



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

Technology & Information Systems  
SECP 1513

# Campus Second-Hand Trading Platform

Group 3

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# Catalogue

# 01 Introduction

## 02 Empathy

## 03 Define

# 04 Ideate

# 05 Prototype

# 06 Test



# Introduction

Currently, many students rely on social media to buy and sell used items such as textbooks, electronic devices, and daily necessities. However, these platforms often cause problems such as unclear seller identity, transaction risks, poor item categorization, and lack of trust between users.

To solve this problem, our team followed the five phases of design thinking: Empathy, Define, Ideate, Prototype, and Test. Through interviews, surveys, brainstorming sessions, and prototype testing, we developed a solution that focuses on user safety, trust, and ease of use.

# Empathy

Through face-to-face interviews and online questionnaire surveys, we directly engaged with 15 UTM students and faculty members and collected over 150 valid responses.

Key findings include: high user concerns about transaction risks (especially financial losses), distrust in seller identity authenticity, difficulties in searching due to disorganized product categories, and a lack of reliable evaluation mechanisms.

# Questions and Findings

## Sample questions:

What problems do you face when buying or selling second-hand items?

Do you trust sellers on social media platforms?

What features do you expect from a campus trading platform?

## Key findings:

Users worry about scams and financial loss.

Seller identity is not trusted.

Item searching is inefficient.

No reliable review system exists.

## Campus Second-Hand Trading

This questionnaire is designed to understand common student experiences and challenges related to campus second-hand trading.

1. Have you ever bought or sold second-hand items on campus? \*

- Yes
- No

2. What problems have you faced when using social media for second-hand trading? \*

- Scam or financial loss
- Unclear seller identity
- Difficult to find items
- No trust or review system

3. Do you trust sellers or buyers on social media platforms? \*

- Yes
- No

# User persona

Name: Mike

Age: 20

Background: UTM undergraduate, lives on campus, limited budget

Needs:

Safe transaction environment

Verified seller identity

Clear product categories

Reliable feedback system

## Target Audience #1

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## Target Audience #3

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# Define

## Problem Statement

- Unclear User Identity

Many second-hand transactions rely on social media, where user identity cannot be verified.

- High Transaction Risk

There is no payment protection mechanism, which may lead to scams or financial loss.

- Low Trust Between Buyers and Sellers

Users have no reliable way to evaluate sellers before a transaction

- Inefficient Item Searching

Items are poorly categorized on social media platforms, making searching time-consuming.

# Ideate

## Ideation Overview

The team explored a wide range of possible platform functions through brainstorming. After evaluating feasibility and user value, we focused on features that directly improve transaction safety, trust, and usability.

# Key Ideas Selected



## 1. Campus Identity Verification

Restricting access to verified campus members helps reduce fraud and increase trust.



## 2. Transaction Protection Feature

Users need protection when problems occur during transactions, such as item mismatch or disputes.



## 3. User Feedback & Reputation System

To build trust between buyers and sellers through transparent reviews and ratings.



## 4. Temporary Payment Holding

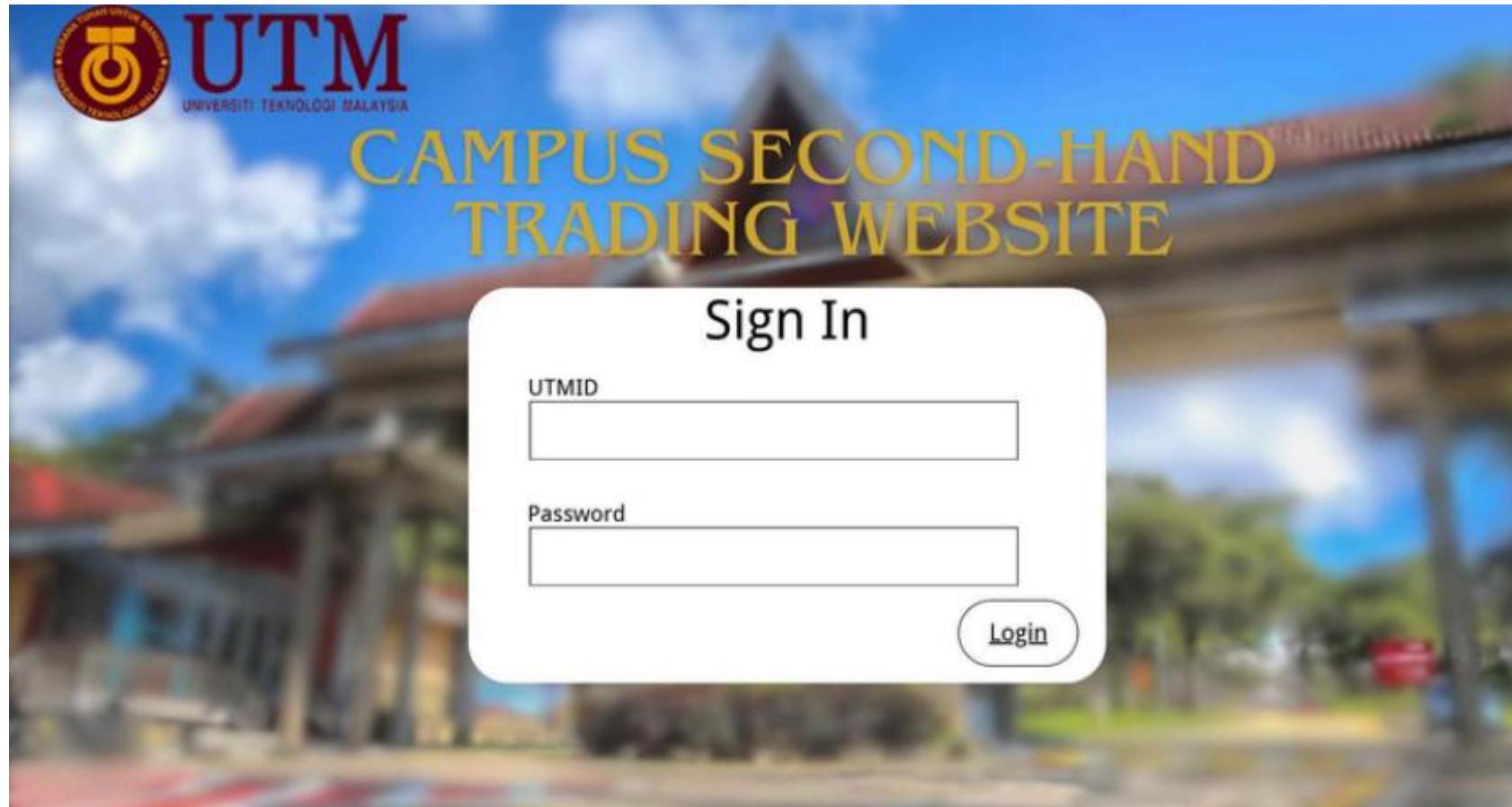
Holding payment until the transaction is confirmed helps prevent financial loss.



## 5. Smart Product Categorization

Clear categories allow users to find items more quickly and reduce information overload.

# 學 Prototype



Homepage design of the campus second-hand trading platform prototype.

UTM ID Verification

The image shows a product listing page from the website. At the top right is a search bar and a shopping cart icon. On the left, there are category icons for mobile phones/notebooks, T-shirts/shoes/trousers, and textbooks/reference books. A prominent banner in the center says "Changed your mind? ENJOY FREE RETURNS! UP TO 30 DAYS | FOR ANY REASON" with a "SHOP NOW" button. Below the banner, a section titled "guess you like" shows five product thumbnails: a notebook, a stack of books, a programming book, a C++ book, and a red t-shirt. Each item has its name, price, and a small description.

Product category and browsing interface in the website prototype

The screenshot shows a product listing for a second-hand exercise book. At the top, there's a navigation bar with the UTM logo, a search bar, and a back button. Below the header, there's a user profile icon. The main content area displays the product title "# 哥妹俩 作业薄 SECOND HAND" and its price "RM 2.80". To the left of the title is a thumbnail image of the exercise book, which has a cover with the text "GEMELIA PRIMARY SCHOOL" and "作业簿 EXERCISE BOOK". Below the title and price, there are sections for delivery options, return & warranty, and quantity selection. At the bottom are two buttons: "Chat" (in a pink oval) and "Buy Now" (in a grey oval).

View product information and communicate with the seller

The screenshot shows an item posting interface. At the top, there's a header with the UTM logo and a shopping cart icon. Below the header, there's a back button. The main area is divided into three steps: 1. Take photo (with a camera icon), 2. Price (with a price input field), and 3. Goods' information (with a large text input field). At the bottom right is a "Submit" button.

Item posting page showing how users upload second-hand products.

<https://http-second-hand-website.my.canva.site/>

# Test

In this phase, we tested our prototype with UTM students. The purpose was to check whether the website is easy to use and suitable for campus second-hand trading.

Users were asked to browse items, check product categories, and understand the basic transaction flow.

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## Testing Process:

- Tested with 8 UTM students
- Users tried the Canva website prototype
- Users browsed items and categories
- Feedback was collected after testing

## Testing Summary

We conducted user testing with 8 UTM students to see how they use the prototype.

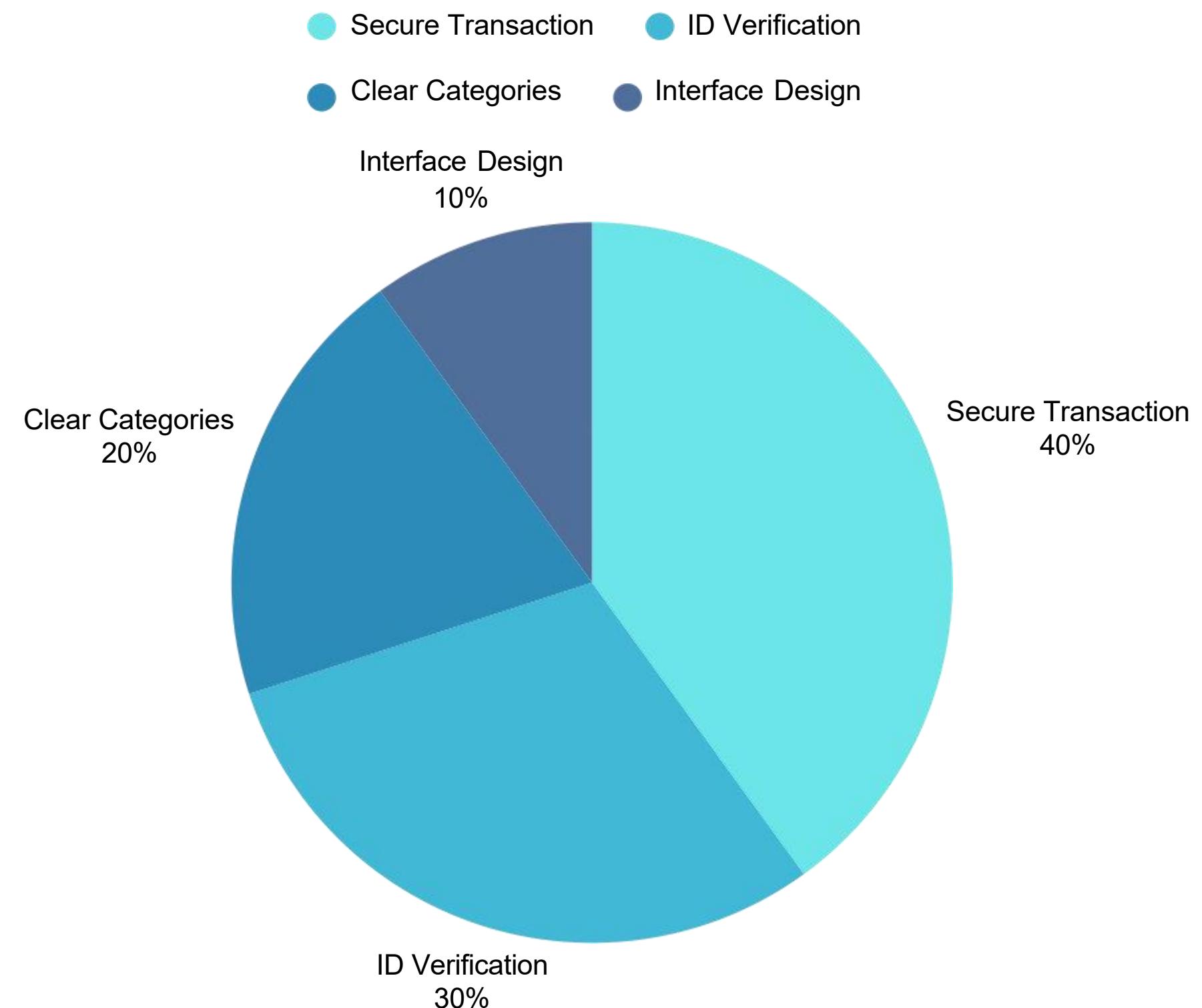
Participants explored the platform and focused on features such as transaction safety, user identity verification, and product categorization.

After the testing session, feedback was collected based on their experience using the website.

## User Preference Summary

- Secure Transaction – 40%
- ID Verification – 30%
- Clear Categories – 20%
- Interface Design – 10%

## Features Users Liked Most





A large, semi-transparent blue graphic element is positioned on the right side of the slide, consisting of three curved, overlapping shapes that create a sense of depth and motion.

# Thank You!