# **Brute Force**

# **BruteWardrobe Vision Document**

Version 1.0

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# **Revision History**

Date	Version	Description	Author
28/10/23	1.0	First version of Vision document	Team Leader (Nguyen Minh Quan)

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# **Vision (Small Project)**

#### 1. Introduction

The purpose of this document is to collect, analyze, and define high-level needs and features of the **BruteWardrobe** - website application for shopping. BruteWardrobe aims to significantly improve the user experience, modern web design, improve drive sales, and optimize inventory management.

#### 1.1 References

Applicable references are:

- Course's materials (slides, videos...)
- Manual documentations
- Use case models in website development
- Software architecture
- Software Engineering 10th Edition, by Ian Sommervile, Addison Wesley

## 2. Positioning

#### 2.1 Problem Statement

The problem of	poor product information, lack of personalization, and inventory management
affects	customers who are students and merchant
the impact of which is	negatively affecting user experiences or high return rates
a successful solution would be	<ul> <li>a website application which has:</li> <li>modern web design</li> <li>friendly user interface</li> <li>optimized inventory management</li> </ul>

#### 2.2 Product Position Statement

For	customers who are students and merchant
Who	who wants to have better shopping experiences
The (product name)	is a BruteWardrobe
That	increases shopping efficiency and save time
Unlike	traditional shopping websites
Our product	provides trendy styles while having a convenient and wonderful shopping experience

## 3. Stakeholder and User Descriptions

#### 3.1 Stakeholder Summary

Name	Description	Responsibilities
Developers	Students that involve in building the project	Designing and developing a website application that meets requirements. ensures that the system will be maintainable

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Instructors	Teachers that supervise the project (Mr. Truong Phuoc Loc)	To instruct, support the developers team for the system process
Testers	Students who maintain the system	Make sure that the system works properly and meet the needs of the users (customers and merchant)
Project Manager	Team leader	Monitors the project's progress
Marketer	Students who do the marketing jobs for the products	Ensures that there will be a market demand for the product's features
Merchant	The brand that request the website application	Provide user requirements for the dev team

### 3.2 User Summary

Name	Description	Responsibilities	Stakeholder
Customers	Students who purchase clothes	Use the system to buy clothes, accessories without directly coming to the store	Self-represented
Merchant	The brand that owns the website	Sells their products to customers	Self-represented
Administrators	A team that manage the system	Manage system and products standard, receive feedbacks	Self-represented

#### 3.3 User Environment

Number of people involved: The number of users involved can vary widely, but it primarily centers around individual shoppers.

Task Cycle Duration: The task cycle duration is relatively short, typically ranging from a few minutes to an hour. Users spend time browsing, selecting clothing items, and completing the purchase. As fashion trends evolve, task cycles may change more frequently for those who keep up with the latest styles.

Environmental constraints: any devices that can use a browser to access the internet.

System platforms are in use: Web browser. In the future, we're going to build a mobile application which can run on all platforms.

#### 3.4 Summary of Key Stakeholder or User Needs

Need	Priority	Concerns	<b>Current Solution</b>	<b>Proposed Solutions</b>
Friendly user interface	High	Attract users while browsing products	Using up-to-date tools or libraries to design the website	Design a smart interface that is interactive and can attract users

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Optimize shopping experience	High	Save shopping time and increase customer purchase rate	Ask the customers for their priorities about type of product Arrange products appropriately	Suggestions based on shopping habits of customers Smart recommendation
Smart shopping cart management	Medium	Save time and increase customer purchase rate	Add/delete products to/from the cart easily	Quick payment with only 1-3 steps  Suggest more products that are related to the current carts

#### 3.5 Alternatives and Competition

#### Alternatives:

- Build an in-house solution: Stakeholders can consider developing their own in-house e-commerce platform. This would give them full control of the system, but would be time consuming and require expertise in web development and fashion retail.
- Consider competitor products: Stakeholders can explore the option of acquiring or partnering with an existing clothing e-commerce competitor, thereby gaining a solution and customer base available. However, this approach can be costly and complex in terms of integration and transition.
- Maintain the status quo: Stakeholders may choose to continue operating the current site without significant changes. This option is low risk but can lead to missed opportunities to enhance user experience, attract more customers, and increase profit.

#### Competitors:

- A competitor with a huge inventory of clothing items and a steady customer base: They have strengths in product selection but may also have weaknesses in price and personalization.
- A competitor known for its sustainable and eco-friendly clothing options. These include strengths in terms of strong brand image, but they may have weaknesses in terms of price and variety.
- Competitor specializes in mobile shopping with a smart, user-friendly interface. Their strengths include ease of use, but they may have weaknesses in terms of website responsiveness and payment options.

#### 4. Product Overview

This section provides a high-level view of the BruteWardrobe capabilities, interfaces to the users, and the system configuration.

#### 4.1 Product Perspective

The BruteWardrobe application will be an interface between the customer database (customer information, style preferences, shopping history) and merchant database (merchant information, products information, financial statement). Also, the admin can manage how those two interact with each other.

Note that there's only one brand which is the product owner, the brand can create many merchant accounts (each represents a small branch of the brand).

As illustrated in the figure below, the application consists of a client and a server component.

Any users must have an account to get access to the BruteWardrobe website. The server connects to the Firebase database and provides access to the user if their access is valid.

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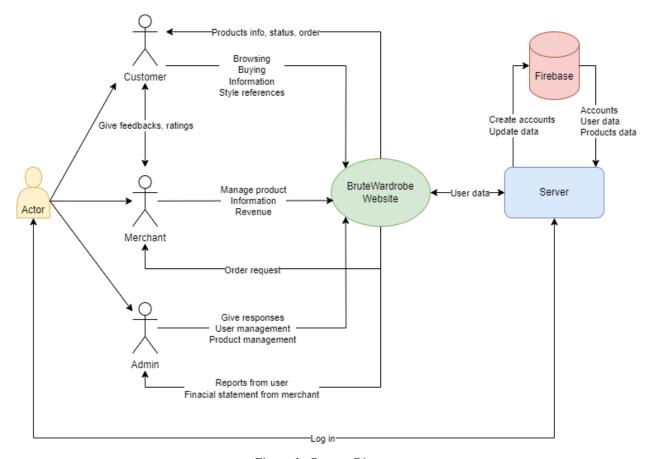


Figure 1: Context Diagram

#### 4.2 Assumptions and Dependencies

<u>Assumptions:</u> Since BruteWardrobe is a website application, there's only an assumption that the users' device has a web browser that can access our website with a stable internet connection.

#### Dependencies:

- Operating system and web browser updates: The application depends on the continued support of various operating systems and web browsers. Updates or changes to these platforms may cause some conflict or some minor bugs may appear after those changes.
- Tools and library (that are being used to build the website) updates: same as above.

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## 5. Product Features

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

Туре	No.	Feature	Description	Priority
	1	Sign up	Customers and merchants will create an account with username and password to log in.	Medium
Customers, Merchants	2	Sign in/Log out	Customers and merchants can log in the website with the username and password they signed up before. They can also log out for accessing a new account.	Medium
	3	Searching products	System gives customers a function when they want to find clothes or accessories. Entering name for finding the products that the customers need.	High
	4	Filtering products	Customers can filter products by price and type using the tools the system provides.	High
	5	View The system shows clearly the information products' including image, name, size, price, status and information material of each product.		Medium
Customers	6	Add product to shopping cart	Each account has a personal shopping cart. Customers can add the products that they choose to buy.	High
	7	Remove product from the shopping cart	The system gives customers the remove function, they can remove the products that they do not want to buy anymore from the cart.	High
	8	View shopping cart	After making a decision to buy any products, they might view the cart which includes the quantity, the brief description of each product, total price, address, phone number of the customer.	Medium
	9	Payment	This function shows the payment methods and customers can pay for completing the order.	Medium
	10	View order status	Customers can see the status when they click to each single order like: Preparing, Delivering, Delivered	Medium
	11	Change personal information	Customers can change their password or their information if needed: Name, address, phone number, default payment method	Low

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	12	Give comments and ratings	For each product, customers can review, give feedback or rate on that product. Then the merchants can receive it and give responses.	Low
	13	Add products	With each category, the merchants can add new products.	High
	14	Remove products	Remove products out of stock or the defective products from the website.	High
	15	Change products information	Merchants can update the image, detail, status, size, price for each product if needed.	Medium
Merchants	16	Manage order status	When the merchants have an order from the customers, they can update the status for each order like: Preparing, Delivering, Delivered	Medium
	17	Observe the personal details of users	The merchants can view the list of the customers' information such as name, age, location, phone number	Low
	18	Give responses to customers	The merchants can reply to the comments, ratings or feedback of the customers.	Low
Admin	19	Manage products	Administrators can observe the products posted by merchants and remove them if they are not valid.	Medium
Admin	20	Provide financial information	View financial statements including revenue, cost, profit.	Low

## 6. Non-Functional Requirements

Туре	Description	Priority	Benefit	Effort	Risk
Standards and Platform Requirements	Operating Systems: support major operating systems. Browsers: support the latest stable versions of popular web browsers. Mobile Platforms: It should be compatible with iOS and Android mobile platforms.	Low	More user	Low	Low (most devices support modern browser)
Performance Requirements	Response Time: operation should load within 2 seconds for most users. Concurrent Users: at least 200 concurrent users during peak hours. Data Retrieval: queries should be within 500 milliseconds.	High	Better UX, spend more time on website	High (tuning may require upgrade)	Slow performance

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	Error Handling: should return user-friendly and pleasant error messages.				
Robustness and Fault Tolerance	Fault Tolerance: Implement automatic failover and backup systems to ensure minimal downtime.  Error Recovery: The system should gracefully recover from errors and provide users with clear instructions.  Data Backup: Regularly backup user data to prevent data loss.	High	Better services and data integrity	High (backup systems)	Data loss
Usability	Accessibility: Support color blind people by providing product color description Mobile Responsiveness: support various screen sizes.  Ease of use: each operation doesn't take more than 5 steps.	Medium	Better UX	Medium (design)	Bad experience
Environmental Requirements	Using a small amount of RAM (no more than 1GB), CPU	Low	Reduce cost	Medium	Minimal, most devices can sustain hardware cost
External Design Constraints and Dependencies	Third-party APIs: payments and media integration (may be changed).	Medium	Reliable services	Medium	Integration failures
Documentation Requirements	User Manuals: Provide user manuals (FAQs) for users Labeling and Packaging: Ensure product labeling and packaging meet legal and branding requirements (Brute Force brand).	Medium	Supports users in using the website	Low	Insufficient support for users and legal issues