

USABILITY DOCUMENT FOR MONEY MANAGEMENT SOFTWARE

GROUP 23

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Shneiderman's rules

To improve the usability of an application, it is important to have a well designed interface. Shneiderman's "Eight Golden Rules of Interface Design" are a guide to good interaction design. Shneiderman proposed this collection of principles that are derived heuristically from experience and applicable in most interactive systems after being properly refined, extended, and interpreted. Therefore, here we discuss our design in the light of Schneiderman's 8 golden rules:

1. Strive for Consistency

1.1. Internal Consistency

- 1.1.1. The method to close all prompts, menus and help screens to close them to be kept the same throughout the system.
- 1.1.2. The way to add a new budget, register a new transaction or add a new coupon to be kept the same throughout the system.
- 1.1.3. Fonts, sizes, buttons, labelling, etc. to be kept consistent across the system to keep visual consistency.
- 1.1.4. The way to go a step back in the flow to be the same across the system.
- 1.1.5. Method of conveying error in any field while taking user input is the same across the system.
- 1.1.6. Same convention is used everywhere to mark a field as compulsory.

1.2. External Consistency

- 1.2.1. Red colour and cross both are symbolic of closure, hence ideal for closing any prompt.
- 1.2.2. Plus sign is symbolic of adding new things, hence will be used to add a budget, new transaction, credit and debit transaction, and coupon.
- 1.2.3. An arrow pointing towards the left is usually used to move to the previous window or process, hence it will be used for the same to maintain external consistency.
- 1.2.4. Text in red colour is symbolic of error and hence used for showing the error messages and hints.
- 1.2.5. A red asterisk is used universally for marking any field as compulsory and will be used in our system as well.

2. Design for Universal Usability

- 2.1. Visual cues and interactive tutorial upon first-time usage of the system.
- 2.2. Features for novices, such as explanations and tutorials to revisit.
- 2.3. Double pressing the user profile icon changes accounts in case a user is logged in from multiple accounts.
- 2.4. Long pressing the plus icon will show options to add either a new budget, a new coupon or register a new transaction.

3. Offer informative feedback

- 3.1. Progress bar is displayed while any process is taking place.
- 3.2. Feedback after user authentication or rejection.
- 3.3. Budget list is updated and displayed after adding or deleting a budget.
- 3.4. Updated list of credit and debit transactions is displayed after adding or removing any transaction.
- 3.5. Coupons' list is updated and displayed to the user after adding or using a coupon.
- 3.6. Any element selected from any list (either of budget, transactions or coupons) is highlighted for visual feedback.

4. Design dialogues to yield closure

- 4.1. Success/Error message upon addition or removal of a budget, transaction or coupon.
- 4.2. Success/Error message after user attempts to login.
- 4.3. Divided the task of creating a new budget into multiple subtasks like getting start/end date first and displaying it on top as the user moves to the next step of creating categories and entering the respective amount in each, which are also displayed as the user creates them.
- 4.4. Audio is played when the budget is created or a coupon is added successfully.

5. Offer error prevention and simple error handling

- 5.1. While getting input from the user, fields with any error are highlighted.
- 5.2. Invalid and Empty field errors are mentioned clearly and separately.

- 5.3. Hints and examples for the user to fix the error. For example, in case of invalid input error, acceptable input is explained to the user and examples are provided.
 - 5.4. Ask for confirmation before deleting any budget, transaction or coupon.
6. Permit easy reversal of actions
- 6.1. Option to change previously entered data at every step.
 - 6.2. Undo deletion option is provided after any deletion.
7. Keep users in control
- 7.1. State of the system changes only when new data is entered by the user.
8. Reduce short-term memory load
- 8.1. Intuitive icons, themed colouring and consistent placement of items to be used to help users find the functionalities.
 - 8.2. A navigation bar at the bottom will be used to list the most important features, to prioritize recognition over recall.