

Heuristic Evaluation

TEAM 2 – WiseWal.ai

(Savings and Expense tracker with AI based financial advisor)

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Evaluator #B: Manasi Bhagwat

Evaluator #C: Yuktasree Muppala

Evaluator #D: Aditya Sonar

Evaluator #E: Suraj Raghu Kumar

1. Problem

The user interfaces evaluated by all the evaluators are as below -

A - AI Financial Advisor UI of the WiseWal.ai application

B - Expense adding and updating UI of the WiseWal.ai application

C - Visualization dashboard of the UI showing monthly summary reports.

D - Budget planning Interface of WiseWal.ai – setting up the budget page

E - Budget planning UI of the WiseWal.ai application – notifications for budget exceeding

2. Violations Found

Note: The fixes that are already implemented are marked in green. Other issues have the plan of fixes, but have not been implemented

1. [H-1 Visibility of System Status] [Severity 3] [Found by: B, C]
 - a. **By B:** The system does not show a loading status when processing expense data, which can confuse users about whether the process is complete. **Fix:** Implement a progress bar or spinner during data processing phases.
 - b. **By C:** The system does not provide feedback when an error occurs during data submission, leaving users unsure if their actions were successful. **Fix:** Implement immediate, clear feedback mechanisms after each user action.
2. [H-1 Visibility of System Status] [Severity 2] [Found by: D]
 - a. After setting a new budget, there is no immediate feedback or confirmation provided to the user. This absence can leave users uncertain whether their changes were saved. **Fix:** Implement a clear, visible confirmation message or notification whenever a budget is successfully set or updated.
3. [H-2 Match Between System & Real World] [Severity 1] [Found by: A]
 - a. The date formats vary between screens (MM/DD/YYYY on some and DD/MM/YYYY on others). **Fix:** Standardize the date format across the application based on the user's locale.
4. [H-3 User Control & Freedom] [Severity 2] [Found by: B]
 - a. Users cannot undo accidental expense entries easily. **Fix:** Add an "undo" button to reverse recent entries quickly.

5. [H-3 User Control & Freedom] [Severity 3] [Found By: A, D]
 - a. **By A:** The 'back' button is missing on the income details input screen, forcing users to restart the process if they enter incorrect information. **Fix:** Add a 'back' button allowing users to correct mistakes without restarting.
 - b. **By D:** Users find it difficult to navigate back or revise their entries once they progress past the initial budget setup page. This lack of control can frustrate users who need to make adjustments. **Fix:** Enhance navigation options to include more visible 'back' and 'edit' buttons at every stage of the budget planning process.
6. [H-3 User Control & Freedom] [Severity 1] [Found by: E]
 - a. Users cannot customize the frequency of budget notifications. **Fix:** Allow users to set preferences for how often they receive budget notifications.
7. [H-4 Consistency & Standards] [Severity 4] [Found By: A]
 - a. Inconsistent labeling of action buttons across different screens. Some screens use "Proceed", others use "Continue". **Fix:** Standardize the labels across all screens to maintain consistency.
8. [H-4 Consistency & Standards] [Severity 1] [Found By: B, C]
 - a. **By B:** Discrepancies in the font styles used across different parts of the interface. **Fix:** Use a uniform font style throughout the application to enhance the visual consistency.
 - b. **By C:** Inconsistent color schemes used in different sections of the report, causing confusion. **Fix:** Standardize color schemes for similar types of data across all reports.
9. [H-4 Consistency & Standards] [Severity 3] [Found By: D]
 - a. Inconsistency in the UI elements such as button styles and color schemes across different budget planning screens. This inconsistency can lead to confusion and a less intuitive user experience. **Fix:** Standardize UI elements like buttons, fonts, and color schemes throughout the budget planning section.
10. [H-5 Error Prevention] [Severity 2] [Found By: B, C]
 - a. **By B:** The form to enter expenses does not validate the type of expense, potentially allowing users to submit incorrect data. **Fix:** Implement dropdown menus with predefined categories to reduce user error.
 - b. **By C:** Inadequate checks against illogical data entries (e.g., negative income values). **Fix:** Integrate logical data validation to prevent such errors.
11. [H-5 Error Prevention] [Severity 1] [Found By: D]
 - a. The interface allows users to exceed their income while planning budgets without any warnings or checks, which could lead to unrealistic budget planning. **Fix:** Introduce checks that warn users when their planned spending exceeds their reported income, preventing common budgeting errors.
12. [H-6 Recognition Rather Than Recall] [Severity 2] [Found By: A, E]
 - a. **By A:** The interface requires users to remember information from one part of the application when entering data in another, without visible prompts or reminders. **Fix:** Add visible cues or reminders on all screens where users are expected to recall information.

- b. **By E:** The application expects users to remember the budget limit set months ago without displaying it in the notification. **Fix:** Include the set budget limit within each notification about exceeding the budget.

13. [H-7 Flexibility & Efficiency of Use] [Severity 2] [Found By: D]

- a. The budget planning tool lacks shortcuts and flexibility for experienced users who manage complex budgets, such as quick copy features for similar monthly budgets. **Fix:** Add features like templates or the ability to copy previous budgets to streamline the budgeting process for frequent users.

14. [H-8 Aesthetic & Minimalist Design] [Severity 2] [Found By: A]

- a. Overly complex graphs on the dashboard clutter the interface. **Fix:** Simplify the graphs and provide an option to view detailed data on demand.

15. [H-8 Aesthetic & Minimalist Design] [Severity 1] [Found By: C, E]

- a. **By C:** The monthly summary reports contain unnecessary decorative elements that distract from key information. **Fix:** Simplify the design by removing decorative graphics.
- b. **By E:** The budget notifications are cluttered with too much information, making it difficult to quickly ascertain key points. **Fix:** Redesign the notifications to highlight key information in a more digestible format.

16. [H-9 Help Users with Errors] [Severity 3] [Found By: B, E]

- a. **By B:** Ambiguous error messages when submission fails due to network issues. **Fix:** Provide clear and specific error messages that suggest practical steps for resolution.
- b. **By E:** When users exceed their budget, the notification is vague and does not guide them on how to rectify the situation. **Fix:** Improve notifications to include suggestions for managing expenses better.

17. [H-10 Help & Documentation] [Severity 1] [Found By: A]

- a. The tooltips provided for financial terms are too technical and not user-friendly. **Fix:** Redesign tooltips to include simpler language and more direct explanations.

18. [H-10 Help & Documentation] [Severity 2] [Found By: C, E]

- a. **By C:** The help section lacks detailed explanations and examples for interpreting complex financial data in the reports. **Fix:** Expand the help documentation to include examples and video tutorials.
- b. **By E:** The help documentation is difficult to navigate and does not provide specific answers to frequently asked questions. **Fix:** Revise the documentation to be more task-oriented and include a searchable index.

3. Summary of Violations

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
[H2-1: Visibility of Status]			1	2		3
[H2-2: Match Sys & World]		1				1
[H2-3: User Control]		1	1	2		4
[H2-4: Consistency]		2		1	1	4
[H2-5: Error Prevention]		1	2			3
[H2-6: Recognition not Recall]			2			2

[H2-7: Efficiency of Use]			1			1
[H2-8: Minimalist Design]		2	1			3
[H2-9: Help Users with Errors]				2		2
[H2-10: Documentation]		1	2			3
Total Violations by Severity		8	10	7	1	26
Note: check your answer for the green box by making sure the sum of the last column is equal to the sum of the last row (not including the green box)						

4 Evaluation Statistics

severity\evaluator	evaluator A	evaluator B	evaluator C	evaluator D	evaluator E
level 0					
level 1	2	1	2	1	2
level 2	2	2	2	2	2
level 3	1	2	1	2	1
level 4	1	0	0	0	0
total (levels 3 & 4)	2	2	1	2	1
total (all levels)	6	5	5	5	5
evaluator #	# problems found	# problems remaining & problem ID			
A	6	#3 - 12.a, 14.a, 17.a			
B	5	#3 - 1.a, 10.a, 16.a			
C	5	#4 - 1.b, 8.b, 10.b, 18.a			
D	5	#3 - 5.b, 10.a, 13.a			
E	5	#3 - 15.b, 16.b, 18.b			

Severity Ratings

- 0 - don't agree that this is a usability problem
- 1 - cosmetic problem
- 2 - minor usability problem
- 3 - major usability problem; important to fix
- 4 - usability catastrophe; imperative to fix

Heuristics

[H2-1: Visibility of System Status]

- keep users informed about what is going on

[H2-2: Match Between System & Real World]

- speak the users' language
- follow real world conventions

[H2-3: User Control & Freedom]

- "exits" for mistaken choices, undo, redo
- don't force down fixed paths

[H2-4: Consistency & Standards]

[H2-5: Error Prevention]

[H2-6: Recognition Rather Than Recall]

- make objects, actions, options, & directions visible or easily retrievable

[H2-7: Flexibility & Efficiency of Use]

- accelerators for experts (e.g., gestures, kb shortcuts)
- allow users to tailor frequent actions (e.g., macros)

[H2-8: Aesthetic & Minimalist Design]

- no irrelevant information in dialogues

[H2-9: Help Users Recognize, Diagnose, & Recover from Errors]

- error messages in plain language
- precisely indicate the problem
- constructively suggest a solution

[H2-10: Help & Documentation]

- easy to search
- focused on the user's task
- list concrete steps to carry out
- not too large