



Application Development Final Report

Food4U

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Group Member

Team Leader



Muhammad Faiz Bin Jamaluddin
(A18CS0135)

Design Thinking Activities & Finding Leader



Muhammad Afiq Bin
Mohd Murad (A18CS0117)

Application & Graphical User Interface Leader



Muaz Bin Amir Nur Rashid
(A18CS0114)

Agile Methodology & Software Design Leader



Muhammad Burhanuddin
Bin Ibrahim (A18CS0129)

Database Design Leader

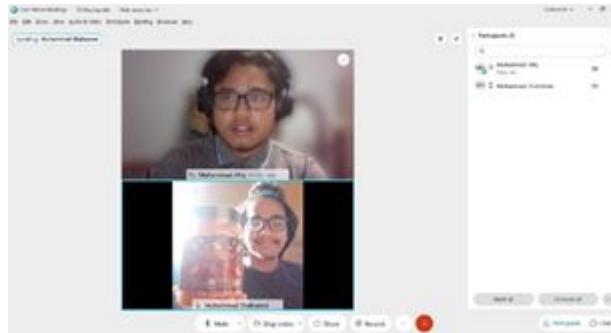


Muhammad Amir Syafiq Bin
Mustafa Kamal (A18CS0125) 3



Design Thinking Activities & Finding

Report all activities that you have done including all pictures, and data collection,
meeting with users



Meeting With User

Sells Aducktive Salted Egg





Meeting With User

Sells homemade biscuit-like cake





Meeting With User

Sells Topokki (chingu)



Result of Interview Session

1. How do you promote your product?

Through social media such as IG stories , whatsapp groups and others, every certain days.

2. How many average customer per day?

Minimum 5 and the highest recorded order is 30 orders.

3. How do you do order tracking?

Everytime we get new order, we update in whatsapp group with my business partner.

4. Any challenges or problems occur ?

Usually forgot and lost track of material, just realise the day we made the product.

Agile Methodology

- Explain how you run the agile
- User Story, User Requirement & Compiling
- Describe your sprint and schedule

Agile Methodology

1) Plan

We Identify the problem first, and then come up with solutions and then decides which solution is the best to solve the problems. As for this project, we choose to solve the problems which involves small entrepreneur who just started their business. We want to create a platform for them to promote their business to attract more customers

2) Design

We started the design by constructing and build the use case diagram, sequence diagram, state and object diagram to get an overview of the whole application before start to building the application.

3) Build

After got a rough idea about the overview of the app, we started build the real application together and implement all of the function planned for the apps.

4) Test

During this phase, we make the testing to all of our sprint. Firstly, we make story test to make sure that our prototype is synchronous with user story and requirement. Next, we make usability testing. We test usability performance of our prototype. We want to make sure that our prototype is user-friendly and the GUI is easy to be used by the user.

5) Review

In this phase, user need to test all the function in the system. We conduct the testing with a real user to where he tested all the function to detect any problem and improve that we can do to further improve our system.

6) Launch

In this phase, the system is launch when all the function is working properly.

User Story

Seller

Customer

SELLER STORY 1

As a seller, I want to register my product, So I can promote and sell it.

SELLER STORY 2

As a seller, I want to store all transaction data, So I can avoid data lost.

SELLER STORY 3

As a seller, I want to get feedback from customer, So I can improve the service.

SELLER STORY 4

As a seller, I want to get customer full detail, So I can deliver the product.

CUSTOMER STORY 1

As a customer, I want to find a product, So I can buy it.

CUSTOMER STORY 2

As a customer, I want to select my payment type, So I can pay the product.

CUSTOMER STORY 3

As a customer, I want to make payment, So I can get the product.

CUSTOMER STORY 4

As a customer, I want to update my information, So I can avoid wrong details.

Seller User Requirement - 1

As a **Seller**

I want to **Register my product**

So I can **Promote and sell it**

Description

1. Get the seller information
2. Get the product information
3. Check the registration status
4. Display the registered product

Acceptance Criteria

1. The product can be registered
2. The product can be display
3. The interface will be in suitable format

Seller User Requirement - 2

As a

Seller

I want to

Store all transaction data

So I can

Avoid data lost

Description

1. Get the transaction information
2. Check the transaction information
3. Get the seller confirmation
4. Store all data in the database

Acceptance Criteria

1. The transaction is already happen
2. The transaction details is collected
3. Database space is available

Seller User Requirement - 3

As a

Seller

I want to

Get feedback from customer

So I can

Improve the service

Description

1. Customer buy the product
2. Customer give feedback of the product
3. Seller display the feedback for future use

Acceptance Criteria

1. The customer buy the product
2. The customer receive the product

Seller User Requirement - 4

As a

Seller

I want to

Get customer full detail

So I can

Deliver the product

Description

1. Customer fill the details
2. Seller receive the customer details
3. Seller use the detail to deliver product

Acceptance Criteria

1. Customer already fill the details
2. Customer accept the terms and condition that the details is used by the seller

Customer User Requirement - 1

As a **Customer**

I want to **Find a product**

So I can **Buy it**

Description

1. Get the product details
2. Get the customer information
3. Check if the product is available
4. Calculate the price of the product
5. Display total price

Acceptance Criteria

1. The product can be search
2. The product can be bought
3. The interface will be in suitable format

Customer User Requirement - 2

As a **Customer**

I want to **Select payment**

So I can **Pay the product**

Description

1. Get the product price
2. Get the customer payment type
3. Generate the receipt

Acceptance Criteria

1. The product can be pay
2. The customer can pay
3. The interface will be in suitable format

Customer User Requirement - 3

As a **Customer**

I want to **Make Payment**

So I can **Get the product**

Description

1. Get the customer payment type.
2. Get the customer bank detail.
3. Get the customer billing address.
4. Generate the receipt

Acceptance Criteria

1. The product can be paid.
2. The amount of money in customers' account is sufficient.
3. The interface will be in suitable format.

Customer User Requirement - 4

As a

Customer

I want to

Update Information Details

So I can

Avoid wrong detail

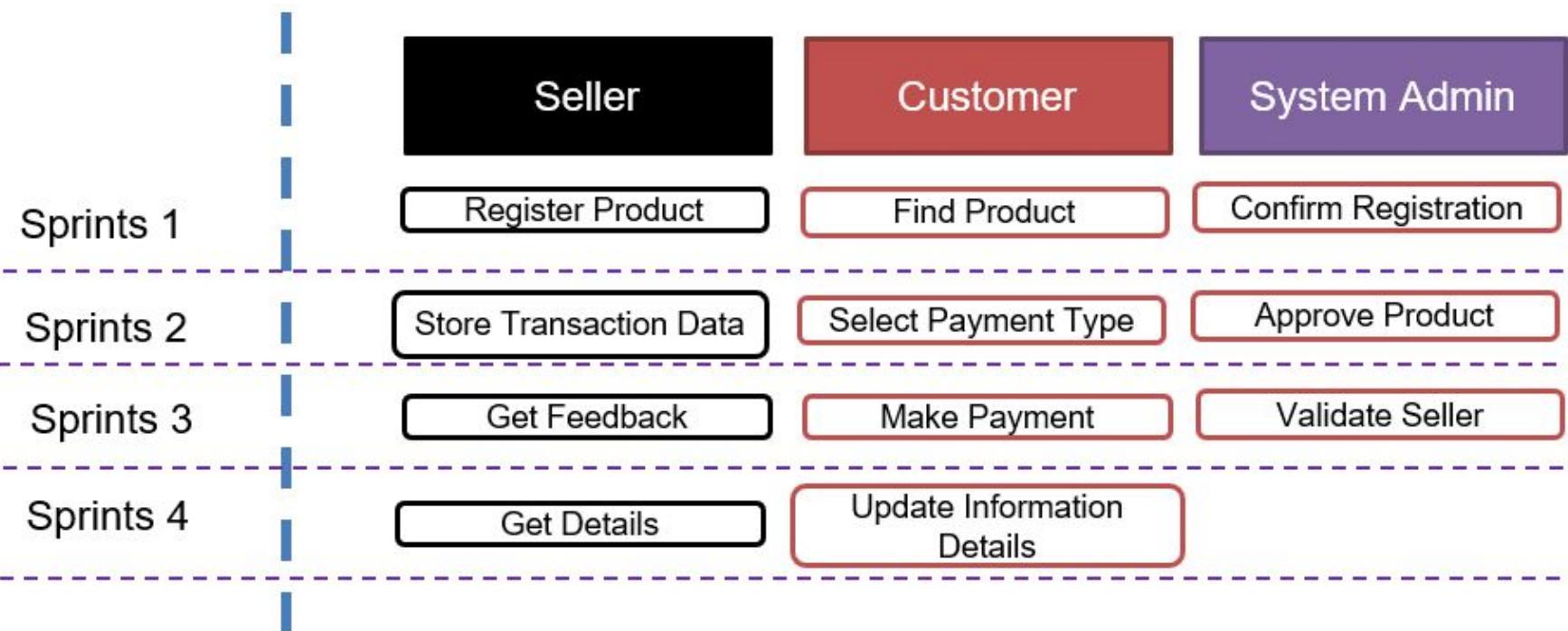
Description

1. Get the customer detail.
2. Get the customer security word.
3. Get the customer confirmation email address.
4. Generate the receipt

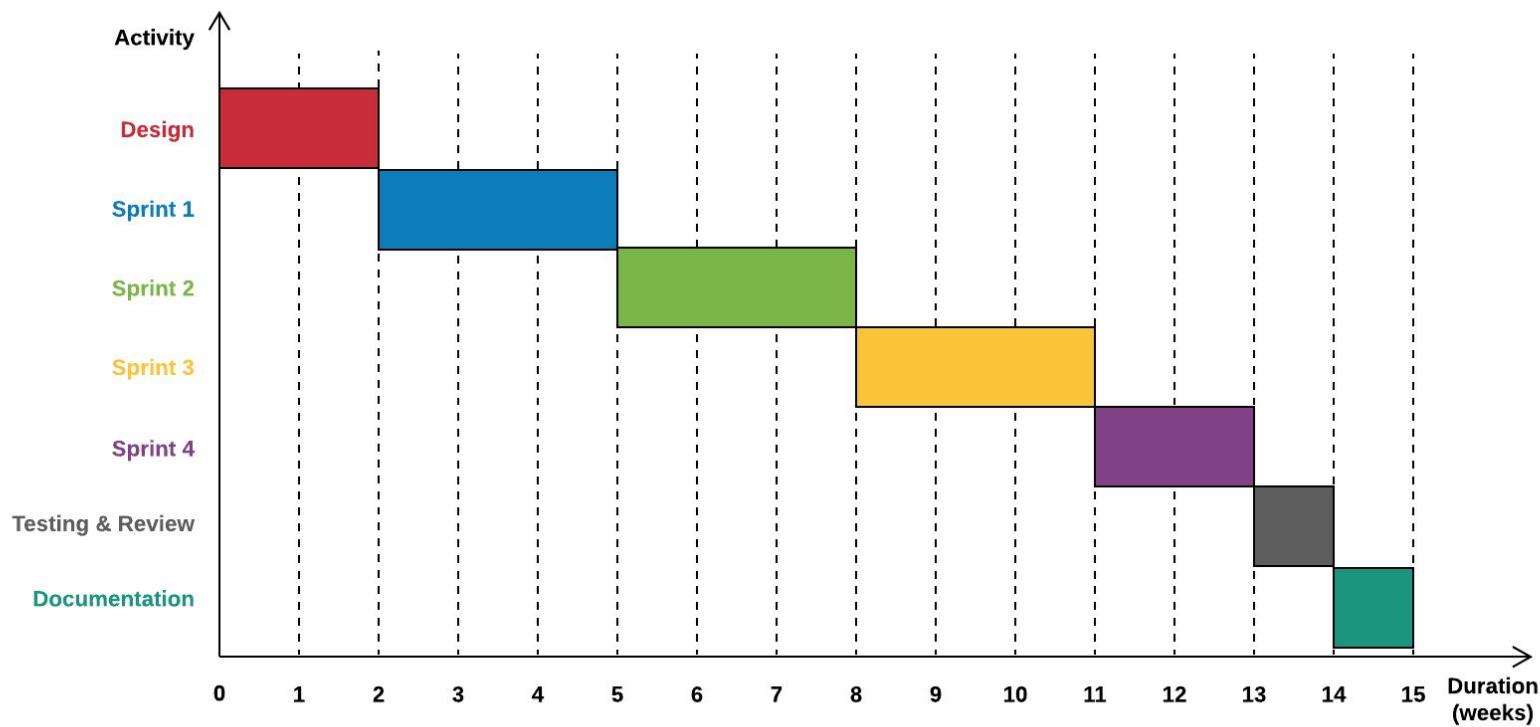
Acceptance Criteria

1. The update detail is relevant.
2. The security word is true.
3. The customer get the link for confirmation email address.
4. The interface will be in suitable format

Sprint & Schedule



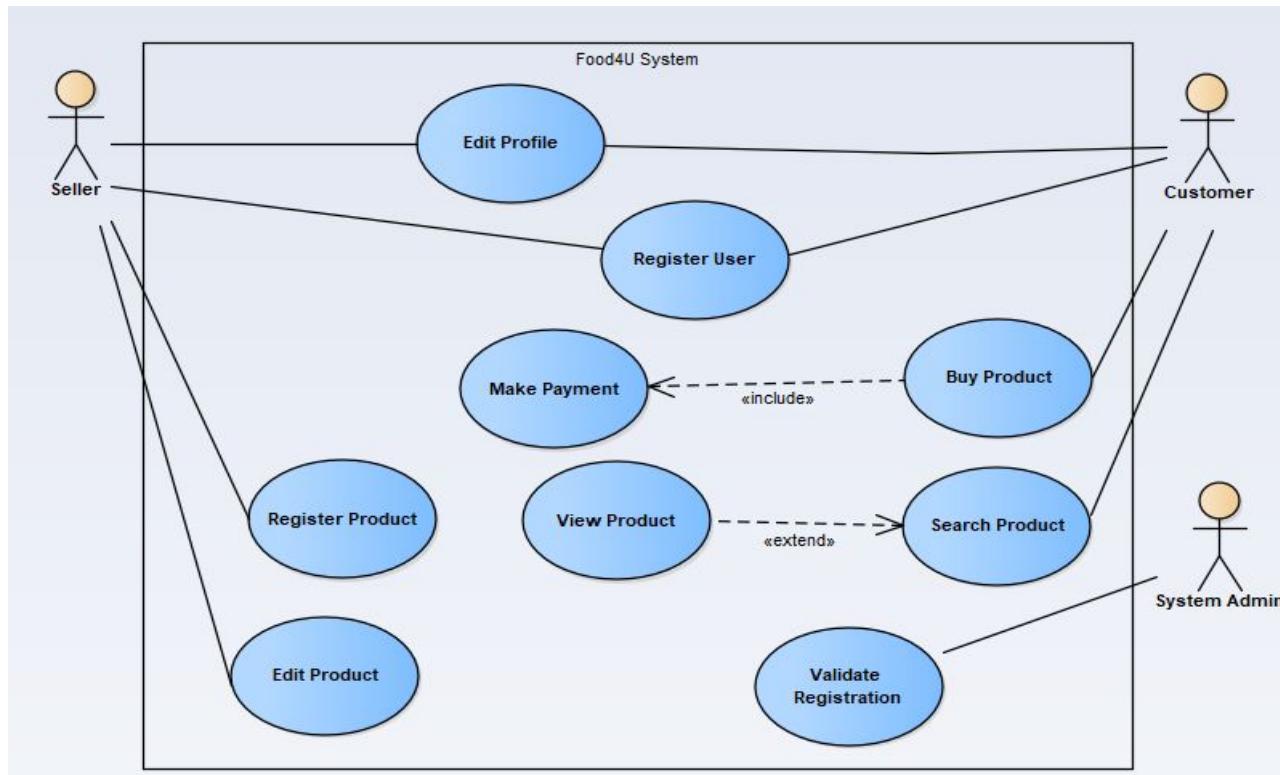
Sprint & Schedule



Software Design

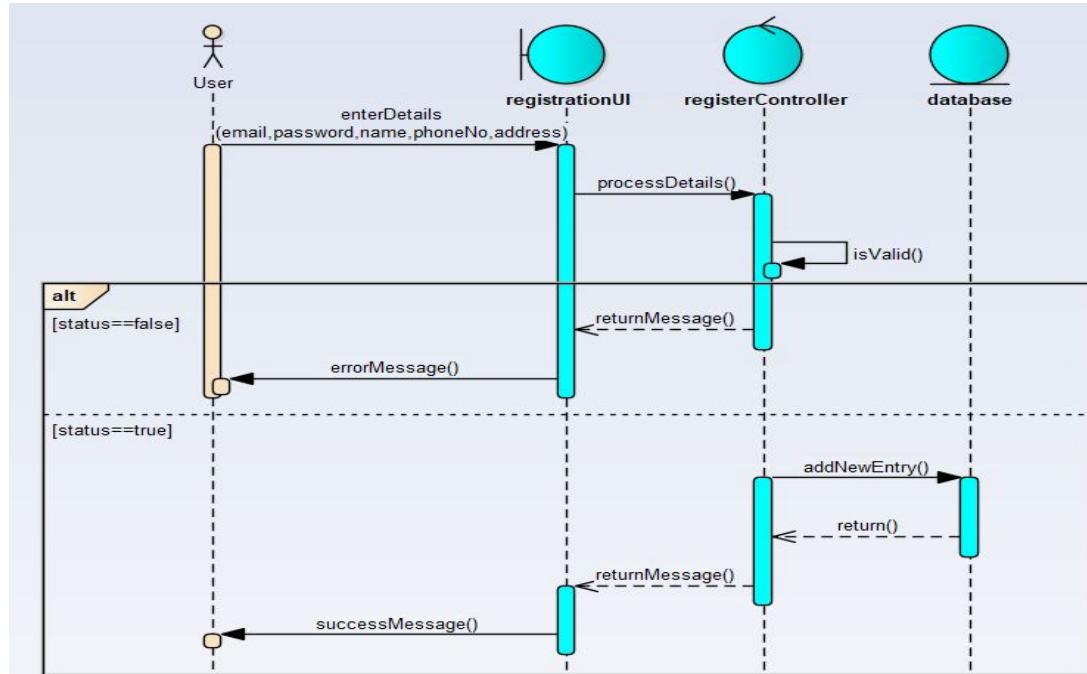
- Use Case
- Sequence Diagram
- State Diagram
- Object Diagram

Use Case Diagram



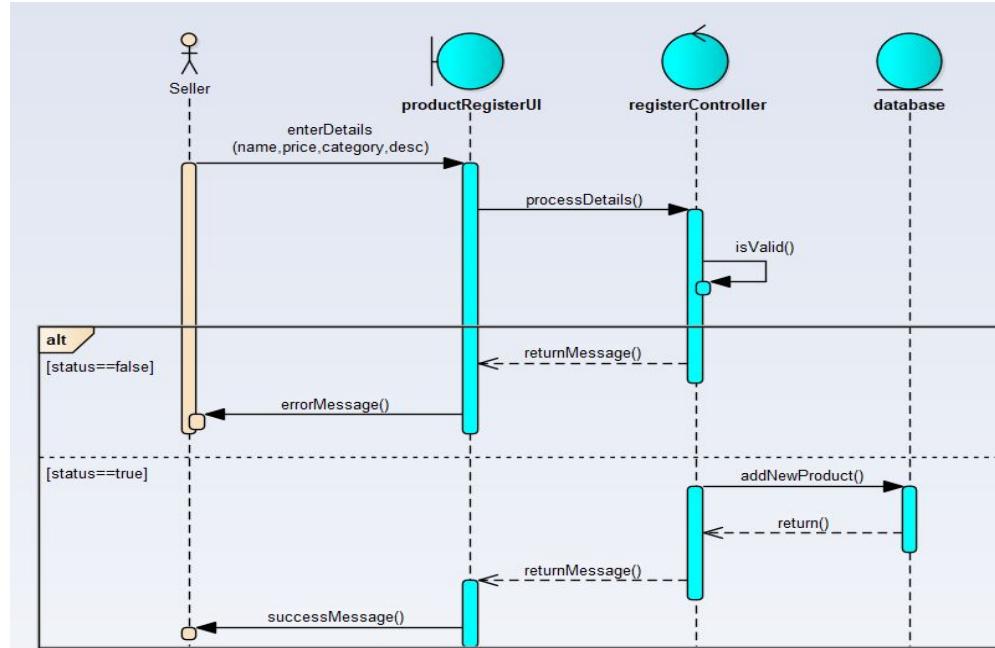
Sequence Diagram

1. Register User



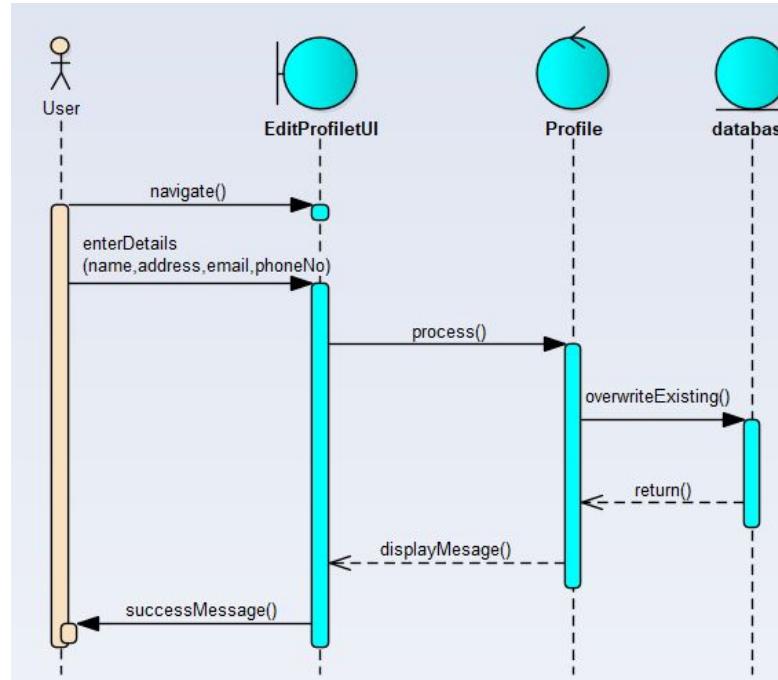
Sequence Diagram

2. Register Product



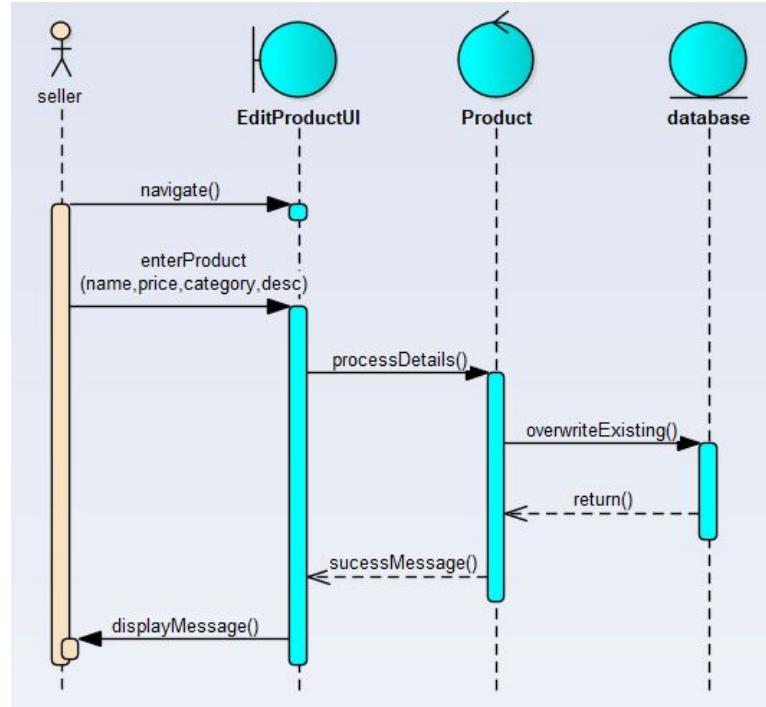
Sequence Diagram

3. Edit Profile



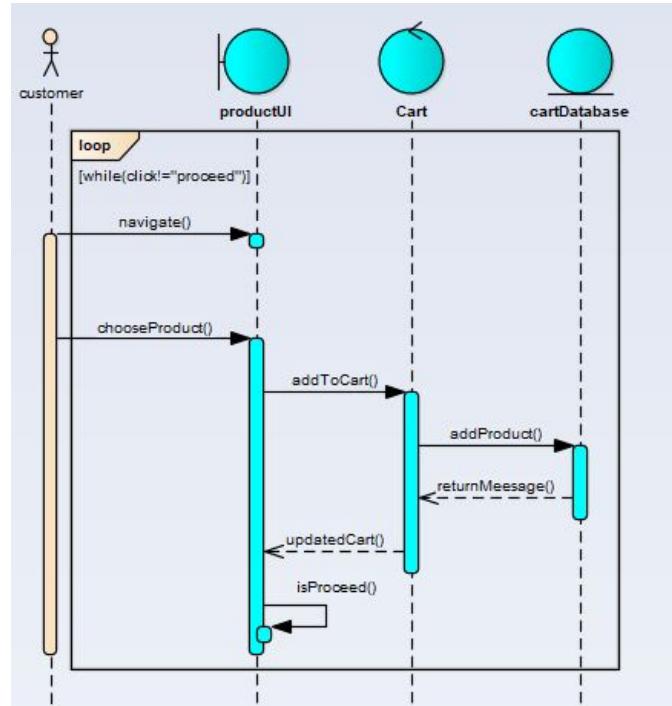
Sequence Diagram

4. Edit Product



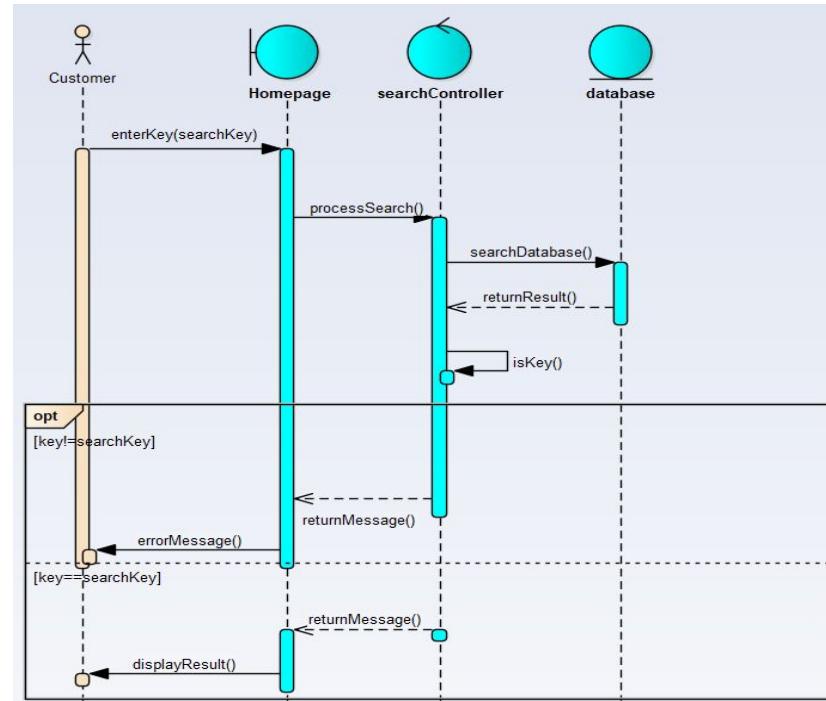
Sequence Diagram

5. Buy Product



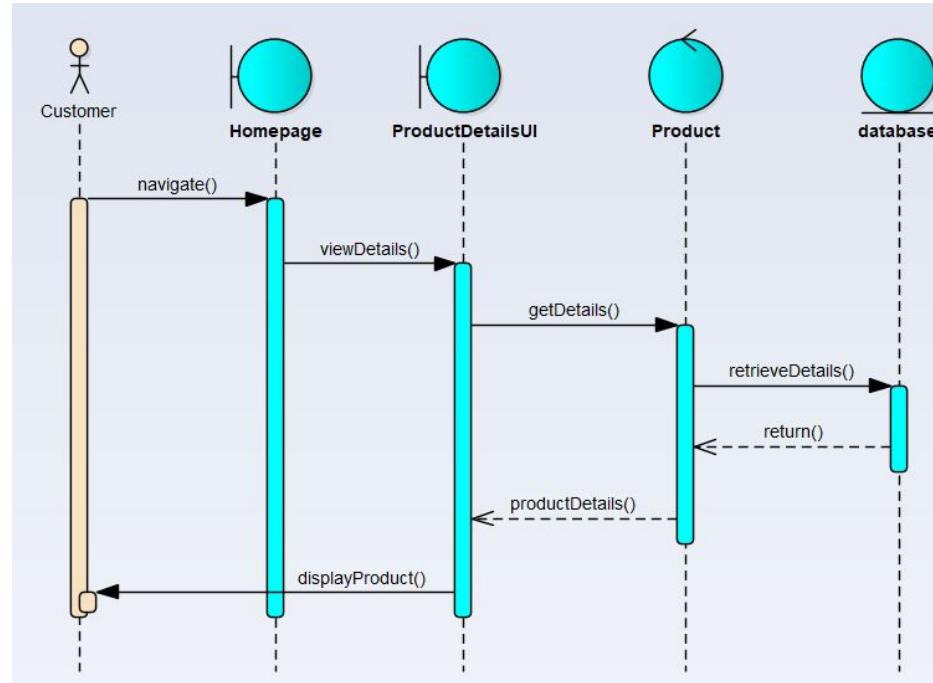
Sequence Diagram

6. Search Product



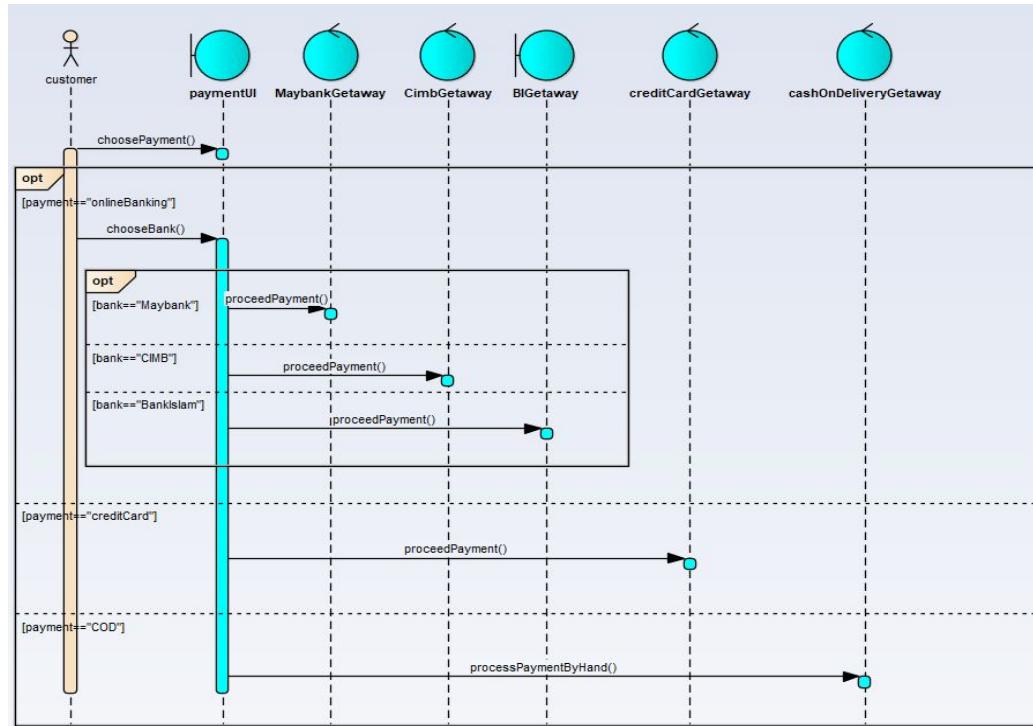
Sequence Diagram

7. View Product



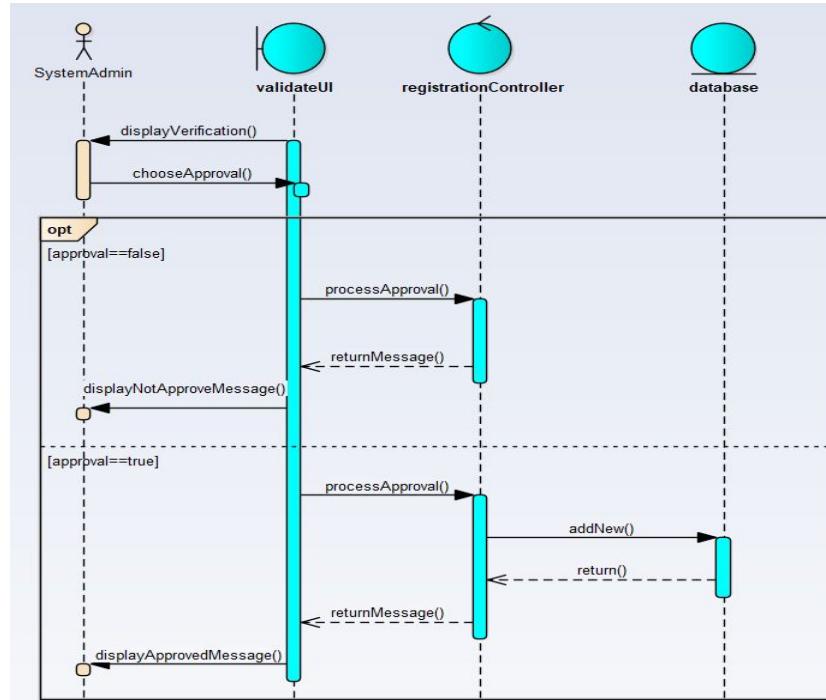
Sequence Diagram

8. Make Payment

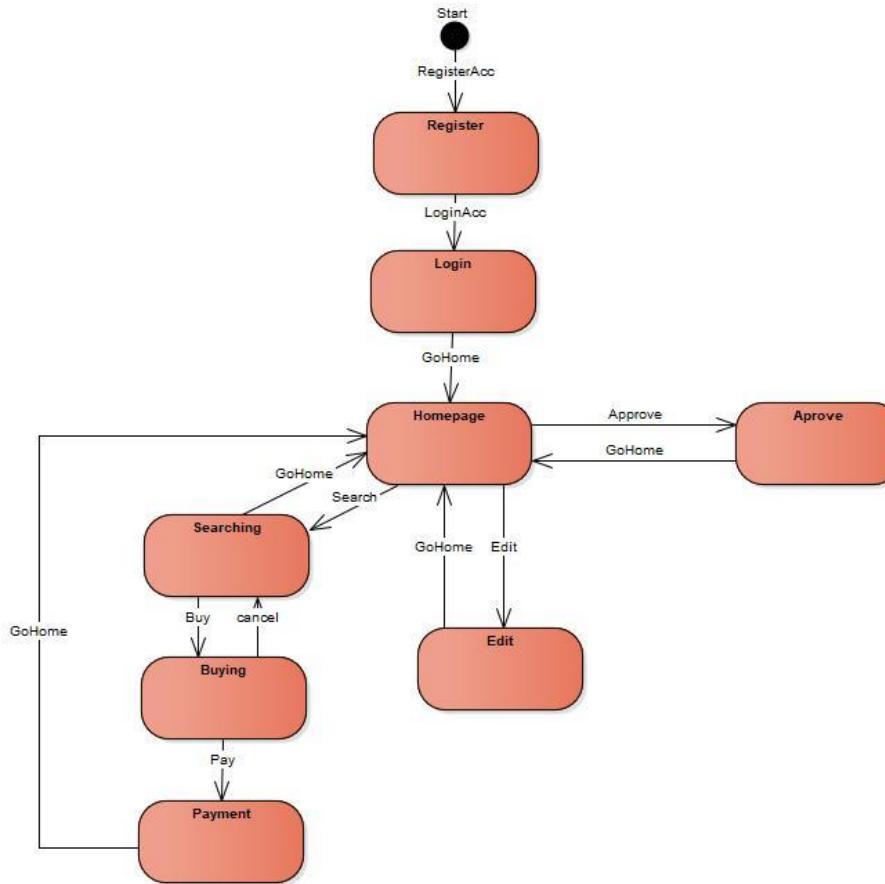


Sequence Diagram

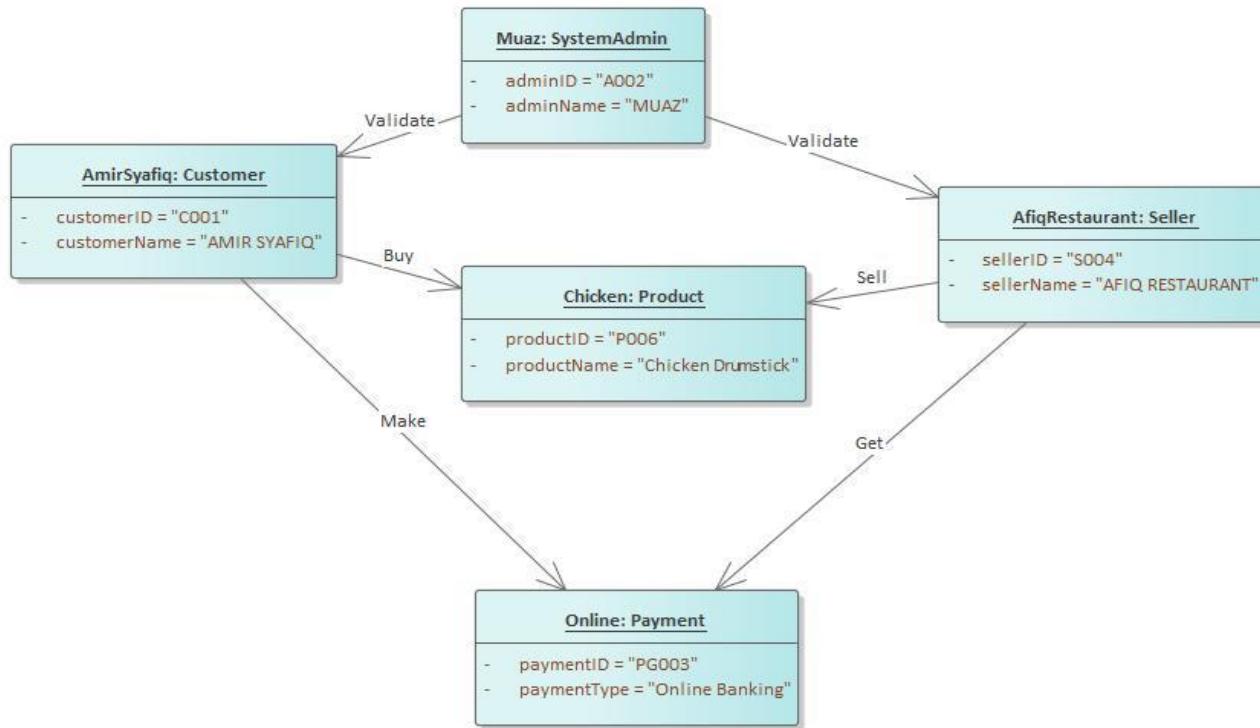
9. Validate Registration



State Diagram



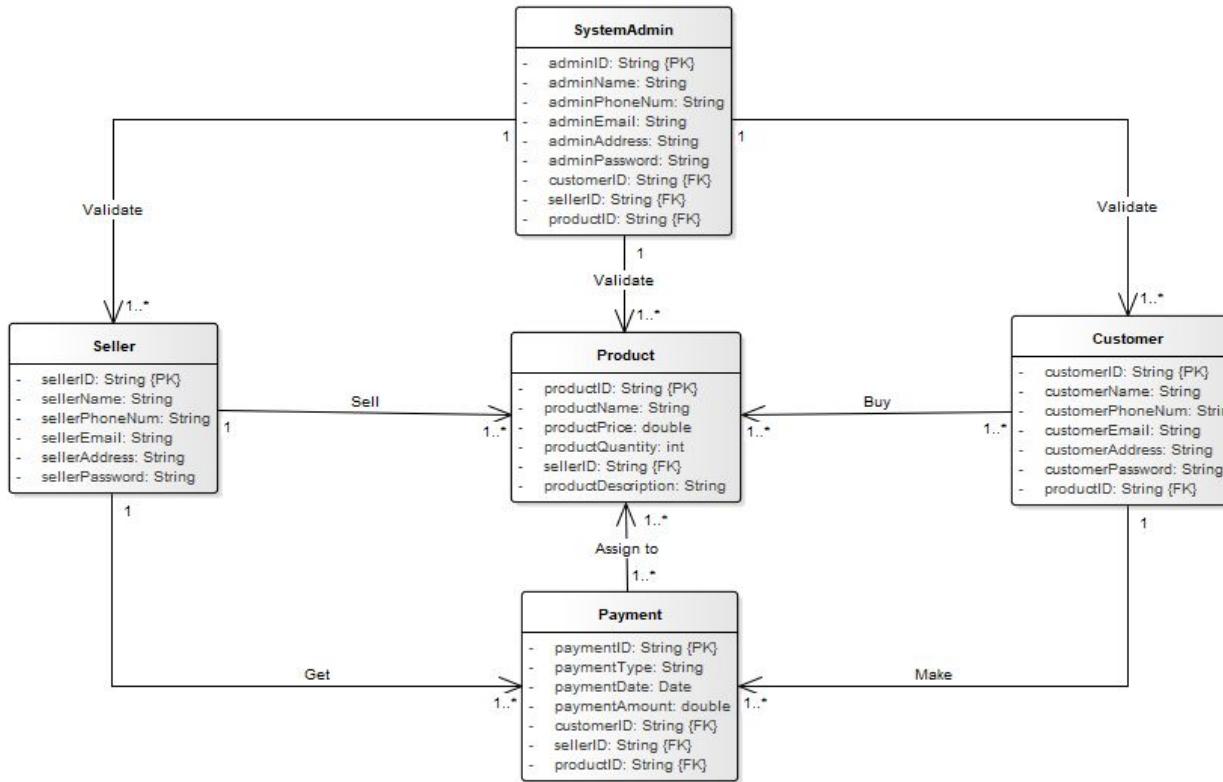
Object Diagram



Database Design

- ERD
- Attribute
- Table

Entity Relationship Diagram (ERD)



Attribute & Table

1. Customer		
Data Type	Attribute	Description
String	customerID	Store the customer's ID (Primary Key)
String	customerName	Store the customer's name
String	customerPhoneNum	Store the customer's phone number
String	customerEmail	Store the customer's email
String	customerAddress	Store the customer's address
String	customerPassword	Store the customer's password
String	productID	Store the product's ID (Foreign Key)

Attribute & Table

2. Seller		
Data Type	Attribute	Description
String	sellerID	Store the seller's ID (Primary Key)
String	sellerName	Store the seller's name
String	sellerPhoneNum	Store the seller's phone number
String	sellerEmail	Store the seller's email
String	sellerAddress	Store the seller's address
String	sellerPassword	Store the seller's password

Attribute & Table

3. SystemAdmin

Data Type	Attribute	Description
String	adminID	Store the admin's ID (Primary Key)
String	adminName	Store the admin's name
String	adminPhoneNum	Store the admin's phone number
String	adminEmail	Store the admin's email
String	adminAddress	Store the admin's address
String	adminPassword	Store the admin's password
String	customerID	Store the customer's ID (Foreign Key)
String	sellerID	Store the seller's ID (Foreign Key)
String	productID	Store the product's ID (Foreign Key)

Attribute & Table

4. Product		
Data Type	Attribute	Description
String	productID	Store the product's ID (Primary Key)
String	productName	Store the product's name
Double	productPrice	Store the product's price
Integer	productQuantity	Store the product's quantity
String	productDescription	Store the product's description
String	sellerID	Store the seller's ID (Foreign Key)

Attribute & Table

5. Payment		
Data Type	Attribute	Description
String	paymentID	Store the payment's ID (Primary Key)
String	paymentType	Store the type of the payment
Date	paymentDate	Store the date of the payment
Double	paymentAmount	Store the amount of the payment
String	customerID	Store the customer's ID (Foreign Key)
String	sellerID	Store the seller's ID (Foreign Key)
String	productID	Store the product's ID (Foreign Key)

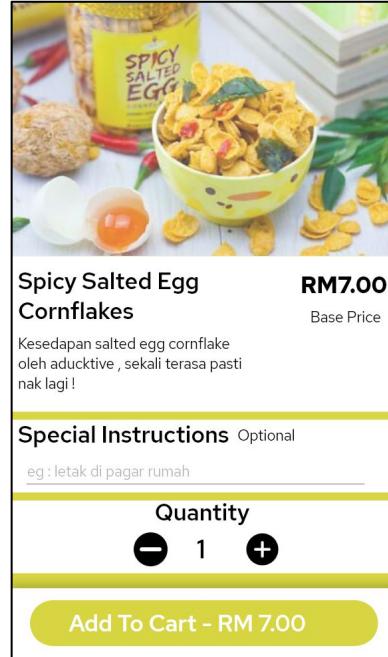
Graphical User Interface

- Describe all GUI that you have done

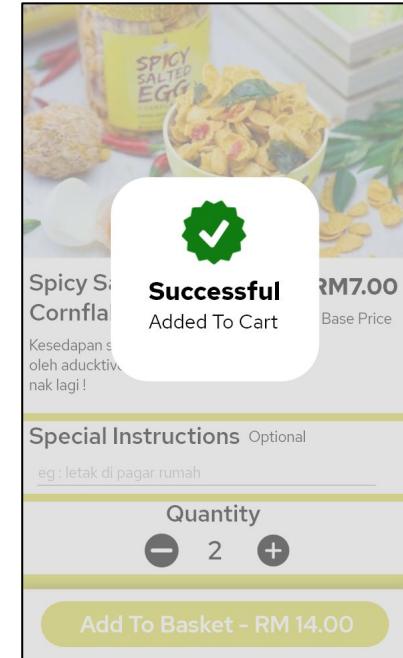
Adding Products to Cart



Home Page

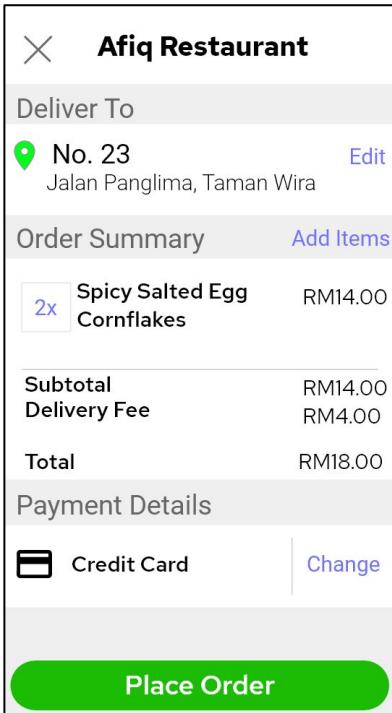


After the user selected any product, it will go to this page. Here they can put any instruction or add quantity

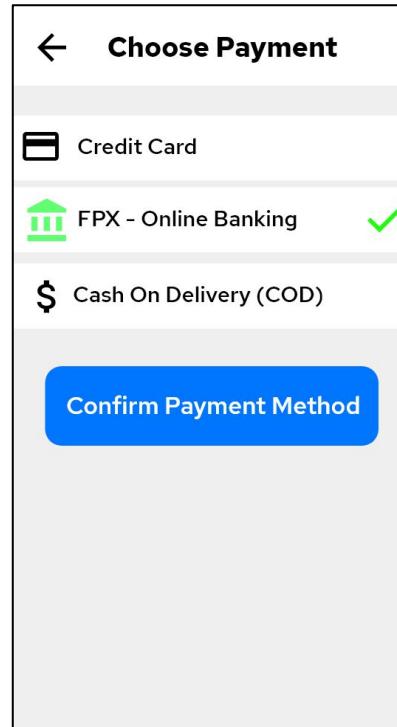


Indicator after the user click add to cart

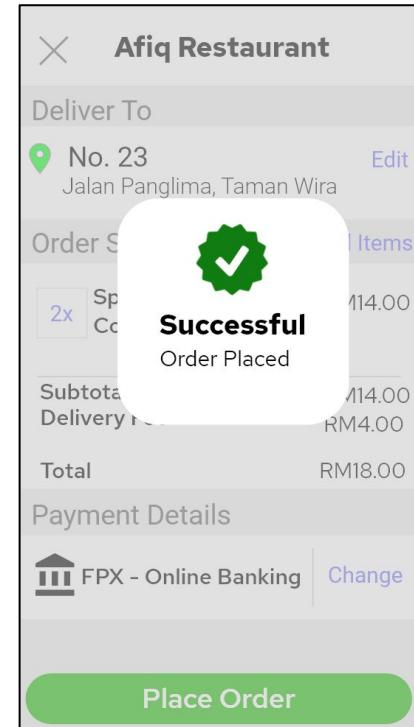
Selecting Payment Method



Order Summary
Before payment

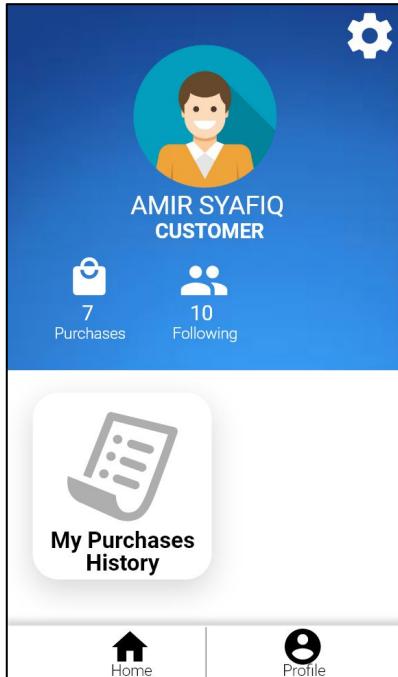


Selecting Payment
Method

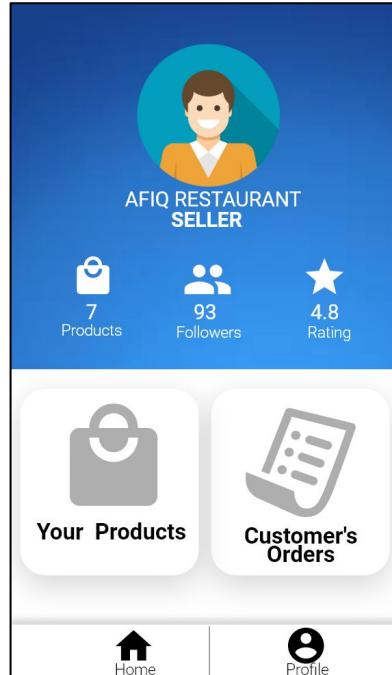


Indicator that the
user has paid

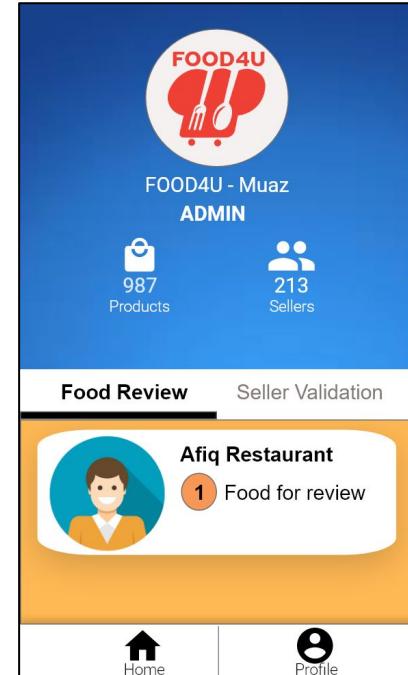
Profile Page



Customer Profile Page,
they can see their
purchases history from
here and also setting

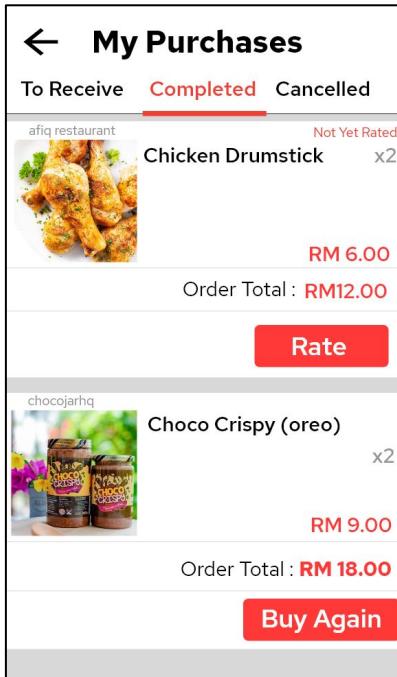


Seller Profile Page, they
can see their products and
also customers' orders



Admin Profile Page, here they
can review any new products
to be validated as well as new
seller registration

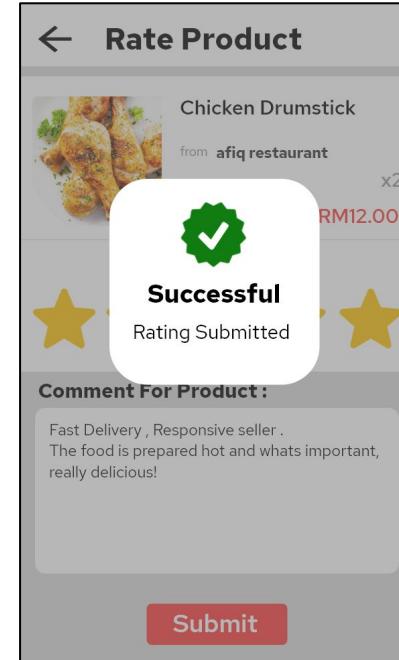
Rating Products



Customer can see their purchase history and rate it

The screen displays a product rating form for 'Chicken Drumstick' from 'afiq restaurant'. It shows a thumbnail of the dish, the product name, the quantity (x2), the order total (RM 12.00), and a 'Rate Your Order' section with five yellow stars. Below this is a 'Comment For Product:' field containing a好评 (positive review). At the bottom is a red 'Submit' button.

Rate product page

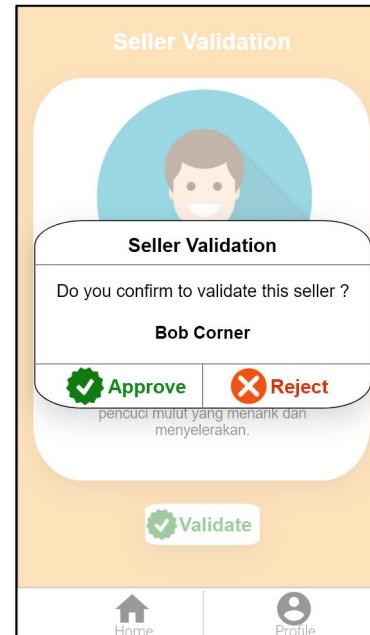


Indicator that the product rating has been submitted

Product and Seller Validation



Admin can choose verify to verify the products after reviewing the product



Seller Validation after reviewing the new seller details

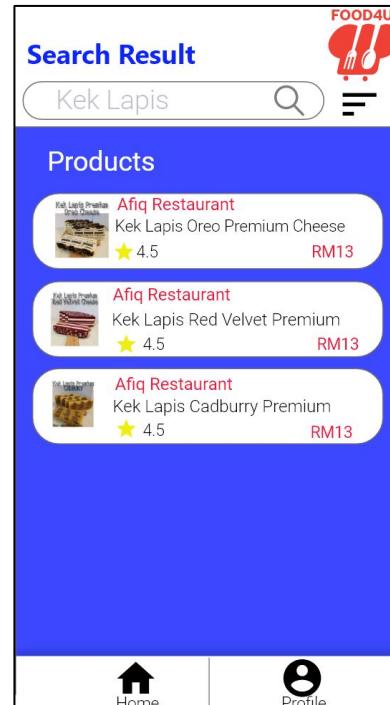


Indicator that the seller has been verified

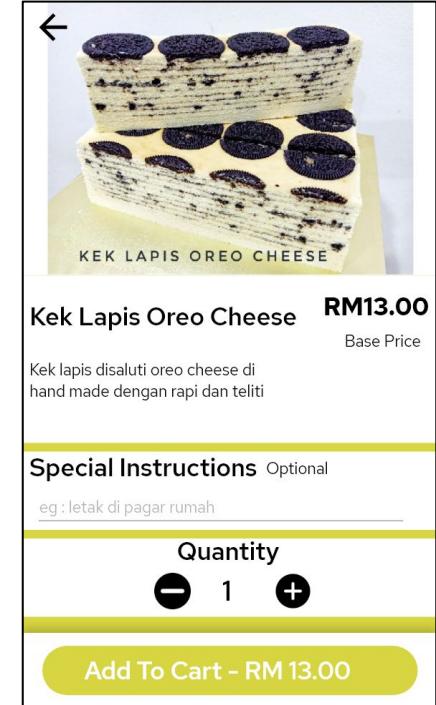
Search Products



Customer can see the search products results



Another example for products searches result for multiple search result found



After choosing any product to view, it will go to the product page

Edit Profile



The current profile page details

Edit Email

Save

Enter your email

Home Profile

Edit email to put new email

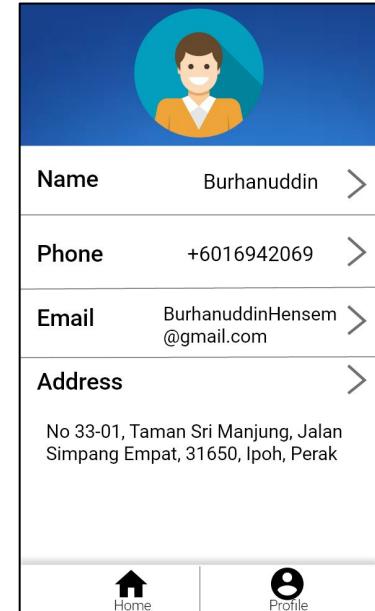
Edit Address

Save

Enter your address

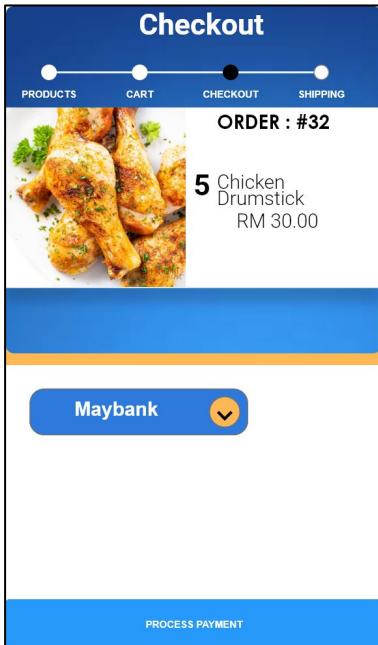
Home Profile

Edit address

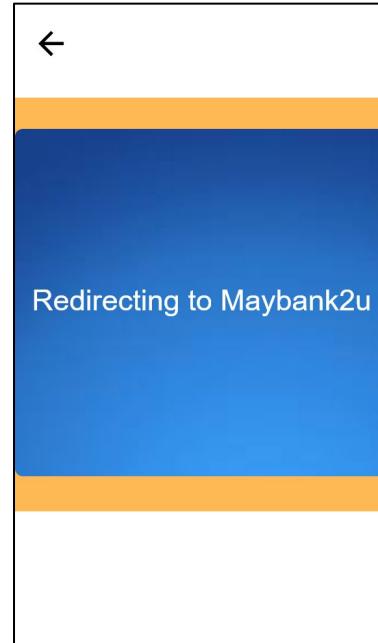


Result after editing profile

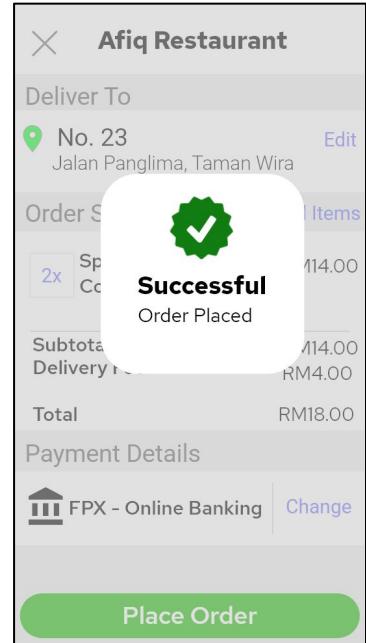
Payment Page



Choosing what bank they prefer to use for payment



It will redirect to the bank page for completing the payment



Indicator to tell that the payment has completed and has placed the order

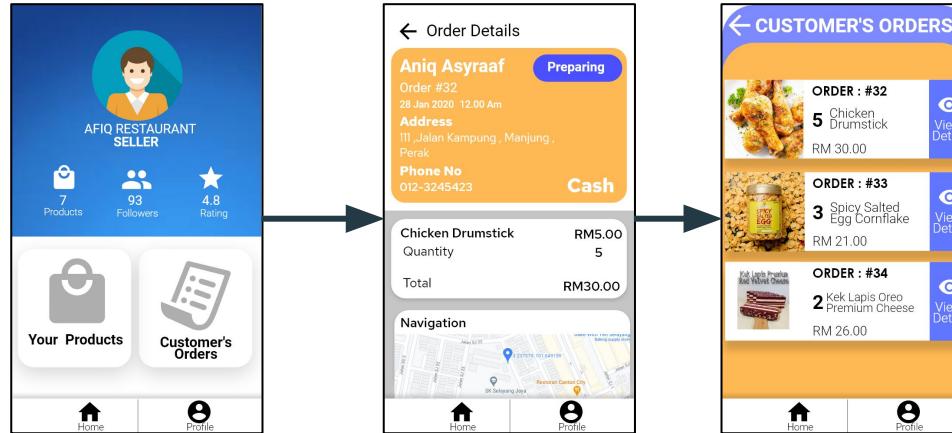
Application

- Show the flow of your application
 - How to use the application

1) To Search For Products

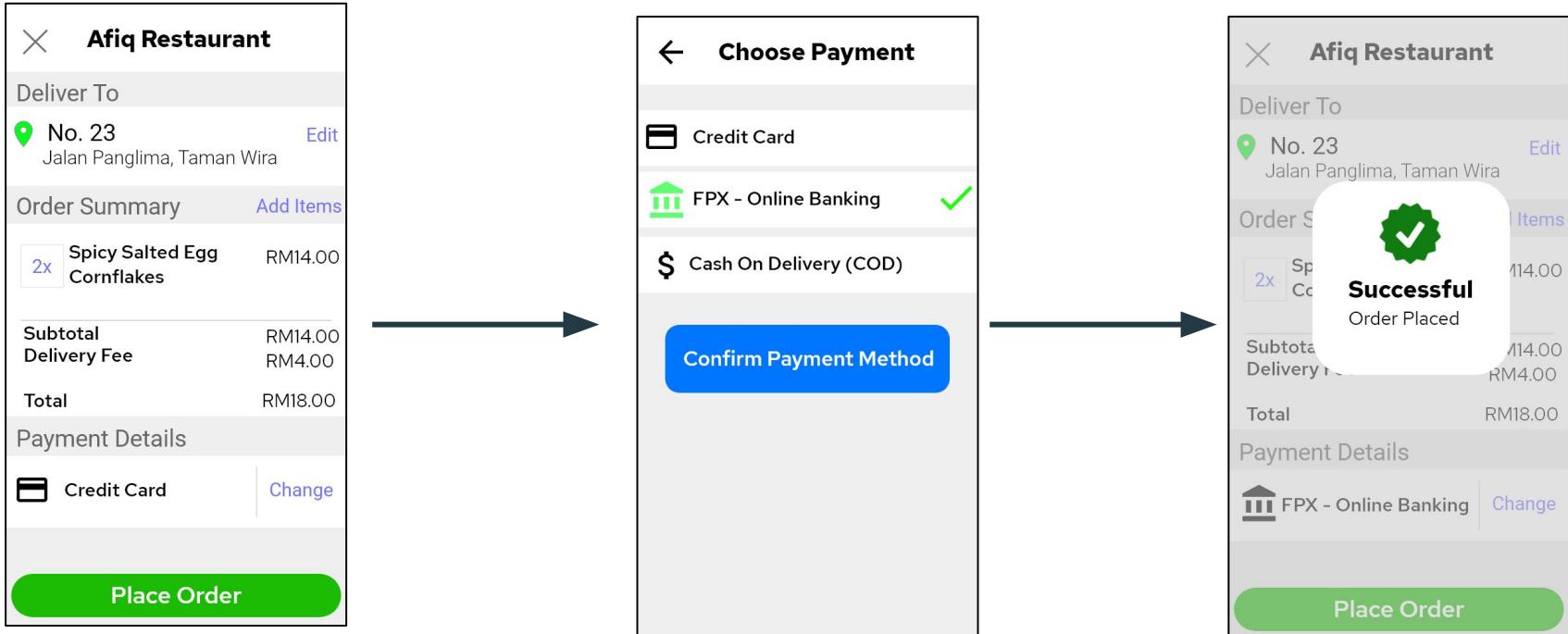


2) View Customers' Current Order and Order History

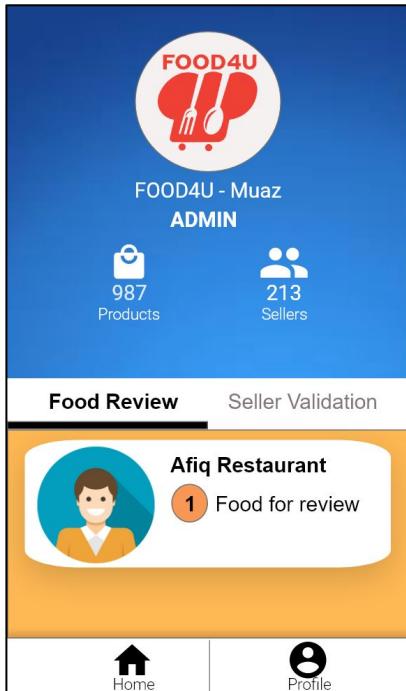


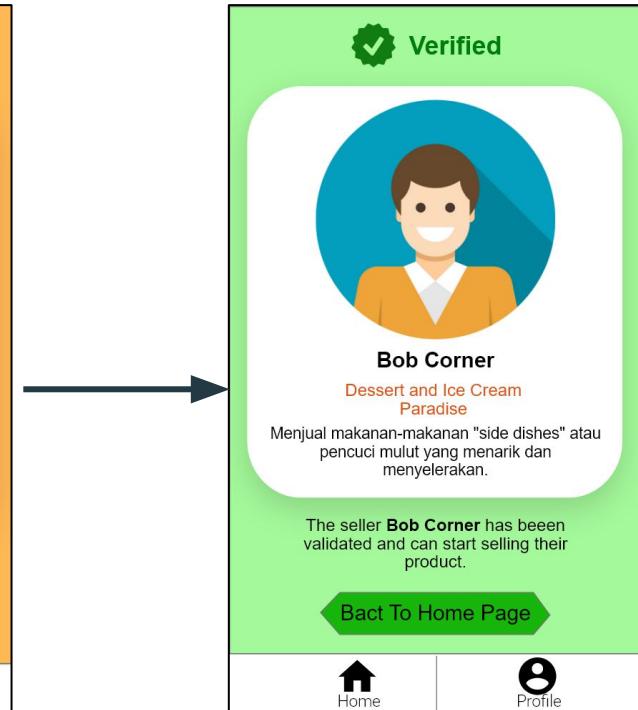
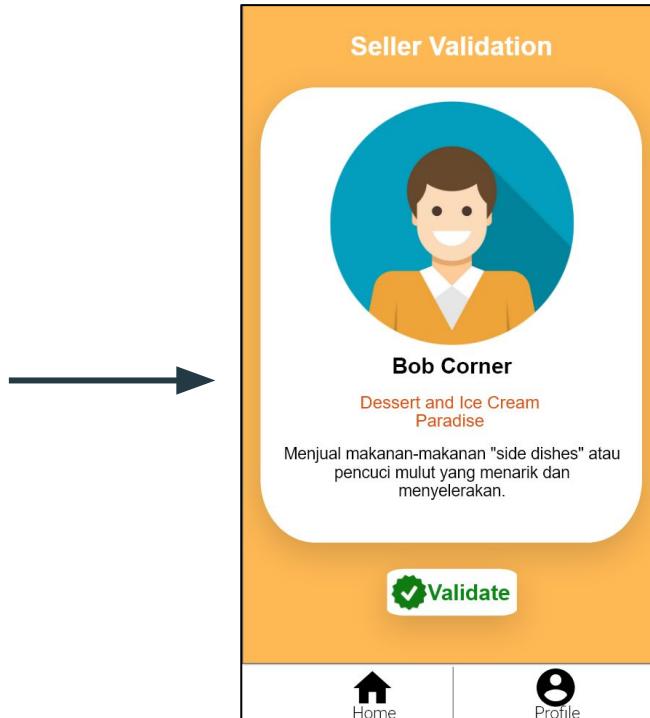
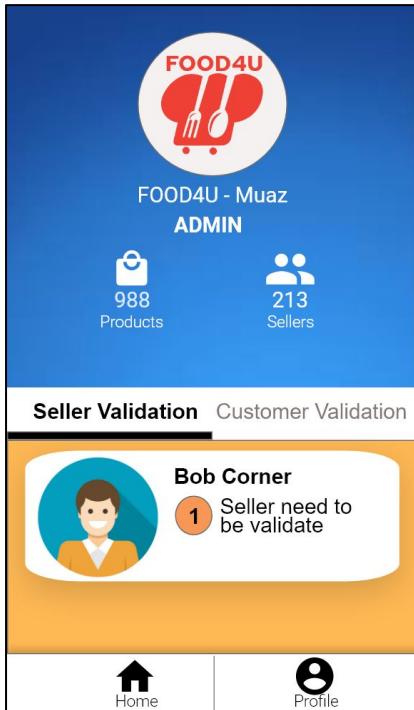
OR

3) Select Payment Type After Added to Cart

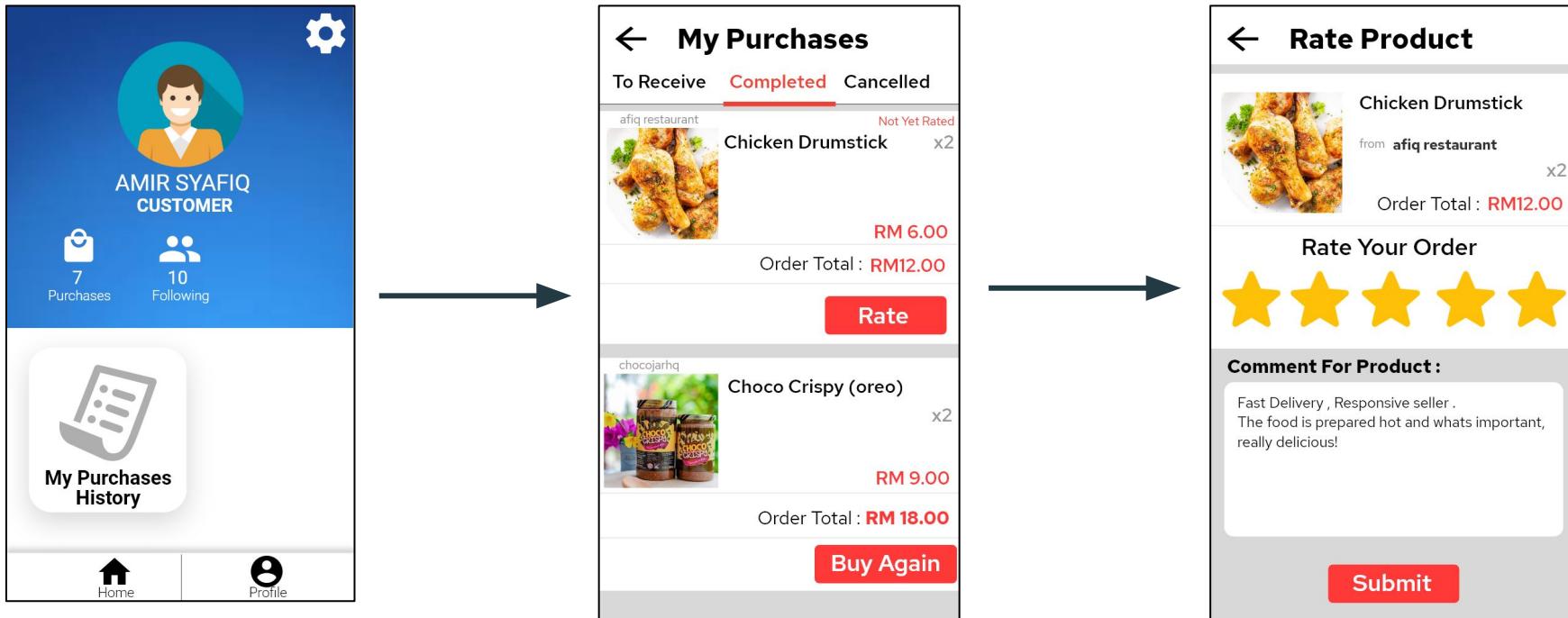


4) Approve Product and Seller

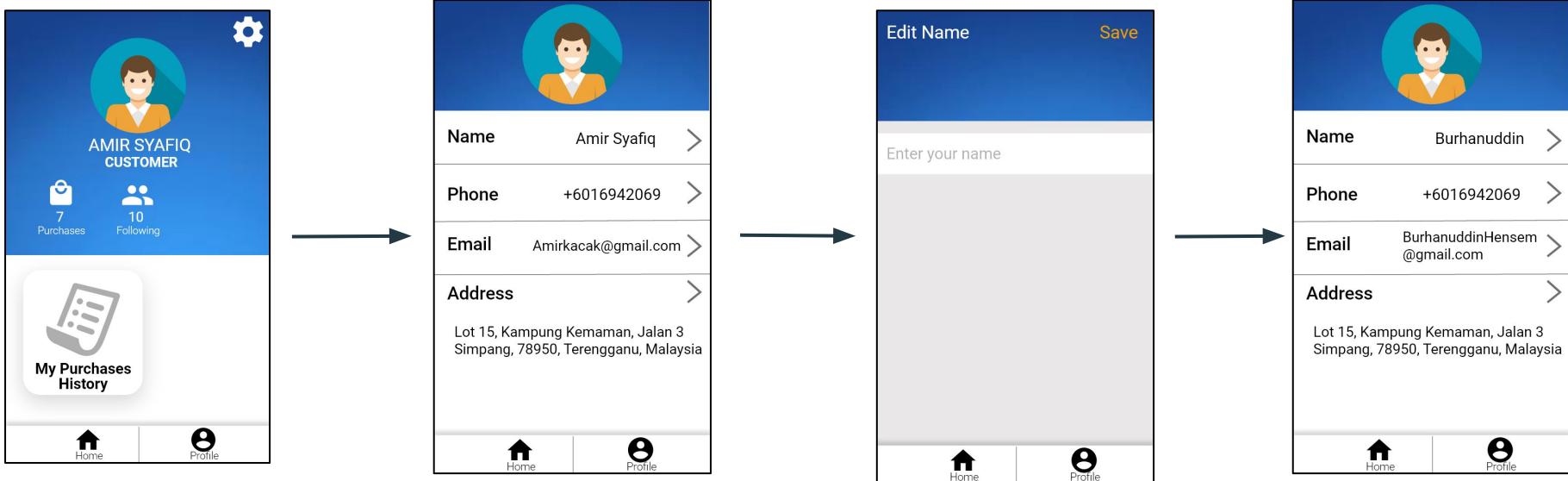




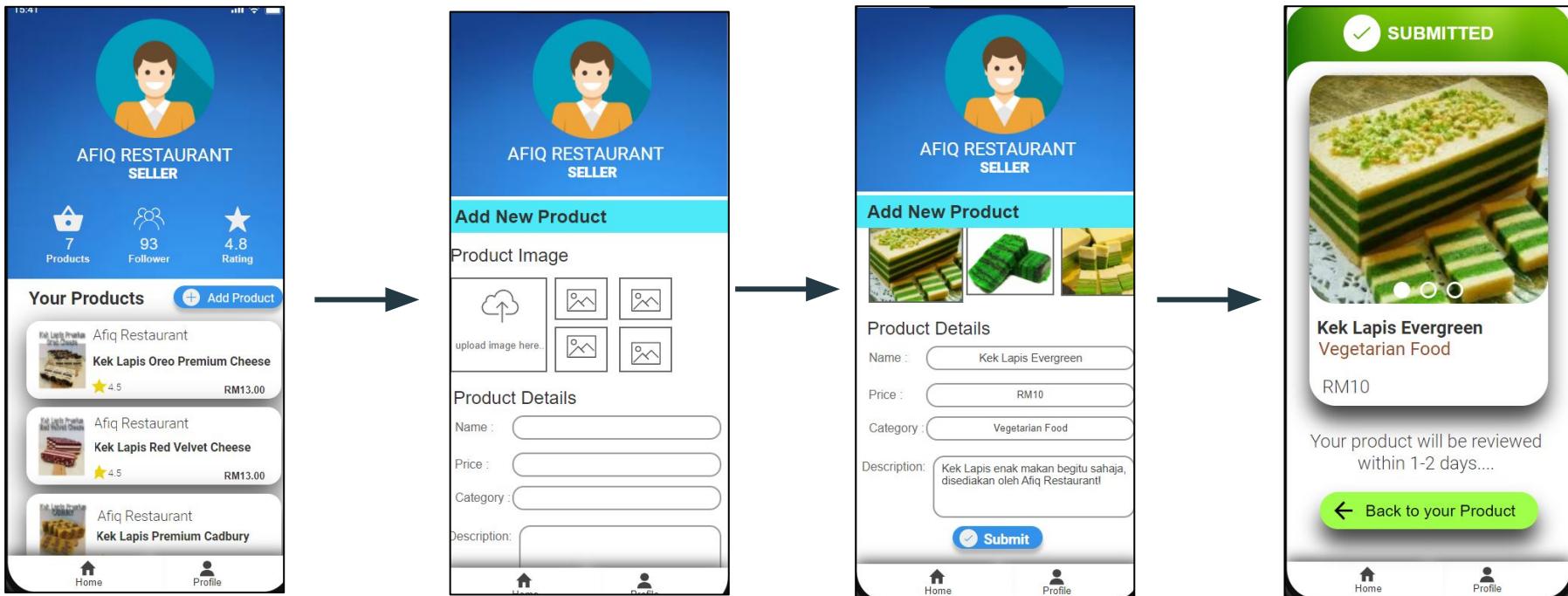
5) Give Feedback After Received the Product



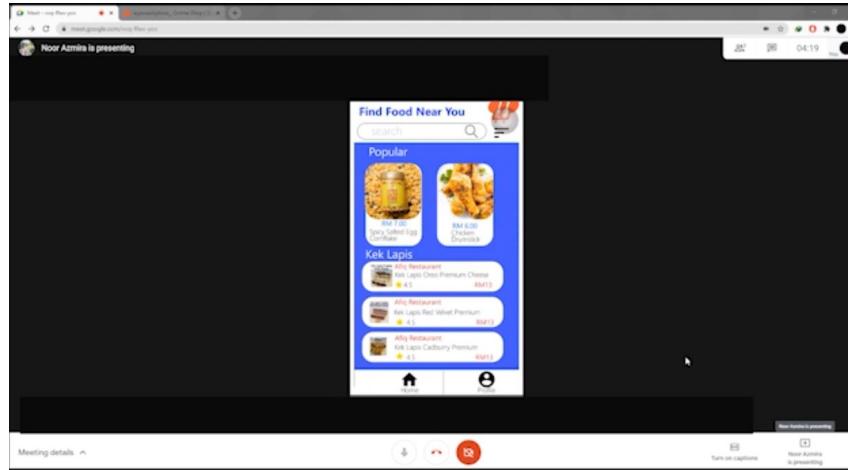
6) Edit Profile



7) Submit a New Product



Feedback from User



"The flow of the system is simple and it is much easier to navigate from one state to another. Thus, when ordering the food, any user can use it."

Reflection

- Every one of group member should write their reflection in 100 word.

By MUHAMMAD FAIZ BIN JAMALUDDIN (A18CS0135)

“Assalamualaikum and hi, my name is Muhammad Faiz bin Jamaluddin. I was given role as group leader for Conqueror in this Application Development project. First of all, thank you to Dr Shafry that give us many lesson and advices that can make this project can be done. Without help and advices from him, we cannot complete this project very well like this. Thank you also to my group teammates. Without them this project also cannot been realized. I am very happy that our group can complete this project in time and very well. There are many challenges that I had been through to complete this project especially during this pandemic. All of us are live far from each other. So, we need to need the develop by having discussion by online. At first, this thing gave us many problems as some of us maybe cannot have a free time in the same time. But, alhamdulillah we can solve it day by day. Next, there are a lot of things that I can learn from this project. Firstly, I learn about agile method more deeply than before. Before this I never implement the agile method in my projects. So, after this project, I learn more about agile and know very well to implement it in the future. Maybe in my career or next project I can use this method to make sure it perfect. Other than that, I can improve my communication skills in this project. We work in 5 persons to complete this project. So, we need to use a lot of communication in giving task and discussion to find the best solution to complete this project. Without good communication, we cannot distribute the task very well and we also need a lot of time to find the solution for a problem. Finally, this project improves my leadership skills as I was been role as leader for this project. Before this, group leader from all of group have a meeting with lecturer about the projects. So, after the meeting, as the group leader I need to explain and give the information that Dr give during the meeting. So, this situation indirectly teaches me more about how to deliver the instruction to others teammate very well and clearly.”

By MUHAMMAD AFIQ BIN MOHD MURAD (A18CS0117)

“Assalamualaikum, my name is Muhammad Afiq Bin Mohd Murad. As for my reflection, there have been a bundle of challenges throughout the semester that I personally faced especially during this Covid-19 pandemic. One of the challenges is communication whereas to be more specific for this subject is that it is hard for all of the group members to communicate well since the meeting is done online. There is no a real way to communicate to one another except through a 3rd party program such as Discord or Whatsapp. Since my first year, I have been communicating with my team member face-to face and it is fair to say that it is much easier that way rather than online communication.

My groupmate has been take part of the discussion well. Not only that, but there also has no group member has any problem for online communication. Another challenge is that online learning. There is a saying where “A knowledge can only be obtained when the person is facing the teacher face-to-face”. Thus, learning through online has not made me any enthusiasm to learn new knowledge. Despite that, it is

something that I need to get used to since it is seemed to have become part of my degree life. However, all the challenges that I had mention before mostly have been relieved by Dr Shafry himself. I am grateful to have lecturer that have both empathy and sympathy. This can be shown when he shows both criteria when the flood season has struck Malaysia. Thus, he extended the dateline of the project. Next,

he also did the lecture only since most of the student does not have the privilege of unlimited internet. Thus, I will this opportunity to thank Dr Shafry for what he did.”

By MU'AZ BIN AMIR NUR RASHID (A18CS0114)

"As for my reflection for this project , Firstly, this is a group project and cannot be done alone , but in term of communication , I would say that this semester has been really tough for all of us to do works together and get things done. As everyone is distant from each other, we only communicate through online. It would not be a big problem if it is just communicating, talking with each other. But For me the hardship comes when we want to work on a project together.

First we have to decide which platform we will use , what software should we choose from and what would benefit us the best . At first we consider on make real apps with coding , but after reconsider the decision, we reflect ourselves and we find we have never learn anything about mobile programming , and considering that we cannot learn , teach , help each other together physically , it would be hard to do so. So that, we take decision on making working prototype instead.

But, although that, we actually did try on making real apps with programming but it doesn't turn out well because it is harder than it looks, we just learn it through YouTube and try to work on it , but it doesn't work so well so we not proceed it that way and just use adobe XD instead.

As a conclusion, this project has really thought a lot for me as we work on a project together within a new norm and have learn a lot of new knowledge along the way."

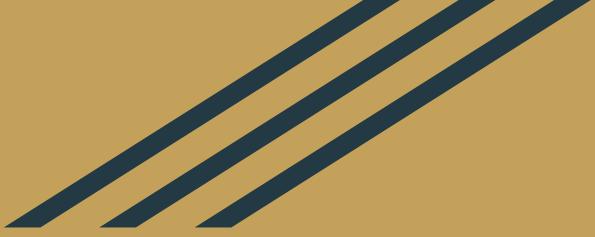
By MUHAMMAD BURHANUDDIN BIN IBRAHIM (A18CS0129)

"Hello everybody, first I want to thank our lecturer Mr shafry for guiding us through this semester and through this project also, and to my teammates whom without this project will not be possible. This semester had been different from other semester because of the pandemic that is still happening to this date, during the project development we faces many challenges such as the meetings for the project must be done via online in Discord because of the pandemic where we have to stay at home.

So, we utilize the GitHub where we share our progress together to complete this project. During this project I learned many things helped me along the way. For example, we have to learn on how to make the app more user friendly when developing and how to make an app using the appropriate tools required. Lastly, I hope that everything that I learned during the development of the project can be used in future. That's all from me thank you."

By MUHAMMAD AMIR SYAFIQ BIN MUSTAFA KAMAL (A18CS0125)

"As for my reflection from this project, first of all, as we are currently facing the Covid-19 pandemic, all of our work or progress throughout this project need to be done or be conducted through online platform. I personally think that the biggest challenges for me in doing this project is related with this issue. All of our work such as discussion, information gathering, meeting, developing the system and so on need to be done through online platform. It is actually a big challenge for me especially during the discussion part with my team member as I prefer to discuss with them by face-to-face discussion instead of online platform. But alhamdulillah, all of my team member give a full support and commitment in completing this project and they also help me a lot during the discussion through the online platform. They assist and guide me well on what should be done regarding this project during the online discussion and help me understand it well although the discussion is not being conducted as what I preferred. I also actually having to face a challenge to completing this project as well as several other project in other subject at the same time. If I not mistaken, I have to work with around 3 to 4 project at the same time where all the due date is almost the same. This situation has really give me a hard time as I need to work on it and follow each of the dateline. This challenge has help me to work more efficiently and improve my time management skills. As I conducting this project, I was able to manage my time wisely and complete all the given task on time. Secondly, I also hope that our proposed system and application can be properly work and functioning so that we are able to represent it and test it with our targeted user. And alhamdulillah, we are able to work on it and come out with the system that are at least be able to be represented and tested to our targeted user. In a nutshell, I want to give credit to my team member and also so much thanks to Dr Shafry for guiding me well in completing this project. I have learn a lot of thing while conducting this project. This project also help me improve my overall skill where will be beneficial for me to be used for my future career. Without their guide and help, it might be impossible for me to successfully complete this project."



Thank You