Crab Shack Kitchen Web Application

EVALUATION ASSIGNMENT 1

WEBSITE AND STAKEHOLDERS, GOALS AND TASK ANALYSIS

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1   Introduction

1.1   Web System Description

The Natural History Museum of Los Angeles County has used the help of a crowd sourced online transcription tool (Notes for Nature) to digitize a large number of handwritten crab specimen labels. Notes for nature provides 4 versions of the same specimen in order to account for mistakes. The scientists at the Natural History museum would like to aggregate these 4 transcription entries into one final data set. This is where the Crab Shack Kitchen application comes in. The application allows the scientists to quickly select the correct version of the transcription from the 4 given choices.

2   Stakeholder Analysis

The stake holder analysis shows the different stakeholders who have an influence on the project.

2.1   Stakeholder Onion diagram

The onion model shows various levels of influence by each stakeholder
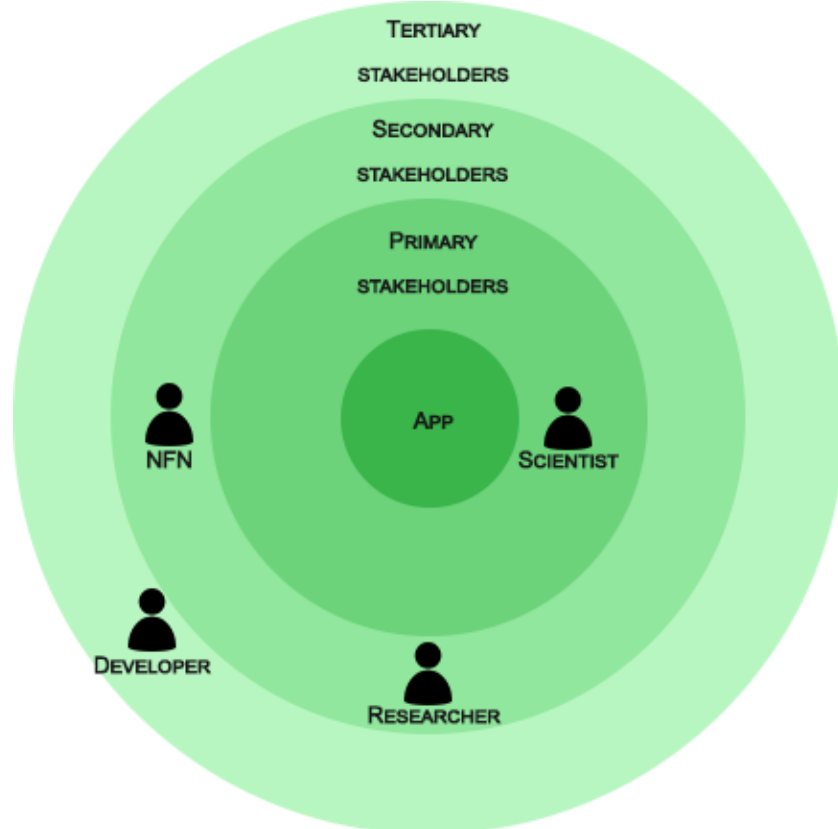
Figure 1: Onion Model

Table 1: Stakeholder Table

Stakeholder Table			
App	User	Secondary Stakeholder	Tertiary Stakeholders
Crab Shack Web Application			
Server & Database			
	Scientist		
		Notes for Nature team	
		Other Research Scientists	
			Developers
			Maintenance Staff

2.2   Stakeholder Description

1. The application itself- This includes the servers and databases required to make the application work. All technology associated with the application falls into this level.

2. The scientist - is the primary user in the application. He will be using the application along with his colleagues to build the final data set of crab specimens.

3. Notes for nature - would also like to see how they could use this application in their system. Many other scientists have faced a similar data aggregation problem and would also benefit from this application.

4. The developers - who help develop and maintain the application fall into the final tertiary stakeholder category.

2.3   Stakeholder Goal Influence Table

Table 2: Stakeholder Goal Influence Table

Crab Shack Kitchen Stakeholder Goal Influence Table			
Stakeholder	**Goals**	**Influences**	
		Contributing	**Constraining**
Scientist	Aggregate data sets	aggregated data	Clear & simple interactions
Notes for Nature team	Extend their website functionality	Interface to website	Compatibility of interfaces
Other Research Scientists	Aggregate & use specimen data	Data	Access to application
Developers	Build & deploy application	Application system	Efficiency & stability of App
Maintenance Staff	Maintain databases & systems	Maintenance	Downtime & access

2.3.1   Stakeholder Goal Influence Table Summary

Table 6 shows the various goals associated with the stakeholders mentioned in the onion model.

The scientist is the primary user of the application and his primary focus is to aggregate the data into a final data set. The scientist contributes this data to the application which once submitted will be saved in the application database. The scientist will be looking at this data for hours on end so the interface should be represented in a simple clear manner. Any misinterpretation of the user interface can cause the scientist to make mistakes in the system.

Notes for nature is the crowd sourced transcription website that was used to transcribe the specimen labels. Their website lacks the functionality to aggregate the four versions of the data received. They might be interested in the application to extend their website functionality. The obvious constraint is the fact that the interfaces might be incompatible.

The application functionality could be extended to other scientists who are facing the same aggregation issue as the scientist in Los Angeles. The application might also be used as a digital reference of the original handwritten labels. However, these external users might need to be given access to the application and would require some sort of authentication mechanism.

Developers of the application would like to have a stable working build of the application. The application generally has a strict time line and will also be constrained by the efficiency and stability of the application built by the developers.

Application maintenance is done by the maintenance staff. They will help maintain the databases and the systems of the application. They will also provide support in case of faults. Any maintenance activity usually comes with some amount of downtime during which the application is inaccessible. They will also require access to critical aspects of the application, which would require an authentication system.

3   Personas

3.1   Two Primary Users

3.1.1   Primary User - Merv Humbert

Table 3: Merv Humbert - Persona

Merv Humbert - Persona	
Persona:	Data Collection Scientist at Museum
Name:	Merv Humbert
Job title:	Chief Data Analyst
Age:	54
Gender:	Male
Education:	Ph.D. in Data Analysis
Goals & tasks :	Maintain data consistency across the entire team. Monitor team activities. Assign team tasks.
Behavior :	Merv is comfortable with using a computer. He sends out emails on a regular basis. He is also an expert at the museum data collection software.
Relationships :	Merv is the team lead. He oversees all data analysis task that the team performs.

3.1.2   Primary User - Denise Autumn

Table 4: Denise Autumn - Persona

Denise Autumn - Persona	
Persona:	Data Collection Scientist at Museum
Name:	Denise Autumn
Job title:	Data Analyst
Age:	36
Gender:	Female
Education:	Masters Degree in Data Systems
Goals & tasks :	Verify data correctness. Log all collection activities of team. Maintain data files.
Behavior :	Denise is an advanced computer user. She knows how to read and write code for the collection systems.
Relationships :	Denise is the team's technical advisor and helps them when there is a technical issue.

3.2 Two Secondary Users

3.2.1 Secondary User - Lyndsay Kassia

Table 5: Lyndsay Kassia- Persona

Lyndsay Kassia - Persona	
Persona:	Team lead at Notes for Nature
Name:	Lyndsay Kassia
Job title:	Lead Developer
Age:	34
Gender:	Female
Education:	Masters Degree in Computer Engineering
Goals & tasks :	Guide the team on website development. Assign team tasks. Monitor team activities.
Behavior :	Lyndsay is an advanced computer user and developer. She knows how to read and write code for advanced systems.
Relationships :	Lyndsay is the team's technical lead. She sets technical tasks for team members.

3.2.2 Secondary User - Neville Gresham

Table 6: Neville Gresham- Persona

Neville Gresham - Persona	
Persona:	Marine Biologist at Research Lab
Name:	Neville Gresham
Job title:	Marine Biologist
Age:	44
Gender:	Male
Education:	Ph.D in Marine Biology
Goals & tasks :	Catalog and Analyze marine life. Assign research team tasks. Monitor research activities.
Behavior :	Neville is novice computer user. He is not very comfortable with using computers. He only sends emails occasionally.
Relationships :	Neville is the team's lead researcher. He sets and evaluates research tasks for team members.

4 Simplified Hierarchical Task Analysis

Crab Shack Application Simplified HTA
> **Upper Level views:**
>> Authentication view
>> Task Selection view
>>> Classify new specimen view
>>> Search existing specimen view
>>> Import new database view
> **Lower Level views:**
>> Authentication view
>>> Username
>>> Password
>>> Forgot Password
>>> Submit
>> Classify new specimen view
>>> Photo
>>> Select values
>>> Text box values
>>> Save
>>> Reset
>>> Back
>> Search existing specimen view
>>> Type specimen name Text box
>>> Search
>>> View found Specimen
>>> Edit found Specimen
>>> Back
>> Import new database view
>>> Select file
>>> Import
>>> Back

4.1 Summary of Simplified Hierarchical Task Analysis

The simplified task analysis describes the basic application views present in the Crab Shack Kitchen application. The authentication view provides the user a secure access point to the application. The task selection view provides the user with three options either to classify/view a specimen or import a new database. The classify new specimen view provides the user with a photo and data fields related to that photo. The user can select and save the correct data and move on to the next specimen. The search existing specimen view allows the user to search for a specimen and subsequently view or edit it. Finally, the import new database view allows the user to import a CSV file into the application backend.

Appendix A   Meeting Notes

- What is the long term goal for this application beyond comparing existing records?
  If the application is successful Notes for nature would like to use it for other projects with other scientists.

- Who are the users for this application?
  Scientist and data gathering experts at the natural history museum.

- What data would you like to be tracked for the crabs?

  Data can be varied, hence it's necessary to have an OTHER option to enter custom text.

- You mentioned in the initial application idea that each crab has several identifying numbers, would you like one particular value to be used in order to select or organize the crab data?

  All data is related to an identification ID in CSV file.

- Can we see the data that has already been collected?

  Yes. Once he receives it from Notes from Nature

- How can we access the data?

  He shared a google drive link with us that showed screenshots of various aspects of online classification process.

- Should users be able to review/change final records that are consistent across all four attempts?

  Yes, this could be useful.

- What should the application finally output?

  The museum uses a software called Specify that uses a CSV file as input. So the application should output a CSV file.

Figure A2: Application Mock Up