
Crab Shack Kitchen Web Application

EVALUATION ASSIGNMENT 2

HEURISTIC EVALUATION

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1 Introduction

1.1 Web System Description

The primary focus of the Crab shack kitchen application is to provide a faster method of cataloging specimens compared to manually typing the specimen names into the database software. Keeping this in mind the goal of the system design is to be clear, simple and efficient to use. The design's main focus is the cataloging process which includes selecting 1 of 4 buttons for each specimen property.

Figure 1: Application cataloging page mock up

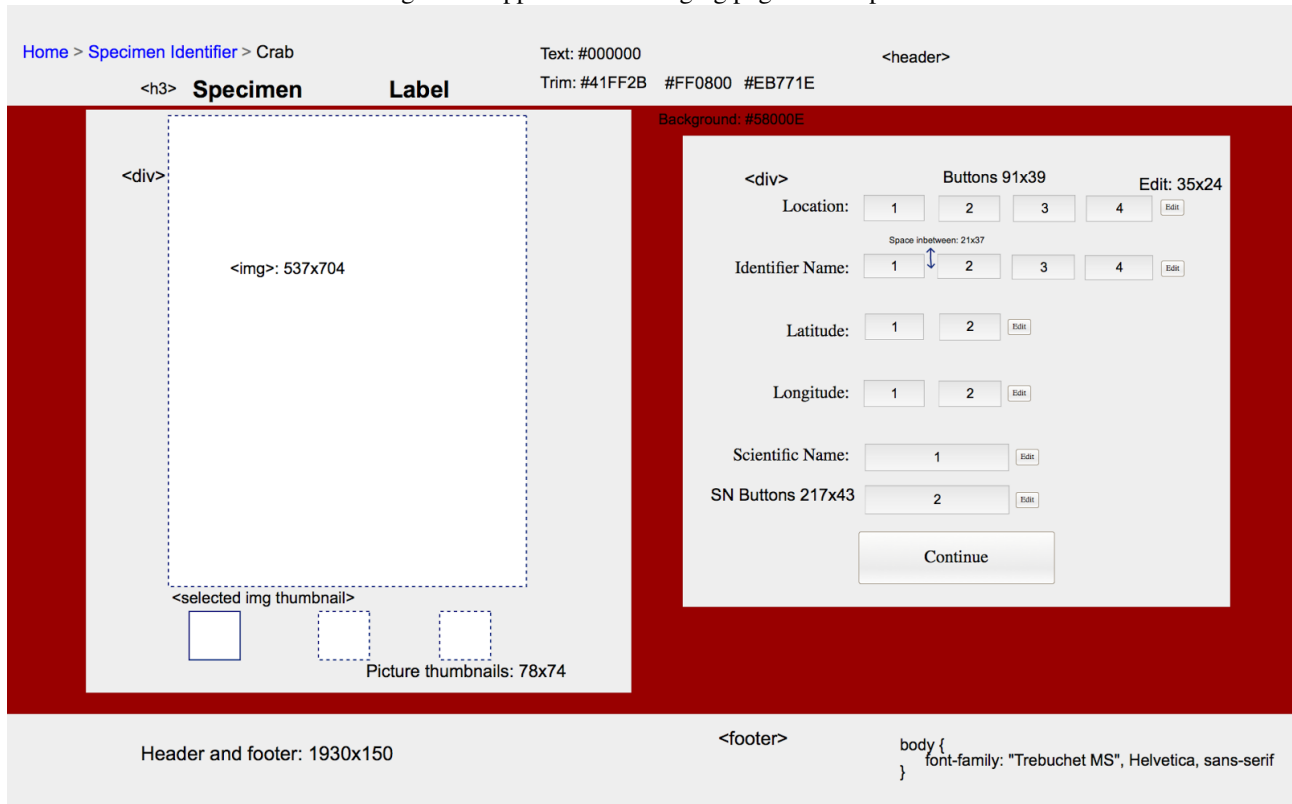
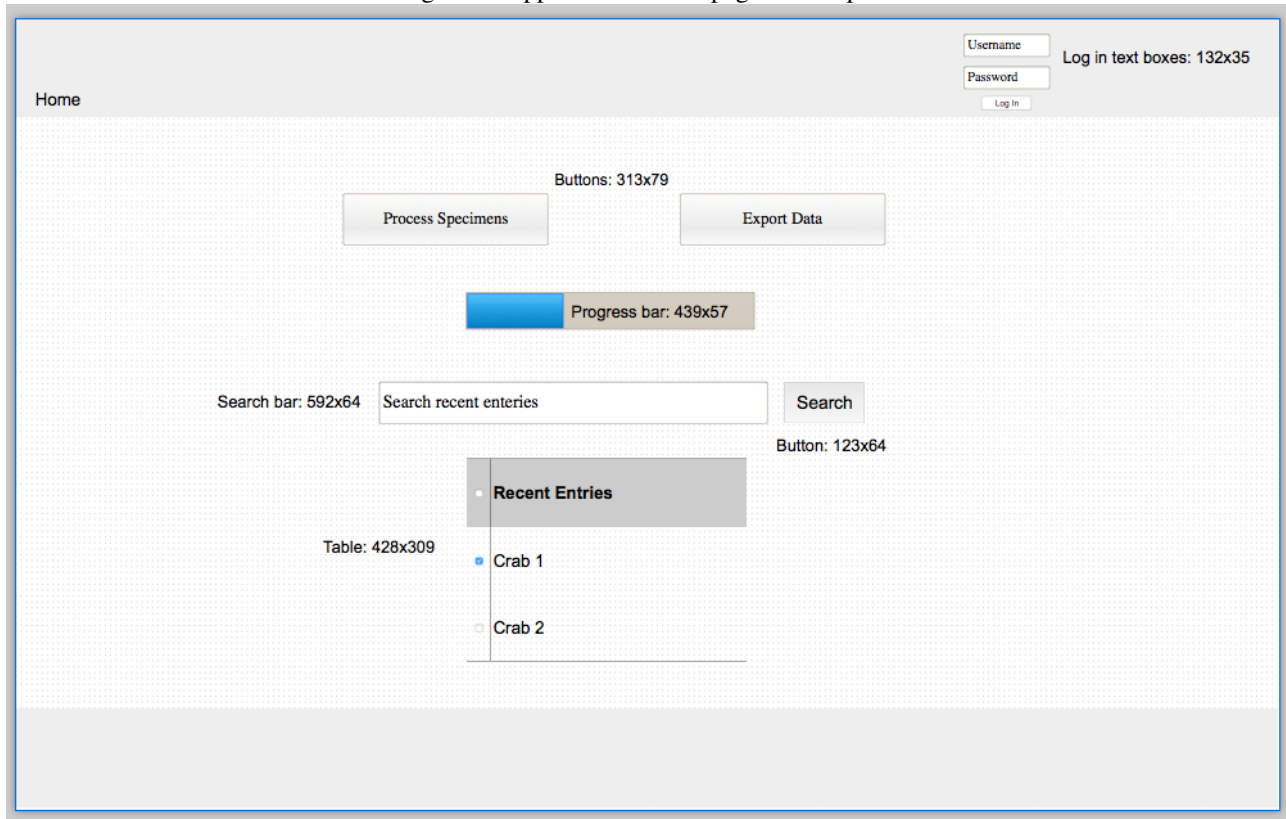


Figure 2: Application search page mock up



2 Identification of the UI domain

The web system belongs to a **data organizing/cataloging website UI domain**. The website will be used for organizing chunks of data specific to each crab specimen. Although the application is a website, it has a 'software as a service' feel to it.

3 List of Heuristic Usability Principles

I have selected heuristic design principles based on Jakob Nielsen's 10 usability heuristics and added descriptions with respect to the Crab Shack application. I have listed them in order of priority for the application.

1. 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.

This can be very useful to the scientists as they get more efficient with using the application. Efficiency is one of the primary focuses of the application.

2. 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.

A simpler, cleaner design is important because there is a lot of information to display to the user. Which is why the interface needs to be concise and well laid out.

3. 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.

A user could get very frustrated if they encounter an error after a long session of cataloging. Error prevention and automatic correction of the same will be appreciated by the user.

4. 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.

The users will be prone to making mistakes, specially in the data heavy user interface. It is a good idea to help them make changes quickly.

5. 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.

The user already has a lot of things to remember and concentrate on during the cataloging process. The user should be focused on the cataloging task and not on trying to remember how to use the application.

6. Visibility of system status

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

The application should be able to provide useful information about the current state of cataloging to the user.

4 Usability Problems

1. On the Home page, the recent entries table seems very tiny. Maybe this table could provide a bit more information about the recent specimen that was finished. For example, Specimen ID cataloged by Scientist 1 - today. The lack of information violates the visibility of system status principle.
2. Change gray footer with something that provides more information, like the sliding thumbnails we discussed in class for easy navigation. The lack of information violates the visibility of system status principle.
3. Include the stacked progress bar that depicts contribution of each cataloger as requested by our scientist. This contributes to the visibility of system status.
4. The edit button is not clear and adds an extra step to the process of cataloging. Having a text box that is already editable as opposed to an Edit button will speed up the process. This violates the efficiency principle.
5. The red background could be a bit much when looking at the screen for long periods of time. A simpler plain background color that does not clash with the foreground would be better suited. This violates the aesthetic and minimalist design principle.
6. The gray border around the image on the catalog page is taking up a lot of space and not really contributing to the information provided to the user. Cutting down on this space will allow for a larger image to be displayed. This violates the aesthetic and minimalist design principle.
7. There is no log out button visible on the cataloging or home page. This button should be included in the application. This violates the User control and freedom principle.
8. Add some keyboard shortcuts for expert users based on repetitive task. This will help improve the flexibility and efficiency of use usability principle.

5 Identification of Critical Usability Concerns

1. On the Home page, the recent entries table seems very tiny. This could cause the scientist to be confused about which entry he was looking for exactly. Which means he will need to go through all his recently cataloged specimens to find the one he is looking for. This violates the efficiency principle in a very big way.
2. The edit button is not clear and adds an extra step to the process of cataloging. Additionally, considering the labels may not always line up, the scientist could click on the wrong edit button by mistake.
3. There is no log out button visible on the cataloging or home page. This breaks user freedom and does not allow the user to go back to the initial application state.

6 Critical Usability Concerns with a Short Story

Dr. Dean Pentcheff logs into the website to start cataloging specimens. He finishes cataloging about 20 specimens before lunch time. He decides to continue after lunch. He looks for the log out button but can't find it. So he shuts down his browser and logs out of his computer instead. He returns after lunch and logs in to his computer again. Annoyed that he had to wait for the system to reboot, he makes a mistake in the cataloging process. Later in the day he realizes he made a mistake and goes back to main page to fix the mistake. However, other scientists have also been simultaneously cataloging specimens and the recent entries show their results as well. Dean digs through each recently categorized specimen and finally finds the one he is looking for. He clicks on the edit field to change the text field and then manually types in correct entry. He wonders why he went through all that trouble to edit the field and didn't just directly type it into the database software. He then goes back to the main page and continues to log specimens.

Appendix A Meeting Notes

- What is the resolution / size of monitor used (questions about images)?
1920 x 1200 (use this as minimum requirement)
- Zooming on pictures? Side by side? Selecting a thumbnail to view?
No need to have all 3 images side by side. Zooming will be very useful.
- How will you identify an item to return to ?
Recently edited search is a great way to find specimens.
- Scientist wants to give credit to people that recorded (correct) data in database.
Not sure how to do this yet.
- Introduce stacked progress bar to show each contributor's progress.