HW#2: POV, HMW, Experience Prototypes

1. Introduction

- **About Team03**
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- **Problem Domain**
  Our problem domain is **Food**. There is a lot of delicious food around campus, but when it comes to dining time, people always spend a lot of time finding the type of food that meets their personal needs, or sometimes they just have no idea what to eat.

2. Preliminary POV

We interviewed students, employees and restaurant owners about their experience when ordering food. We found something interesting ...

- Restaurants are less concerned about ordering interaction, and the biggest pain point is actually marketing. When students choose food, everyone has different preferences.
- Customized requirements are too complicated in ordering for restaurants. But for students, they want to find the food for their needs and restrictions on customization.

3. Additional Needfinding Results

To further test out POV, we found that among the users in the previous interview, the lack of users who chose restaurants around campus **for a long time** or students with **special dietary needs** . Below are the key findings from more interviews.

- **We talked with Yuan, who works with a research assistant in NTU.** She mentioned that the queuing crowd is an important factor in her choice of restaurant. She doesn't like restaurants that require her to wait for a long time. She also wants to know the newly-opened restaurants nearby, and she hopes that the menu can have appetizing choices.

- **We met Bala, a Phd student in NTU for five years.** He told us that he doesn't have much restriction on food, but if there are a lot of people or if it smells bad, he would not choose. He hopes to know which restaurant his friends usually eat and the current number of diners. He also mentioned that google maps cannot show the newly-opened restaurant.

- **We talked with YuanZen, a Phd student in NTU for five years. (vegetarian)**
  She expects a random select function for helping her decide which restaurant to go to. And there are some non-vegetarian restaurants that also provide some vegetarian meals, but she has to ask the staff or read the menu to find it out. It will be much more convenient for the map which will show all the restaurants providing vegetarian food and their vegetarian menu.

4. POVS and HMW

- **POV1**

  We met the staff and restaurant owner to know that restaurants need better marketing strategies to attract more customers, so students can get more restaurant information.

  How might we -

  1. Let the restaurant attract more customers?
  2. Allow restaurants to attract customers during non-main dining hours ?
  3. Let students learn about new restaurants in nearby areas ?
  4. Attract students to use the app to find restaurant information ?
  5. Let guests know what meals are available in the restaurant ?
  6. Let guests know about recent offers ?
  7. Match restaurant characteristics and student needs ?
  8. **Increase restaurant exposure ?**
  9. Attract restaurants want to put store information into the app ?
  10. Give the restaurant the opportunity to communicate with customers and understand each other's needs ?

- **POV2**

  We met the students to know that they don't know where to eat during lunch, because they don't know the latest information of nearby restaurants.

  How might we -

  1. Let users see the menu before going to the restaurant?
  2. Let users find a cheaper place to eat?
  3. Allow users to quickly understand the meat and vegetables of the restaurant?
  4. Allow users to find low-calorie foods?
  5. **Allow users to find places they want to eat?**
  6. Allow users to find restaurants that can accommodate many people?
  7. Allow users to find restaurants that can pick up food quickly?
  8. Let users know about restaurants with limited discounts?
  9. Let users know real-time business hours?
  10. Let users see restaurant reviews?

- **POV3**

  We met the students to know that they want to have a better ordering process and experience, because everyone has different needs for meals.

  How might we -

  1. Make restaurant ordering faster ?
  2. **Provide a systematic ordering experience ?**
  3. Provide a readable menu ?
  4. Let the restaurant remember the special needs of customers ?
  5. Let the restaurant quickly distinguish the content of each customer's order ?
  6. Let customers quickly understand the foods that may not be acceptable in the meal ?
  7. Analyze guest preferences with data ?

8. Enhance the positive interaction between the store and the customer ?
9. Make customers return to a fixed customer group ?
10. Let customers know the details of the food when they order?

5. Best HMW and Brainstorm Solution

- **Best HMW1：How might we increase restaurant exposure ?**
  Soulutions -
  1. Cooperate with APPs - provide app-exclusive discount
  2. Marketing events via social media - so that students will see it
  3. Cooperate with NTU's societies - sponsor events to increase brand visibility
  4. Huge promotion event to attract customers to the store first
  5. Give out samples on the main street for the customers to test
  6. Get on online food ordering platform (foodpanda, ubereats) to gain exposure online
  7. Cooperate with NTU events -- marketing campaign on campus
  8. Combine the google map api and the filters
  9. **Recommendations from friends**
  10. Regularly push new store information or limited-time special offers

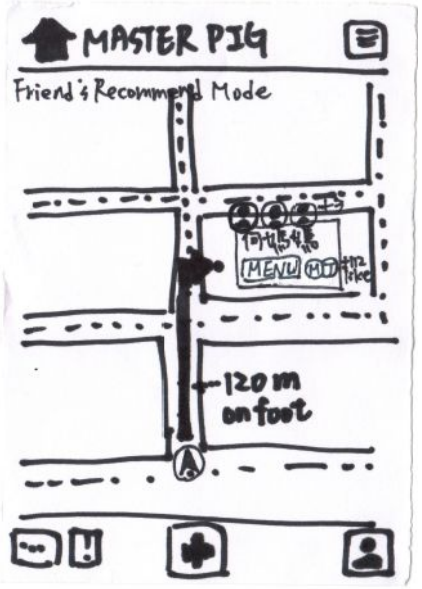
- **Best HMW2：How might we allow users to find places they want to eat ?**
  Soulutions -
  1. Provide them with useful information about the restaurant when they search for info online
  2. Look for food reviews and recommendations from NTU eater
  3. Conducting a poll with a group of friends to decide where to eat
  4. Provide real-time waiting time and crowd information
  5. **Provide multiple filters menus**
  6. Recommend a list of restaurants according to different types of groups (new students, graduate students)
  7. Combine the google map api and the filters
  8. Share reviews or recommended meal information
  9. Promote discounts or new store notices before meal time, allowing students to use the APP to decide food early
  10. Automatically match restaurant for users (based on their data)

- **Best HMW3：How might we provide a systematic ordering experience?**
  Soulutions -
  1. Online menu preview
  2. Online ordering and share the link to friends
  3. **Use a mobile device to order for solving long queuing time problem.**
  4. provide customized options and hash-tag for quick selection.
  5. individually record what each person orders

6. combine the financial function for paying online.
7. Construct the simple forum function to contact the restaurant owner and guests.
8. Use AR technical for food preview.
9. Show the detail and the nutrition of food.
10. Clear and simple UI design

6. Best Solution and Experience Prototyping

- **Prototype #1：Recommendations from friends**
  - Artifacts : Feeling hungry in the middle of the day, want to have lunch but don't know what to eat
  - Roles: Lazy and indecisive students
  - Scenes: It's too annoying for Dennis to decide which restaurant he should go to, so he opened the App, and found there is a Sushi restaurant recommended by Joanne. He doesn't need to decide anymore, yay!



Description:

- A lot of restaurants are shown on the map. Friends' recommended restaurants will be pinned on the map with their header and a thumbs up emoji.

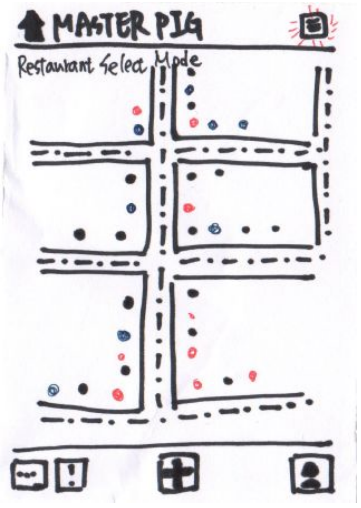
Response:

- in addition to recommendations from friends, combined with filter would be much better
- It's a useful idea, but if there are too many recommendations, the decision still would be hard.
- Can access friends' recommendations anytime and anywhere (so that we don't need to message them as always)

What we learn:

- Roughly, most people think recommendations from friends are helpful when indecisive.

- **Prototype #2：Provide multiple filters menus**
    - Artifacts：Feeling hungry in the middle of the day, want to have lunch but don't know what to eat
    - Roles：Students who have many dietary requirements or want to eat a specific type of cuisine today.
    - Scenes：Dennis just finished a meeting with the professor and felt exhausted, and he wanted to have an Italian meal at lunch to reward himself. He uses an app to see what restaurant suits his dietary requirements.



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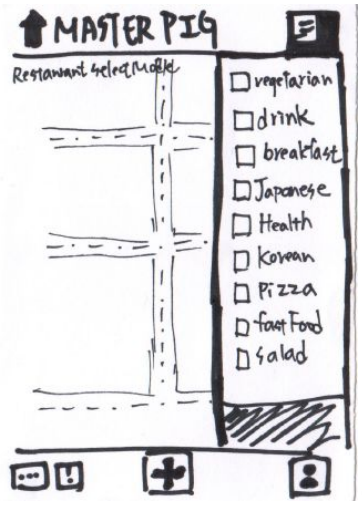

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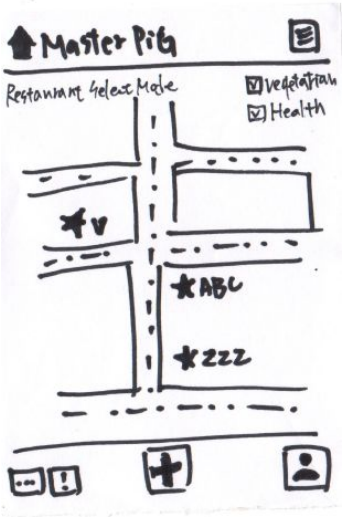

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Description

- A lot of restaurants are shown on the map. When clicking on the upper right corner icon, you will have access to a filter (which will give you a list of options of what you'd like to eat). Afterwards, you can find the restaurant that matches up with your needs!

Response:

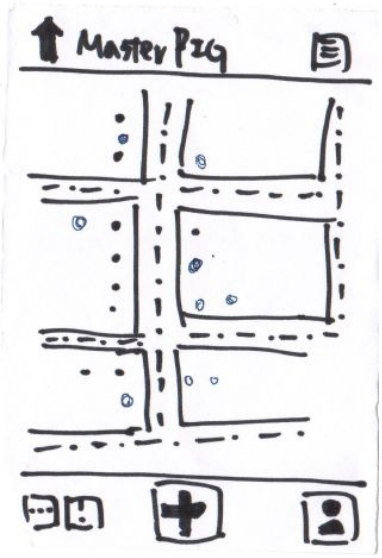
- Sounds very convenience and easy to use
- Similar with ubereat and foodpanda, if there is a button showing the restaurant which has delivery services would be great.

What we learn:

- People can save less time googling and reading food blogs to find out what to eat for lunch

- **Prototype #3：Use mobile devices to order for solving the queuing crowd problem**
    - Artifacts: A student wishes to spend less time waiting for his takeaway because he needs to rush to his next class. However, he still wants to eat something good.
    - Roles: Students who are short on time at noon or hate to be in a queue

- Scenes: Bianca hates to line up for long time, she opened the app and found that one of her favorite restaurants is almost empty at that moment, so she just ordered it online and go to that restaurants



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Description

- A lot of restaurants are shown on the map. When clicking the restaurant icon, it will show the current crowdedness of the restaurant and the waiting time for the meal.

Response:

- Finding the restaurant which is not full sounds good!
- But it would be difficult to implement the function of counting the number of people in each restaurant.

What we learn:

- People wish they can save more time waiting for their meal, especially for busy people who are short on time.

7. Summary

After conducting our additional needfinding research, we learned that our current primary goals are to to meet everyone's special dietary needs and minimise waiting time for buying food.

Based on our interviews, we finally found out 3 main problems to tackle, which are...

1. Looking for better marketing strategies for the restaurant
2. Enable students to access the latest information about each restaurant nearby and all the dining details (ex. dining hours, menus, current crowdedness status, etc.)
3. Improve food-ordering procedure, make sure the restaurant meets each individual's personal dietary requirements

We went over the brainstorming session listing all the potential solutions. We then choose the 3 best solutions from 30 HMW statements, using low-fi prototyping to sketch out our very initial APP interface.

Overall, we are pleased to see that our additional needfinding results somewhat match with our first needfinding interview which happened two weeks ago. We gradually understand what our potential target users' need and start to think about what we can actually do for them. We are looking forward to further prototyping our product and gaining more feedback on what we can improve on.