<E-Commerce Web Application For Selling Digital Products>

Vision Document

Version <1.6>

Revision History

| **Date** | **Version** | **Description** | **Author** |
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| 5/Jun/24 | 1.0 | Write part 1 | Lê Bảo Giang |
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Vision (Small Project)

# Introduction

* The purpose of this document is to collect, analyze, and define high-level needs and features of the E-Commerce Web Application For Selling Digital Products. It focuses on the capabilities needed by the stakeholders and the target users, and **why** these needs exist. The details of how the E-Commerce Web Application For Selling Digital Products fulfills these needs are detailed in the use-case and supplementary specifications.
* This document is developed by Group 05. Based on this document, the development team can grasp the necessary features and use this to discuss with the customers to confirm the initial requirements

## References

* Vision document template
* Competitor website:
  + Shopee: [Shopee](https://shopee.vn)
  + Lazada: [Lazada](https://www.lazada.vn)

# Positioning

## Problem Statement

| The problem of | Buying and selling electronics through online channels currently faces many challenges due to the lack of transparency in product quality, unstable prices, and a lack of customer trust. |
| --- | --- |
| affects | Electronics sellers, manufacturers, and online customers are all affected by this issue. |
| the impact of which is | Electronics sellers face difficulties in building trust and maintaining long-term customers, leading to decreased sales. Manufacturers struggle to ensure product quality reaches consumers. Customers risk buying counterfeit or low-quality products at high prices. |
| a successful solution would be | Building a reputable e-commerce website that provides transparent information about products and prices. Reducing intermediary costs by linking manufacturers directly with customers. Creating a platform for customer reviews and feedback to enhance trust and service quality. |

## Product Position Statement

| For | Online customers and electronics manufacturers |
| --- | --- |
| Who | Need a trustworthy platform to buy and sell electronics with transparent information and fair prices |
| The (product name) | Electronics Defiant Store (Web Application) |
| That | Provides verified product information, competitive pricing, and a direct connection between manufacturers and customers |
| Unlike | Traditional online marketplaces with many intermediaries and questionable product quality |
| Our product | Offers a reliable, transparent, and cost-effective solution with customer reviews and feedback to ensure quality and trust. |

# Stakeholder and User Descriptions

## Stakeholder Summary

| **Name** | **Description** | **Responsibilities** |
| --- | --- | --- |
| Development team | Dev team is the experts who build and maintain everything about the website. | They will code everything about the website from UI to databases for the website to be able to function. |
| Supervisor | Supervisor (lecturers) is in charge of a group of people or an area of work and who makes sure that the work is done correctly and according to the rules. | Will be checking up the progress of the project and give out advice, guides and rules for the developers to follow until the completion of the project. |

## User Summary

| **Name** | **Description** | **Responsibilities** | **Stakeholder** |
| --- | --- | --- | --- |
| Normal customers | Normal customers are the end users of everything. They buy products through our online store. | Normal customers give their opinions and reports about the UI/UX experience and the usability of functions of the website. | The normal customers are not directly involved with the project so the UX developer and testers will be representing them instead. |
| Electronics manufacturers | Electronics manufacturers will contact the online store to sell their products. | Electronics manufacturers give electronic product details to the website. | The electronics manufacturers are not directly involved with the project so the content designer will be representing them instead. |
| Viewer | Viewers are end users that aren’t logged in. | They cannot buy products but they can still search and see the products. | The viewers are not directly involved with the project so the UX developer and testers will be representing them instead. |
| Admin | Admin is in charge of the operation of a network of computers, a website, a group of computer users, etc… | Will be in charge of adding in products in and out of the website while also moderating the content that goes into the website. | The content designer will be the one representing the admin role in this project. |

## User Environment

* The target user is anyone that has a need for electronics products.
* The number of people involved in completing all the tasks is one person. It can not change the number of people as each user has their own account.
* Task cycle:
  + A task cycle of login, logout is about 30 seconds in total as it is quite quick for the average user. Register can be a bit longer so about a minute for an average user.
  + Searching is about 30 seconds as they just need to type in the search bar.
  + Buying can be 5 minutes as they need to add to cart, complete and finalize the order then pay.
* As this is a website it can be used on computer and phone platforms. And at long as there is internet they can enter the website so it can be used anywhere. Future platform of turning the website into an application is not in planning.
* The other applications can be used are gmail and youtube as gmail is for registering an account while youtube is to play some video.

## Summary of Key Stakeholder or User Needs

| **Need** | **Priority** | **Concerns** | **Current Solution** | **Proposed Solutions** | |
| --- | --- | --- | --- | --- | --- |
| Safety and scam-proofed | Low | Lower the trusts of both the customers but also the manufacturers for the website | Contact the website owners to take down the problematic accounts | | The website will check the validity of the seller for potential problems before letting them sell their items |
| Errorless transactions | High | Can be financially damaging to all party involved and severely destroy the trust and reputation of the website | Test the website in many different conditions for errors | | Test the website in many different conditions for errors and fix it quickly when there are errors reported from the end users. |
| Pleasant UI and Shopping experiences | High | An easy to use and good looking website will allow for the customers to use it more often while the opposite will drive away the customers | Design a pleasant looking and easy to navigate website to use | | Take in feedbacks from users and change it accordingly |

## Alternatives and Competition

| **Competitors** | **Description** | **Strengths** | **Weaknesses** | **Solutions** |
| --- | --- | --- | --- | --- |
| Shopee | It is an online shopping website using B2C model (Business To Consumer)  and C2C (Consumer To Consumer) | Strong financial base  Good marketing  Many user enhancing features  Sell more than just electronics | Weak technologically  Hard to ensure the quality and reputation of the goods and sellers  There are risk for end-users | Nothing yet |
| Lazada | It is an online shopping website using B2C model (Business To Consumer) | Strong financial base  Good marketing  Many user enhancing features  Sell more than just electronics | High prices for the same products comparing to other competitors  Is the middle man but failed to completely capitalized on it | Nothing yet |

* At the present, our team’s application has not made any improvement over the two competitors, except:
* Friendly interface
* No necessary advertisement
* Focus on the selling digital products

# Product Overview

## Product Perspective



## Assumptions and Dependencies

* If Gmail is not available then other methods of authentication may be used.
* If Youtube is not available then playing videos may be played by the online store's functions.
* If MongoDB is not available then the database must be reallocated to a more stable database application.
* The **Vision** document will need to change if any of the above happened.

# Product Features

**Product Features for Logged-in Users**

| No. | Feature | Description | Priority |
| --- | --- | --- | --- |
| 1 | Login, log out, register | Allows users to access their accounts, ensuring secure and personalized usage of the platform. | High |
| 2 | Listing | Enables logged-in users to view item categories, items in their cart, vouchers, and order details, enhancing shopping convenience. Users who haven't logged in can only see items in the web store. | High |
| 3 | Search | Provides a comprehensive search capability to find items quickly and efficiently. | Medium |
| 4 | View item details | Offers detailed information about items, including descriptions, prices, and stock availability, aiding informed purchasing decisions. | Medium |
| 5 | Buying | Allows only logged-in users to purchase items, add items to their cart, and proceed with transactions. | High |
| 6 | Calculating | Calculates the total order cost, including any discounts and shipping fees, providing clear cost transparency. Users who aren't registered and logged in cannot use this feature. | High |
| 7 | Reporting | Provides order and shipping information before and after purchase, ensuring users are informed about their transactions. Users who aren't registered and logged in cannot use this feature. | Medium |
| 8 | Suggestion | Customers can see suggested items that are bestsellers or popular items highlighted at the top of the web page. | Low |

**Product Features for Operators**

| No. | Feature | Description | Priority |
| --- | --- | --- | --- |
| 1 | login, log out, register | Allows operators to securely access their accounts, ensuring personalized use of the platform. | High |
| 2 | Add New Item | Enables operators to add new products to the catalog with details including name, stock, price, and description, ensuring a diverse and updated product range. | High |
| 3 | Update item | Allows operators to modify product information. The system automatically updates the amount bought and remaining stock. When items are bought, it updates the total amount. | Medium |
| 4 | Delete item | Provides operators with the ability to remove products from the system, ensuring the catalog remains current and relevant. | Medium |
| 5 | Reporting | Allows operators to generate reports on sales, inventory levels, and other relevant metrics to facilitate decision-making and business management. | Low |

**Product Features for Admins**

| No. | Feature | Description | Priority |
| --- | --- | --- | --- |
| 1 | login, log out, register | Ensures admins have secure and controlled access to the administrative functionalities of the platform. | High |
| 2 | Listing | Enables admins to view item categories, cart contents, vouchers, and order details, facilitating platform oversight. | High |
| 3 | Suggestion | Allows admins to highlight items that are on sale, popular, or highly liked at the top of the web page, enhancing user engagement and sales. | Medium |
| 4 | Search | Provides admins with the ability to perform comprehensive searches, aiding in efficient platform management. | Medium |
| 5 | View item details | Allows admins to access detailed item information, ensuring thorough monitoring and management of the inventory. | Medium |
| 6 | Update item | Enables admins to update the status of orders and product details, ensuring smooth operation and accurate records. | Medium |
| 7 | Delete item | Allows admins to delete items and registered users from the system. | Medium |
| 8 | Add user | Allows admins to add new users to the platform. | Medium |
| 9 | Reporting | Provides admins with detailed order and shipping information, supporting comprehensive transaction oversight. | Medium |

# Non-Functional Requirements

In this section, we will address the non-functional requirements that globally affect the product features described in the previous section. Specifically:

#### **Quality Constraints**

1. **User Friendliness:**
   * The user interface must be designed to be intuitive and user-friendly to provide the best user experience.
   * Support features such as user guidance, suggestions, and feedback to enhance user-friendliness and satisfaction.
2. **Performance:**
   * The system must ensure fast response times and quick website loading to keep users from waiting.
   * Efficiently handle concurrent tasks to avoid overloading the system.
3. **Availability:**
   * The system must be available and operational 24/7 to ensure users can access and use it at all times.
4. **Scalability:**
   * It should be able to scale to handle the growth in the number of users and data volume without affecting performance and availability.
5. **Fault Tolerance:**
   * The system needs to have the ability to automatically and quickly recover from failures to minimize downtime.
6. **Security:**
   * Strong security measures must be implemented to ensure the safety of user data and prevent external attacks.
7. **Legal**
   * The application will not violate copyright or any other laws.

#### **Environment Constraints**

1. **Network:**
   * The system must operate on a stable network with sufficient bandwidth to meet user demand.
2. **Devices:**
   * It should be compatible with common devices such as personal computers, mobile phones, and tablets to ensure convenience for users.
3. **Interaction with Other Systems:**
   * The system must be able to interact with external systems through standard protocols and APIs to exchange data efficiently and seamlessly.