

SECV 2113

HUMAN COMPUTER INTERACTION

(Session 2025/2026 Semester 1)

Faculty of Computing
Universiti Teknologi Malaysia

PROJECT 4 – PROTOTYPING & EVALUATION

[Project Title: AI Assisted Mini Visual Projector]

LECTURER

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(Section 01)

PR05 - AiPro

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Introduction

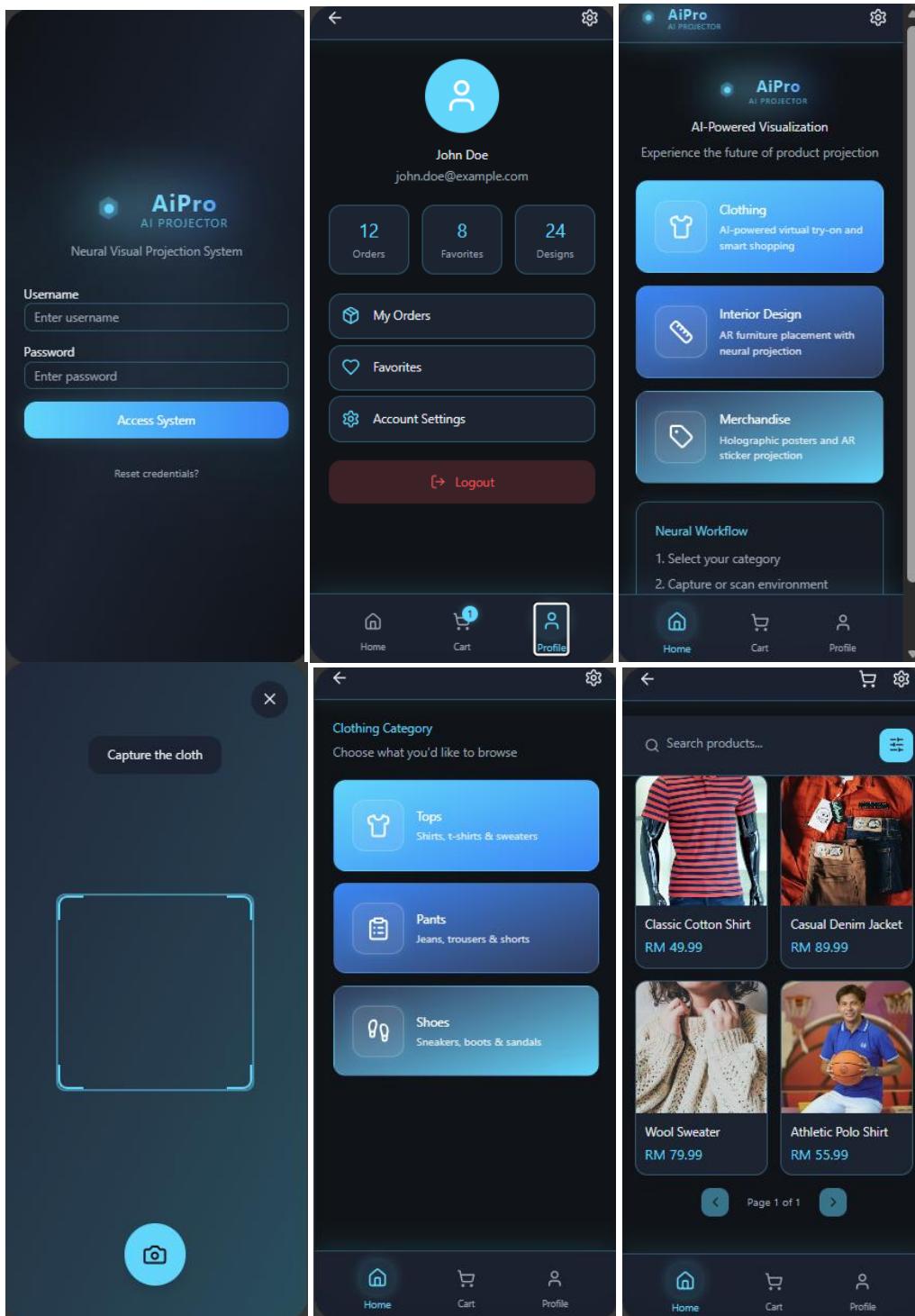
AiPro is an app to help users to better visualize the design/products they wish to purchase online via projector. This application improves the user online shopping experience to buy clothes, interior furniture and merchandises such as poster and stickers. Users usually faced design visualization issue in real time and need to spend a lot of time to decide what design to purchase.

AiPro means AI assisted mini projector to help users to visualize the design they have selected in real time and at their own space. The AI help to search for relevant online store that sell the related items and suggest the design to users and also help to link the design to the projector for a seamless projection to create an experience as if the user is seeing the design in front of their very own eyes with projection mapping and holographic technology. The app also allows users to put in order the design of their favour.

With this proposed system, it is expected that not only the pre-existing challenges can be addressed, but also bringing changes to user habits towards a more sustainable lifestyle, in reducing product waste, promoting responsible consumption and production habits, stimulating local economic growth and even raising public concern to the climate issues faced.

Screenshots of your prototype

Link: [AiPro Mobile Prototype Design \(Ai ver. - Lee\) – Figma Make](#)



Product Details & AR Projection:

Classic Cotton Shirt
RM 49.99

Description
Premium cotton shirt with modern fit

Features

- Premium quality materials
- Comfortable fit
- Easy to maintain
- Sustainable production

Project

Classic Cotton Shirt
RM 49.99

Description
Premium cotton shirt with modern fit

Features

- Premium quality materials
- Comfortable fit
- Easy to maintain
- Sustainable production

Add to Cart

Shopping Cart:

Total (1 items) RM 49.99

WhatsApp Email

Classic Cotton ... RM 49.99

- 1 +

Add note for seller

Order Status:

Real-time tracking of your deliveries

ORD-2024-001 Shipped
Ordered on Dec 28, 2024

Classic Cotton Shirt
Summer Linen Pants

Delivery Progress:

- Order Confirmed (28 Dec, 10:30 AM)
- Processing (28 Dec, 2:15 PM)
- Shipped (29 Dec, 9:00 AM)
- Out for Delivery
- Delivered

Room Selection:

Choose your space to design

Living Room
Project sofas, tables & entertainment units

Kitchen
Visualize cabinets, counters & dining sets

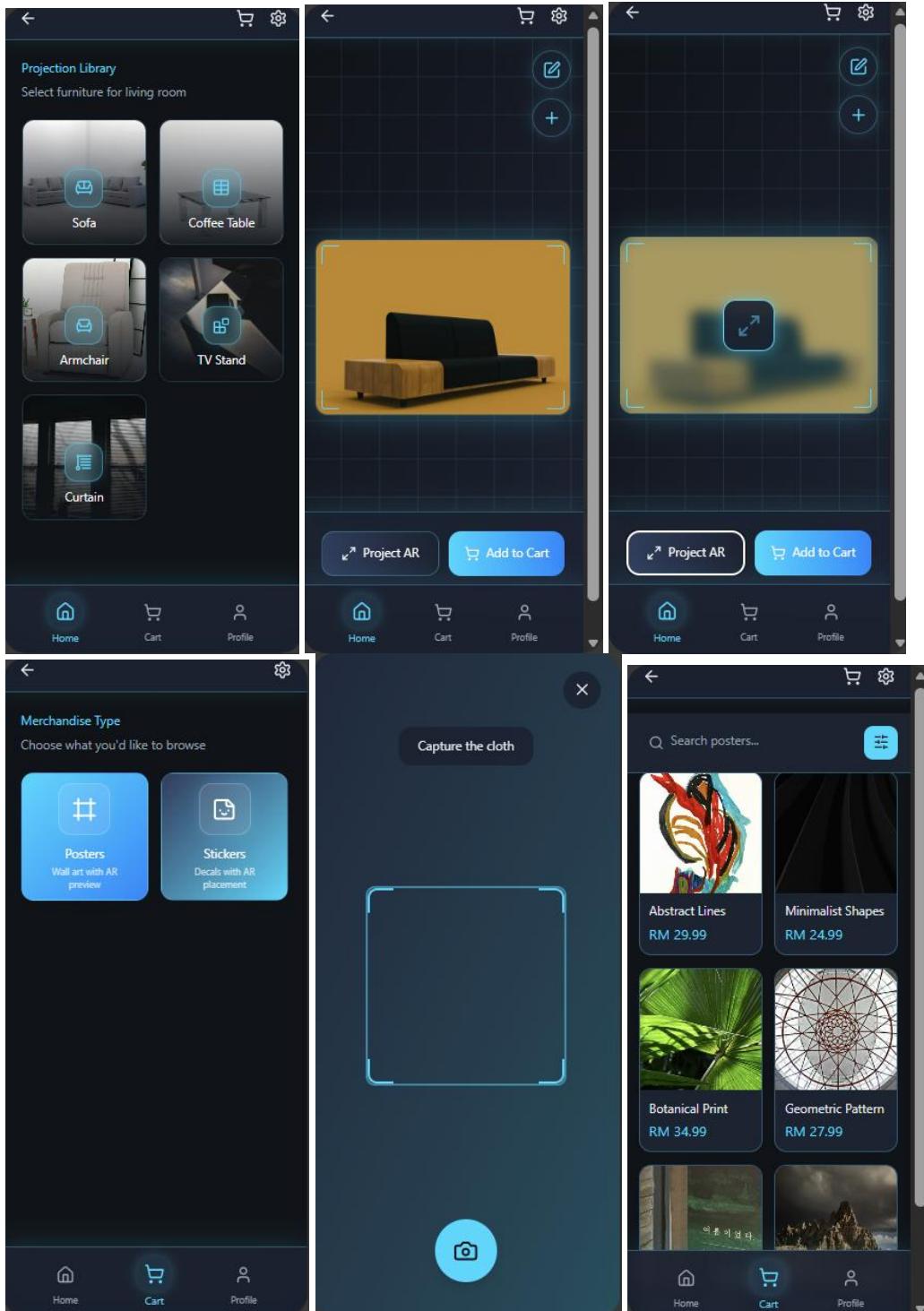
Bedroom
Design with beds, wardrobes & nightstands

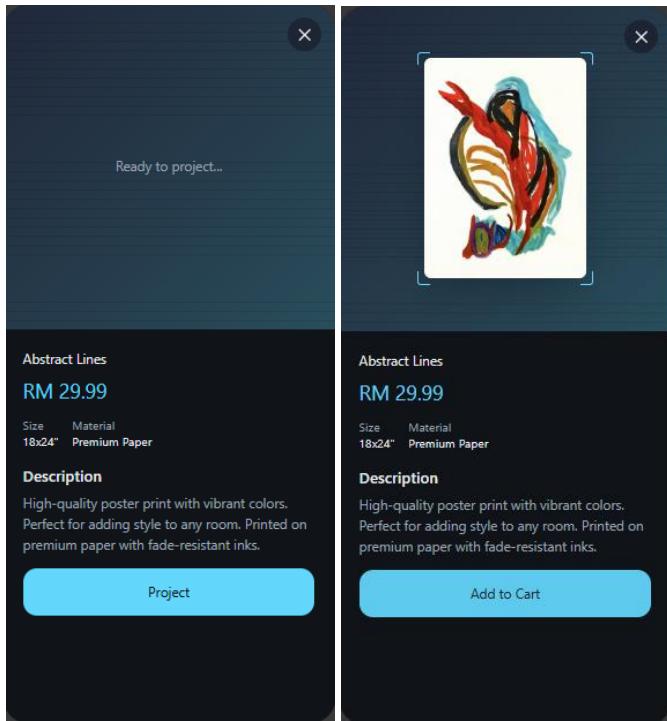
Camera Interface:

Scan the room area

Home Cart Profile

Cart Home Profile





Briefing notes

This app is for user to visualize the design selected in real time via projector at the comfort of their own home and purchase them online at the ease of the users' fingertips. Please proceed to checkout following the index cards given.

Index Cards (Scenario tasks)

1) Buy the top Classic Cotton Shirt.

2) Buy the furniture Sofa.

3) Buy the Cool Cat Sticker.

4) Buy the Sport Running Shoes.

5) Buy the Abstract Lines Poster.

Users Demographics

There is a total of 5 selected users in this user testing process. The users are mainly consist of the lecturer and students of the Human Computer Interaction that come from various background such as from the network and software engineering faculty, video editor, lecturer, IT support and more.

Testing with users

User 1

Name: Muhammad Fuad Bin Mohtar

Age: 32

Gender: Male

Occupation: Network Engineer

User 2

Name: Muhammad 'Arif Bin Rasul

Age: 25

Gender: Male

Occupation: IT Support

User 3

Name: Nor Anita Fairos Binti Ismail

Gender: Female

Occupation: Lecturer

User 4

Name: Siti Hidayah Binti Mad Akhir

Age: 28

Gender: Female

Occupation: Electronic assembler

User 5

Name: Lee Ru Xiu

Age: 30

Gender: Female

Occupation: Video editor

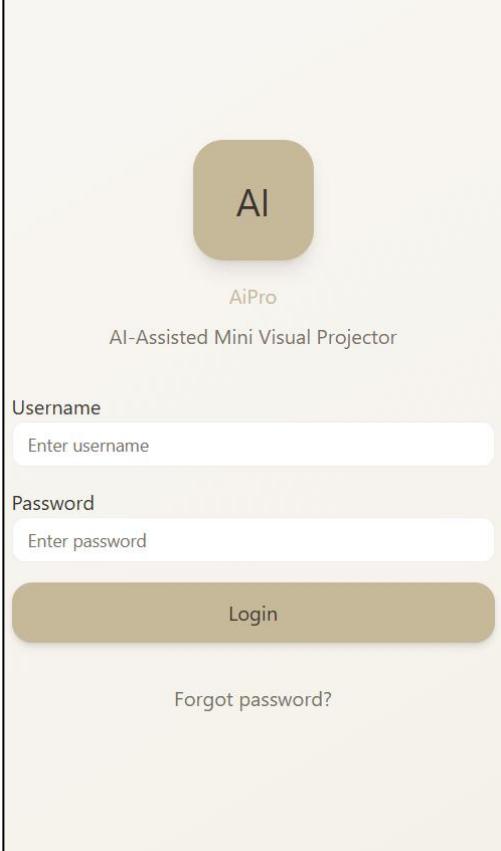
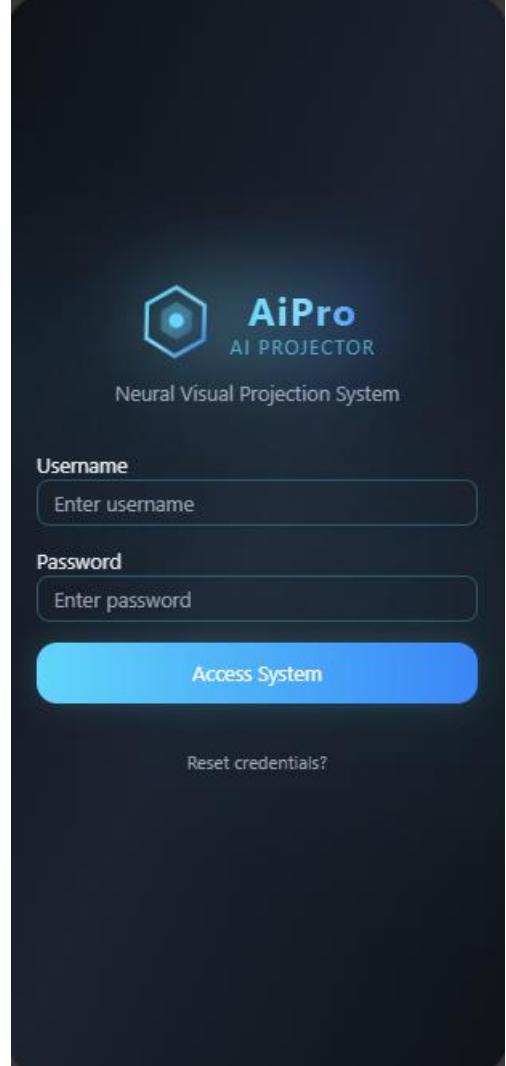
Observations

All test users agreed that the application idea is very innovative and useful for a futuristic online shopping experience, that they think they would be happy to use this application if it were ever developed properly and release in the market. However, no application is perfect, there are still some improvements that the users have voice out to us.

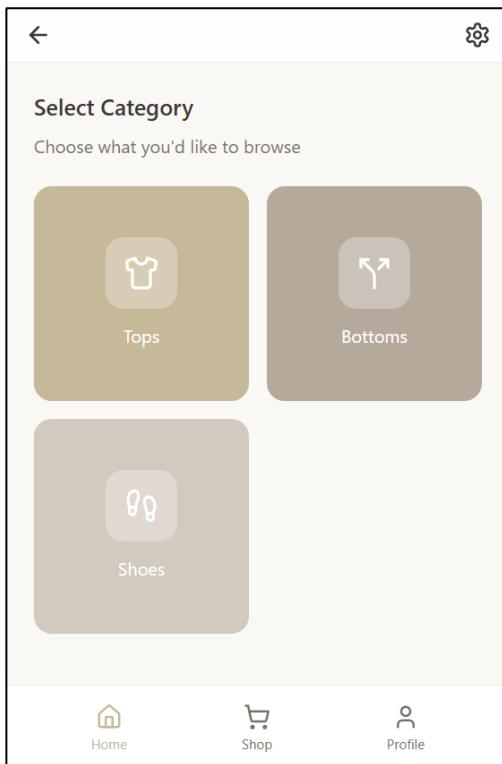
Most of the user think the prototype's theme are quite plain and doesn't feel high tech enough to illustrate what the application is suppose to be used for. Aside from that, there are a lot of interfaces lack the symmetry aesthetics. There is also concern that, when there are a lot of products design to be scroll, user will have to scroll a very long list of product design and there are also times where the views are blocked by the long list of product scrolling. Finally, the application also lack of progress tracking interface after purchases has been made which the users find it inconvenient.

Overall, the application design is quite easy and intuitive to use. All users are amazed by the idea and looking forward for the proper developed version to be release.

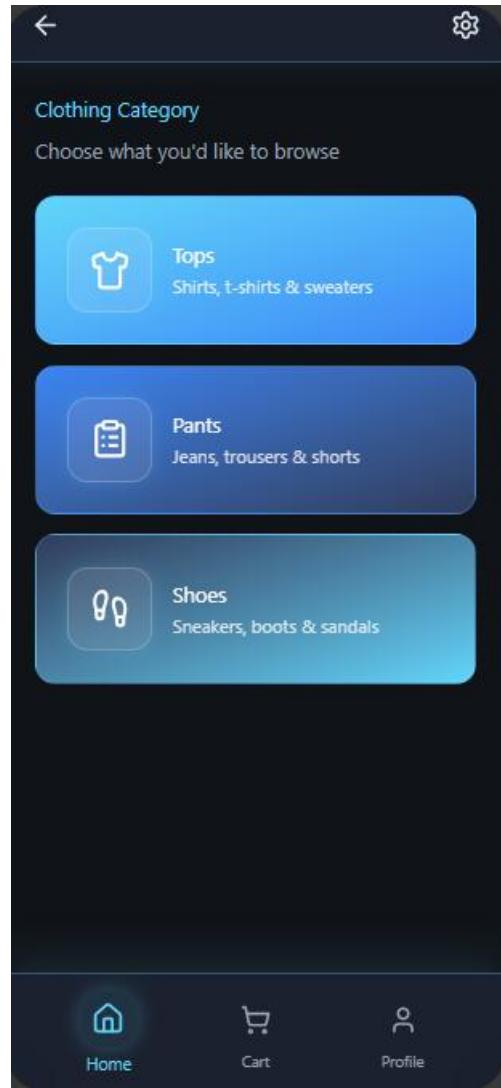
Findings

No.	Original Prototype Issue	New Improved Prototype
1.	<p>Missing logo and dull color theme.</p>  The original prototype login screen features a light beige background. At the top center is a large, rounded square button containing the letters "AI". Below it, the text "AiPro" is written in a small, sans-serif font. Underneath that, the text "AI-Assisted Mini Visual Projector" is displayed. The central area contains two input fields: one for "Username" with placeholder text "Enter username" and another for "Password" with placeholder text "Enter password". A large, rounded rectangular button at the bottom is labeled "Login". At the bottom of the screen, there is a link "Forgot password?".	<p>Add in logo and use shocking blue color palette for a high-tech finish.</p>  The improved prototype login screen has a dark blue background. It features a hexagonal logo icon with a blue dot in the center, followed by the text "AiPro" in a bold, white, sans-serif font, with "AI PROJECTOR" in smaller letters below it. Below the logo, the text "Neural Visual Projection System" is shown. The input fields for "Username" and "Password" are identical to the original, with placeholder text "Enter username" and "Enter password" respectively. A large, rounded rectangular button at the bottom is labeled "Access System" in white. At the bottom of the screen, there is a link "Reset credentials?".

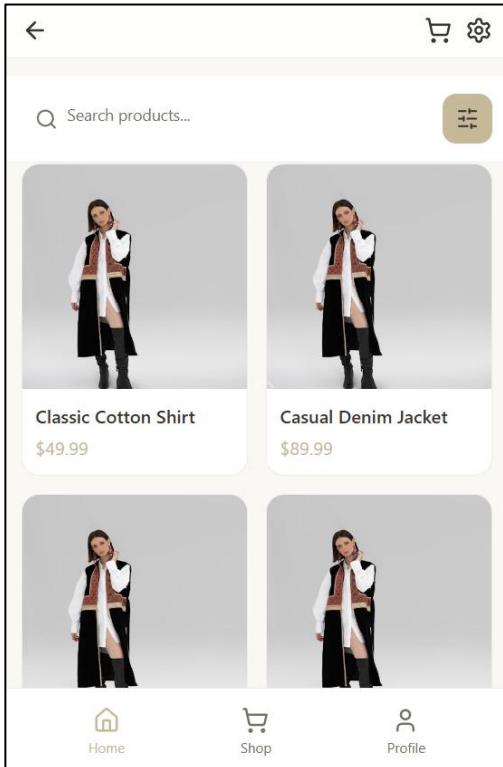
2. Subcategories lack symmetry aesthetics. "Bottoms" metaphor icon doesn't represent what it is.



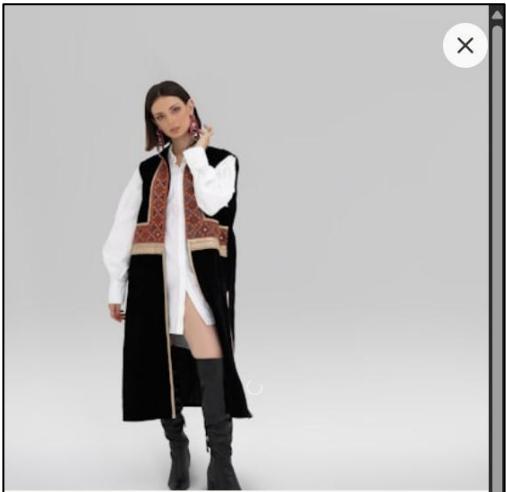
Rearrange the 3 subcategories from top to bottom arrangement for symmetric look. Change the "Bottoms" metaphor icon to pants metaphor icon. (Apply symmetry to all interface)



3. Bad design patterns if there are a lot of items to scroll for.
- Include pagination for better design pattern to all design interfaces.



4. Lacks Figure & Ground, the main wording, the design name is not eye catching. Descriptions are too long.
- Figure & Ground - Contrast the design name from the other wordings. Uses short and concise description wording.



Casual Denim Jacket

RM 89.99

Description

High-quality item with premium materials. Perfect for everyday use. Available in multiple sizes and colors.

Features



Classic Cotton Shirt

RM 49.99

Description

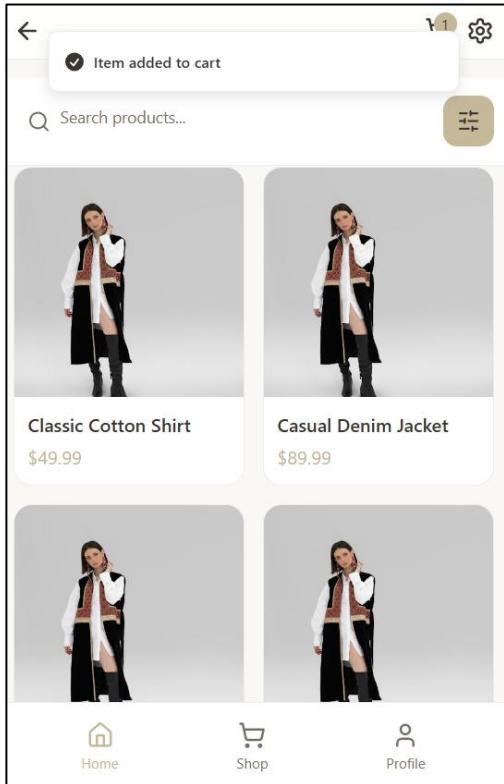
Premium cotton shirt with modern fit

Features

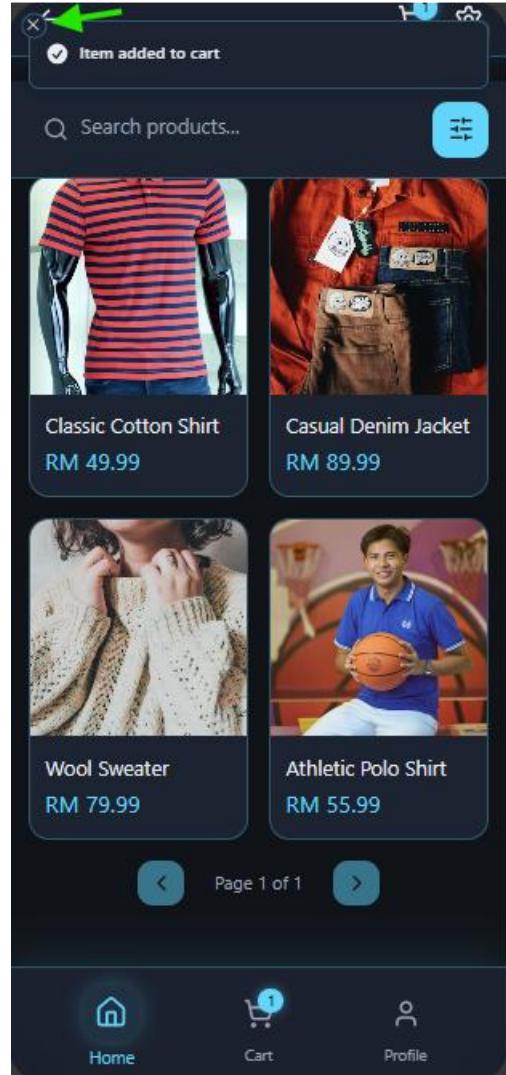
- Premium quality materials
- Comfortable fit
- Easy to maintain
- Sustainable production

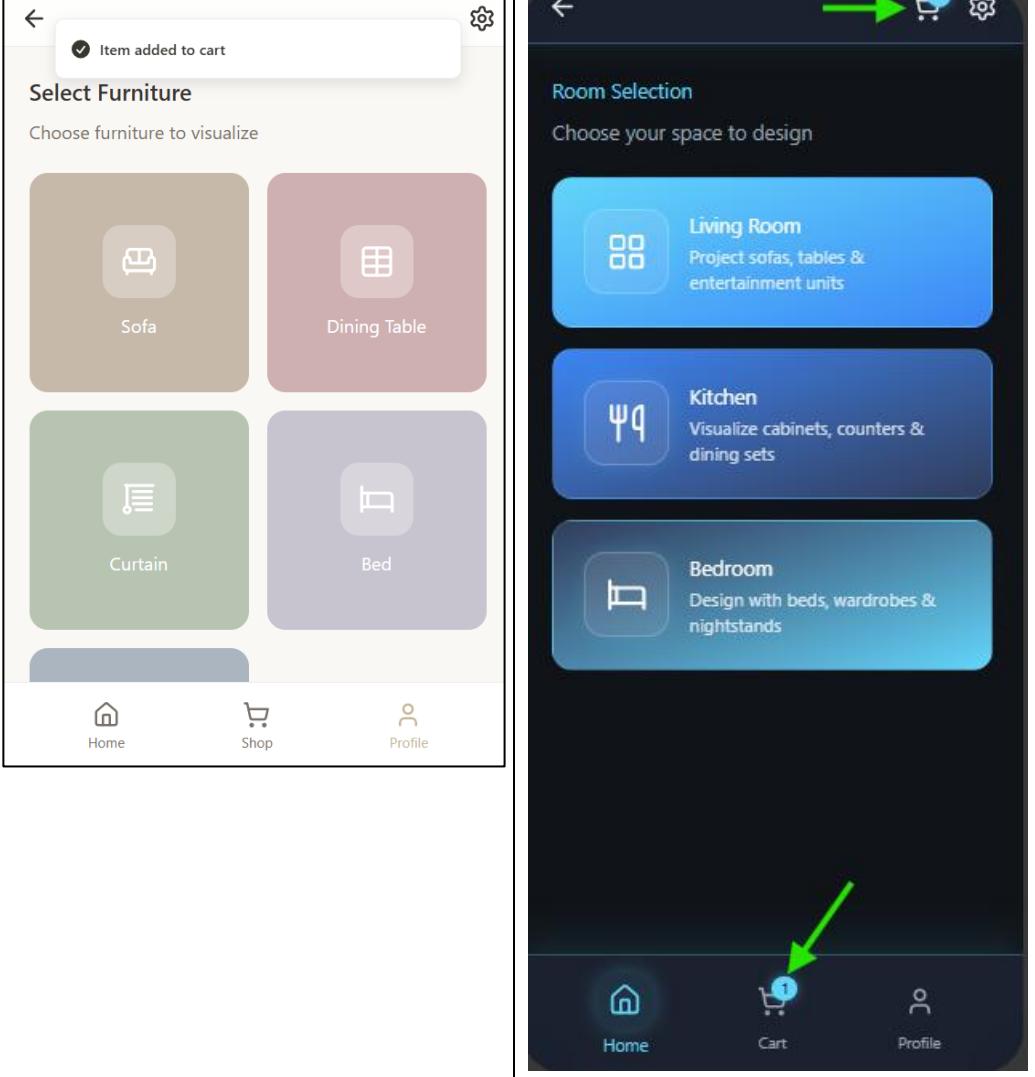
Project

5. Notification is blocking the top bar and have to wait for it to exit itself.

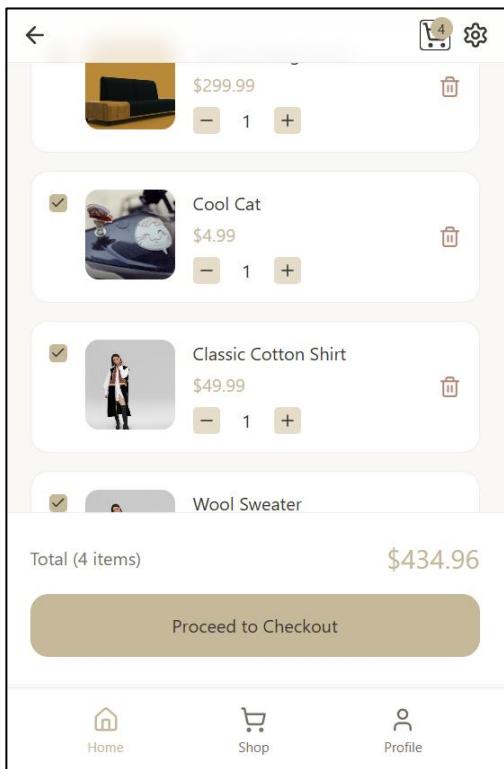


Include the "x" button to close the notification bar at will.

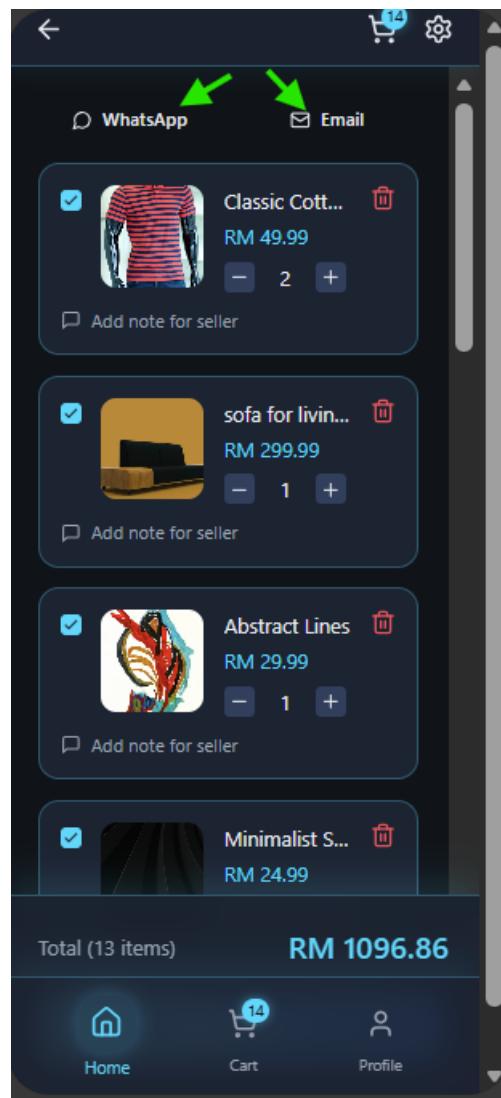


6. Interior design categories are missing the shopping cart on top and bottom for easy navigation.	<p>Include the shopping cart on top and bottom for easy navigation.</p> 
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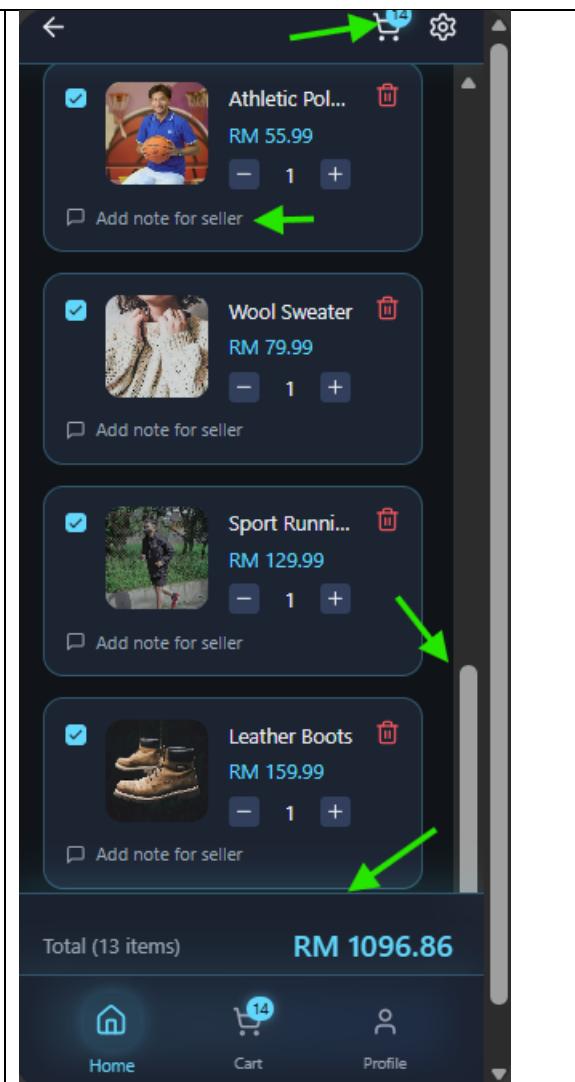
7. When cart list is too long, unable to scroll down to view the full list as the total price are blocking the view. There is no place to put in comment for each item purchased to note or contact the seller.



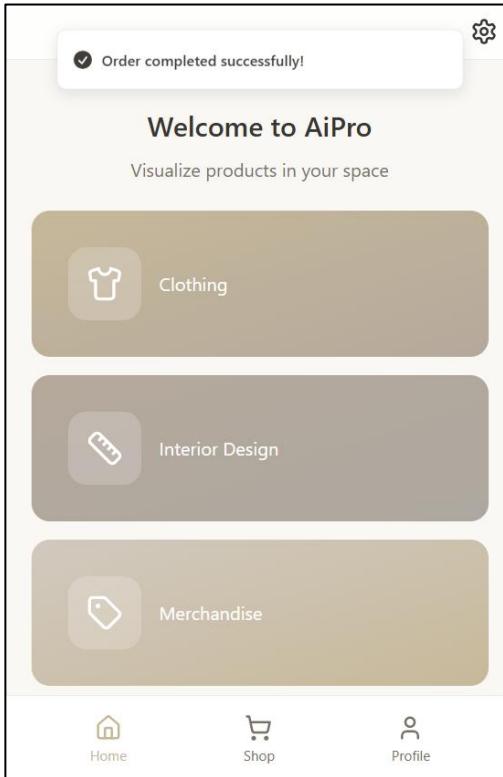
Allow for better scroll down function. Add in comment section during each add in cart. Allow for user to contact seller via whatsapp & email.



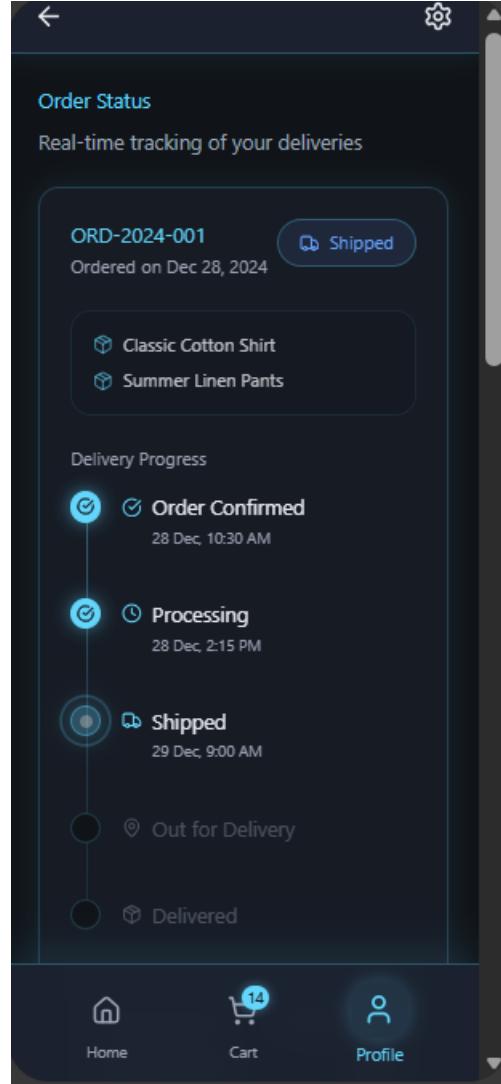
7.
(cont')



8. No progress tracker for purchased cart.



Add in order delivery progress interface tracker after payment confirmation.



Final Video

Link: <https://youtu.be/mHJBJaRtMtq>