**Heuristic Evaluation Synthesis**

**(group 5)**

Contents

[1 PROTOTYPE DESCRIPTION 1](#_Toc185866565)

[2 VIOLATIONS FOUND 1](#_Toc185866566)

[3 SUMMARY 4](#_Toc185866567)

[4 EVALUATION STATISTICS (in %) 5](#_Toc185866568)

[5 SUMMARY RECOMMENDATIONS 5](#_Toc185866569)

# PROTOTYPE DESCRIPTION

CAIN is a revolutionary chatbot designed to simplify document management by offering precise summaries, accurate queries, and effortless navigation. It transforms how you interact with and understand your documents, saving time and enhancing productivity.

# VIOLATIONS FOUND

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| # | Heuristic | Description | Rationale | Fix | Severity | Found by |
| 1 | H3: User Control and Freedom. | wanted to go back to the menu but accidentally pressed the 3-bar icon | This creates frustration for users as there is no clear option to undo the action or quickly return to the main menu. | Add a clear "Back" button or a breadcrumb trail within the menu to help users return to the main menu easily | 2 | Chien |
| 2 | H6: Recognition Rather Than Recall. | Users are confused between searching for a notebook and naming a notebook due to unclear distinctions in the interface, requiring them to recall which functionality each option represents. | When users have to guess or remember the purpose of each field, it increases their cognitive load. This leads to mistakes, such as attempting to search in the naming field or renaming a notebook unintentionally. A lack of visual cues or intuitive design contributes to the confusion. | Use explicit labels like "Search Notebook" and "Notebook Name" near their respective input fields. | 2 | Chien |
| 3 | H2: Match Between System and the Real World. | Users mistakenly attempt to log in instead of signing up, even when they don't have an existing account. | The options for "Log In" and "Sign Up" are not clearly differentiated, leading to confusion, especially for first-time users. | Highlight the "Sign Up" option for new users or provide a prompt like "Don’t have an account? Sign Up." | 2 | Chien |
| 4 | H6: Recognition Rather Than Recall | Users find it unclear how to select multiple files without selecting all files, causing confusion during the file selection process. | The interface does not clearly indicate or differentiate between options for selecting individual files, multiple files, or all files, leading to frustration for users who want partial selection. | Include a “Select All” option to distinguish between partial and full selection actions.  Add visual cues, such as checkboxes next to each file, for easier partial selection. | 4 | Chien |
| 5 | H1: Visibility of System Status | Users are uncertain if the system allows uploading two document files simultaneously, leading to hesitation or trial-and-error attempts. | The interface lacks clear communication or visual cues about the capability to upload multiple files, leaving users to guess its functionality. | Display a message or label explicitly stating the upload limitations, e.g., "You can upload multiple files simultaneously or only one." | 3 | Chien |
| 6 | H1: Visibility of System Status | I uploaded a document, but I’m not sure if it’s the right one because there’s no preview. | The system does not provide a way to confirm the selected document before submitting. | Add a preview feature or display the uploaded document name after selection. | 2 | Huy |
| 7 | H1: Visibility of System Status | User is uncertain whether their file upload was successful. | The system does not provide confirmation or feedback that the upload was successful. | Display a confirmation message, such as "Upload successful!" or show a progress bar with a success icon once the upload is complete. | 1 | Huy |
| 8 | H4: Consistency and Standards | User clicked the "Back" button but was logged out instead of returned to the previous page. | The behavior of the "Back" button is inconsistent with user expectations. | Ensure that the "Back" button consistently navigates to the previous page and does not log users out. | 2 | Huy |
| 9 | H6:Recognition Rather Than Recall | User is unclear about the "Upload" icon, unsure of what action it represents. | The "Upload" icon is not distinct enough, causing confusion for users about its function. | Make the "Upload" icon more recognizable (e.g., use a cloud with an upward arrow) and add a tooltip or label to clarify its function. | 2 | Huy |
| 10 | H2: Match Between System and the Real World | User tries to upload a file, but there is no indication of the accepted file types or size limit. | The system does not provide information about file type or size restrictions, causing confusion when users attempt to upload unsupported files. | Display file type and size limitations clearly near the upload button (e.g., "Accepts JPG, PNG files up to 5MB"). | 2 | Huy |
| 11 | H5: Error Prevention | User accidentally submits a form(Sign up form) with missing or incorrect information because the form does not highlight errors clearly. | The system does not highlight or validate fields with errors before submitting, leading to incomplete or incorrect form submissions. | Highlight incomplete or incorrect fields with a clear error message and prevent form submission until the issues are corrected. | 1 | Hoc |
| 12 | H6:Recognition Rather Than Recall | User is confused about the function of the "Plus" icon, not understanding whether it adds a new item or serves another purpose. | The "Plus" icon is too generic and does not clearly communicate its specific purpose. | Add a label or tooltip to the "Plus" icon (e.g., "Add New") and consider using a more descriptive icon for better clarity. | 3 | Hoc |
| 13 | H5: Error Prevention | User accidentally deletes a notebook because there is no confirmation prompt before deletion. | The system does not prevent accidental deletions by asking for confirmation, leading to irreversible actions | Implement a confirmation dialog (e.g., "Are you sure you want to delete this notebook?") before proceeding with the deletion. | 2 | Hoc |
| 14 | H3: User Control and Freedom | User wants to view their password while typing it, but the system does not provide an option to show the password | The interface does not allow users to toggle the visibility of their password, causing difficulty in ensuring the correct input. | Add an "eye" icon next to the password field that allows users to toggle between hiding and showing the password. | 1 | Hoc |

# SUMMARY

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Category | Sev 0 | Sev 1 | Sev 2 | Sev 3 | Sev 4 | Total Violations |
| H1: Visibility of System Status |  | 1 | 1 | 1 |  | 3 |
| H2: Match b/w System & Real World |  |  | 2 |  |  | 2 |
| H3: User Control & Freedom |  | 1 | 1 |  |  | 2 |
| H4: Consistency & Standards |  |  | 1 |  |  | 1 |
| H5: Error Prevention |  | 1 | 1 |  |  | 2 |
| H6: Recognition Rather Than Recall |  |  | 2 | 1 | 1 | 4 |
| H7: Flexibility & Efficiency of Use |  |  |  |  |  | 0 |
| H8: Aesthetic & Minimalist Design |  |  |  |  |  | 0 |
| H9: Recognize, Diagnose, & Recover from Errors |  |  |  |  |  | 0 |
| H10: Help & Documentation |  |  |  |  |  | 0 |
| **Total Violations** | 0 | 3 | 8 | 2 | 1 | 14 |

# EVALUATION STATISTICS (in %)

|  |  |  |  |
| --- | --- | --- | --- |
| Severity/Evaluation | Chien | Huy | Hoc |
| 0 | 0 | 0 | 0 |
| 1 | 0 | 33,33% | 66,67% |
| 2 | 37,5% | 50% | 12,5% |
| 3 | 50% | 0 | 50% |
| 4 | 100% | 0 | 0 |
| Total 3 &4 | 66,67% | 0 | 33,33% |
| Total all severity(%) | 35,7% | 35,7% | 28,6% |

# SUMMARY RECOMMENDATIONS

The heuristic evaluation highlights several recurring usability issues that negatively affect user experience, particularly in areas of system feedback, clarity, and user control. A common trend is the lack of clear communication and intuitive design, which creates unnecessary cognitive load and leads to user errors. For example, users struggle to distinguish between similar actions, such as searching versus naming a notebook or logging in versus signing up, due to insufficient labeling and visual cues. Additionally, the system lacks clear feedback after key actions, such as uploading files, leaving users uncertain whether their actions were successful.

Another significant concern is inconsistency in interface behavior, particularly with navigation elements like the "Back" button. When expected functions fail, such as returning to the previous page but instead logging the user out, it creates frustration and undermines user trust in the system. Furthermore, the absence of error prevention mechanisms, such as confirmation prompts before deleting items, and unclear icon functionalities, such as the "Upload" or "Plus" icons, compound user confusion and reduce efficiency.

To address these issues, I recommend improving system feedback by implementing success messages, progress indicators, and document previews to reduce uncertainty. Consistency in interface behavior should be prioritized, ensuring that navigation buttons and actions align with user expectations. Adding confirmation prompts for critical actions, such as deletions, will prevent accidental errors. Enhancing icon clarity through more descriptive designs and explanatory tooltips will also improve recognition. Additionally, providing explicit labels, clear distinctions between similar functionalities, and guidance on system capabilities (e.g., file type and size restrictions) will greatly enhance usability. Collectively, these adjustments will foster a more intuitive, seamless, and user-friendly interface.