HUMAN COMPUTER INTERACTION

HEURISTIC EVALUATION

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Heuristic Evaluation of Money Wallet

1. Problem/Prototype Description

We evaluated the prototype of the Money Wallet application, which is an application that creates a platform for people, especially teenagers, to keep track of how they spend their money and help the individuals to spend it judiciously.

2. Violations Found

1. H8: Aesthetic & Minimalist Design:

- There is no "back" button to toggle between tabs. The user has to click on each section in the navigation menu to move to that tab.

Fix - Add a back button on each page

2. H9: Help Users Recognize, Diagnose, & Recover from Errors:

Timeline graph is not provided to analyze the expense.

Fix - Add a functionality to provide timeline view of user's expenses

3. H7: Flexibility & Efficiency of Use:

 Expense analysis works for only 7 days and 30 days. No specific evaluation for other time frames.

Fix - Add more time frames

4. H7: Flexibility & Efficiency of Use:

No options to filter the expense report based on category, date and expense type.
Fix - Include backend and frontend logic to filter expense/credit data according to various options

5. H4: Consistency & Standards:

- The green screen doesn't match with the basic white screen after login.

Fix - Change the color scheme

6. H7: Flexibility & Efficiency of Use:

 There are two separate tabs for "Expenses" and "credit". They need to be added in separately.

Fix - Combine the expense and credit tabs into a single "transaction tab" and provide a separate input option while entering the transaction to categorize it as expense or credit.

7. H6: Recognition not Recall / Severity:

 The user isn't notified if the budget for the current month is drained, only a red line appears

Fix - Use high priority alerts to notify the users if they have exceeded the budget.

8. H3: User Control & Freedom

 Once entered, the username can't be changed. The user needs to work with the original username that they entered during sign in.

Fix - Provide the user with an additional functionality to update their username provided it is unique.

9. H8: Aesthetic & Minimalist Design

 The credit/debit is represented with the letter "C" or "D", no color -coded difference is given to the letters to make the two categories easily differentiable.
Fix: Include color coding for expense and credit transactions for better usability and design.

10. H3: User Control & Freedom

User can't manually update the balance after registering
Fix - Provide an additional functionality using an input box, to update their current balance.

11. H7: Flexibility & Efficiency of Use:

- The User cannot have different transaction wallets(ex- card,cash,etc).

Fix - Provide an additional functionality to add different wallets and display transactions categorized by wallet type.

12. H7: Flexibility & Efficiency of Use:

There is no currency selection. The user can't enter the amount as per the currency he/she prefers.

Fix - Allow the user to change his preferred currency in his profile.

13. H10: Help & Documentation:

- There is no basic tutorial to explain the user how the application works.

Fix - Add an optional tutorial at the beginning for easy access

14. H7: Flexibility & Efficiency of Use:

 The user cannot add more categories other than the ones provided in the drop-down menu.

Fix - Provide the user with an option to use his/her customized category.

15. H9: Help Users Recognize, Diagnose, & Recover from Errors

- Errors while performing illegal operations do not result in user friendly errors as they do not provide an apt description of the error along with suggested fixes.

Fix - Throw minor error messages whenever the user performs illegal operations.

16. H2: Match Between System & Real World

- The home button doesn't have any significance in the website. Clicking it doesn't have any effect.

Fix - On clicking, the home button should take the user to the original profile screen.

3. Summary of Violations

| Category | Viol. (sev0) | Viol. (sev1) | Viol. (sev2) | Viol. (sev3) | Viol. (sev4) | Total Viol. |
|----------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|
| H1 | | | 1 | | | 1 |
| H2 | 1 | | | | | 1 |
| НЗ | | | 1 | 1 | | 2 |
| H4 | 1 | | | | | 1 |
| H5 | | | | | | 0 |

| H6 | | | 1 | | 1 |
|-----------------------------|---|---|---|---|----|
| H7 | 1 | 1 | 2 | 2 | 6 |
| H8 | 1 | | | | 2 |
| H9 | | | 1 | 1 | 2 |
| H10 | 1 | | | | 1 |
| Total violation by severity | 5 | 2 | 5 | 4 | 16 |

Severity Ratings

- **0** not a usability problem
- 1 cosmetic problem
- 2 minor usability problem
- **3** major usability problem; important to fix
- 4 usability catastrophe; imperative to fix

Heuristics

H1: Visibility of System Status

• Keep users informed about what is going on

H2: Match Between System & Real World

- Speak the users' language
- Follow real world conventions

H3: User Control & Freedom

- "Exits" for mistaken choices, undo, redo
- Don't force down fixed paths

H4: Consistency & Standards

- Words, actions, and UI elements should be consistent across the entire platform
- Follow platform and industry conventions

H5: Error Prevention

- Minimize error-prone conditions
- Remove memory burdens, support undoing, and warn your users when necessary

H6: Recognition Rather Than Recall

Make objects, actions, options, & directions visible or easily retrievable

H7: Flexibility & Efficiency of Use

- Accelerators for experts (e.g., gestures, keyboard shortcuts)
- Allow users to tailor frequent actions (e.g., macros)

H8: Aesthetic & Minimalist Design

No irrelevant information. Focus on the essentials.

H9: Help Users Recognize, Diagnose, & Recover from Errors

- Error messages in plain language
- Precisely indicate the problem
- Constructively suggest a solution

H10: Help & Documentation

- Easy to search
- Focused on the user's task
- List concrete steps to carry out
- Not too large

