Student Free Market Application (SWAP)

Mobile Application Programming [SECJ 3623]

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SWAP

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Section A

1. **Project Title**

    SWAP - Where sustainability meets convenience.

2 . About the Organization

We are proposing an app called "Swap" which allows users to buy and sell pre-loved items of all sorts and categories. We decided to call it that as it resembles the ability to swap your old items by either trading in or profiting straight away.

The app will be used among all UTM students and citizens, and it will provide several services, including posting and promoting ads, multiple product categories, bidding, and user profiles.

3. Problem Background

3.1 The Challenge

Students at the University of Technology Malaysia (UTM) frequently run into difficulties when trying to buy and sell used items like electronics and textbooks. The current approaches to this, such as social networking platforms and classifieds websites, need to be more cohesive, and organized, and provide the concentrated setting required for these kinds of transactions. These difficulties consist of:

- Finding the appropriate products fast can be difficult.
- Not enough environmentally friendly ways for students to sell or recycle their course materials or any other materials.

3. Problem Background

3.2 The Opportunity

The "Swap" mobile application aims to tackle these issues by giving UTM students a specific marketplace where they can purchase and sell their textbooks and gadgets. We hope to streamline the procedure and create a secure, user-friendly environment for these transfers by centralising these operations and adding necessary functionality.

4. Project Goal

The primary goal of the "Swap" mobile application is to create a secure, user-friendly, and sustainable platform for UTM students to efficiently exchange textbooks and devices, thereby reducing financial burdens, promoting sustainability, and fostering a stronger sense of community within the UTM campus.

4.1 End Users

The application will have two primary end-user categories: "Buyers" and "Sellers."

Buyer: This user represents UTM citizens searching for products to buy (educational materials, devices, appliances, etc).

- Buyers can browse listings within the app based on various search criteria, such as keywords, categories, price range, and location.

- Buyers can initiate contact with sellers to inquire about items, negotiate prices, and arrange for the purchase.

- Buyers can place bids and comments on ad posts.

Seller: This user represents UTM citizens who have products they wish to sell, including textbooks, laptops, smartphones, etc.

- Sellers will have the ability to list their items for sale on the app (Choosing the item image, providing a description, specifying the price, indicating the condition)

- Sellers will have ratings placed on them depending on their behaviour with the buyers.

Section B

1. **Requirements**

   - The app should provide login and registration methods.
   - The app should provide the essential ability to post advertisements.
   - The app should include a search.
   - The app should provide sorting by category.
   - The app should provide a bidding feature.
   - The app should provide seller ratings.
   - The app should provide the seller's contact information.

1.1. The method

We used the online survey interview method and the funnel question arrangement to gather answers regarding our project.

1.2 The questions

What kind of products would you buy and sell on Free Market UTM JB *
groupchat?

- ☐ Furniture
- ☐ Tech
- ☐ Services (Cleaning, Communications, etc)
- ☐ Vehicles
- ☐ Clothes
- ☐ Automotive Spare Parts
- ☐ Food
- ☐ Appliances
- ☐ Other: _____

As a person who wants sell their product on Free Market UTM JB *
community, name one difficulty that you ran through when using the
groupchat?

Your answer

Some sellers never list their product prices, which is a problem. *

	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Sometimes, product ads on Free Market UTM JB groupchat get lost *
and unnoticed.

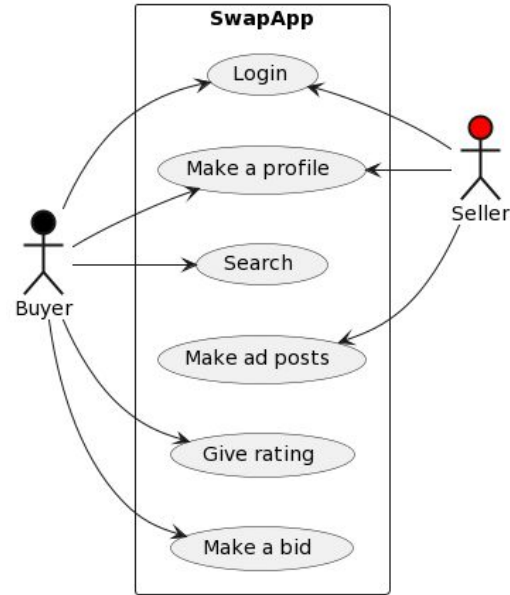|	1	2	3	4	5	
Strongly disagree	○	○	○	○	○	Strongly agree

Imagine if Free Market UTM JB community has turned into an *
application, what is one important feature that you would need the
most?

- ○ Sort products by category
- ○ Promoted product ads
- ○ Seller rating
- ○ Making bids
- ○ Other: _____

https://forms.gle/6Kn2nY5GeMfCMkdg9

2. Use-Case Diagram

3. User Stories (1)

ID	As a..	I want	So that..............
1	User	to create or register a profile with my email & password, personal information	I can have an identity in the app.
2	User	to log in to my account using email and password	I can access the application.
3	Seller	to post items for sale on the app, providing details like product images, descriptions, and pricing	potential buyers can discover my item.

3. User Stories (2)

4	Buyer	to search for products and use category filters	I can find the best deals available.
5	Buyer	to make bids	I can secure the product
	Buyer	to give sellers a rating	to alert other buyers about sellers with unwanted behavior
6	Buyer	the app to show the seller contact information	I can contact them about their posted item

THANK YOU