

## Heuristic Evaluation of Budget Buddies

### 1. Problem/Prototype Description

Budget Buddies aims to help users feel great about their financial decisions by setting long-term budgeting plans, comparing one's spending with others, and making a plan to achieve the future one wants.

#### Tasks

Task 1: Set a long-term budgeting plan.

Task 2: Compare spending with others.

Task 3: Make a plan to achieve the future you want.

### 2. Violations Found

#### 1. H3: User Control & Freedom // Found by: B // Severity: 2

- Task 1
- Problem: Can Input Zip Code or Age in any order, but cannot click on income drop-down even though it looks as if one can (dark and not grayed out like the rest of the items). Can input income only after age is inputted, even though I could have inputted the zip code first.
- Fix: Allow users to input their income at any stage much like Age/Zip

#### 2. H5: Error Prevention // Found by: B // Severity: 2

- Task 1
- Problem: After inputting age, I wasn't able to go back and try to change the age (not shown as clickable in the Figma).
- Fix: Allow users to edit their bio/personal info in any order they like, otherwise they may feel stuck.

#### 3. H5: Error Prevention // Found by: B // Severity: 2

- Task 1
- Problem: After inputting personal info (age, income, and zip), if I want to change just one item, then everything else resets as well.
- Fix: Allow users to edit just the items they want.

#### 4. H2: Match between System & World // Found by B // Severity: 1

- Task 1
- Problem: With the budget, it appears that 'Groceries' and 'Restaurants' are under the Food category as a whole. However, they don't add up to the Food category ( $\$1,000 + 500 \neq 500$ )
- Fix: Just ensure all items in a category add up as not to confuse the user.

#### 5. H4: Consistency & Standards // Found by A, B // Severity: 1

- Task 1
- Problem: Initial button on first screen "That's Me!" doesn't indicate direction like other buttons do with ">>" or "<<".

- Fix: Choose one consistent style that users prefer and understand.
- 6. H4: Consistency & Standards // Found by: B // Severity: 1**
  - Task 1
  - Problem: Similar to the problem stated above. Some buttons use punctuation or arrows while some use neither.
  - Fix: Choose one consistent style that users prefer and understand.
- 7. H4: Consistency & Standards // Found by: B // Severity: 2**
  - Task 1 & 2
  - Problem: Inconsistent slider button colors; could cause issues with overwhelming users with colors or leading them to think it does different things. Just something to consider.
  - Fix: Make sliders look consistent (UI).
- 8. H7: Flexibility and efficiency of use // Found by: A, B, C // Severity: 3**
  - Task 1: Set a long-term budgeting plan
  - Problem Description: User cannot adjust goals they've set before. I understand that a set goal without allowing for changes would make users more determined to achieve their goals, but users may want to twist their financial goals a little when things (their spending priorities, their income, etc. ) change in their lives.
  - Suggested Fix: Allow for adjusting goals users have set before, and maybe set a changing frequency (such as once a week at most) to prevent users from changing their goals too frequently.
- 9. H8: Aesthetic and minimalist design // Found by: B, C // Severity: 2**
  - Task 1
  - Problem: Slider ranges may not be intuitive to users. Also ranges may not all need to extend to the same amount.
  - Fix: Possibly test with users to see exactly how much of a range of budget they want to see per category in a budget plan.
- 10. H9. Help users recognize, diagnose, and recover from errors // Found by: C // Severity: 2**
  - Task 1
  - Issue: No error messages alerting user when a required dialogue box is left unfilled.
  - Fix: Addition of error message that notifies user that required dialogue boxes must be filled in to continue.
- 11. H2: Match between System & World // Found by B // Severity: 2**
  - Task 2
  - Problem: Users may misinterpret how weighted a goal is based on the scale of values all being the same.
  - Fix: Test with users to see if they like seeing budgets all on similar length sliders, or if they would prefer to see budgets weighted by amount visually.
- 12. H4: Consistency & Standards // Found by B // Severity: 2**
  - Task 2

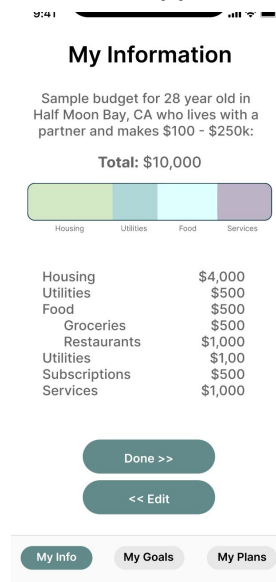
- Problem: Slider on My Goals saving for a vacation page does not have numerical scale like previous sliders did (indicating current and ranges of purple).
- Fix: Decide which format to use that would best help users when utilizing the budget sliders.

**13. H4: Consistency & Standards // Found by: B // Severity: 1**

- Task 2
- Problem: In My Plans, category labels are above the sliders, but in My Goals, the titles are smaller and located below the sliders.
- Fix: Decide whether a bottom or a top orientation makes more sense when labeling these budget sliders.

**14. H4: Consistency and Standards // Found by: A // Severity: 1**

- Task 2 : Compare spending with others
- Problem Description: As shown in the following image, “Subscription” listed on the table come as a surprise for users as it is not displayed as a category in the bar above. It would be confusing for users when they find out there appears a new category in the table



- Suggested Fix: Add the “subscriptions” as a category in the bar or remove the “subscriptions” in that table

**15. H3: User Control and Freedom // Found by: A, C // Severity: 3**

- Task 2 : Compare spending with others
- Problem Description: Users cannot unchoose the “additional information” they have chosen. It would be frustrating for users if they accidentally click buttons of “additional information” and cannot undo it.
- Suggested Fix: Allow for users to de-select buttons of “additional

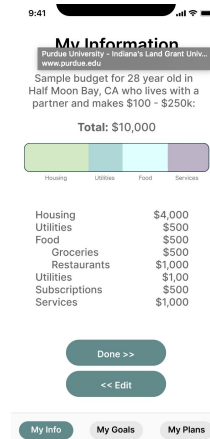
**16. H7. Flexibility and efficiency of use // Found by: A // Severity: 2**

- Task 2 : Compare spending with others

- Problem Description: In the section of “Additional information,” users cannot choose two or more options simultaneously.
- Suggested Fix: Allow for choosing more than one options as “additional information.”

**17. H8: Aesthetic & Minimalist Design // Found by: A // Severity: 1**

- Task 2: Compare spending with others
- Problem Description: In the following screen, the dollar amount is preceded by a repetitive \$ icon. In addition, the item “Utilities” has been listed twice.



- Suggested Fix: Add a “\$” icon above the list of numbers to indicate that all of the following numbers are dollars, and remove all of “\$” before the list of numbers; Remove the “Utilities” information above “Subscriptions.”

**18. H6: Recognition not Recall // Found by: A // Severity: 2**

- Task 2 : Compare spending with others
- Problem Description: The app requires users to enter zip codes without offering options of entering their addresses and automatically match them with zip codes. Users are burdened with recalling their zip codes to complete “My information,” which may frustrate them if they do not remember.
- Suggested Fix: enable users to enter their addresses and match them with zip codes automatically

**19. H10. Help and documentation // Found by: C // Severity: 2**

- Task 2, 3
- Issue: No additional help/documentation in app regarding what screens are explicitly for.
- Fix: Addition of text to screens that (at least minimally) onboard users to how a screen works and what it is used for.

**20. H1: Visibility of System Status // Found by: B // Severity: 2**

- Task 3
- Problem: The purple range is labeled ‘average’ on just the top dining category and not the others. Also, the label is quite small and almost blended in due to all

the other colors/shapes going on on the page, so I missed it the first two times I went through this task.

- Fix: Create a clear way to allow users to see and discover 'average' in budgets.

**21. H2: Match between System & WorldTask // Found by: B // Severity: 2**

- Task 3
- Problem: No scales located on budget sliders, so users can't really even tell what the 'average' range is.
- Fix: Create scaled/labeled sliders.

**22. H4: Consistency & Standards // Found by: B // Severity: 1**

- Task 1, 2, 3
- Problem: "That's Me!" button on My Info is at a higher y-level than the main buttons on My Goals and My Plans (the "Add Category" and "Add a Goal" buttons).
- Fix: Just adjusting the y-positioning of the "That's Me!" button to match the other two!

**23. H10: Help & Documentation // Found by: B // Severity: 2**

- Task 3
- Problem: When trying to figure out what the 'average' was on the scales, I was looking for a question mark icon or something that would help me understand what it would be. But I couldn't find the help I needed.
- Fix: Possibly add documentation on things such as 'average' to indicate what it would be.

**24. H3: User Control & Freedom // Found by: B // Severity: 2**

- Task 3
- Problem: Trying to click the x's on the different categories, but then nothing happening.
- Fix: Allow users to delete and add freely.

**25. H6: Recognition not Recall // Found by: B // Severity: 2**

- Task 3
- Problem: Average is only shown on the "Dining" category, so users have to remember this when looking at the rest of the categories/goal setting going forward.
- Fix: Ensure users understand what each part of the budget UI means.

**26. H2: Match between System & World // Found by: A, B // Severity: 1**

- Task 1, 2, 3
- Problem: Possibly could be a problem that this UI follows a top to bottom flow from CTA vs cancel button, whereas in the real world, many systems utilize a right and left positioning for 'continue' vs 'cancel'.
- Fix: Test to see if users see this as well and if they run into any issues when trying to cancel or proceed forward.

**27. H7: Flexibility & Efficiency of Use // Found by: B // Severity: 2**

- Task 1

- Problem: Seems as if users only have one way to edit plans budget from a screen separate from the “My Plans” page.
- Fix: Add a shortcut where users can edit the budgets directly from my plan page (perhaps being able to drag the ends of sliders, so they can see their budget change in real time).

**28. H9: Help Users with Errors // Found by: A, B, C // Severity: 3**

- Task 3
- Problem: When users create a goal, it seems as if they created one by mistake, they cannot delete a goal (only add). No way to revolver from this error; Also, User cannot adjust goals they’ve set before
- Fix: Allow users to delete/adjust goals if they made one by mistake

**29. H5 Error Prevention // Found by: A, B // Severity: 2**

- Task 3: Make a plan to achieve the future you want
- Problem Description: The “Spending per month” in the “Add Category” screen lacks error prevention for the amount of money the user would like to spend. To the user, there is no limit on the amount. The user may enter a value greater than their income they have entered in the section of “My information.”
- Suggested Fix: Add a line of text below the data entry box that communicates the amount of income the user has.

**30. H6: Recognition not Recall // Found by: A, B // Severity: 3**

- Task 3: Make a plan to achieve the future you want
- Problem Description: When users add a new category and set plans for “Spending per month on,” they cannot compare their planned spending with peers who are in the same life-stage, which is stated as one of uniqueness of this app.
- Suggested Fix: Add a line of text below “Spending per month” button that communicates the average amount of money the user’s peers would spend on that category.

**31. H9: Help Users with Errors // Found by: B, C // Severity: 3**

- Task 1, 2, 3
- Problem: No way to edit inputs if input error was made, as well as no checking for wrong types of values (such as a non numerical value for income or budget).
- Fix: Just add in these things and it would be perfect! (adding in edit buttons/icons or just allowing each input to be clicked on again)

**32. H1. Visibility of system status // Found by: C // Severity: 2**

- Task 1, 2, 3
- Issue: Unclear how completion of one task ushers me towards completion of the next, relying on me to decide to move on from “My Info” to “My Goals” to “My Plans” without necessarily knowing why I should do that.
- Fix: String all three tasks together in a meaningful way (at least initially) to ensure the user has a reason/knows to complete all three tasks.

**33. H2. Match between system and the real world // Found by: C // Severity: 2**

- Task 3

- Issue: “My Plans” title is fairly clear in conveying which of your three tasks it relates to, namely “Make a plan to achieve the future you want,” but is unclear in conveying to the user the concrete utility of the screen which is budget settings/adjustment.
- Fix: Either changing the page’s name to something that more clearly conveys that is where you go to see/adjust your budgets or, more likely, add messaging to the page which accomplishes that.

#### **34. H3. User control and freedom // Found by: B, C // Severity: 3**

- Task 1, 2, 3
- Issue: Undo and redo are not explicitly implemented, although all actions on a page can be undone by leaving and returning to a screen.
- Fix: Keeping enough track of screen state to allow users to undo and redo an action without having to leave the screen.

#### **35. H4. Consistency and standards // Found by: C // Severity: 2**

- Task 3
- Issue: The “My Plans” screen lists your budget goals under “Spending per month on”, making it unclear whether that page indicates your budget goals in those areas listed or actually lists the amount you are currently spending in those areas.
- Fix: Changing the “Spending per month on” label to something that more clearly suggests the screen illustrates only your goals, not your current spending.

#### **36. H6. Recognition rather than recall // Found by: C // Severity: 2**

- Task 3
- Issue: The “My Plans” page does not reiterate what your entered income range is and whether it plays a role in the information displayed, making the indication of “average” on the budget sliders unclear whether that is across all users or for your entered income.
- Fix: Reiterate on the “My Plans” page what your entered income was while also making clear whether the “average” label on the budget sliders relates to that.

### **3. Summary of Violations**

<b>Category</b>	<b># Viol. (sev 0)</b>	<b># Viol. (sev 1)</b>	<b># Viol. (sev 2)</b>	<b># Viol. (sev 3)</b>	<b># Viol. (sev 4)</b>	<b># Viol. (total)</b>
H1: Visibility of Status	0	0	2	0	0	<b>2</b>
H2: Match Sys & World	0	2	4	0	0	<b>6</b>
H3: User Control	0	0	2	2	0	<b>4</b>
H4: Consistency & Standards	0	5	3	0	0	<b>8</b>
H5: Error Prevention	0	0	1	0	0	<b>1</b>
H6: Recognition not Recall	0	0	3	1	0	<b>4</b>
H7: Efficiency of Use	0	0	2	1	0	<b>3</b>
H8: Minimalist Design	0	1	1	0	0	<b>2</b>
H9: Help Users with Errors	0	0	2	2	0	<b>4</b>

H10: Help & Documentation	0	0	2	0	0	2
<b>Total Violations by Severity</b>	<b>0</b>	<b>8</b>	<b>22</b>	<b>6</b>	<b>0</b>	<b>36</b>

**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
Sev. 0	0	0	0/0
Sev. 1	4/8	6/8	0/8
Sev. 2	3/22	14/22	7/22
Sev. 3	4/6	5/6	5/6
Sev. 4	0	0	0/0
<b>Total (sevs. 3 &amp; 4)</b>	4/6	5/6	5/6
<b>Total (all severity levels)</b>	11/36	25/36	12/36

**\*Note that the bottom rows are *not* calculated by adding the numbers above it.**

#### 5. Summary Recommendations

Great job with the Medium-fi Prototype! The app has an aesthetic design that enables and empowers the three tasks. More specifically, I love the universal menu bar at the bottom of each screen! It is so powerful in creating flexibility for users to toggle between screens at any time. Congratulations on the fantastic work you have accomplished so far!

In addition to Heuristic Violations, another feedback I would like to propose is that it seems the three tasks (three sections in the menu bar) lack a strong sense of connectedness in the current design model. Maybe I am biased, but I feel like comparison with peers could be an underlying benchmark for users to make financial plans, and setting goals could also be a guideline for users to make spending plans. I wish there could be a more visual exploration of building connections between these three sections, and thus make the three tasks flow more smoothly and logically.

Also, from your presentation and your figma prototype, I was able to gain a pretty solid idea of how you picture your app helping users set financial goals and establish a budget. That being said, however, an issue I did find with your prototype at this point was that the distinction between your tasks is a bit fuzzy, particularly when it comes to your medium task. My suggestion for moving forward there would be to make comparisons a bit more advanced than just the averages you currently have on the "My Plans" screen, perhaps even giving that task a screen of its own.



Another point of feedback I have centers around the general lack of onboarding or messaging throughout the app. Due to the lack of explainers throughout the app, I found myself clicking the wrong area of the screen often and even doing it on purpose to receive an indication from figma as to what I was supposed to do. Luckily, I would say that this issue is a fairly quick fix if you'd be willing to add dialogues on screen switches letting users know what a screen is for so they know what to look for.

Overall a really great medium-fi prototype with a strong minimalistic interface! I was able to complete all three tasks, however, had the most trouble with the 3rd task (Make a plan to achieve the future I want). It seemed as if the extent of the plan was adjusting sliders and I wanted a little more than that to be able to take away actionable steps rather than just a list of numbers. I also think the compare spending with others feature/task could be expanded upon so users can select possible user groups to compare themselves to rather than just a general average. But otherwise, the UI looks great and I had a relatively easy time completing each task.

### ***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

