CS156

Human Computer Interaction

Pinans

Financial Learning Application

[Part II]

Project Proposal by:

DaFruTo

Dayuno, Jhon Lloyd

Fruto, Luis Angelo

Toyoda, Jaen Rafael

I. Description:

Pinans is a financial education application that provides users with a gamified approach to acquiring financial literacy. The app offers educational modules with expert-curated video lectures and quizzes that empower users with tailored financial knowledge. Users are also able to earn reward points to redeem rewards after completing modules, fostering learning motivation and transforming financial learning into an engaging, interactive experience. Pinans also offers community forums where users can discuss financial topics, share experiences, and seek advice: fostering community support. By assisting others in community forums, users can earn reward points, incentivizing community assistance.

II. Requirements Summary:

At the heart of Pinans are its educational modules. These modules are meticulously curated by financial experts to ensure high-quality, relevant content. The app offers video lectures that cater to a wide range of financial topics, enabling users to gain comprehensive insights into personal finance, investing, budgeting, and more. Each module is complemented by quizzes that help users test their understanding and reinforce their learning. To cater to individual learning needs, the content is tailored based on user progress, ensuring a personalized educational journey.

A standout feature of Pinans is its gamification and rewards system. Users earn reward points by completing educational modules, which they can later redeem for various rewards. This system not only motivates users to engage with the content regularly but also makes learning a fun and rewarding experience. Additionally, Pinans incentivizes community assistance by awarding points to users who help others in the forums, promoting a collaborative learning environment.

Community forums play a crucial role in the Pinans ecosystem. These forums provide a space for users to discuss financial topics, share their experiences, and seek advice from peers and experts alike. Active participation in these forums is encouraged, as it enhances the learning experience and fosters a supportive community. Moderation is key to maintaining a respectful and informative environment, ensuring that all users benefit from collective knowledge and support.

III. Design Space

The design space for Pinans encompasses a range of potential interfaces that must balance user engagement, educational effectiveness, community interaction, and technical robustness. This exploration involves considering the feasibility of various requirements, evaluating tradeoffs, and identifying tasks that range from straightforward to challenging.

- *Gamification and Reward System*

Designing a reward system that is both motivating and fair can be difficult. It requires careful calibration to ensure rewards are valuable enough to motivate users without being easily exploited. Additionally, integrating third-party reward services adds another layer of complexity.

- *Personalization of Content*

Tailoring educational content to individual user needs and progress involves sophisticated algorithms and extensive data analysis. Ensuring that the system accurately identifies user knowledge gaps and preferences requires advanced machine learning and constant refinement based on user feedback.

- *Scalability*
As the user base grows, maintaining seamless performance across multiple platforms becomes increasingly complex. This requires robust backend infrastructure and efficient resource management to handle high traffic and large volumes of data.

- *Security and Privacy*
Implementing robust security measures to protect user data while ensuring compliance with diverse data protection regulations is a challenging requirement.

Striking a balance between a feature-rich interface and user-friendliness is critical. While advanced features (like personalized content and detailed analytics) add value, they can also complicate the user experience. Simplifying the interface might make it more accessible but could limit functionality. Personalizing content for individual users can enhance learning but requires significant development resources and can complicate the user experience. Standardizing content might be more manageable and ensure consistency but could fail to meet diverse user needs effectively.

IV. Design Summary

In designing Pinans, several design alternatives were explored to balance user engagement, educational effectiveness, and technical feasibility. The alternatives considered can be grouped into categories based on the core functional areas: content delivery, gamification, community features, and overall user experience.

For our user experience, a more intricate gamification system was chosen to significantly boost user motivation and engagement. The complexity was deemed worthwhile for the potential increase in user retention and satisfaction. A minimalist design for the user interface was also chosen to ensure ease of use and to avoid overwhelming users, especially those who might be less tech-savvy. Essential features were included to maintain functionality without compromising user experience.

Our team has initially decided to formulate an app solely to provide materials for users who pursue financial knowledge. However, a boring learning application can be unencouraging for users and such a design only targets a niche market of financial connoisseur while ignoring the beginners. Therefore, we as a team have considered gamifying the user experience to make it more enjoyable. Adding reward systems also incentivizes users to use the app more often, which could lead to more user traffic.

The design alternatives for Pinans were carefully considered to strike a balance between functionality, user engagement, and technical feasibility. Dynamic content personalization, complex gamification, basic forums with selective advanced features, a minimalist design, and a microservices architecture were chosen to create a robust, engaging, and scalable financial education application. These choices were justified by their potential to enhance user experience and ensure the app's long-term success.

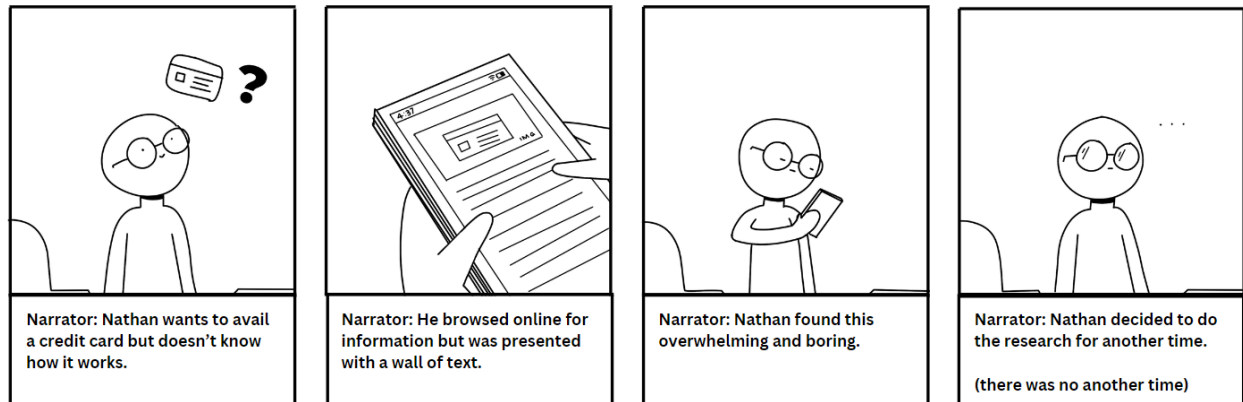## V. The Designs

Scenarios:

Scenario 1:

Nathan wants to know how credit cards work, but he found browsing online too overwhelming and boring.
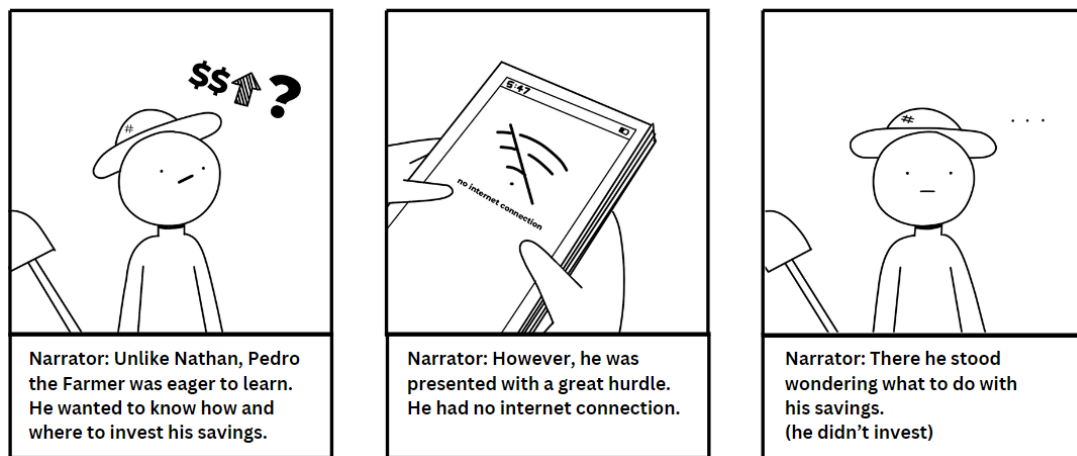
Scenario 2:

Pedro the Farmer wants to know where to invest his savings, but he doesn't have internet access.

Storyboard (Based on Scenarios):

Storyboard 1: Nathan

Storyboard 2: Pedro the Farmer

Problem Statement

- Users lack sufficient motivation to learn about finance.
- Users cannot access learning materials about finance offline.

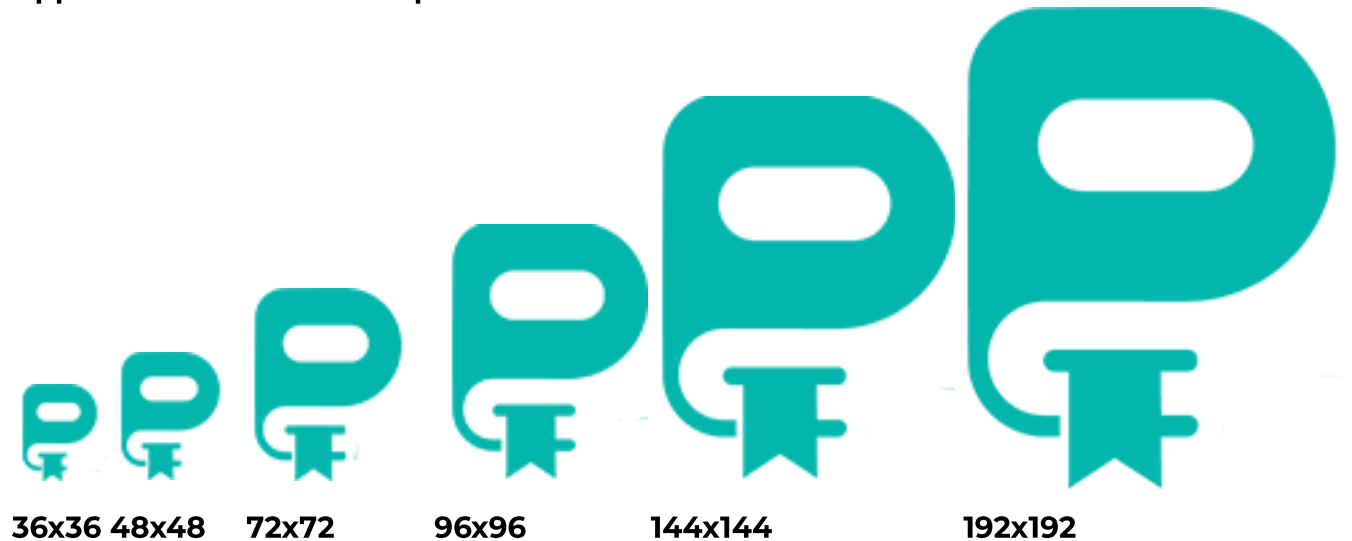## Application Logo Variation

Logo without Text

Logo with Text

Logo without text will be used for the mobile app logo, for example, the logo that will be presented on your menu screen. Logo with text will be used for the app's starting screen.

Application Icon Size Comparison

36x36 48x48   72x72   96x96   144x144   192x192

The designers chose the logo without text as the application icon because the text is unreadable on smaller screen ratios.

Design

Pinans, a financial learning application, aims to demonstrate user-friendliness through a modern and minimalist design. To achieve this objective, the designers will identify the color palette, font style, and graphical user interface (GUI).

Color Palettes

#05B6AC	#90DEDA	#FFFFFF
#FFFFFF	#CEFFFC	#05B6AC
#05B6AC	#FFFFFF	#FFC107
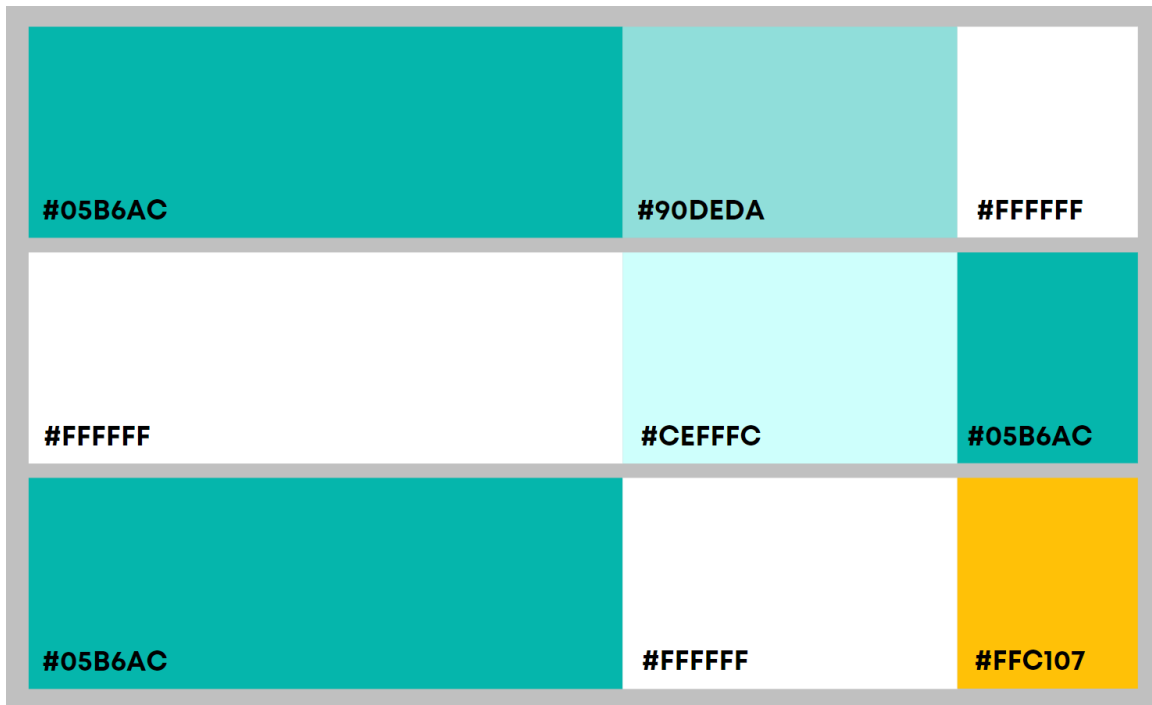
The designers will follow the **60-30-10 rule** when creating the palettes, as it enhances app navigation. Additionally, the designers have selected color palettes with codes for potential application use, although the final choice is yet to be determined. This decision will be made before progressing to the prototyping stage.

Font Style

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
0123456789 (!#$%&/.|*`@´,?:;)

Penultimate
The spirit is willing but the flesh is weak
SCHADENFREUDE
3964 Elm Street and 1370 Rt. 21
The left hand does not know what the right hand is doing.

The chosen font style for the app will be Lato, selected for its compatibility with the modern aesthetic and readability. However, it's important to note that this font choice is not yet to be determined. Again, the decision will be made before progressing to the prototyping stage.

GUI

The designers will apply the Apple GUI to give the app a premium and trendy feel. They'll utilize the iPhone 14 frame from Figma for consistency in design.
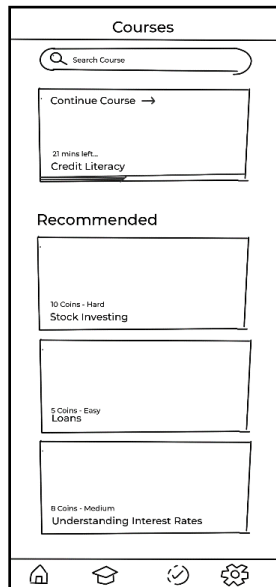
Course Page

The course page provides access to various financial literacy courses. Each course is defined by three key attributes visible on the course page: points earned, difficulty level, and estimated completion time. Users can seamlessly resume from their last course, facilitated by a progress bar for enhanced user experience. Additionally, a search bar allows users to filter courses based on duration and difficulty, ensuring tailored learning experiences.
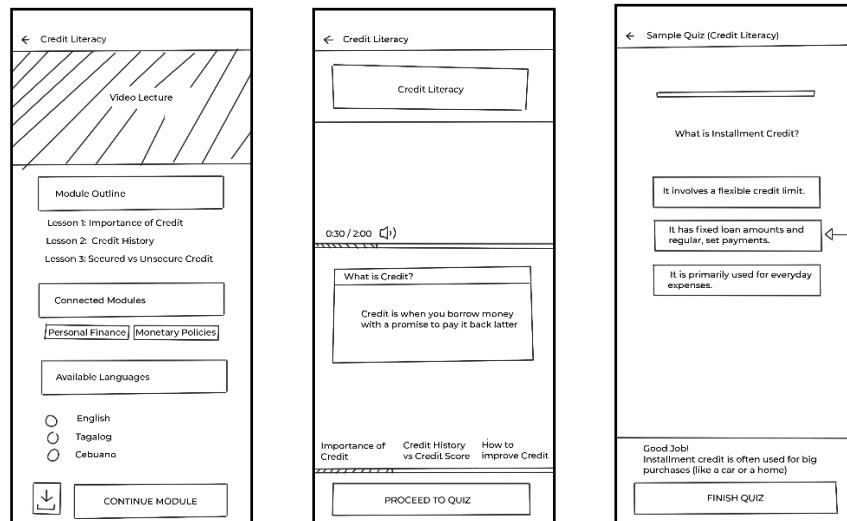
Lesson Flow (Course Outline, Course Lesson, Course Quiz)

When previewing a course, users are presented with a course outline page containing its lessons and related modules. Additionally, they have the option to choose from various languages, including English, Tagalog, and Cebuano. On the course lesson page, users encounter a video aid and info panel corresponding to the lesson, alongside a duration bar following the lesson outline. Upon completing the course, users must finish a quiz to earn Pinans points, featuring multiple-choice questions and indicating correct or incorrect answers.
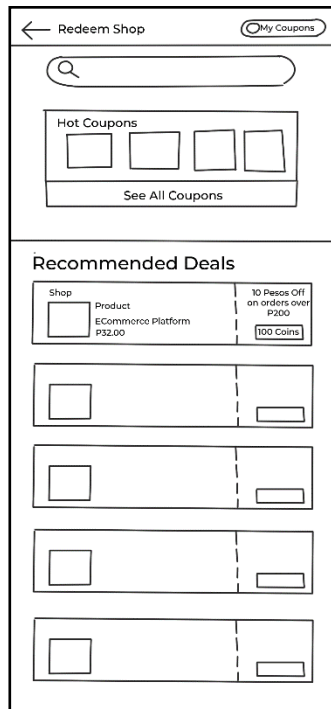
Redeem Shop

As users complete courses in Pinans, they earn Pinans points redeemable in the Redeem Shop. The shop features a "Hot Coupons" section offering discounts applicable on various e-commerce platforms. Below this, users find the "Recommended Deals" section showcasing products from different e-commerce sites, available at reduced prices when purchased using Pinans points. Each deal includes the product name, discounted price, originating e-commerce platform, discount amount in pesos, and required points for redemption. A search bar is also provided in the UI for users to easily find specific coupons or product deals.

Design Sketches Alternatives

The pair has developed a range of alternative designs for the application. These designs are still in progress and will undergo testing once proper prototyping production starts.
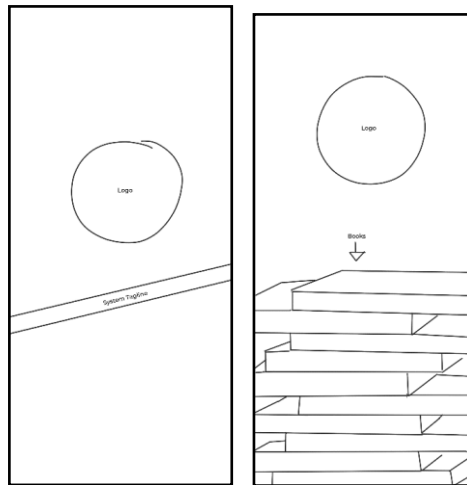
Start Up Screens

The designers are tasked with choosing the most suitable startup screen: one featuring a minimalist design and the other showcasing a stylized approach incorporating books.
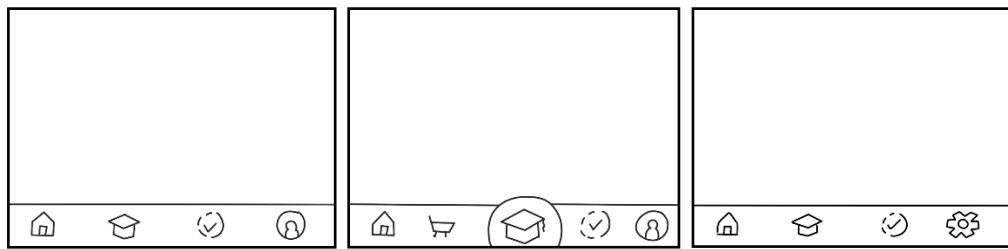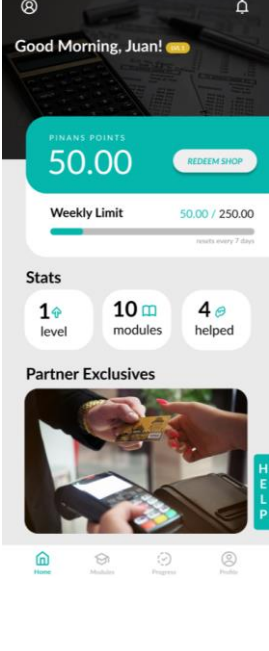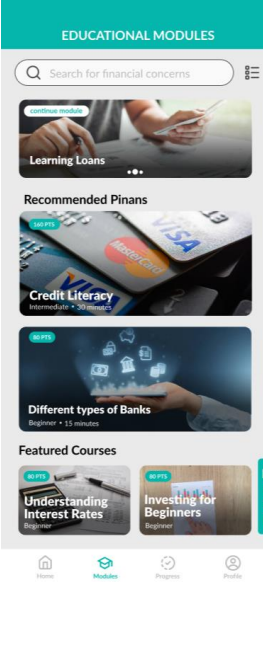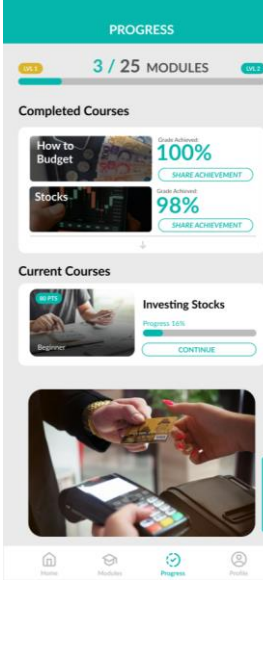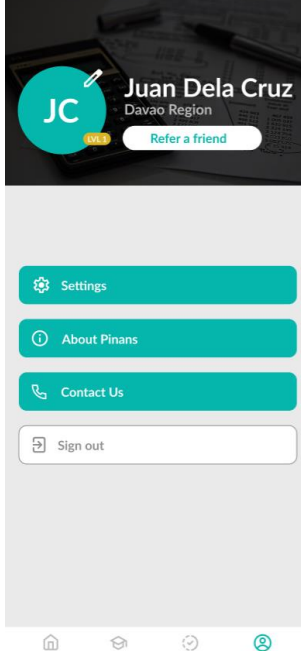
Navigation Bar

The Navigation Bar is essential for an excellent user experience. The designers must select from three options: (Home, Course, Progress, Profile), (Home, Redeem Shop, Course, Progress, Profile), and (Home, Course, Progress, Settings). Fewer navigation options simplify the interface but reduce accessibility.

Mock-up/Prototype

The designers chose the four main tabs of the system to demonstrate the design vision.

Design 1:

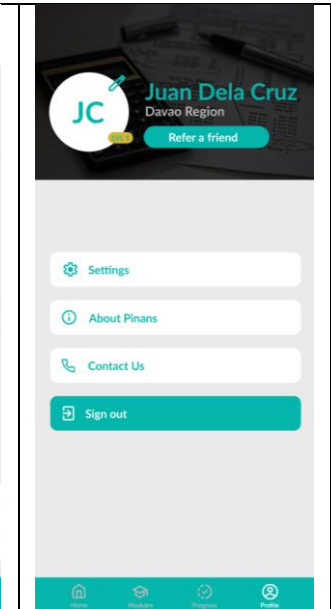| Home Page - displays the current user's Pinans Points, includes a button to access the Redeem Shop, and features a weekly limit bar along with relevant user statistics.	Course Page – displays financial literacy courses of varying difficulty with a corresponding amount of Pinans Point that can be earned.	Progress Page – displays completed and ongoing courses, as well as the user's account level progression.	Profile Page – displays the account name and includes a "Refer a Friend" button for referrals. Beneath, users find buttons for various commands like Settings, About, Contact, and Sign Out, enhancing usability.

Advantages:

Based on feedback from 10 users, the design provides a highly user-friendly experience with clear overviews and organized layouts. Users appreciated the Home Page for its quick insights into points, limits, and key statistics, which enhance engagement and provide a sense of progress. The Course Page was praised for its variety and the ease of finding specific courses thanks to the search bar. The Progress Page effectively tracks user progress, with motivational elements like achievements and level progression driving continued use. The Profile Page's simple, clean layout and essential options ensure easy account management, contributing to overall satisfaction with the app's usability.

Disadvantages:

Despite its strengths, the design has some areas for improvement, as noted by the test users. The Home Page, while informative, can feel cluttered due to the abundance of stats and lacks

detailed guidance on improving these metrics. The Course Page, although comprehensive, might lead to visual overload with numerous images, and the help button's placement is not very prominent. The Progress Page can become cluttered by displaying completed and ongoing courses along with user progression, potentially confusing some users. Additionally, the Profile Page, while functional, may seem too basic and lacks personalized elements that could further enhance user engagement and interaction.

Design 2:

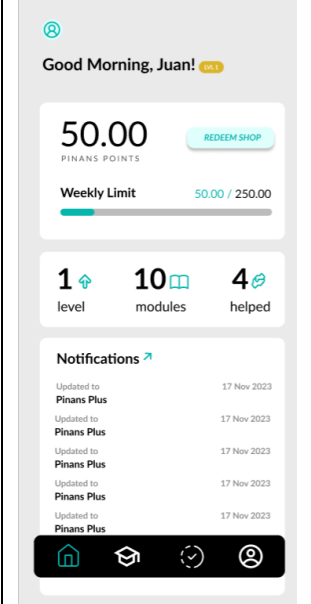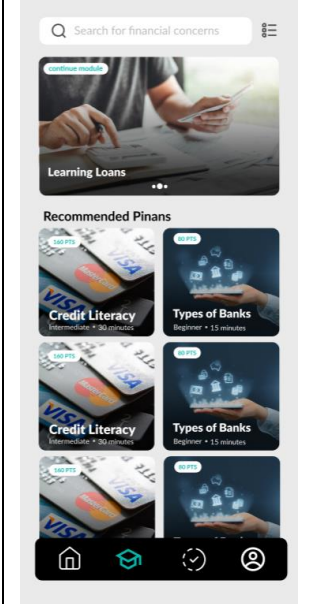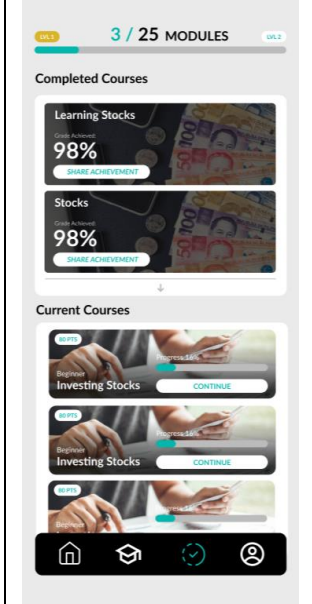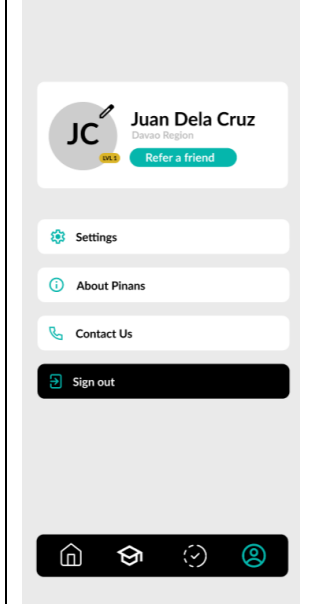| **Home Page** - displays the current user's Pinans Points, includes a button to access the Redeem Shop, and features a weekly limit bar along with relevant user statistics.	**Course Page** – displays financial literacy courses of varying difficulty with a corresponding amount of Pinans Point that can be earned.	**Progress Page** – displays completed and ongoing courses, as well as the user's account level progression.	**Profile Page** – displays the account name and includes a "Refer a Friend" button for referrals. Beneath, users find buttons for various commands like Settings, About, Contact, and Sign Out, enhancing usability.

Advantages:

Based on feedback from 10 users, the design offers a streamlined and highly user-friendly experience. Users found the Home Page valuable for its clear snapshot of points, weekly limits, and key stats, allowing for quick and easy assessment of their status. The Course Page was

commended for its well-organized layout, variety of courses, and efficient navigation through the search bar. The Progress Page effectively tracks completed and ongoing courses, with progress indicators and achievements serving as strong motivational elements. Additionally, the Profile Page was appreciated for its clean and simple design, with essential options like settings, referrals, and contact information easily accessible, enhancing overall usability.

Disadvantages:

Despite its strengths, the design has some areas for improvement, as noted by the test users. The Home Page, while informative, may appear oversimplified and lacks engaging elements, leading to an underutilized space. The Course Page, despite being comprehensive, can be visually overwhelming due to the numerous images and course options, and the help button's inconspicuous placement reduces its utility. The Progress Page has the potential to become cluttered by combining completed and ongoing courses with user progression in one view, which could confuse some users. Lastly, the Profile Page, though functional, might seem too basic and lacks personalization, which could limit user engagement and make the experience feel lees tailored to individual users.

Design 3:

Home Page - displays the current user's Pinans Points, includes a button to access the Redeem Shop, and features a weekly limit bar along with relevant user statistics.	**Course Page** – displays financial literacy courses of varying difficulty with a corresponding amount of Pinans Point that can be earned.	**Progress Page** – displays completed and ongoing courses, as well as the user's account level progression.	**Profile Page** – displays the account name and includes a "Refer a Friend" button for referrals. Beneath, users find buttons for various commands like Settings, About, Contact, and Sign Out, enhancing usability.

Advantages:

Feedback from 10 users indicates that the design provides a user-friendly experience with a modern aesthetic. Users appreciated the Home Page for its unified structure, emphasizing key stats and metrics that offer immediate guidance and engagement. The Course Page was praised for its balanced and streamlined layout, making navigation easy with the included search bar. The Progress Page effectively tracks completed and ongoing courses, with progress indicators and achievements helping to retrain and motivate users. Additionally, the Profile Page's simple and minimalistic design provides sufficient account control options, contributing to a pleasant and efficient user experience.

Disadvantages:

Despite its appealing design, users identified some minor flaws. The Home Page's upper icons lack element containers, making the elements appear visually unsupported and somewhat out of place. Users found the green-colored elements on

the Course Page to have insufficient contrast, making differentiation between similar items challenging. The Progress Page, while useful, may cause confusion by displaying both finished and ongoing courses together, exacerbated by a similar contrast issue. Lastly, the Profile Page was seen as lacking engagement due to its minimal features, and users suggested the inclusion of more interactive and engaging elements to enhance the overall experience.

VI. Requirements Changes

The design requirements have changed multiple times throughout the design process of the application. Initially, our team planned to integrate a user interface wherein the buttons and text boxes would match the color of the app logo. However, as we have tested this design on multiple testers, the general feedback was that it was unpleasant to the eyes due to its contrast. As a result, we deemed this requirement to not align with our criteria for clarity and we have changed the design requirement from following the app logo to providing a design that is pleasing to the eyes.

Another design requirement that we have decided to change is our incentive system. Initially, we planned to let the user earn points without any limit. However, as we have tested the design, it has become clear that users can abuse the system and rush through the courses for the sake of earning points and retaining little to not financial knowledge. This can also come as a risk for the developers as they will lose significant amounts of assets due to no limit being set in the reward system. As a result, we had to modify the requirements and add the weekly limit feature in order to deter and stop the abuse of the reward system from users.

By integrating the system above, we sought to create a balanced system wherein to would benefit both the developers and the users. However, we have also noticed that a constant limit set on the user can also deter them from using the app entirely. So to keep in touch with the gamification of the app, our team has decided to integrate a leveling system where in users are able to increase their level by completing modules and increasing their limit as a result.