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CS5760

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Evaluation Assignment 2



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Short Description

Crab Shack Kitchen is a web-based app used by scientists to streamline the process of converting citizen science data into usable and accurate information in the form of a digitized catalog of crab specimens.

Identification of UI domain

Website/Wizard

List of Heuristic Principles

Jakob Nielsen's 10 Usability Heuristics:

Visibility of system status

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

Match between system and the real world

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

User control and freedom

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

Consistency and standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

Error prevention

Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

Recognition rather than recall

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

Flexibility and efficiency of use

Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

Aesthetic and minimalist design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

Help users recognize, diagnose, and recover from errors

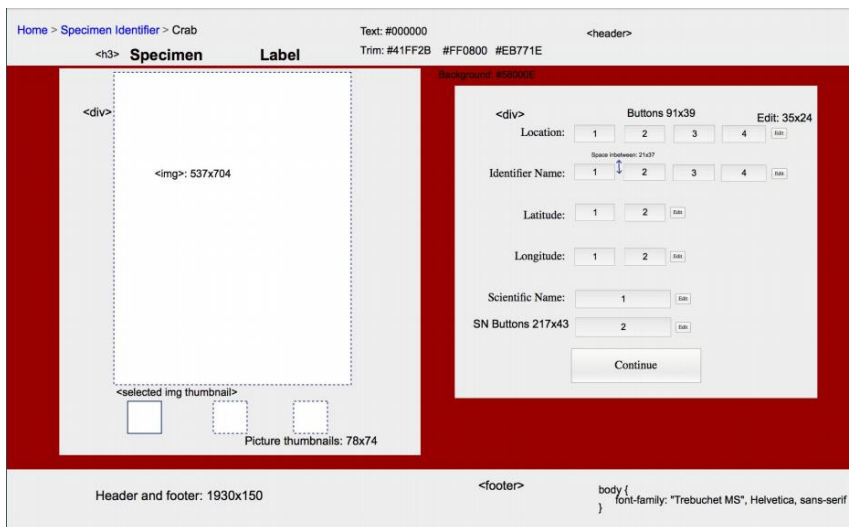
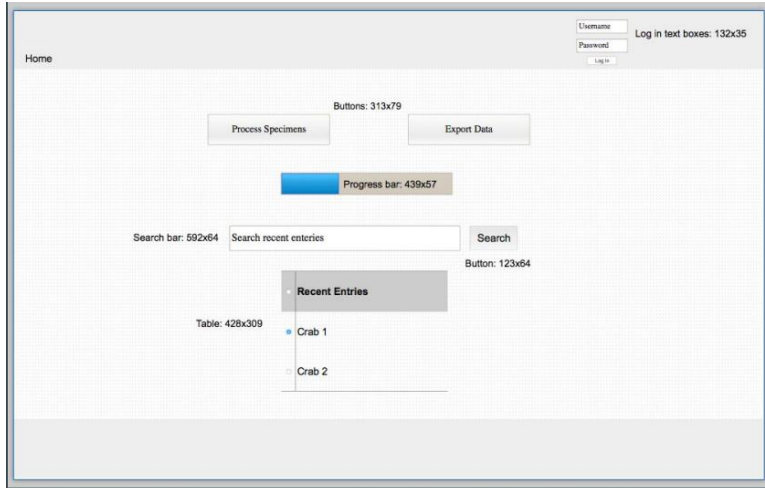
Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

Help and documentation

Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

For specially this application, I will focus on the heuristics "flexibility and efficiency of use", "error prevention", and "aesthetic and minimalist design" as these relate to the task. The scientist will have hundreds of specimen labels to consolidate, so being able to do the task quickly and with few errors is critical.

Usability problems



General questions:

- 1) Is this what the user sees before signing in? What do they see after signing in?
- 2) Is there a "help" section?

Small Usability issues:

- 1) Replace "search recent entries" with a better label; make grey or semi-transparent as a cue that text will be replaced when clicked on. **(Consistency and Standards)**
- 2) Use icons in addition to general rectangle boxes with text labels (export data icon is like an arrow pointing down from a cloud, etc). **(Match between system and real world)**
- 3) Bottom table is same color as the background. It doesn't have the gestalt principal of "closure" separating it from the background. **(Aesthetic/Minimalist Design)**

- 4) Think about which buttons will be selected the most (process specimen) and least (export file) often. Change the accessibility to match (location, size, etc.). **(Match between system and real world)**
- 5) Be careful that the background color (dark red) is something that is easy on eyes if viewed for hours. **(Aesthetic/Minimalist Design)**
- 6) Include the stacked bar graph for “progress done 0-100%” bar like the scientist suggested, delineated the specific user’s contribution to the whole. **(Match between system and real world)**

Critical Usability Concerns

- 1) Not sure how the “Edit” button works. **(Match between system and real world)**
- 2) Nothing in footer, should include a list of previously entered labels. **(Error Prevention)**
- 3) Not sure how many questions will fit on the screen with this simple vertical style list (scroll bar needed?). Should arrange them in the same manner as the specimen labels. **(Match between system and real world)**
- 4) Hotkeys. **(Flexibility and Efficiency of Use)**
- 5) Documentation for hotkeys (and everything else). **(Help and Documentation)**
- 6) Provide some indication (or labeling) about how likely an option is correct. If the first option (to the left) is the most likely, it should say so at least once on the page). **(Error Prevention)**
- 7) User should see something (like a confirmation notification) when they select submit, so they know for sure their work was just added. **(Visibility of system status).**
- 8) There is no difference between the “process new specimen” page and “correct previous submission” page. They should be very similar, but the user should be able to at least tell the difference. **(Visibility of system status)**
- 9) A lot of blank space in between the edge of the picture and the label options. Requires the user to look (and mouse) from side to side often. **(Flexibility and efficiency of use)**
- 10) Big “continue” button very close to bottom option, could be accidentally clicked prematurely. **(Error prevention)**

Short story

Dean Pentcheff has been cataloging specimens all day. He just returned from lunch and attempts to continue his work. He arrives at the first page, and clicks a button to enter in the specimen label page. He accidentally clicks the “export data” option because the two buttons look so similar. He navigates back to the page and selects the appropriate “process specimens” button. Nothing happens. He forgot to log in, and there was nothing to cue him into the fact that he needed to log in before he could continue to process specimens. He instead tries to look at a few of his previous submissions. He notices there are three listed at the bottom of the page, but he is unsure of which three those are. There is no scroll wheel to view any more, and he is unsure if those are the last three, or the first three he ever submitted. He is frustrated that he cannot find the specific submission that he suspected of being incorrect over lunch. He finally logs in and is back to processing specimen labels. His eyes are growing fatigued due to the red background. He frequently has to recheck the label picture multiple times because the options he’s checking are in a different visual field than the image. His arm has grown tired moving his mouse

back and forth from zooming in on the picture on the left to selecting the corresponding option on the right.