Project Description

ThinkPal is an AI assisted web app for studying. It is created by Acuna, Boncilao and Del Mundo of team cog with the idea of helping students enhance their study experience through ThinkPal. The web app is intended to help with a student's studying, by giving them an option to skip the long reading and go straight to the key points as well as test their knowledge with a short quiz.

Requirements summary:

MINIMUM REQUIREMENTS	Processor	Intel Pentium Dual-Core (e.g., G2020) or AMD A4 (2012+)
	OS	Windows 7 SP1 / macOS 10.10 Yosemite / Android 6 / iOS 1
	RAM	2 GB
RECOMMENDED REQUIREMENTS	Processor	Intel Core i3 (7th gen or newer), AMD Ryzen 3, or Apple A10
	OS	Windows 10 / macOS 10.15 Catalina / Android 10 / iOS 13
	RAM	4 GB or more
OTHER REQUIREMENTS	Wifi access, computer or laptop	

Table 1. System Requirements

The web app was created with React so it should be runnable with any modern computer or laptop.

Overview

The team was able to do in-person testing at different times. During testing the results were a mixed bag, because some understood the design flow immediately and some needed some time with the application to make their navigation smoother.

The evaluation plan was split into two parts the Usability Specifications, and the Heuristic Evaluation.

Technique	Description
Usability Specification	The Usability Specifications was used to evaluate how easy to use the web application is. The participants were given a scenario in which they are free to do anything as long as a goal is reached. For instance "You are studying", so they will do

	steps to achieve the activity “Studying”.
Heuristics Evaluation	Heuristics Evaluation is used to evaluate the UX design of the application if it adheres to established usability principles.

Since the participants were only given tasks for each section of the application they accessed during their time using the app. This can be split into five sections which are the Dashboard, Notes List, Note Options, Text editor, Quiz List, and the Quiz Card.

Dashboard Tasks
- Use shortcuts
- Access recent notes
- Navigate to other sections of the app

Note List Tasks
- Create a new note
- View existing notes

Text Editor
- Save the Note
- Generate a quiz
- Get key points
- Exit the section

Note Options
- Choose new note from scratch
- Import a pdf
- Exit the modal

Quiz List
- View generated quizzes
- Go to one of those quizzes

Quiz Card
- Able to input an answer
- Leave the section

The tasks for each screen were chosen because ideally this is how the application is used and to measure how successful a user is when using the app in these criteria:
- Understandable navigation
- Ability to perform CRUD

Heuristic Evaluation

The prototype was evaluated using Jakob Nielsen’s 10 Usability Heuristics:

1. *Visibility of System Status*
   ThinkPal provides progress indicators when loading notes or generating quizzes to keep users informed.

2. *Match Between System and the Real World*
   The app uses simple and relatable terms like “Study Tools,” “Quick Notes,” and “Quiz Me,” making it intuitive even for non-tech-savvy users.

3. *User Control and Freedom*
   Actions like deleting notes or exiting a quiz are supported with confirmation prompts to prevent mistakes.

4. *Consistency and Standards*
   Icons and layout styles are reused throughout the app, ensuring a consistent experience.

5. *Error Prevention*
   Forms are validated before submission, and tooltips provide helpful guidance to avoid incorrect usage.

6. *Recognition Rather Than Recall*
   Important tools and shortcuts are always visible, reducing the need to remember previous actions.

7. *Flexibility and Efficiency of Use*
   Experienced users can use keyboard shortcuts (e.g., Ctrl + S to save), while first-time users benefit from tooltips and guides.

8. *Aesthetic and Minimalist Design*
   The interface is clean and distraction-free, helping users focus on the study material.

9. *Help Users Recognize, Diagnose, and Recover from Errors*
   Error messages are clear, such as “No internet connection” or “Failed to load note,” with suggestions to retry.

10. *Help and Documentation*
    The “Help” button on the navigation bar leads to a brief FAQ section, which includes usage instructions and common troubleshooting tips.

Heuristics Conclusion
The prototype adhered well to most usability principles. While some minor layout issues and unresponsive buttons were observed, the overall design met the heuristic standards, especially in system feedback, intuitive actions, and error prevention.

Feedback

Most feedback from participants was positive. They appreciated the modern, minimal design and the helpful AI features. However, there were concerns about:

- Button placements being too close or not clearly labeled
- Some confusion about the flow when entering the note editor for the first time

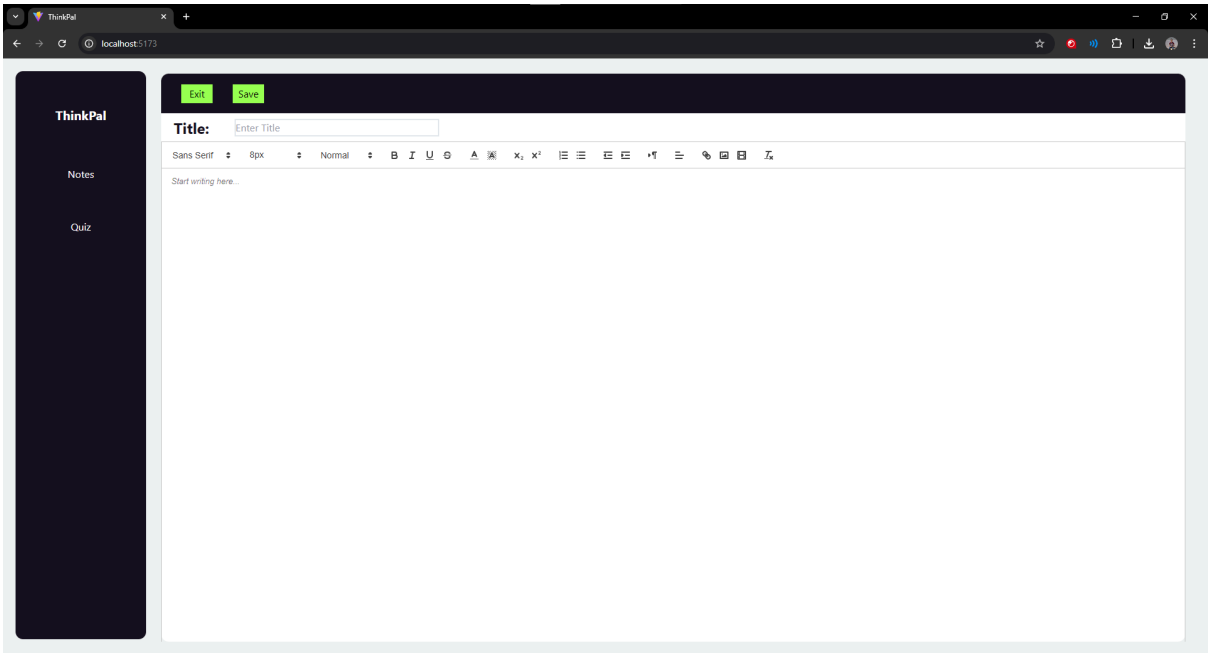
Does the prototype need to be altered based on the feedback?

Yes, to improve user clarity and experience.

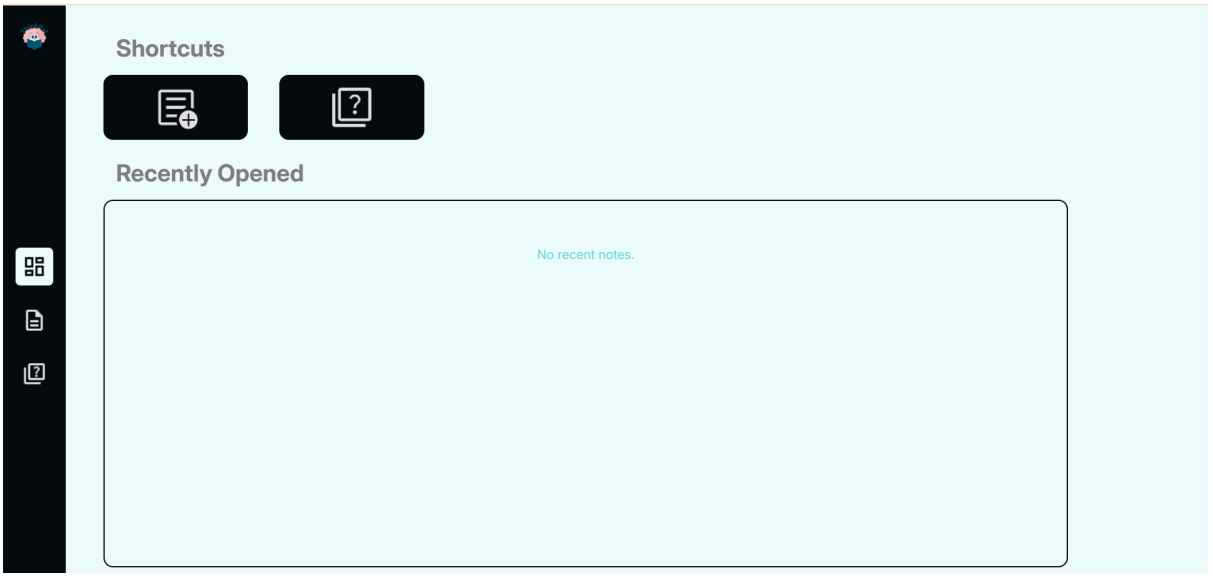
What improvements were made to the design?

- Reorganized the dashboard layout to highlight the main actions (e.g., “Create Note,” “Quiz Me”)
- Added hover tooltips and help icons to key buttons
- Improved spacing between UI elements for better readability

Before Alterations



After Alterations



Critique and Summary:

What were the advantages and disadvantages of your evaluation?

During our evaluation, we used both online and in-person methods to test the prototype. Online testing was especially useful because we could quickly send out links through social media and reach a wide group of users. Platforms like Discord helped us stay in touch, share screens, and collect feedback without needing to meet face-to-face.

We also tried in-person testing with a few users. This gave us the chance to see how people actually used the prototype. Watching their body language and how they interacted with the app gave us insights we wouldn't have noticed in a remote setup.

Online testing sometimes suffered from poor internet connections, which slowed things down and made it harder for users to fully explore the prototype. And while in-person testing offered more detailed observations, it wasn't always easy to arrange or scale.

What would you have done differently, knowing what you know now?

Knowing what we know now, we believe it would have been more effective to create an initial prototype early in the design process and conduct testing with potential users. This would have allowed us to collect valuable feedback, gain insights into their needs and expectations, and make more informed design decisions. By involving users from the start, we could have identified potential issues early on and ensured that the final product aligned more closely with what they truly wanted and needed.

Summary of the Project

ThinkPal was created to support students in studying more efficiently using AI. The prototype successfully helped users summarize notes, create quizzes, and track what they've learned. Most users had a smooth experience navigating the app and appreciated its clean design and AI-powered features.

Some minor issues, like unclear UI flows and unresponsive elements, were fixed after testing. Although limited to front-end functionality and online evaluation, the project was successful in demonstrating ThinkPal's potential.

If further developed, ThinkPal could become a powerful and user-friendly study companion, especially with features like cloud saving, reminders, and customizable quizzes.