GROUP 05

Awn Anw
Vision (Small Project)

Version 1.1

Revision History

Date	Version	Description	Author
28/06/2023	1.0	Initial Draft	Context Integration
22/07/2023	1.1	Detail non-functional requirements and estimate the level of each feature	Ngo Phuoc Tai

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1. Introduction

The purpose of this document is to define the high - level requirements of the food delivery web app called "Awn Anw"

1.1 References

Applicable references are:
1. Sommerville, Software Engineering, 9th Edition, Addison Wesley, 2011
2. Pressman, Software Engineering, A Practitioners Approach, 5th Edition, McGraw Hill, 2001
3. Theoretical slides

2. Positioning

2.1 Problem Statement

The problem of	self-going to stores to buy food
affects	students and merchants
the impact of which is	taking students' time and effort; making merchants difficult to approach students
a successful solution would be	an web application with food-ordering function to attract more buyers (students) and sellers (near school)

2.2 Product Position Statement

For	HCMUS's students and merchants in District 5
Who	want to buy or sell food in District 5
The (product name)	is a web application
That	helps HCMUS's student to order food without going to food stores
Unlike	traditional way to buy food
Our product	provides up-to-date information on all merchants, foods,… to all users from any devices using a browser with an internet connection

3. Stakeholder and User Descriptions

This section describes the users of the Awn Anw application. There are 3 types of users of the Awn Anw: the students, the merchants and the administrator.

3.1 Stakeholder Summary

Name	Description	Responsibilities
IT Executive	The members are in group 05 of class 21CLC07, learning the course "Introduction to software engineering"	Builds and develops the project (the web application) Responsible for the operation of the web application

Professor	The teachers (Lecturer and Teaching Assistant) are in charge of course "Introduction to software engineering"	To instruct, support IT Executive for the process to build the system
Student	The students of University of Science	Ensures that the system will meet the need of students
Merchant	Shops are partner of the web application	Ensures that the system will meet the need of shops
Administrator	A team manages the system	Ensures that the system will meet the need of administrator, who has to manage buyer and merchant data

3.2 User Summary

Name	Description	Responsibilities	Stakeholder
Student	Students are learning at University of Science (Nguyen Van Cu - district 5)	Uses the system to buy food, drink, snack,... without coming to stores or shops	self-represented
Merchant	The shops are in district 5	Advertises the food of shop via the system Sells its product (food, drinks,...) to customer	self-represented
Administrator	A team manages the system	Manages the database of students and shops Operates the system	self-represented

3.3 User Environment

If users do not want to create an account with username and password, they can sign in with Google, Facebook,... account to use this system.

The users will be limited to the students who are studying in Ho Chi Minh University of Science and merchants who sell food in District 5.

The users can access this web by mobile phone, computer or any devices that can connect to the Internet.

3.4 Summary of Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
Having a meal	High	Wasting time in waiting to have a meal.	The food stores near school are always crowded; therefore, it takes students a long time to wait in a line and have food. Students also do not have many choices for their meal, which can lead to some problems such as missing a meal.	Students could order food on-line at stores which are far from school. While waiting for the food, students could rest at school or do their work instead of moving to get food. This way will help them save time.
Selling food	Medium	It is difficult to approach students.	If shops (far from school) want to approach students, merchants will have to rent a place near school to sell food. This way will raise the cost for merchants, which means their income will decrease also.	Merchants now could have more chances to approach students by being the partner of our web. It also helps merchants have more income than the traditional sale before. Merchants can also save money for items as they just sell food online.

3.5 Alternatives and Competition

Ordering food on-line is one of the most necessary demands for people now. It is not only convenient but also helps people save time. Thus, there are many companies trying to create this kind of system. One of the famous brands in this field in Viet Nam is Baemin.

Baemin: Advertisement is a strength of this company. They attract customers by giving them a lot of coupons, vouchers to apply when they make an order on its system. However, the number of shops being its partner are larger than its delivery person, which leads to the state of overload. When it happens, the system will cancel the customer's order automatedly.

4. Product Overview

This section provides a high level view of Awn Anw capabilities and system configurations.

4.1 Product Perspective

The Awn Anw application will interface with the customer database and merchant database. It interacts with users including customers, merchants and admin to send requests and responses among them as shown in the context diagram below (see Figure 4.1.1).

The Awn Anw application consists of a client component and a server component as illustrated in Figure 4.1.2. The server component connects to Firebase and uses services it provides to access the database of the application. This application can be used on any devices requiring an internet connection. Clients must have valid accounts to get access to the Awn Anw application.
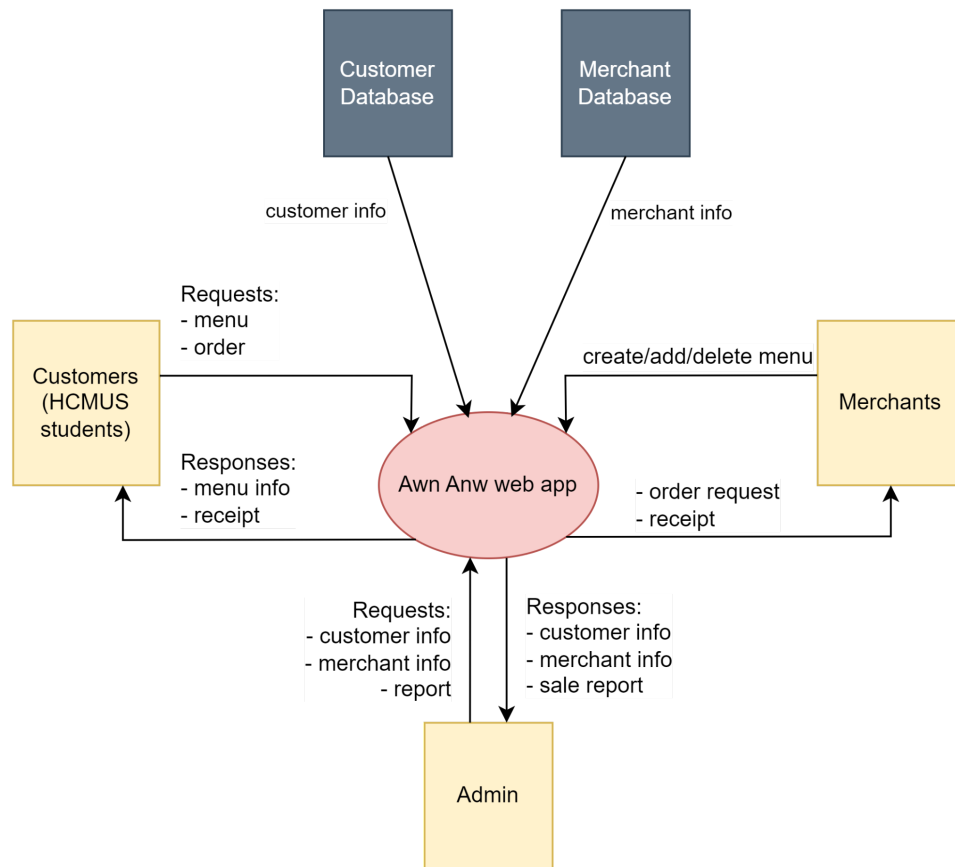
Figure 4.1.1 Awn Anw Context Diagram
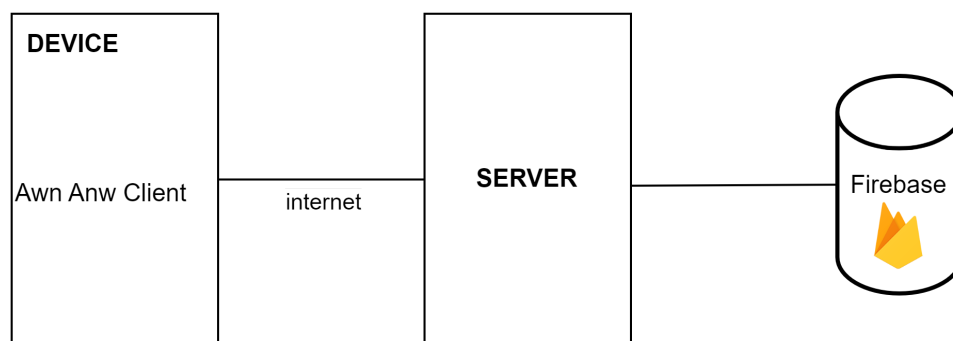
Figure 4.1.2 Awn Anw Overview

4.2   Assumptions and Dependencies

None

5. Product Features

This section defines and describes the features of the Awn Anw system. Features are the high-level capabilities of the system that are necessary to deliver benefits to the users.

5.1 Sign - up

Students and merchants will create an account with ID and password to login to the system.

5.2 Logon

Customers and merchants will provide a valid ID and password for entry to the system. The system shall enable a user to change their password. When users login successfully, the interface will be shown corresponding to the type of user.

5.3 Search food and shop (for customers)

System shall give customers a function when they want to find food and drink. They enter the name of that kind of food or the name of the shop that they want to find. After entering, the system will give them a list of shops which sell that kind of food, drink or something similar.

5.4 View food details (for customers)

When customers choose a shop to find food, the system shall show them some information about that food such as image, price, brief description and even the status if the food is ready or sold-out.

5.5 Add food into shopping cart (for customers)

The system shall give customers a shopping cart. Every time the customers add food to the cart, that only applies to the related shop. When the customers move to another shop and add food to the cart, if the cart belongs to the old shop, it will be deleted.

5.6 Remove food from shopping bag (for customers)

Opposite to adding function, the system shall give customers the remove function. When they are choosing food (drink), they can change their mind and add another food to the cart. So that, the customers can remove the food they don't want to eat anymore from the cart.

5.7 View detailed receipt (for customers and merchants)

After choosing food and ready to place orders, the system shall show them how much they need to pay for that order, how many kinds of food, how many servings for each food.

For merchants, when customers finish an order, the system shall send to that merchant an order to prepare the food available in the order.

5.8 View status of order (for customers)

After finishing the order, that order will be sent to the merchant and will be confirmed. An order is having 3 types:

- Confirmed and prepared: the merchants confirmed the order and were going to prepare the order.

- Ready: the order is ready to ship to the customers.

- Successfully delivered: when the order is successfully delivered to the customer by merchants, the order shall be updated to be successful.

Customers can see the status of the order when they click to see the order.

5.9 Customers bill payment

The system shall show the type of payment to the customers. In this section, we default that the payment method is COD (pay cash).

5.10 Use voucher (for customers)

The system shall give customers some vouchers. When customers want to pay for the order, they can use the voucher to reduce the cost. Vouchers are accepted for all shops only if the customers reach the

corresponding amount of an order.

5.11 Rate and feedback (for customers)

After using food (drink) from a shop, customers can rate the quality of the shop by stars on a scale of 1 to 5 and maybe write a few reviews (feedback) about that shop.

5.12 Suggest shops for customers

The system shall suggest some shops to customers to order when they log-in to the system. This suggestion must be in a home page of the customers.

5.13 Add food into menu (for merchants)

The system shall accept the merchants to upload their menu. The merchants must have to enter the name of the food (drink), image and some detail or description about that food.

5.14 Update food details (for merchants)

The system shall accept the merchants to update the details of their food when they have some changes in their food (drink), such as name, image, price, ingredients, etc.

5.15 Delete food from menu (for merchants)

Besides uploading food or updating food details, the system shall accept the merchants to delete some food out of their menu when they don't want to sell that food anymore. After deleting, that food will disappear from the merchant's menu.

5.16 Update status of order (for merchants)

When the merchants have an order from the customer, the system shall accept the merchants to update the status of the order. Because the shipping problem will be solved by the merchants so that they will update the status for the customers to know.

5.17 View information of all customers and merchants (admin)

The admin of the system shall have a list of customers and merchants who registered. With each individual, admin can know about customers' basic information such as name, age, etc and merchants' name, location, kind of food that they specialize in selling.

5.18 Adding voucher (admin)

The admin shall add some vouchers that can help customers reduce the money to pay. The voucher should have the achievable condition to use.

5.19 Delete voucher (admin)

After adding, some vouchers may make the merchants not profitable or unreasonable. So the admin can delete that voucher out.

5.20 Reporting data (admin)

After a while, the system shall give an analysis for each merchant such as number of orders, average rating, etc and for each customer such as how many successful orders.

5.21 Classify food (drink) into groups (admin)

There are many kinds of food and many merchants, while each merchant can sell a lot of food. So the admin of the system shall classify the food by categories (by name, by types such as food or drink, hot or cold, etc) to make it easier for customers to find food. When shops as well as the merchants launch new food to their menu, they can divide that type of food into categories.

5.22 Rating merchants (admin)

By using feedback and rating from customers, the admin can rate the merchants such as good, bad, etc.

6. Non-Functional Requirements

6.1 Constraints

The following constraints apply to the Awn Anw system:
- The system shall not require any hardware development or procurement.
- The website shall have a responsive design, which makes the application work well on all devices.

6.2 Quality ranges

This section defines the quality ranges for performance, robustness, fault tolerance, usability and similar characteristics for the Awn Anw system:
- Availability: The System shall be available 24 hours a day, 7 days a week.
- Usability: The System should be easy to use and shall be appropriate for the target market of internet-literate students. Users should not require the use of a hardcopy manual to use the system.
- Maintainability: The system shall be designed for ease of maintenance. All users' data should be modifiable without recompilation of the System.
- Performance: The system shall response all the user's requirements in no more 0.0001 second

6.3 Precedence and Priority

Due to the short time for this project, the main features will be developed through 2 releases as shown below:
- Release 1 must include:
  For customer:
    + Sign in/Sign up (10)
    + Payment (10)
    + Add/delete food into shopping cart (10)
    + View food details (8)
    + View detailed receipt (7)
  For merchant:
    + Sign in/Sign up (10)
    + Add/update/delete food (10)
    + Update status of order (10)
    + View detailed receipt (8)
  For admin:
    + Classify food into groups (9)
    + View basic information of customers and merchants (8)

- Release 2 should include:
  For customer:
    + Search food (6)
    + View status of the order (5)

The importance of each feature is rated on a 10-point scale (the more important it is, the higher the score it has). Base on the importance, important features will be implemented first in release 1.

6.4 Other Product Requirements

6.4.1 Applicable Standards

The users' devices must connect to the Internet.

6.4.2 System Requirements

The server shall be implemented by using Firebase services.

6.4.3   Performance Requirements

The system shall support up to 100 users against the central database at any given time.

6.4.4   Environmental Requirements

None

6.5   Documental Requirements

This section describes the documentation requirements of the Awn Anw System.

6.5.1   User Manual

None

6.5.2   Online Help

None

6.5.3   Installation Guides, Configuration, Read Me File

None

6.5.4   Labeling and Packaging

None