

# SCSV 2113

## HUMAN COMPUTER INTERACTION

(Session 2020/2021 Semester 2)

School of Computing  
Universiti Teknologi Malaysia

### P2 – ESTABLISHING REQUIREMENTS

#### TOTAL PRO FOOD DELIVERY SYSTEM

(Section 01)

### GROUP 02 (0.0)

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## **Gathering Requirements - User Analysis**

### **1.0 Proposed Tasks**

- a. Help users to improve security measures starting from registration as a member
- b. Help users make an order without any confusion
- c. Help users use help services when they face problems

## 2.0 Persona

### User 1: Joseph - Office Worker



Joseph was born in Eco Botanic, Johor. He is 31 years old and also a holder of Bachelor Degree of Business Admin from Sunway University. He had worked in the Shine Vision Company for 7 years since the year of graduation which is 2014. His workload increases since the company has opened many branches and cooperates with other companies to create new products. This causes him to have to sacrifice some of his rest time to work for the company. Recently, the technology has had a big impact on the development of the delivery system and provides an opportunity to Joseph in terms of saving time to wait for the food to arrive.

Joseph starts understanding the advantage of food delivery service and he decides to learn more about the functions inside the application. However, he only has a limited time as he is busy and feels tired with work. The only time left for him is after working. Thus, Joseph requires a fast and easy to use system which will not spend a lot of his rest time. As recommended by his colleague, he tried to explore the famous food delivery application in Malaysia.

## **From Joseph's persona profile:**

### Values

- Active learning
- Good time management

### Motivation

- Able to understand the latest function of the food delivery application.
- Get familiar with the food delivery application.

### Goals

- Explore food delivery application.
- Manage rest time to learn the food delivery application.

### Pains

- It requires a lot of time.
- Limited options of restaurants during night time.

### Gains

- Register an account on food delivery application.
- Track the location of the food bought.

**User 2: Vincent - An Undergraduate Student**

Vincent was born in 10 July 2000 and lives in Pulau Pinang. He is a university student who is studying for a Bachelor Degree of Electronic Engineering in University Technology Malaysia (UTM). He comes from a lower income family. He has four siblings and he is the eldest son in his family. Thus, his parents cannot afford his living expenses in university because of his siblings' study fee. Vincent continued his study depending on the scholarship. Therefore, he needs to plan well every expenditure on study and daily supplies.

Vincent decides to save his money by planning every meal expenses carefully. Thus, he required a system which can help him select the best menu by showing all the details of the food inside that menu clearly. He wants to know the available quality food with low prices and suit his demands because he knows the importance of having healthy and nutritious food especially during the period of adolescence.

**From Vincent's persona profile:**

Values

- Economize
- Filial

Motivation

- Able to select the best menu.
- Able to save the money.

Goals

- Planning every meal expenses wisely.
- Choose quality food.

Pains

- Limited money.
- Lack of information about food.
- Hard understanding of the menu.

Gains

- Make an order of food.

**User 3: Nur Iris –A Housewife**

This is Iris who is a 40 years old housewife. She is passionate about cooking and likes to cook meals for her husband and 3 children. Her husband is an engineer and have 3 children are studying at secondary school. Iris and her family are living in Kuala Lumpur. Out of religious belief, they can only eat the halal food. She also has to take care of the health of food to make sure the growth of her children. Therefore, Iris starts to learn about how to help her children's growth in diet as she knows the importance of having a healthy diet.

Sometimes, Iris has her own work such as sewing and is unable to cook for her children. Thus, she needs to order food from a reliable shop. However, she is not familiar with the latest technology because she is always doing the housework. Therefore, she needs a system that can always help her by answering and solving her questions quickly.



**From Iris's persona profile:**

Values

- Responsible
- Hardworking

Motivation

- Keep concern with the health of family members.
- Able to learn the latest technology.

Goals

- Take care of her family members' health issues.
- Prepare a healthy meal for her family member.
- Get help services from food delivery applications.

Pains

- Not familiar with the latest technology.
- Long time waiting for the response.
- Uncomfortable with paying method.

Gains

- Make payment by herself.
- Get help from the application staff.

### 3.0 Scenario

#### **Scenario 1: Register as a member of the food delivery application**

On a beautiful late night, where Mr. Joseph cannot go to sleep but is still laying down on his bed. He began to think about how food delivery applications work. He then decided to spend his time on learning about it. Mr. Joseph started searching the applications in Google Playstore on his mobile smart phone and found a few of them. He chose to click on an application called Foodpanda and download it.

After downloading the application, the Foodpanda app requires Mr. Joseph to register or log in in order to use it. Thus, Mr. Joseph fills out all the important information that is needed by the app and then clicks the register button. Right after registering an account, he can easily scroll the home page of the Foodpanda app to choose which cuisine and restaurant around his area that he wants. Some of the restaurants in the app are closed because it was in the middle of the night where normal restaurants will close earlier than fast food or 24 hours restaurants. Mr. Joseph then tries to choose one of the available fast food restaurants in the Foodpanda app and track the location of that restaurant to learn how food delivery applications work. However, the process from download to order required him almost 1 hour.

**Scenario 2: Making an order by observing the information shown.**

Mr. Vincent is trying to order food for him and his friend for lunch. When scrolling through the homepage of the Foodpanda delivery app, he decided to order some food from Uncle Jamil's Restaurant. Mr. Vincent realizes that some of the menus in the application makes him uncomfortable. The problem that makes Mr. Vincent really uncomfortable is the menu does not state the portion of the food. For example, when he clicks on 'Nasi Goreng Special Uncle' Jamil', it does not state or show what is the content of the menu or the amount of calories available in the cuisine. Mr. Vincent then clicks the option back to the restaurant page from the menu page to choose another menu that he thinks suits his demand.

Another problem is that he noticed also that some of the food menu does not even contain a picture to illustrate the menu. The lack of information may seem unimportant to certain people but not for Mr. Vincent. It is because he is trying to save his pocket money and trying to maximize its use by buying quality food which is affordable and nutritious. After Mr. Vincent could not find any other food that he liked, he came to a conclusion to just buy the same food that he bought before.

**Scenario 3: Use help customer service**

Mrs. Iris is trying to order food online using one of the food delivery applications. She decided to use the Foodpanda app to order food for the day that she is so busy with other work and did not have enough time to cook. Mrs Iris has no idea how the mechanism of the application works because she is not used to it and it is her first time buying online from the application. She heard before that there is a customer service for people who need help with the application. She then navigates the application homepage to find the customer service button but unfortunately after a few minutes, she could not find it. Mrs. Iris is so invested in learning how the application works and how to order food from it. Then she searches in Google Chrome other than asking her family members for help. She types about customer service in the Google search engine and a few of them appear.

After reading about it, she knows where to click in the app to use the customer service. Mrs. Iris then gets to ask a question or look for similar questions that have been asked and answered before. The time taken for the question and answer with foodpanda staff is about 40 minutes because the staff took quite a long time to answer some questions asked by Mrs. Iris. Luckily for the staff, Mrs Iris is a patient person. After that, she gets the idea on how to order in the app such as the procedures and paying. Mrs. Iris clicks on one of the restaurants available in the app to order. After choosing her orders, she clicks on the cart picture to do an online payment as instructed by the staff earlier. Finally she has to wait for the runner to send her food in 10 - 15 minutes according to how far her house is from the restaurant. However, she is a bit worried about security for online payment as she found that there do not have a strict process when entering the password of her debit card.

## Gathering Requirements - Task Analysis

### 1.0 Introduction

All members of this group have discussed designing a system/application that can help the public use the food delivery applications easily and smoothly. Briefly describe, the application that we have used for testing is called Foodpanda. Foodpanda is one of the well-known food delivery applications in the country which can be downloaded in Google Playstore or Apple Appstore. Foodpanda will first ask the user to enable location service or the user can change it manually in order for the application to detect the availability of restaurants around the user's area. On the Foodpanda homepage, users can easily scroll through it to search for their desired restaurant or food to order.

Therefore, the items that we are going to focus on for this testing are as follow:

1. Register as a member of the application...
2. Making an order.
3. Asking for help/using the customer services

## **2.0 Derivation of HTA**

### **2.1 HTA for Task 1**

#### **TASK 1: Register as member**

##### **Office worker testing task 1**

[https://drive.google.com/file/d/1ARZL9kF-gFDKNAKXXT3hcSZ1oq\\_twqkd/view?usp=sharing](https://drive.google.com/file/d/1ARZL9kF-gFDKNAKXXT3hcSZ1oq_twqkd/view?usp=sharing)

0. Register as Foodpanda member through Facebook

1. Search for the menu

1.1 Click the menu button which is located in the upper left corner

2. Search for the log in/ create account

2.1 Click the log in/ create account

3. Choose sign up method

3.1 Sign up via continue with Facebook

4. Continue with Facebook

4.1 Press the button 'Continue with Facebook

Plan 0: Do Plan 1, 2, 3 and 4

Plan 1: Do 1.1

Plan 2: Do 2.1

Plan 3: Do 3.1

Plan 4: Do 4.1 to complete registration

## Student testing task 1

[https://drive.google.com/file/d/1vF1bvJgbGYwDa\\_167QG6tt3jgEXGPKXX/view?usp=sharing](https://drive.google.com/file/d/1vF1bvJgbGYwDa_167QG6tt3jgEXGPKXX/view?usp=sharing)

### 0. Register as Foodpanda member through email

1. Search the icon of Foodpanda
  - 1.1 Tap the icon
2. Search for the menu.
  - 2.1 Click the menu button which is located in the upper left corner.
3. Search for the log in/ create account.
  - 3.1 Click the log in/ create account
4. Choose sign up method
  - 4.1 Sign up via continue with Email
5. Enter Email address
  - 5.1 Enter active using Email address
6. Fill in personal details
  - 6.1 Enter first name
  - 6.2 Enter last name
  - 6.3 Enter desired password
7. Enter phone number.
  - 7.1 Select nation phone number
  - 7.2 Enter phone number
8. Verify phone number
  - 8.1 After key in your phone number, press continue button
  - 8.2 Search for a message that contain four number which sent by Foodpanda
  - 8.3 Enter the verification code

Plan 0: Do Plan 1, 2, 3, 4, 5, 6, 7 and 8

Plan 1: Do 1.1

Plan 2: Do 2.1

Plan 3: Do 3.1

Plan 4: Do 4.1

Plan 5: Do 5.1

Plan 6: Do 6.1, 6.2 and 6.3 in any order

Plan 7: Do 7.1 and 7.2

Plan 8: Do 8.1, 8.2 and 8.3 to complete registration



## Housewife testing task 1 (Register as member)

<https://drive.google.com/file/d/1Xl49Pn64gZSeyGnK0xyTlXReKpnZ32ji/view?usp=sharing>

### 0. Register as Foodpanda member through email

1. Download Foodpanda Apps.
  - 1.1 Go to Playstore (for Android user)/ Apps Store (for Apple user)
  - 1.2 Search 'Foodpanda' Apps
  - 1.3 Download Foodpanda Apps
2. Search the icon of Foodpanda
  - 2.1 Tap the icon to open
3. Search for the menu.
  - 3.1 Click the menu button which is located in the upper left corner.
4. Search for the log in/ create account.
  - 4.1 Click the log in/ create account
5. Choose sign up method
  - 5.1 Sign up via continue with Email
6. Enter Email address
  - 6.1 Enter active using Email address
7. Fill in personal details
  - 7.1 Enter first name
  - 7.2 Enter last name
  - 7.3 Enter desired password
8. Enter phone number.
  - 8.1 Select nation phone number
  - 8.2 Enter phone number

9. Verify phone number

9.1 After key in your phone number, press continue button

9.2 Search for a message that contain four number which sent by Foodpanda

9.3 Enter the verification code

Plan 0: Do Plan 1, 2, 3, 4, 5, 6, 7, 8 and 9

Plan 1: Do 1.1, 1.2 and 1.3

Plan 2: Do 2.1

Plan 3: Do 3.1

Plan 4: Do 4.1

Plan 5: Do 5.1

Plan 6: Do 6.1

Plan 7: Do 7.1, 7.2 and 7.3 in any order

Plan 8: Do 8.1 and 8.2

Plan 9: Do 9.1, 9.2 and 9.3 to complete registration

### **2.1.1 Findings from the HTAs for Task 1**

From the HTAs for task 1, we can observe that user 1 which is the office worker sign in the Foodpanda apps via the Facebook application. He just used about less than 40 seconds to sign up because Facebook had the important details about him and he just had to press the continue button to sign up as Facebook. Because he is an old user, he filled up the other details such as phone number and the address part. As a sign up for Foodpanda members, he was required to use his real phone number and address or else the food delivery rider can't approach us to deliver our ordered meal.

While for user 2 which is the student had shown us step by step sign up the Foodpanda member through email. After choosing log in with email, he needs to enter his email address. Upon that, he needs to enter his name and password to sign up. On the next page, the phone number is required to continue his registration as a member. After he keys in his number, a verification code will be sent to his phone which he needs to use to verify his number.

For user 3 the housewife is using the same step as user 2 to sign up as a Foodpanda app member. The only difference between these three users is that they use different methods to sign up which one user using Facebook (User 1 - Office Worker) and the other two users (User2 & User 3 - Student & Housewife) used email.

We can conclude that all 3 users sign up as a Foodpanda member in a very quick and simple way. All three users do not face any difficulties when signing up as a member as the application is guiding its user step by step without any confusion. And of course we must have our own email address and active phone number while signing up. We can either use our Facebook account or email address to sign up for a Foodpanda account.

### **2.1.2 Requirement Specification for Task 1**

A simpler or more effective way to upgrade the Foodpanda sign up process is applying sign up with google account will be more effective as google account include the basic personal information such as address and phone number. It is also necessary to upload a copy of Identification Card (IC) inside the Foodpanda account because currently there are many incidents where a lot of scammers use fake accounts and also fake phone numbers to order the meal and do not show up which makes the delivery riders have to pay the cost. By uploading the (IC) and the proof of address, the scammers will not have any chance to prank any of the hard-working riders.

It is clearly shown that all of the 3 users can sign up very quickly through Foodpanda, if they had a phone number and this is a security leakage as the scammers can do anything with a new phone number. As discussed by our group members, we believe improving the security of the food delivery system needs to start from registration. Therefore, face recognition is an important feature required by a food delivery system as it can improve security not only for the user but also the seller to avoid hackers or fake orders.

With the improvements above, Foodpanda can protect the delivery riders and there is no single chance for the scammers to cheat the delivery riders.

## **2.2 HTA for Task 2**

### **TASK 2: Making an order**

#### **Office Worker Testing Task 2**

<https://drive.google.com/file/d/1uf-c91zAbtQZ7n3h-xQrvpJ6iARAvWco/view?usp=sharing>

#### 0. Ordering cheap food

1. Enter address
  - 1.1. Enter the address manually
  - 1.2. Click on the 'location' button to detect the location
  - 1.3. Choose the mode either delivery or pick-up
2. Apply filter for cheap food
  - 2.1. Click on the 'filter' button
  - 2.2. Scroll down to the bottom until the category of price is reached
  - 2.3. Click on the button with '\$' for cheap food, '\$\$' for middle range priced food or '\$\$\$' for expensive food
3. Choose the food
  - 3.1. Click on the desired restaurant
  - 3.2. Click on the desired food
4. Check out
  - 4.1. Click on the 'GO TO CHECKOUT' button
  - 4.2. Select delivery time, leave optional notes for the rider
  - 4.3. Choose type of payment
  - 4.4. Click on 'Do you have a voucher?' to apply voucher
  - 4.5. Select desired voucher
  - 4.6. Click on 'PLACE ORDER'

Plan 0: Do Plan 1, 2, 3 and 4

Plan 1: Do either 1.1 or 1.2, then proceed to 1.3

Plan 2: Do 2.1, 2.2 and 2.3

Plan 3: Do 3.1 and 3.2

Plan 4: Do 4.1, 4.2, 4.3 and 4.6 if no voucher is applied, do 4.1, 4.2, 4.3, 4.4, 4.5 and 4.6 if voucher is applied

## Student Testing Task 2

<https://drive.google.com/file/d/1UZFoJOnqWt2o6AtxZ4xIicxpmZEJkPhI/view?usp=sharing>

### 0. Ordering food

1. Enter address
  - 1.1. Enter the address manually
  - 1.2. Click on the 'location' button to detect the location
  - 1.3. Choose the mode either delivery or pick-up
2. Search for restaurant
  - 2.1. Type the desired restaurant in the search bar
  - 2.2. Click on the search button
  - 2.3. Choose the desired restaurant
  - 2.4. Choose the desired food
  - 2.5. Customize the order
  - 2.6. Click on the '+' button to add quantity of the food, '-' button to decrease the quantity
  - 2.7. Click 'ADD TO CART' button
3. Choose recommended restaurant at the main page
  - 3.1. Choose the desired restaurant
  - 3.2. Choose the desired food
  - 3.3. Customize the order
  - 3.4. Click on the '+' button to add quantity of the food, '-' button to decrease the quantity
  - 3.5. Click 'ADD TO CART' button
4. Go to the cart
  - 4.1. Click on the bag-looking button
  - 4.2. Review the payment and order
5. Check out
  - 5.1. Click on the 'GO TO CHECKOUT' button
  - 5.2. Select delivery time, leave optional notes for the rider
  - 5.3. Choose type of payment
  - 5.4. Click on 'Do you have a voucher?' to apply voucher
  - 5.5. Select desired voucher
  - 5.6. Click on 'PLACE ORDER'

Plan 0: Do plan 1, 2, 4 and 5 for searching the restaurant manually, otherwise do plan 1, 3, 4 and 5 for choosing the recommended restaurant

Plan 1: Do either 1.1 or 1.2, then proceed to 1.3

Plan 2: Do 2.1, 2.2, 2.3, 2.4 and 2.7, do 2.5 for customizing the order and do 2.6 for selecting the quantity of order

Plan 3: Do 3.1, 3.2 and 3.5, do 3.3 for customizing the order and do 3.4 for selecting the quantity of order

Plan 4: Do 4.1 and 4.2

Plan 5: Do 5.1, 5.2, 5.3 and 5.6 if no voucher is applied, do 5.1, 5.2, 5.3, 5.4, 5.5 and 5.6 if voucher is applied

## Housewife Testing Task 2

<https://drive.google.com/file/d/1s12IGwbotjTsaISnOBOAQVd9PTZn-USJ/view?usp=sharing>

### 0. Ordering discount food

1. Enter address
  - 1.1. Enter the address manually
  - 1.2. Click on the 'location' button to detect the location
  - 1.3. Choose the mode either delivery or pick-up
2. Apply filter for discounted food
  - 2.1. Click on the 'filter' button
  - 2.2. Select the 'Has discount' button under the category of OFFERS
3. Choose from the advisement banner
  - 3.1. Click on the interested offer on the banner
4. Choose the food
  - 4.1. Click on the desired restaurant
  - 4.2. Click on the desired food
5. Check out
  - 5.1. Click on the 'GO TO CHECKOUT' button
  - 5.2. Select delivery time, leave optional notes for the rider
  - 5.3. Choose type of payment
  - 5.4. Click on 'Do you have a voucher?' to apply voucher
  - 5.5. Select desired voucher
  - 5.6. Click on 'PLACE ORDER'

Plan 0: Do plan 1, 2, 4 and 5 if applying filter for choosing discount food, otherwise do plan 1, 3, 4 and 5 to choose discount food from the advisement banner

Plan 1: Do either 1.1 or 1.2, then proceed to 1.3

Plan 2: Do 2.1 and 2.2

Plan 3: Do 3.1

Plan 4: Do 4.1 and 4.2

Plan 5: Do 5.1, 5.2, 5.3 and 5.6 if no voucher is applied, do 5.1, 5.2, 5.3, 5.4, 5.5 and 5.6 if voucher is applied



### **2.2.1 Findings from the HTAs for Task 2**

From the observations of HTA for task 2, we observe that the user 1, which is the office worker, is trying to order cheap food from the Foodpanda website. After he successfully logged into his account, he chose to click on the 'location' button to detect his address for the delivery. He then spent about 2 minutes completing the whole process of ordering cheap food. He is familiar with the food ordering system as he chose to apply the filter in helping him to search for low-priced food offered by the restaurants available. He is required to double check his personal information including his name, contact number and address and edit them if any mistakes were found before he proceeds to the payment. He also mentioned that he could use the voucher available if needed, from this we could say that he knows the food ordering system very well.

Next, we observe how user 2, a student, orders food at the Foodpanda website. He also chose to use the 'location' button to automatically detect his address after logging in into his account. He searched for his desired restaurant, which is Subway, by using the search bar function. He then continues to customize his order and writes down his special requirements for the order. After he is done with that, he adds his order to the cart. He then checks out his orders from the cart, checks his personal details and leaves a short note for the rider before he proceeds to the payment. He also mentioned that vouchers can be used before paying. He knows how to track his orders after the payment has been done. Overall, he spent around 6 minutes getting his order placed. We can conclude that he is very familiar with this food ordering system as he knows almost all the functions available for ordering the food.

Lastly, we observe the third user, who is a housewife. She tries to order the discounted food from the Foodpanda website. She chooses to write her address after logging into her account. She shows us two different ways in ordering discount-priced food, one is by applying the filter, the other is by choosing the restaurant from the advertisement bar which shows discounts available. She then chooses her desired food and proceeds to check out for the payment. She took about one and a half minutes to order the food. Hence, we can say that she is also quite familiar with the food ordering system.

In conclusion, all the three users show high familiarities towards the food ordering system. They face no difficulties in ordering food. Therefore, we can further conclude that this system is user-friendly and easy to apply.

### **2.2.2 Requirement Specification for Task 2**

The food delivery system of Foodpanda is efficient enough, but still has space for improvements. The improvement can be made by providing more details of the food available. For example, the ingredients of the dishes can be listed down for the user's reference, and also to avoid ordering food with certain allergic contents. With the ingredients of food listed, one can choose his choice of food according to his needs, like a bodybuilder needs food with high protein and low fats, a pregnant woman needs nutritious food for her and her baby, and etc. By so, the users can have a clearer view on the food ordered, thus increasing the satisfaction in using the food ordering system.

Thus, by having augmented reality (AR), users can have an attractive experience when using the food delivery system. There will be a big screen to show all the information about food and combine with an online database in order to provide details needed by the user.

## **2.3 HTA for Task 3**

### **TASK 3: Use help services**

#### **Office Worker Testing Task 3**

[https://drive.google.com/file/d/1jx98p9V3d45\\_KDa-g2Fh9dJjOUstlFkr/view?usp=sharing](https://drive.google.com/file/d/1jx98p9V3d45_KDa-g2Fh9dJjOUstlFkr/view?usp=sharing)

#### 0. Make an order cancellation using help services

1. Search for the menu.
  - 1.1 Click the menu button.
2. Search for the help center.
  - 2.1 Click the “Help center”.
3. Click “Can I cancel my order?”
4. Go to Food Panda in-App Customer Support Chat to get help
5. Select reason to cancel order.
  - 5.1 Click “My voucher wasn’t applied to my order.”
6. Confirmation to cancel order.
  - 6.1 Click “Yes”.
7. Order successfully cancelled.
  - 7.1 Click “Close”.

Plan 0: Do 1, 2, 3, 5, 6, 7 if unable to cancel order, do 4.

Plan 1: Do 1.1

Plan 2: Do 2.1

Plan 5: Do 5.1 (pick the reason according to the situation)

Plan 6: Do 6.1

Plan 7: Do 7.1; If fail to cancel order, do 4.

### Student Testing Task 3

[https://drive.google.com/file/d/1VF-aPNj6FGsf\\_gf\\_AuuGSVJ8AasX8LERP/view?usp=sharing](https://drive.google.com/file/d/1VF-aPNj6FGsf_gf_AuuGSVJ8AasX8LERP/view?usp=sharing)

#### 0. Make a report about food issue

1. Search for the menu.
  - 1.1 Click the menu button.
2. Search for the help center.
  - 2.1 Click the “Help center”.
3. Click “Safety Concerns”.
4. Select the type of issue to make a report.
  - 4.1 Click “Food Safety Issue”.
5. Take a photo of the food.
  - 5.1 Open Camera
  - 5.2 Take Photo
6. Upload image
  - 6.1 Click “Upload an image”
  - 6.2 Click “Photo”
  - 6.3 Select the image to upload.
  - 6.4 Click “Send”
7. Describe details about food and send the report.
  - 7.1 Type the details.
  - 7.2 Click “Send”

Plan 0: Do 1, 2, 3, 4, 6, 7

Plan 1: Do 1.1

Plan 2: Do 2.1

Plan 4: Do 4.1

Plan 5: Do 5.1, 5.2

Plan 6: Do 6.1, 6.2, 6.3, and 6.4 if no image about food, do 5 first.

Plan 7: Do 7.1, 7.2

### Housewife Testing Task 3

<https://drive.google.com/file/d/1AsFlZZ284h9jOUIfPlaUHKZoUXNtleTl/view?usp=sharing>

#### 0. Handle payment issue

1. Search for the menu.
  - 1.1 Click the menu button.
2. Search for the help center.
  - 2.1 Click the “Help center”.
3. Get the answer/solution about payment issue
  - 3.1 Click “pandapro”.
  - 3.2 Click “Payment & Signup”.
  - 3.3 Click “When will I be billed?”
  - 3.4 Read and understand the answer/solution.
  - 3.5 Click “Yes, I got my answer”.
4. Go to order.
5. Make payment.
  - 5.1 Choose a payment method.
  - 5.2 Enter information or password
  - 5.3 Make the payment by clicking “Place order”.

Plan 0: Do 1, 2, 3, 4, 5

Plan 1: Do 1.1

Plan 2: Do 2.1

Plan 3: Do 3.1, 3.2, 3.3, 3.4, 3.5 (for 3.3 pick the question that you want to ask depending on your problem faced.)

Plan 5: Do 5.1, 5.3 if pay via online do 5.2

### **2.3.1 Findings from the HTAs for Task 3**

From the HTAs for task 3, we can notice that all 3 users (office worker, student, and housewife) have wisely used the help services provided by Food Panda according to the problems they encountered. For the user 1 (office worker), he wants to cancel his order. Then, he immediately enters the help center of the Foodpanda app to apply cancellation to his order. At last, he was successful in canceling his order. The cancellation feature provided by Food Panda is great, because if the store has not yet started preparing the ordered food, then the users can cancel their order if they make some mistakes on the order. This cancellation feature can help to reduce the users' wrong orders and avoid wasting happens.

For user 2 (student), he wants to make a report about the food issue. Then, he starts to look for the help center and select an option related to safety concerns. After that, he was able to follow the instructions through the help center to create a report by uploading the photo and writing descriptions about the food issue. Finally, he sends the report to the customer service department to solve the problem he is facing (food spilled). In this case, the lack of customer service is shown. This is because the customers do not know more about the progression to fix the problem after sending the report. This will make the users feel uneasy since the working hour to fix the problem might take more than 1 day. To solve this problem, customer service is important in keeping the customers informed or helping the customer to solve their problem as quickly as possible. Otherwise, this will result in loss of customers due to lack of customer service.

Lastly, we can consider the user 3 (housewife) as a new user because she is not familiar with this Foodpanda application. When ordering a food, she was having a problem on making payment. As she does not understand the process of making a payment, she needs to find a solution. Therefore, she searches for help center in the menu bar. From the HTA we can clearly see that she found the solution about making payment from the help center in the "QnA" section. This solution helped her to place the order. Overall, the "QnA" section is a good way for the user to find solutions when they met different problems.

### **2.3.2 Requirement Specification for Task 3**

The Foodpanda's customer service is good enough, but there is still a potential to improve. According to the HTA for task 3, we can clearly see that user 1 and user 3 are able to solve the problems they met by using the customer service provided (user 1: order cancellation, user 3: payment issue). While for user 2, the problem he met is still not yet solved completely (food issue). This is because user 3 only sent a report about the food issue he is facing, and the customer service still needs to take a lot of time to understand and settle the problem. From here, the improvement about reporting an issue can be made.

Customer service is obviously critical in keeping customers updated and satisfied. Hence, the speed of solving a customer's problem is super important. In this case, Foodpanda's customer service may provide a live chat system that allows customers to communicate with customer service staff in real time. Hence, customers can have a live interaction with the staff in a chat box within the system to state out the problems they encountered clearly. On the other hand, customer service staff will also be able to understand the problems and provide a suitable solution right away. So, this will be a more effective way for customers to report an issue because it can immediately solve the problems encountered by customers.



### 3.0 Design requirements

Our group has performed several observations regarding our users engaging on their task respectively while allowing us to willingly record and accumulate their feedback and actions during the activity. Allowing our users to think aloud during the time of activities ought to be a very effective data gathering method especially when it helps us to do critical task analysis to be evaluated later on. Moreover, we have successfully recognized some loopholes within Foodpanda's application which we saw as an opportunity to use them as our base line for improving our refined product that could potentially exceed the users' expectations. Initially, our three tasks that have been given to our users have been completed. Our tasks that involve the users to register as a new member to the Foodpanda's application, making an order and using the customer services consists of three different kinds of specialised tasks. It requires the users to be executed using different kinds of knowledge and experience on handling the application. Design requirements for each task have been properly identified and have been customized to match users' prospects.

During our task 1 execution, when we sign up as a new member for the Foodpanda application, all three of our users are aware of the instructions and processes of signing up. There was no difficulty or any confusion occurring since signing up through their Google account is much more common these days and everyone should know. If the Foodpanda application were to manually include email address and phone numbers of users to their database, the application may leak precious information to scammers or what is known as information theft. Since all three users very quickly are able to adapt to these processes, so do scammers as well. Suggestion to improve the application by applying face recognition and uploading Identification Card (IC) are crucial to improve the security measures of the application.

Apart from that, we also notice that the Foodpanda application still lacks ingredient information. The application is able to partially produce information for the users such as types of food, the prices, images and calories. However, if there were for example a customer whose medical condition prevents him or her from eating peanuts or mushrooms or their body isn't lactose tolerant, there will be a huge problem both for the customer and for the company for neglecting crucial information. We suggest installing augmented reality (AR) into Foodpanda's application to properly and vividly display the customer's food and its contents or ingredients listed within the

food. This innovation should save the users as well as customers with allergy to safely choose their preferred food.

Lastly, task 3 instructs the users to write a report using the application's customer service and produce some basic report or problem statement in order to analyse its action and countermeasures to solve the problem specified by the users. Customer service may not be as important as other functions in the application but for high rating or high reputational companies, this aspect is their top priority. We conclude that there are needs for better interaction interface for customers or users to address their concerns about their problems. Hence, live chat is considered to be the best possible and practical solution to this matter.

### **3.1 Refined HTA for task 1**

#### **To Register as Member**

##### 0. Register as member

##### 1. Search the icon of Foodpanda

##### 1.1 Tap the icon

##### 2. Search for the menu.

##### 2.1 Click the menu button which is located in the upper left corner.

##### 3. Search for the log in/ create account.

##### 3.1 Click the log in/ create account

##### 4. Choose sign up method

##### 4.1 Sign up via continue with Google

##### 5. Enter phone number.

##### 5.1 Select nation phone number

##### 5.2 Enter phone number

##### 6. Verify phone number

##### 6.1 After key in your phone number, press continue button

##### 6.2 Search for a message that contain four number which sent by Foodpanda

##### 6.3 Enter the verification code

##### 7. Upload Identification Card (IC)

##### 7.1 Upload both front and back of your IC in Foodpanda apps for verification

##### 8. Face recognition

##### 8.1 Enable your camera in Foodpanda apps

##### 8.2 Take a picture

##### 9. Registration completed

Plan 0: Do Plan 1, 2, 3, 4, 5, 6, 7, 8 and 9

Plan 1: Do 1.1

Plan 2: Do 2.1

Plan 3: Do 3.1

Plan 4: Do 4.1

Plan 5: Do 5.1 and proceed to 5.2

Plan 6: Do 6.1, 6.2 and 6.3

Plan 7: Do 7.1

Plan 8: Do 8.1 and 8.2

### **3.2 Refined HTA for task 2**

#### **To Order Food**

##### 0. Ordering food

1. Enter address
  - 1.1. Enter the address manually
  - 1.2. Click on the 'location' button to detect the location
  - 1.3. Choose the mode either delivery or pick-up
2. Search for restaurant
  - 2.1. Type the desired restaurant in the search bar
  - 2.2. Click on the search button
  - 2.3. Choose the desired restaurant
3. Choose recommended restaurant at the main page
  - 3.1. Choose the desired restaurant
  - 3.2. Choose the desired restaurant from the advisement banner
4. Apply filter to choose cheap food, discounted food, type of food and etc
  - 4.1. Click on the 'filter' button
  - 4.2. Select the 'Has discount' button under the category of OFFERS
  - 4.3. Click on the button with '\$' for cheap food, '\$\$' for middle range priced food or '\$\$\$' for expensive food
  - 4.4. Select desired type of food under the food category
5. Choose desired food
  - 5.1. Click on the desired food
  - 5.2. Click on the 'more info' button to see the detailed description of the food
  - 5.3. Click on the 'AR' button to interact with the menu
  - 5.4. Customize the order
  - 5.5. Click on the '+' button to add quantity of the food, '-' button to decrease the quantity
6. Add to cart
  - 6.1. Click 'ADD TO CART' button
7. Go to the cart
  - 7.1. Click on the bag-looking button
  - 7.2. Review the payment and order

8. Check out
  - 8.1. Click on the 'GO TO CHECKOUT' button
  - 8.2. Select delivery time, leave optional notes for the rider
  - 8.3. Choose type of payment
  - 8.4. Click on 'Do you have a voucher?' to apply voucher
  - 8.5. Select desired voucher
  - 8.6. Click on 'PLACE ORDER'

Plan 0: Do 1, 2, 5, 6, 7 and 8 to search the restaurant using the search bar, or do 1, 3, 5, 6, 7 and 8 to choose recommended restaurant by the system, or do 1, 4, 5, 6, 7 and 8 to apply filter in choosing the restaurant

Plan 1: Do either 1.1 or 1.2, then proceed to 1.3

Plan 2: Do 2.1, 2.2 and 2.3

Plan 3: Do 3.1 or 3.2

Plan 4: Do 4.1 and choose to do either 4.2, 4.3 or 4.4 or do them in multiple combinations

Plan 5: Do 5.1, do 5.2 or 5.3 optionally for viewing the details of the food, then do 5.4 and 5.5 (optional)

Plan 6: Do 6.1

Plan 7: Do 7.1 and 7.2

Plan 8: Do 8.1, 8.2, 8.3 and 8.6 if no voucher is applied, do 8.1, 8.2, 8.3, 8.4, 8.5 and 8.6 if voucher is applied

### **3.3 Refined HTA for task 3**

#### 0. Make a report about food issue

##### 1. Search for the menu.

###### 1.1 Click the menu button.

##### 2. Search for the help center.

###### 2.1 Click the “Help center”.

##### 3. Click “Safety Concerns”.

##### 4. Select the type of issue to make a report.

###### 4.1 Click “Food Safety Issue”.

###### 4.2 Click “live chat” to communicate with staff

##### 5. Take a photo of the food.

###### 5.1 Open Camera

###### 5.2 Take Photo

##### 6. Chat with customer service’s staff

###### 6.1 Describe the problem faced to customer service’s staff and click “send”

###### 6.2 Send photo about food

###### 6.2.1 “Click upload an image”

###### 6.2.2 “Click “Photo”

###### 6.2.3 Select the image that wanted to upload

###### 6.2.4 Click “Send”

###### 6.3 Read and understand the solution provided by staff

###### 6.4 follow instruction of the solution to solve the problem (getting refund)

Plan 0: Do 1, 2, 3, 4, 6

Plan 1: Do 1.1

Plan 2: Do 2.1

Plan 4: Do 4.1

Plan 5: Do 5.1, 5.2

Plan 6: Do 6.1, 6.2(6.2.1, 6.2.2, 6.2.3, 6.2.4), 6.3, 6.4 if no image about food do 5, repeat 6.1 if needed



## 4.0 References

1. Mishra, A.K. (2015). *The trouble with Foodpanda*. [online] mint. Available at: <https://www.livemint.com/Companies/rYKC6HjnShogjE62jO5lpK/The-trouble-with-Foodpanda.html> [Accessed 3 May 2021].