

[1 pt] Project Description

Our project, **Piggy-Pon**, is a student-friendly budget tracking web application designed to encourage and gamify daily saving habits for students. Through interviews, observations, and an initial beta test, we found that many students struggle with managing allowances and setting realistic savings goals due to lack of digital tools tailored to their needs. Piggy-Pon addresses this gap by offering a visually appealing, intuitive platform accessible through any web browser. Core features include digital coin logging, goal setting with progress tracking, and weekly/monthly summaries. The system is designed with accessibility in mind—ensuring usability for students across various year levels and technical experience, from digital natives to less tech-savvy users.

[4 pts] Requirements Summary

Piggy-Pon is optimized for cross-browser functionality and is lightweight enough to run even on low-end devices, making it accessible to students using outdated school-issued laptops or budget smartphones via mobile browsers.

Table 1. System Requirements for Piggy-Pon (Android and iOS)

Category	Minimum Requirements	Recommended Requirements
OS	Windows 7+, macOS 10.12+, Android 8+	Windows 10+, macOS 11+, Android 10+
Browser	2 GB	4 GB
Processor	Chrome 70+, Firefox 65+, Edge 80+	Chrome 100+, Firefox 95+, Safari 14+
Connectivity	3G/Wi-Fi	4G LTE/ Wi-Fi
Screen Size	5” or 1024x600	6”+ or 1366x768+
Permissions	Local Storage, Notifications (optional)	Local Storage, Notifications, Cookies

The web app is front-end-heavy, with minimal server-side processing to reduce hosting costs and improve speed. It’s built for simplicity, ensuring quick loading times even under limited internet bandwidth, perfect for campus Wi-Fi or prepaid data users.

[15 pts] Overview: Evaluation Techniques, Tasks, and Users

Evaluation Techniques Used

To ensure that **Piggy-Pon** delivers an intuitive and user-centered experience, we employed a **triangulated evaluation approach**, combining task-based testing, heuristic review, and user sentiment analysis:

1. **Benchmark Task Evaluation** – Participants were asked to complete common tasks that simulate everyday use of the Piggy-Pon platform. Their actions were observed and timed to assess task efficiency and success.
2. **Heuristic Evaluation** – The development team conducted expert usability reviews using Nielsen’s 10 Usability Heuristics, evaluating clarity, feedback mechanisms, error handling, and visual consistency.
3. **Post-Test Feedback Survey** – After testing, users filled out a survey using a 5-point Likert scale to rate ease of use, clarity, satisfaction, and emotional experience. This was accompanied by open-ended responses to gather deeper insights into user perspectives.

Evaluation Tasks

The test tasks were chosen to simulate common user goals within Piggy-Pon, each targeting key interaction points of the platform:

- Add new savings entry and view total balance.
- Set or update a savings goal.
- Navigate to savings history and progress tracking.
- Simulate a help query using the chatbot.
- Switch between light and dark mode and explore accessibility settings.

These tasks helped us assess user navigation fluency, system feedback, confidence levels, and user satisfaction throughout various interactions.

User Profiles

We selected a group of **10 participants**, representative of the varied user base Piggy-Pon aims to serve:

- **5 CS students** (ages 18–25) – digital natives, testing for speed and convenience.
- **5 random students and young adults at MMCM** (ages 18–25) – focused on planning, budgeting, and goal-tracking features.

This mix ensured feedback reflects a range of user experiences across devices, age groups, and financial behaviors.

[60 pts] **Evaluation Results**

Table 1. Task Completion Summary

Task	Target Time	Avg. Time	Success Rate	Errors Noted
Add Savings and View Balance	≤ 30 seconds	22 seconds	100%	Users found the input field intuitive and appreciated real-time balance update.
Set a Goal and Monitor Progress	≤ 1 minute	47 seconds	90%	Minor confusion on goal types; UI labels could be more descriptive.
View Savings History	≤ 45 seconds	35 seconds	100%	Smooth transition; historical data was well-organized and readable.

Note: This evaluation validates Piggy-Pon’s usability across essential tasks and highlights specific UI areas to refine (e.g., icon labeling, goal-setting clarity). Overall, the findings indicate a positive user experience with strong potential for refinement and growth.

Table 2. Likert-Scale Feedback

Criterion	Avg. Score
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Navigation was easy and intuitive	4.7
Clarity of savings and goal-tracking info	4.6
Confidence in adding savings and setting goals	4.3
Usefulness of savings progress tracker	4.6
Overall satisfaction with the interface	4.7

Table 3. Qualitative Feedback (Recurring Themes)

Theme	Participant Statement
Visual Design & Usability	“It’s modern. I understood everything instantly.”
Goal Tracking	“The progress bar helps me feel accomplished. Maybe add goal reminders?”
Notification System	“Getting reminders to save is a cool feature. I’d like it to be customizable.”
Onboarding Aid	“A short tutorial would’ve helped the first time I used it.”

Data Analysis: What the Data Tells Us

Overall, the evaluation confirms that **Piggy-Pon** aligns with key usability principles, even in its prototype stage. The results highlight:

- **Effectiveness:** Users quickly understood how to add savings, set goals, and review balances without confusion.
- **Efficiency:** Average task times were within acceptable benchmarks, suggesting fluid navigation and task execution.
- **Satisfaction:** Participants consistently rated their experience highly, reflecting emotional engagement and enjoyment.
- **Usability Gaps:** Small UX frictions — such as unclear chatbot interactions and desire for guided onboarding — emerged and will inform design iterations.

Design Implications

Strengths:

- The lightweight, focused layout keeps core features like saving and goal tracking front and center.
- Clear visual hierarchy and consistent icons simplify navigation.
- Progress tracking and visual savings indicators motivate continued use.

Improvements Needed:

- Add onboarding walk-through or contextual tooltips for new users.
- Refine chatbot interactions to address user concerns with more specific guidance.
- Introduce dark mode for visual comfort and inclusivity.
- Increase customization of notification settings.

Revisions Made Based on Feedback:

- Integrated confirmation pop-ups for adding savings and completing goals.
- Enlarged key buttons and added icon labels for clarity.
- Redesigned chatbot interface to better guide user queries.
- Added a simple onboarding screen to walk users through core features during first use.

[60 pts] Critique and Summary

What Went Well

Piggy-Pon successfully applied human-computer interaction (HCI) principles by emphasizing intuitive interaction, accessibility, and user delight. Despite being a low-to-mid fidelity prototype, the system was praised for its modern design, encouraging interface, and ease of use. User feedback confirmed that Piggy-Pon meets the needs of savers, especially students and young professionals.

What Could Have Been Better

Design-wise:

- Lack of a guided walkthrough initially caused confusion for a few users.
- Dark mode and font size options would improve accessibility further.

Evaluation-wise:

- The limited participant group restricted findings on senior users and mobile-first environments.
- Prototype limitations meant we could not test interactions such as real-time data sync or chatbot logic thoroughly.

With More Resources...:

- Develop a fully functional prototype integrated with Firebase to test savings data in real-time.
- Conduct testing on various devices, including mobile phones in real-world use cases.
- Expand evaluation to include a larger, demographically varied sample (20–30 users) for stronger insights.

Final Takeaway

This project has deepened our understanding of applying **Human-Computer Interaction (HCI)** principles—not just to create a functional interface, but to deliver meaningful solutions to real user needs. **Piggy-Pon** was conceptualized to address a common but often overlooked problem: how to make personal saving more engaging, accessible, and effective, especially for young users, students, and digital natives.

Despite being a prototype in development, the design evaluation proved that usability doesn't require a fully functional system to be measured. Participants were able to interact with the core features, saving money, setting goals, tracking progress—with confidence and clarity. Feedback from users across different levels of tech familiarity highlighted the app's intuitive structure, encouraging layout, and motivational feedback system.

At the same time, we uncovered areas needing refinement: better chatbot clarity, improved onboarding for new users, and more personalized features like notification settings and dark mode. These discoveries remind us that good HCI is iterative. It's not just about clean visuals or clickable buttons—it's about empathy, experimentation, and ongoing refinement.

Piggy-Pon isn't perfect yet, but it's purposeful. It shows that thoughtful design, rooted in real feedback and a user-centered mindset, can transform even something as traditional as a piggybank into a smart, supportive, and empowering tool. In the end, every peso saved—and every user delighted—is a win for design that puts people first.