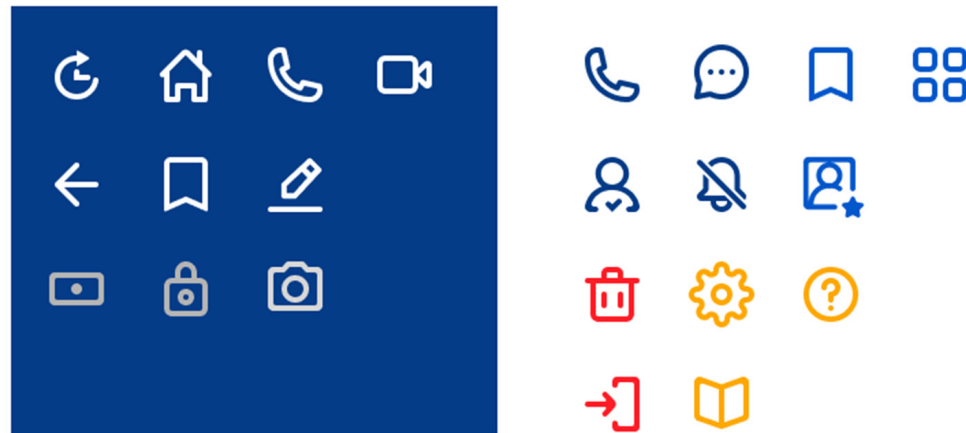
Minimum size of 1 icon : 24dp x 24dp

Effect: Clearly show the number of questions answered, answered, not answered, error in the screen.



#### h, other icons

Minimum size of 1 icon : 24dp x 24dp



## 3.4 Style Guide

### Buttons

Minimum size: 40dp x 100dp

Types of buttons will be used in different emphasis cases:

- Text button (low emphasis): Text buttons are typically used for less important actions.
- Outlined Button (medium emphasis): Outlined buttons are used for more emphasis than text buttons due to the stroke.
- Contained button (high emphasis): Contained buttons have more emphasis, as they use a color fill and shadow.
- Toggle button: Toggle buttons group a set of actions using layout and spacing. They're used less often than other button types.

#### Normal

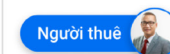


HỦY BỎ

#### Disabled



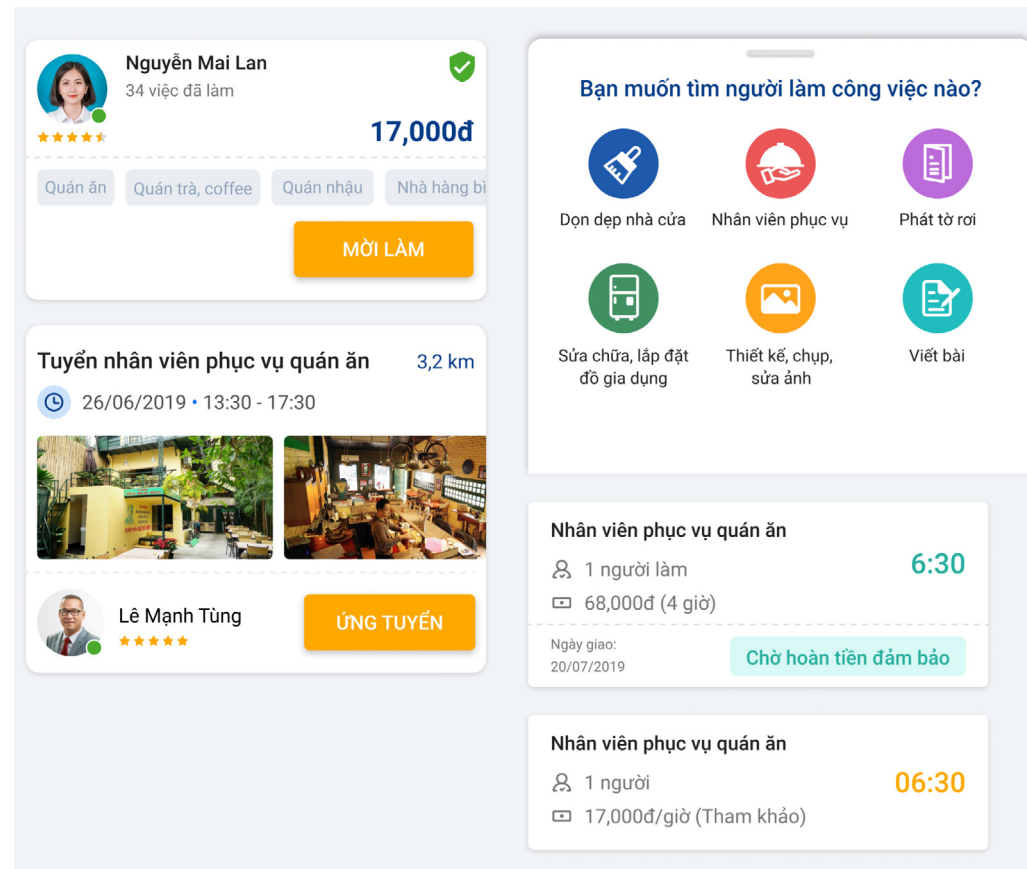
#### Role switch



## 3.4 Style Guide

### Card view

- CardView can be thought of as a FrameLayout with rounded corners and shadow based on its elevation. CardView wraps a layout and will often be the container used in a layout for each item within a ListView or RecyclerView.



## 3.4 Style Guide

### App bar and tabs

- App bar: There are 3 types of app bars for SeasonJob: App bar with Back button; App bar without Back button; App bar image. Minimum size: 360dp

App bar without Back button



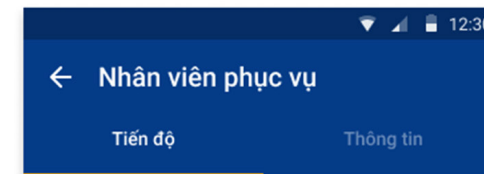
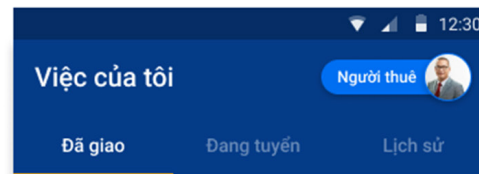
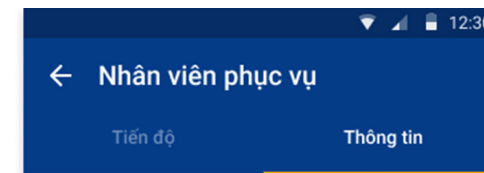
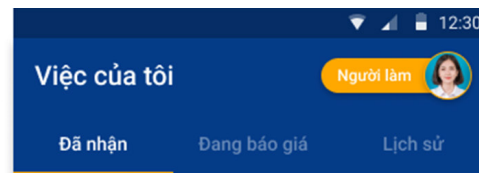
App bar with Back button



App bar image



- Tabs: There are 2 types of tabs corresponding to the App bar: App bar with Back button; App bar without Back button.



## 3.4 Style Guide

### Bottom bar

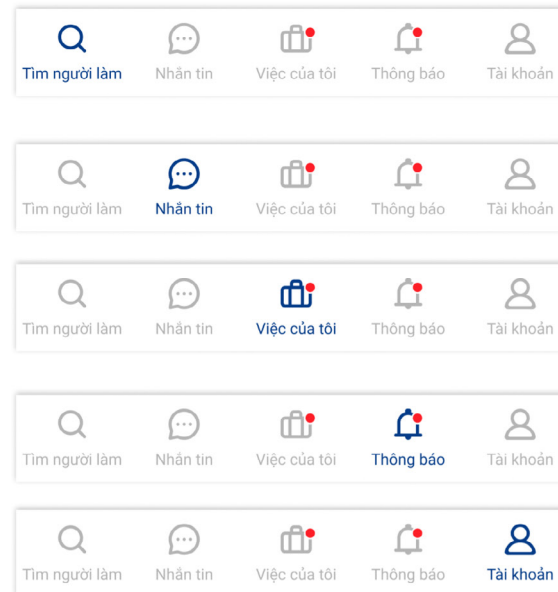
Bottom bar will navigate users to the 5 main sections of the Application:

- Searching
- Messenger
- My Jobs
- Notification
- User

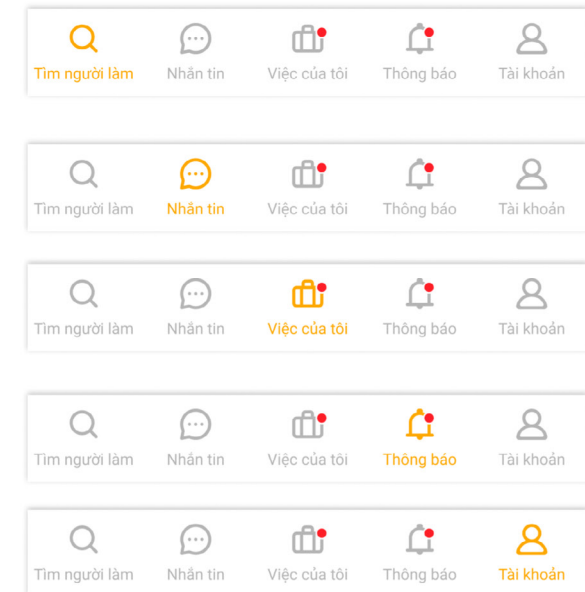
Minimum size: 360dp x 56dp

When any item has a change that the user has not viewed, the status of the icon displays an additional red dot.

#### Seasonal Employer



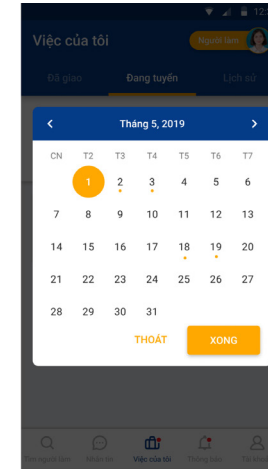
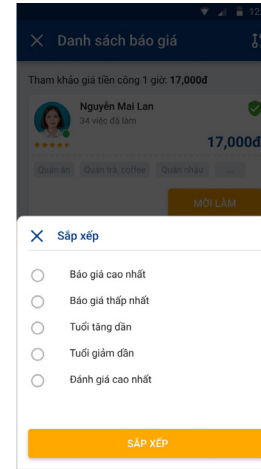
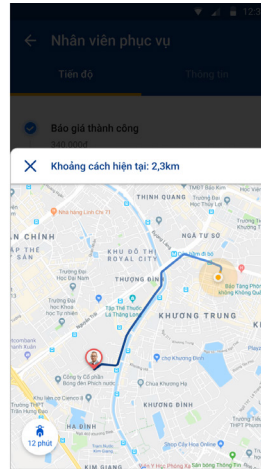
#### Seasonal worker



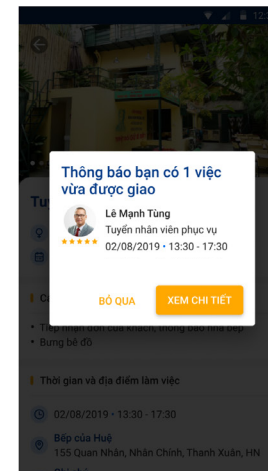
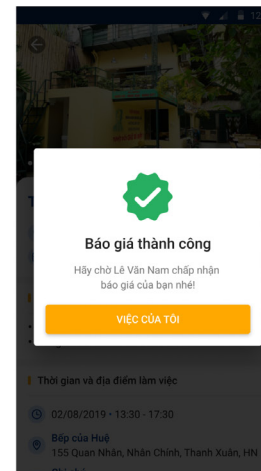
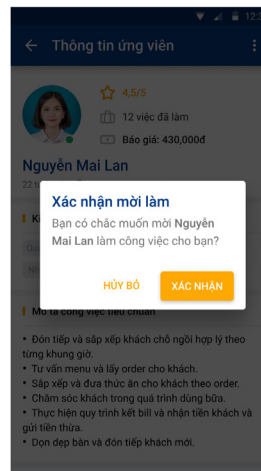
## 3.4 Style Guide

### Popover, Dialog

- Popover: shows the required operations, see more information.
- Dialog: Dialogs inform users about a task and can contain information critical, cần xác định, hoặc tạo nhiều tasks. There are two types of dialogs: dialogs require users to perform an important operation and dialog to inform important information.



Popover

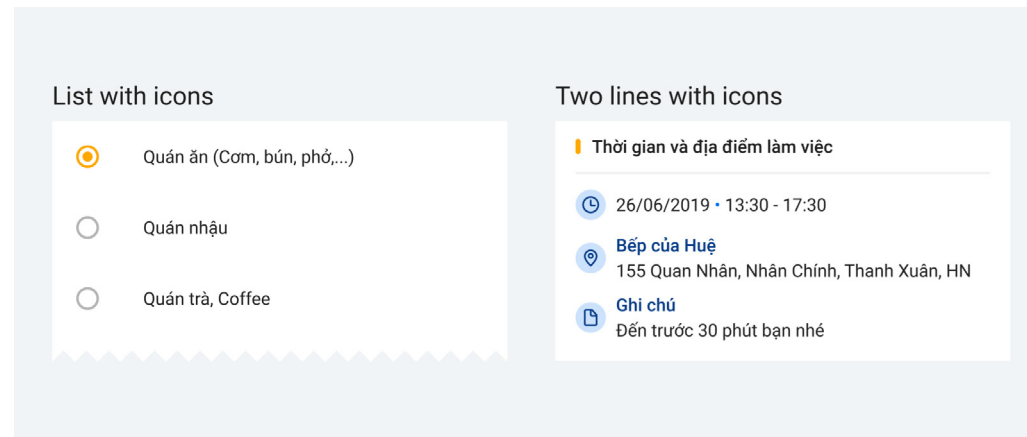


Dialog

## 3.4 Style Guide

### Lists

Lists are a continuous group of text or images. They are composed of items containing primary and supplemental actions, which are represented by icons and text.

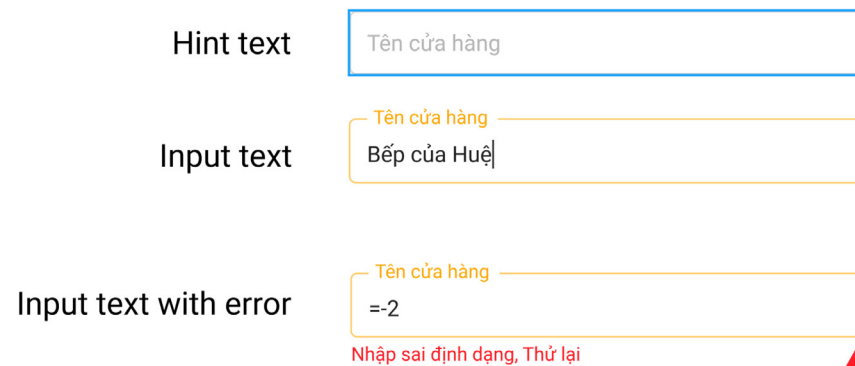


### Text Fields

Entering text will have 3 states:

- The status is not entered
- The status of entering text
- The text entry status is faulty, with an error message.

The minimum size of the frame to enter text:  
328dp x 40dp





**04**

**Design  
Finalization**



# 4.1 Usability Testing

After discussing with Supervisor - Lecturer: Tran Binh Duong, we were approved by Supervisor to focus on designing a type of service that is Waitress.

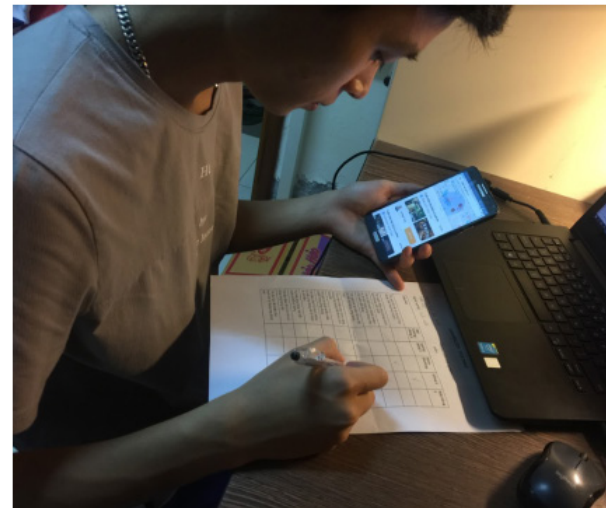
After that, we immediately implemented the interface design for the application and the next is usability testing with visual design

During the user test, team described the character script and app usage scenario. The user started using the prototype and team didn't participate, ask questions during the user process. Combined to answer all user questions, ask the user to fill in the 2 test reports.

For the visual design usability test, we asked the same 4( from 6) people in the wireframe usability test to become our testers.

In the second usability test, we also use System Usability Scale (SUS) – a reliable tool for measuring the usability. It consists of a 10 item questionnaire with five response options for respondents; from Strongly agree to Strongly disagree.

Therefore, Follow the way to calculate and measure SUS score, our app gets the average point of 75, which means we are doing OK but could improve our system.

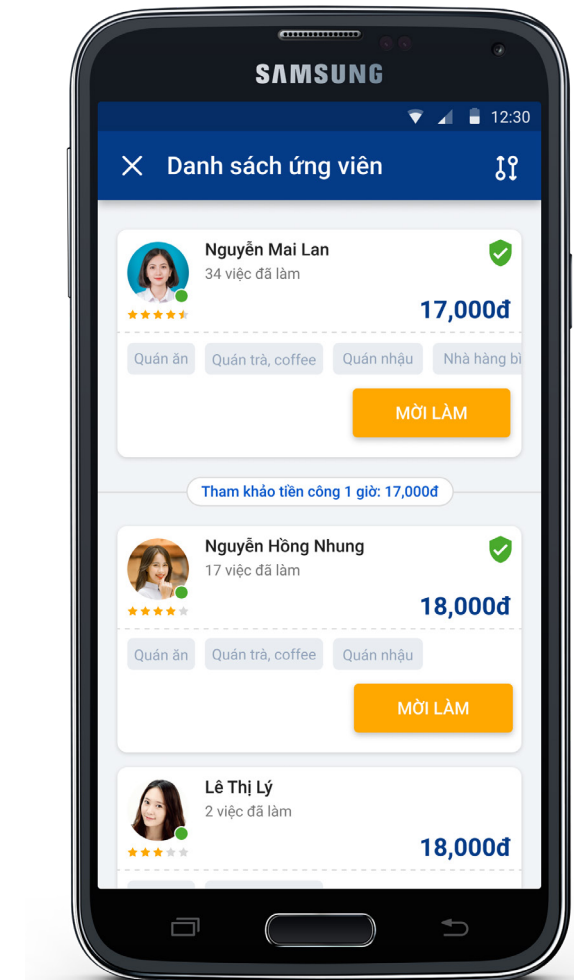
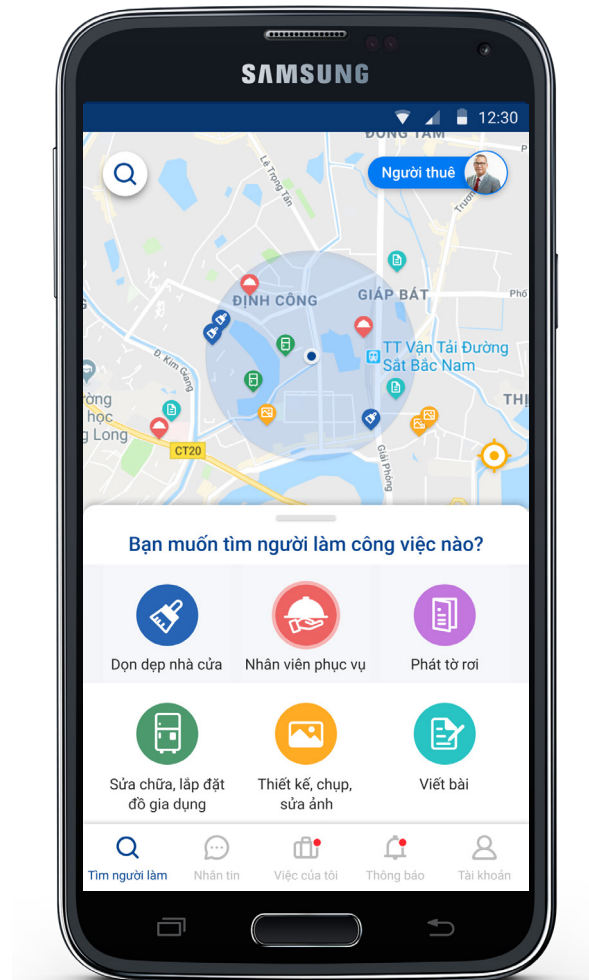


## 4.2 Final Design

### Seasonal Employer

After completing the usability testing and gaining positive comments, We proceeded to fix the bugs and release the final visual design. In particular, with this final version, we've added a role display bar to let users know that they're currently working or being hired.

Here are some screens that describe the flow when Seasonal employer finding a worker and manage the work process. Besides, There are also additional function screens so we can see an overview of the functions for an employer in SeasonJob



## 4.2 Final Design

### Seasonal Employer

← Nhân viên phục vụ

1. Bạn muốn thuê phục vụ làm trong:

☒

 Quán ăn (Cơm, bún, phở,...)

☐ Quán nhậu

☐ Quán trà, Coffee

☐ Nhà hàng bình dân

☐ Nhà hàng cao cấp

☐ Đám tiệc (hỷ hê, sinh nhật,...)

☐ Khác

TIẾP TỤC

← Nhân viên phục vụ

☒

☒

☒

☒

☒

☒

Tùy chọn các điều kiện thuê người làm

Tên cửa hàng

Ngày làm việc  
02/08/2019

Thời gian bắt đầu  
11:30

Thời gian kết thúc  
14:00

Địa điểm làm việc  
155 Quan Nhân, Nhân Chính, ...

Thay đổi

Số người cần tuyển 

− 1 +

Lời nhắn, ghi chú

TÌM NGƯỜI LÀM

← Thông tin ứng viên

4,5/5

34 việc đã làm

Bảo giá: 17,000đ/giờ

Nguyễn Mai Lan

22 tuổi | Nữ

XEM CV

Kinh nghiệm làm việc

Quán ăn

Quán trà, coffee

Quán nhậu

Nhà hàng bình dân

Mô tả công việc tiêu chuẩn

- Đón tiếp và sắp xếp khách chỗ ngồi hợp lý theo từng khung giờ.
- Tư vấn menu và lấy order cho khách.
- Sắp xếp và đưa thức ăn cho khách theo order.
- Chăm sóc khách trong quá trình dùng bữa.
- Thực hiện quy trình kết hóa đơn và nhận tiền.

NHẬN TIN

MỜI LÀM

← Tiền đảm bảo việc làm

Theo điều khoản, Ví tiền của bạn sẽ tạm thời bị khóa  
số tiền đảm bảo = 20% tổng số tiền trả công.

Số tiền trả cho 1 giờ làm17,000đ

Số giờ làm4

Tổng số tiền trả công68,000đ

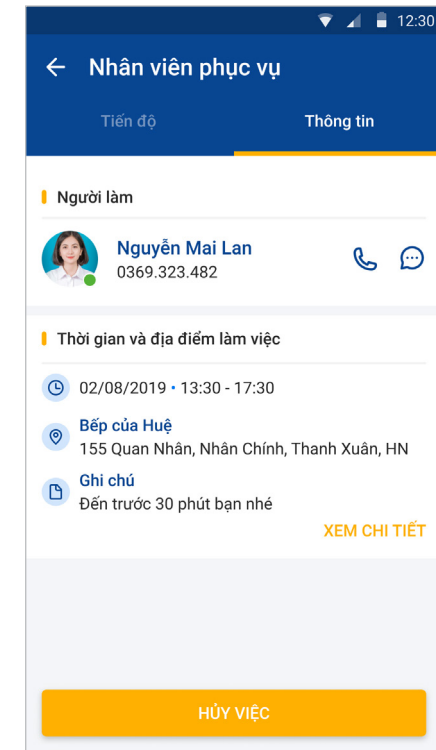
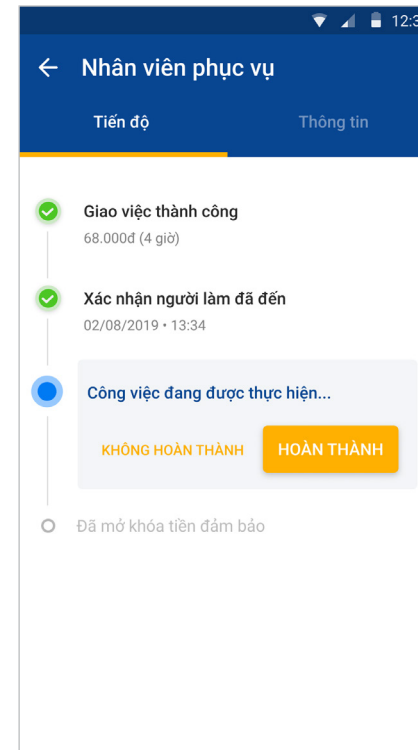
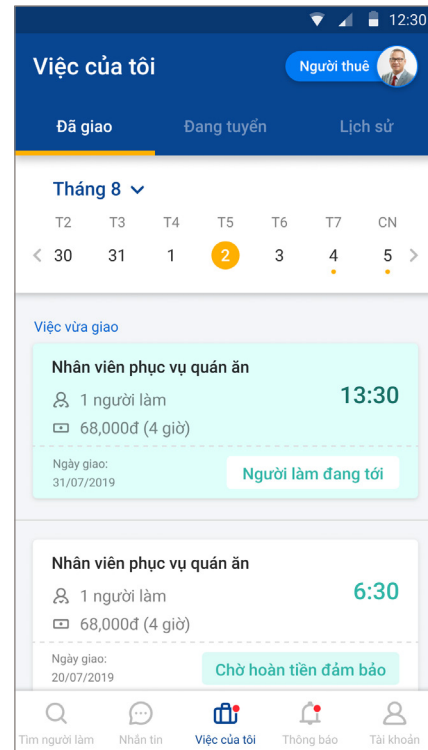
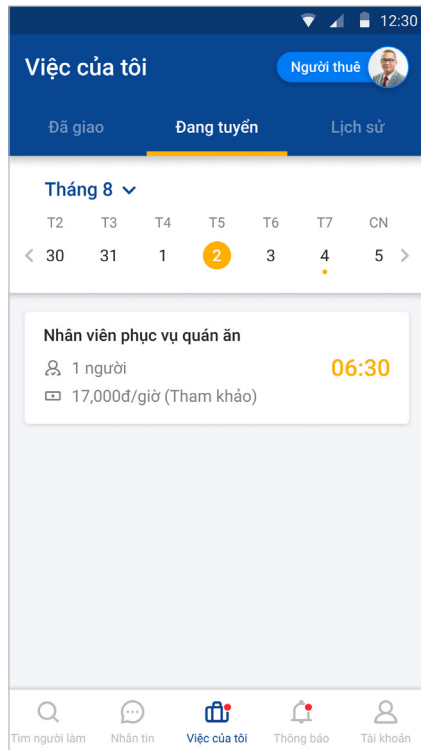
Số tiền đảm bảo13,600đ

Sau khi người làm xác nhận đã nhận đủ tiền công, hệ thống sẽ mở lại số tiền này.

ĐỒNG Ý

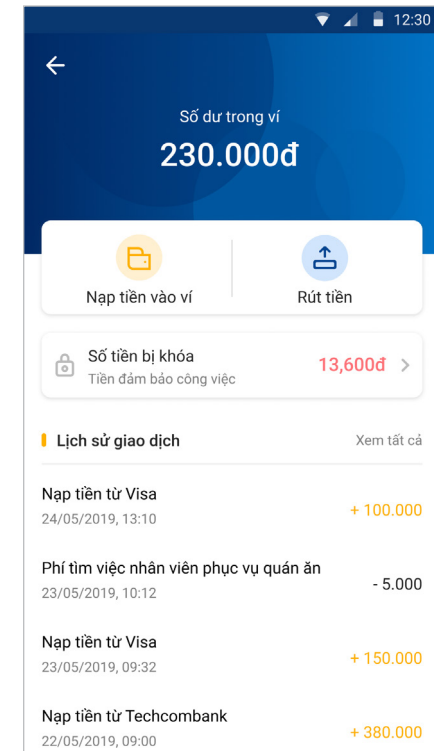
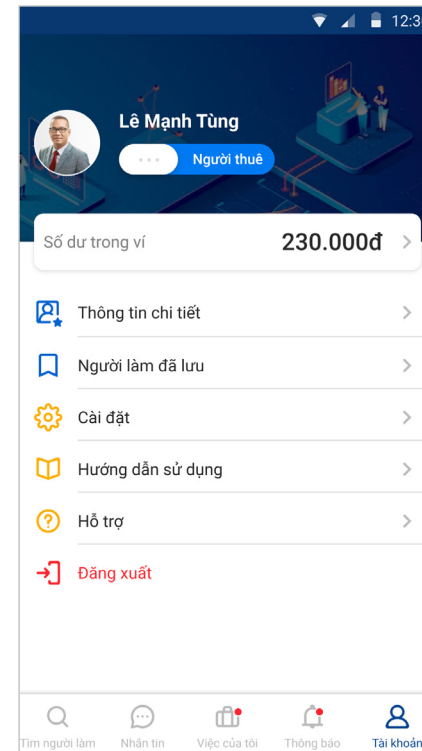
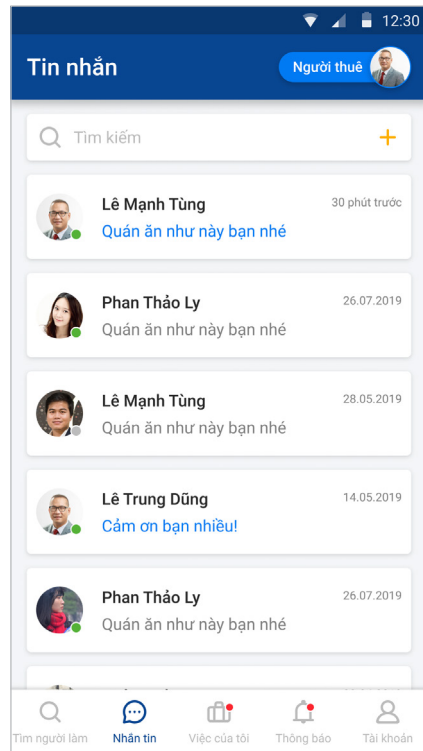
## 4.2 Final Design

### Seasonal Employer



## 4.2 Final Design

### Seasonal Employer

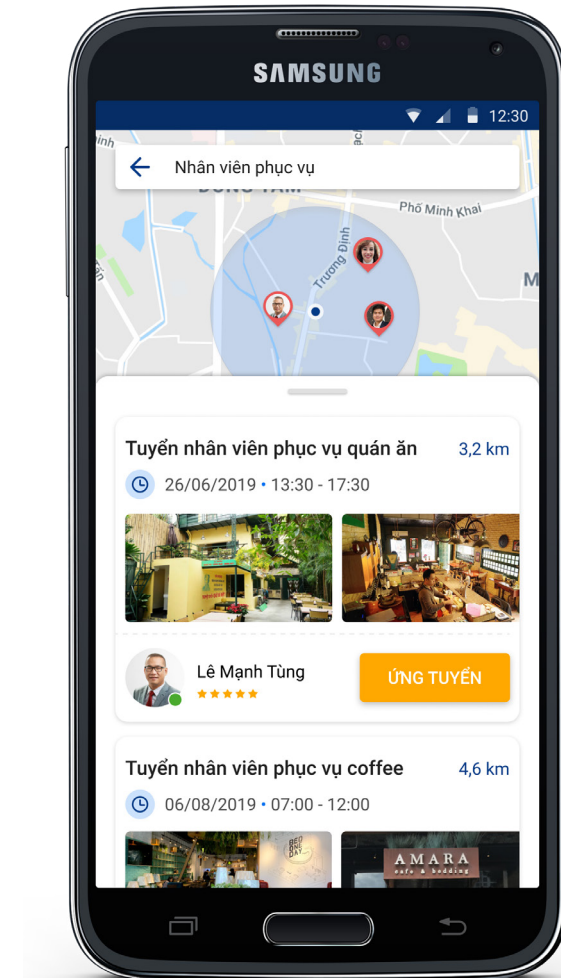
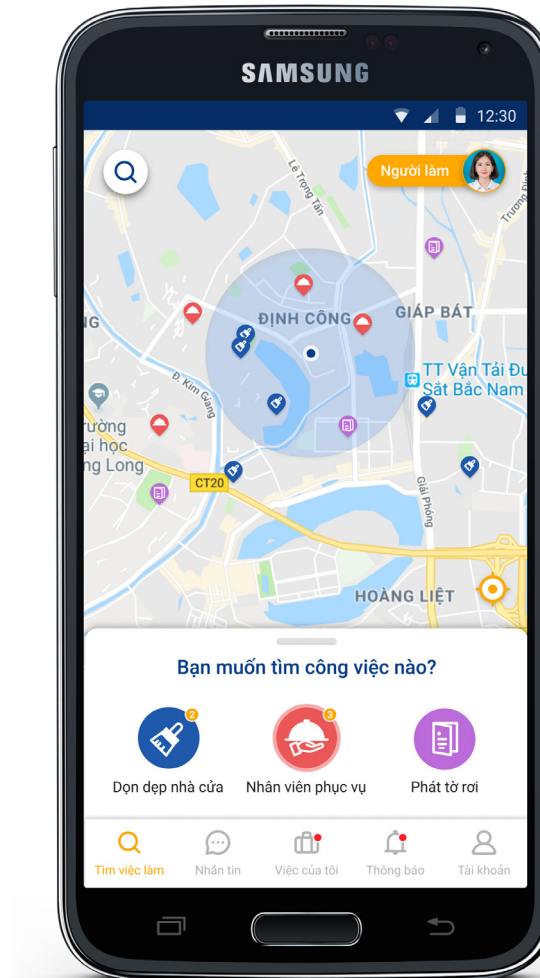


## 4.2 Final Design

### Seasonal Worker

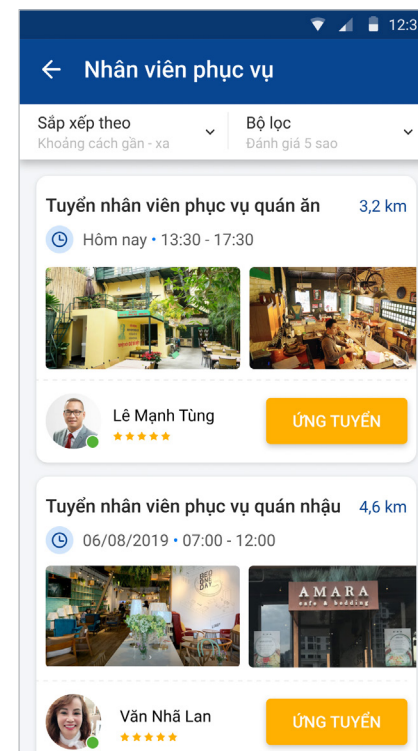
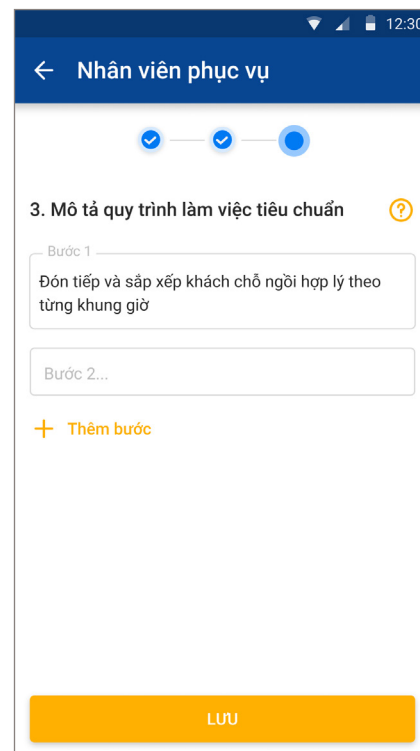
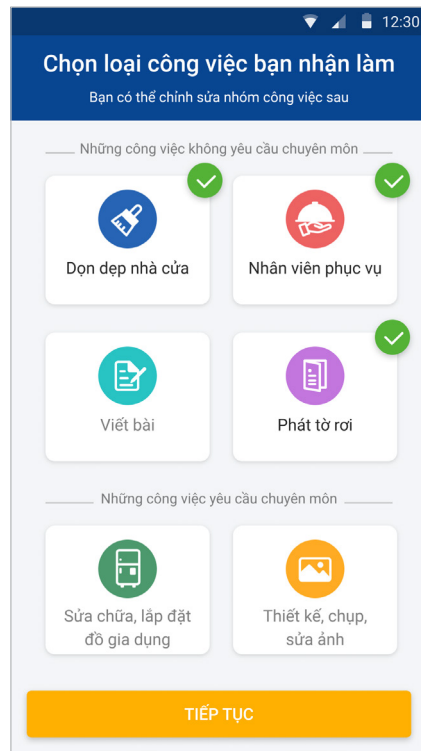
Below are some screens that describe the flow when Seasonal worker finding a seasonal job, applies for a job and manages work progress. There are also additional function screens so you can see an overview of the functions for people working in the SeasonJob application.

In addition to being an employer, SeasonJob supports transform roles into worker using the role switch function in User. Let's review the overview of visual design for seasonal workers. In general, 2 users of the screen don't have much difference in interface design.



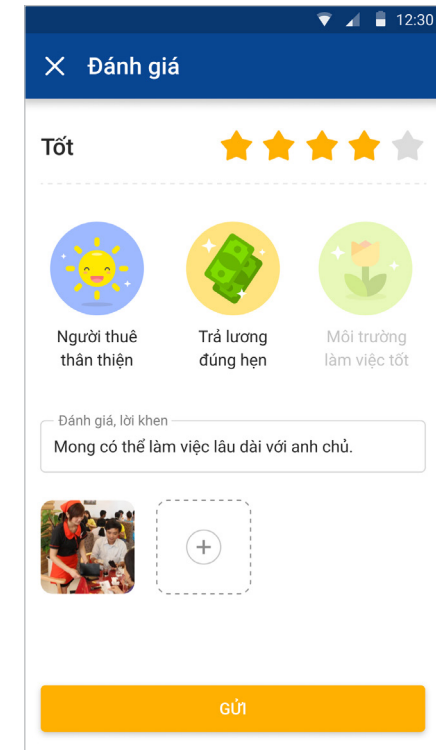
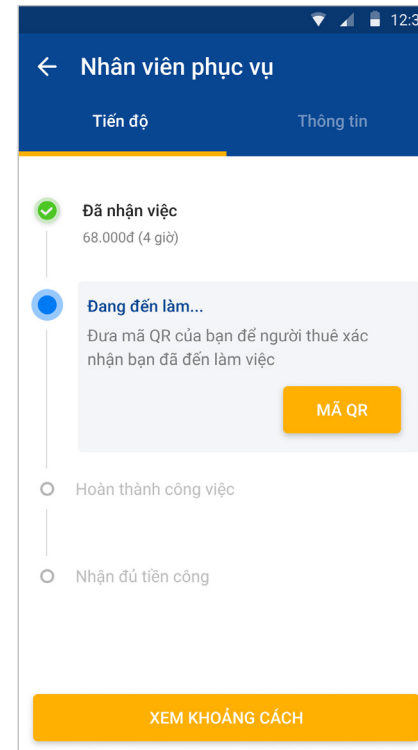
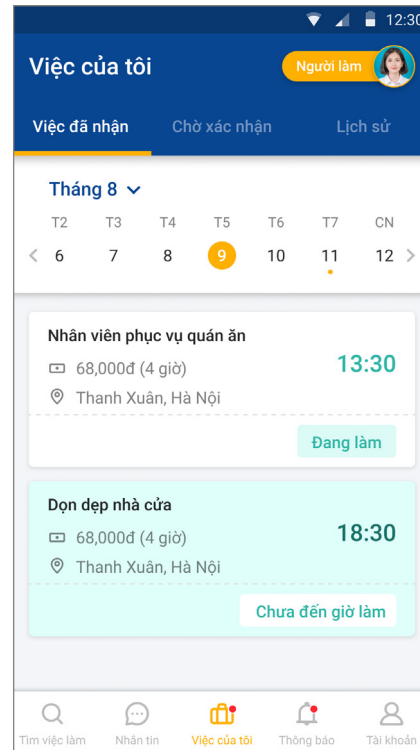
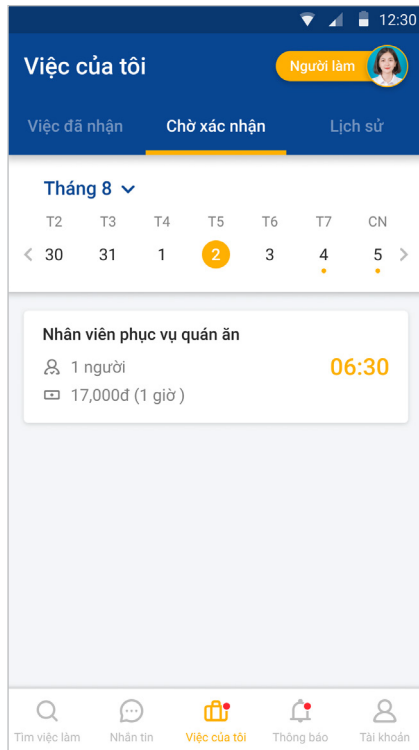
# 4.2 Final Design

## Seasonal Worker



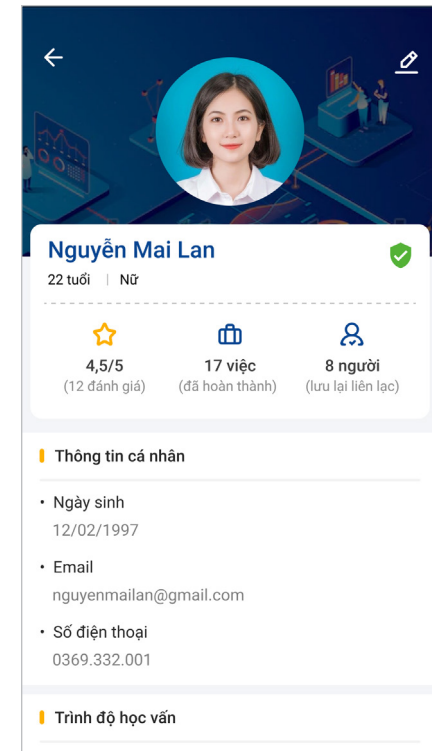
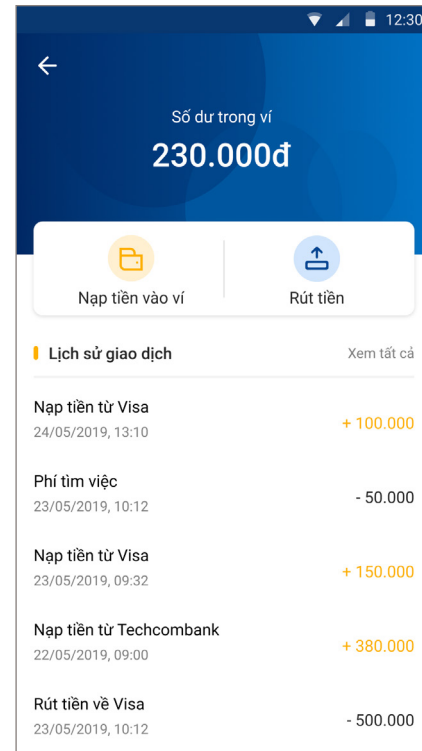
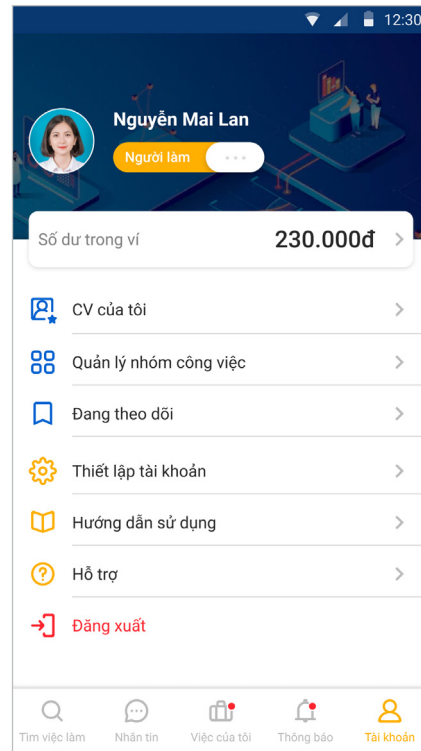
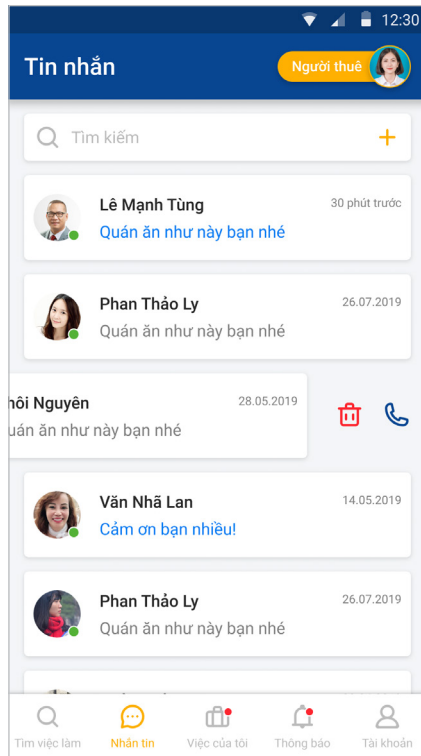
## 4.2 Final Design

### Seasonal Worker



## 4.2 Final Design

### Seasonal Worker



## 4.3 SeasonJob in comparison with existing competotors

	Hozo	Wonolo	Tidy	Freelancer	SeasonJob
Write a recruitment application	Yes	Yes	Yes	Yes	Yes
Apply Job	Yes	Yes	-	Yes	Yes
Search for information about jobs	Yes	-	-	Yes	Yes
Suggest new Jobs	Yes	-	-	Yes	Yes
Use GPS to find jobs, find people around here, directions	Yes	Yes	-	-	Yes
Filter that supports job search, find people who work fast	Yes	-	-	Yes	Yes

	Hozo	Wonolo	Tidy	Freelancer	SeasonJob
Personal information management	Yes	Yes	-	Yes	Yes
Apply Job	Yes	Yes	-	Yes	Yes
Wallet of application	Yes	Yes	Yes	Yes	Yes
Auction	-	-	-	Yes	Yes
Job management	Yes	Yes	-	Yes	Yes
Send messages to others	Yes	Yes	-	Yes	Yes
Notification	Yes	Yes	Yes	Yes	Yes
Rate/ feedback others after finished job	-	Yes	-	-	Yes



05

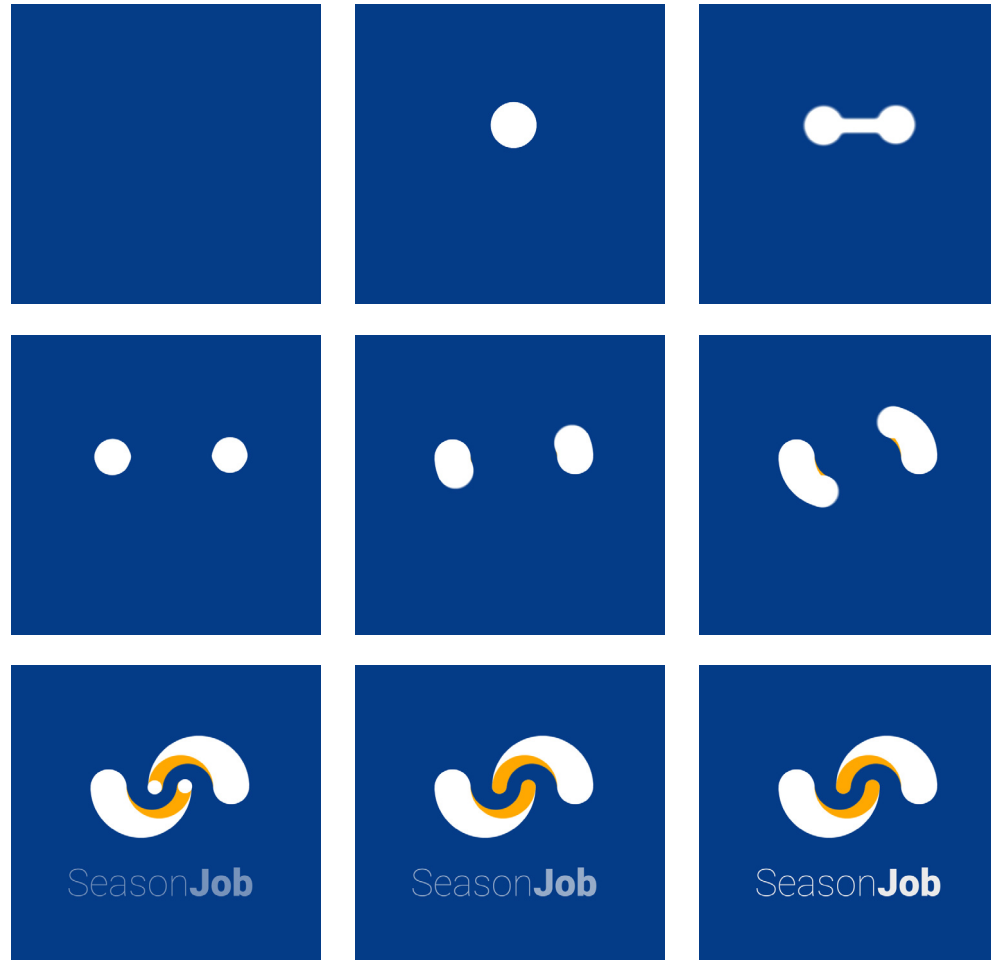
**Simulations**



# Simulations

## Animation of Logo

Using our logo to be animation introduction. It's quite off simple but unique and easy to impress. It started on the first time you enter in our application.

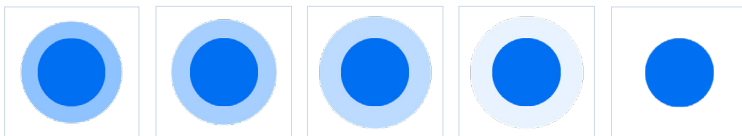


# Simulations

## Animation of job icon



## Animation of Timeline



## Others

To make SeasonJob application become more reality and user experience our creative work, we used XD app. Let see how it's worked.

# References

[https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_670542.pdf](https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_670542.pdf)  
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