SustainEd

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Feature	Successful Test	Failed Test
Filtering through the library of resources	The user should be able to filter by the resource type, environment/sustainability topic, grade level comprehension, and search terms for the titles. After submitting the filters, the website should return the resources aligned with the filter criterias, otherwise it should return none and display a message indicating that no resources were found.	1. Resources that matched the filters were not returned after user submission.
Quiz results/resource recommendations	After taking the preference quiz, the user should be presented with 3 resources that match the options they selected in the quiz. The user should also be able to retake the quiz with the previously selected options being reset to unselected options each time.	1. The recommended resources are not presented (assuming there are resources that match the quiz answers in the "database" of resources we compiled) 2. The resources do not match up with the options the user has selected in the quiz (ex: the user is shown a set of podcasts when they selected a preference of PDFs) 3. Previously selected options are still selected after the retake quiz button is pressed.
Downloading a PDF from the resource library	Given a resource, the user should be able to interact with a button labeled "Download PDF" which should start a file download of a .pdf file containing the title, date, and description	1. Interaction of the download button fails to prompt a download on the user's device. 2. The returned PDF is missing text or has

	of the resource.	mismatched text from the resource’s displayed title, date, and description.
Viewing and Interacting with Events	1. The user should be able to view a list of events in a grid format, displaying relevant details such as event title, date, time, location, and type. 2. Clicking on the "Learn More" button should navigate to the event's external link in a new tab. 3. The events should dynamically update and display based on Sustainability Type filter and Newest/Oldest First sorting option.	1. The grid does not render all events correctly; some events are missing or duplicated. 2. The "Learn More" button does not navigate to the correct external link or fails to open in a new tab. 3. Filtering by type or sorting by date does not return accurate results or clears all events.
User Authentication (Favoriting resources)	If logged in, the user is able to successfully favorite an event or resource by clicking the star icon. The star icon should not appear if the session is not authenticated. The event or resource is saved under the user in the Firebase Realtime Database, allowing favorited items to be viewed anytime the user is logged into their account.	1. The favorite button does not save the event or resource to the database. 2. The user cannot see their saved items whenever they log in or refresh the page.
User Authentication (via Profile page)	If logged in, the user is able to access the profile page, showing their information and most recent quiz results. The most recent quiz	1) The profile page does not show the correct user information 2) Unauthorized users (not logged in) can access the profile page

	results are saved in the Realtime Database and shown in the profile after the authenticated user takes the quiz. The recent quiz results are only replaced if the most recent quiz result has at least 1 resource.	3) Quiz results are not correctly updated after the user retakes the quiz (assuming they get different results)

Limitations:

- The output of filtering resources based on the search bar's user input may lead to different outcomes as opposed to what the user expected to see. (e.g. results shown will only include the exact term as programmed, but the user might expect to find similar results to the term instead.)
- The features provided may not suffice for the user's needs. (e.g. The filter is only a list that allows for one input, but the user may require the ability to select a wide range of options, which makes the user feel limited in their interaction with the product.)
- The output of the quiz test may differ from what the user actually wants. The user may provide feedback on the wording of the quiz that may make the questions confusing since we are not user testing the design of the questions until it is already built.
- Some of the resources may be incorrectly tagged which may cause the results of the quiz to provide resources that the user may actually not want. (e.g. a resource may be tagged as "11th grade" but in reality is aimed at 9th graders).
- The user may search for words that do not provide for any results. Since we are hard coding a lot of the data, the user may look for resources that we have not included on the database.

How will we conduct user testing?

- We will conduct user testing using mostly manual user testing. Each team member will simulate tasks such as filtering events/resources, completing the quiz, or signing in to uncover any usability issues, which will help gather any insights on the design and functionality of the app (like ensuring everything renders correctly). We also plan to create automated Jest tests for edge cases and specific user instances such as clearing all filters should display all entries,

no results for non-matching filters, and resetting the quiz should reset/clear the results.

Known bugs

- Not every combination of options in the quiz will yield a set of 3 resources. This is due to time constraints that prevented us from finding a matching set of resources for every possible combination of options. Our temporary workaround is to select the following options for better results:
    - Any grade level
    - Media type: PDFs or Podcasts
    - Subject area: Science, English or Math
    - Time range: 15-30 minutes or Less than 15 minutes (only if the podcast option was chosen earlier)
    - Area: Impacts of Climate Change

How will we decide which bugs to fix first?

- Bugs that heavily impact the usability of our main features such as the recommended resources, login/sign-up feature, or the filters/sorting options not showing the correct results will be prioritized. We want to ensure that our main functions work before attending to other smaller fixes (in terms of design or organization).

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

- We will re-test the solution by replicating the same environment in which the bugs appeared. We will review the areas where the bugs appeared and see how they changed according to our fixes. We can then conduct user testing again and ensure that no new bugs appear from our solution. If new bugs appear, we will go through the same process again and fix those as well.