emSured

Prototype and Testing Protocol

Group 4 - Ctrl Freaks

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1. Will you create an interactive prototype before you begin coding (e.g. using Figma), or will you work from static wireframes?

Yes, we will create an interactive prototype before we begin coding. We will use our paper sketches and translate them into low-fidelity frames in Figma. After we flesh out the layout and structure with our low-fidelity frames, we will start building our hi-fidelity prototype. Our final hi-fidelity prototype will use an established design system and styles to ensure a consistent and unified look across all pages. By using predefined components and styles, we can also speed up the handoff process between designers and developers while reducing the chance of design inconsistencies. Utilizing auto-layout, the box model, and Figma's dev mode will make it easier for the developers to translate the designs into code.

2. What are the acceptance tests that your team will perform before beginning user testing? Describe the acceptance testing process for at least two key features, including which results would indicate a successful test and which results would indicate a failed test.

- Glossary feature acceptance tests:
    - Term count match
        - Success: The number of the glossary terms displayed on the page matches the number of entries in the JSON file.
        - Failure: The number of glossary terms do not match with the number of entries in the JSON file (terms are missing or duplicated).
    - Letter match
        - Success: When the user clicks on the letter directly under the search bar, the system will scroll automatically to the first term that starts with that letter.

        - Failure: When the user clicks on the letter directly under the search bar, the system scrolls automatically to a term that doesn't start with that letter.
    - Term order
        - Success: The terms will be listed and displayed in alphabetical order from A-Z.
        - Failure: The terms are not listed and displayed in alphabetical order from A-Z.
    - Search for terms
        - Success: When a user types into the search bar, only glossary terms that match the input (fully or partially) are displayed. If no matching terms exist, a message like "No results found" appears instead.
        - Failure: When a user types into the search bar, there is no change in filtering or the wrong term is displayed.
- Quiz Feature acceptance tests:
    - Progress bar updates
        - Success: The progress bar should accurately reflect the number of questions answered versus the total number of questions.
        - Failure: The progress bar stays the same or updates inaccurately as the user proceeds.
            - Example 1: The progress bar will stay at 0 even though the user is on question 2.
            - Example 2: The progress bar will change from reflecting 2 to 1 questions answered even though the user has proceeded to question 3.
    - Final score display

        - Success: The final score should correctly tally the number of correct responses.
            - Example: If the user got 10 out of 15 questions correct, the final score display should be 10/15.
        - Failure: The score is missing or incorrect at the end of the quiz.
            - Example 1: The final score does not appear at the end of the quiz.
            - Example 2: The user had gotten 10 out of 15 questions correct but the displayed score is 7/15.
    - Correct/Incorrect answer feedback
        - Success: When the user reviews their selection after completing the quiz, the system should signify if the answer the user selected is correct (green) or incorrect (red, while also highlighting the correct answer in green).
        - Failure: The system displays the correct answer as incorrect.
            - Example: If the user had gotten the correct answer but the system signifies that the answer is incorrect or vice versa.

3. What are the limitations of your acceptance tests? List some of the ways that your team's in-house testing environment may differ from the context in which your expected users will be interacting with the product.

One limitation is that when testing, the environment may not have stable internet connectivity. Poor connectivity may affect Firebase authentication or quiz data loading. Another limitation is that the acceptance tests don't capture the user's confusion. These tests check if the features work. However, they don't test if the user's experience is confusing or not. Wording on display might also be confusing so users might skip steps or misinterpret button functions.

4. How will you conduct user testing?

We will conduct user testing through multiple sessions with individuals from our target groups including newly employed individuals, students with job benefits, graduate students, recent alumni, and international students who have navigated through US healthcare. Each session will follow a three-phase approach: (1) a pre-test questionnaire assessing current confidence and understanding of health insurance, (2) guided task completion where participants explore our website's features while thinking aloud, and (3) a post-test interview gathering feedback and potential improvements. Participants will complete specific tasks such as navigating the login/signup process, checking quiz progress/scores, using the plan comparison tool, and engaging with educational content. This approach will help us identify usability issues and measure improvements in users' confidence regarding health insurance decisions.

Phase	Activities	Purpose
Pre-Test Assessment	Participants complete a short questionnaire about their current understanding and confidence with health insurance	Establish baseline metrics to measure improvement
Task Completion	Guided navigation through key features while thinking aloud	Identify usability issues and observe natural user behavior
Post-Test Interview	Semi-structured interview focused on user experience	Gather qualitative feedback on effectiveness and potential improvements

5. How will you decide which bugs to fix first?

We will address bugs in our product based on their assigned priority level. Each feature is classified from P0 to P2, with P0 indicating core functionality. Bugs in P0 features will be fixed immediately, as they may impact the core user experience. Bugs in P1 and P2 features will be addressed subsequently, in order of their severity and impact. We will identify bugs through structured usability testing and user feedback. Bug resolutions will be verified through regression testing to ensure bugs have been resolved.

6. How will you re-test the solution after the bug fixes have been completed?

Once we fix the bugs, we will re-test the solution by asking the same individuals to take a look again (those who participated in the initial user testing) and ask if the bugs have been fixed. We are looking for improvement in the design and functionality that meets their needs. Besides fixing the bugs, we want to implement the feedback the users mentioned in their initial post-test interview. This ensures that our solution functions properly and does the job of improving user's confidence regarding health insurance decisions.