

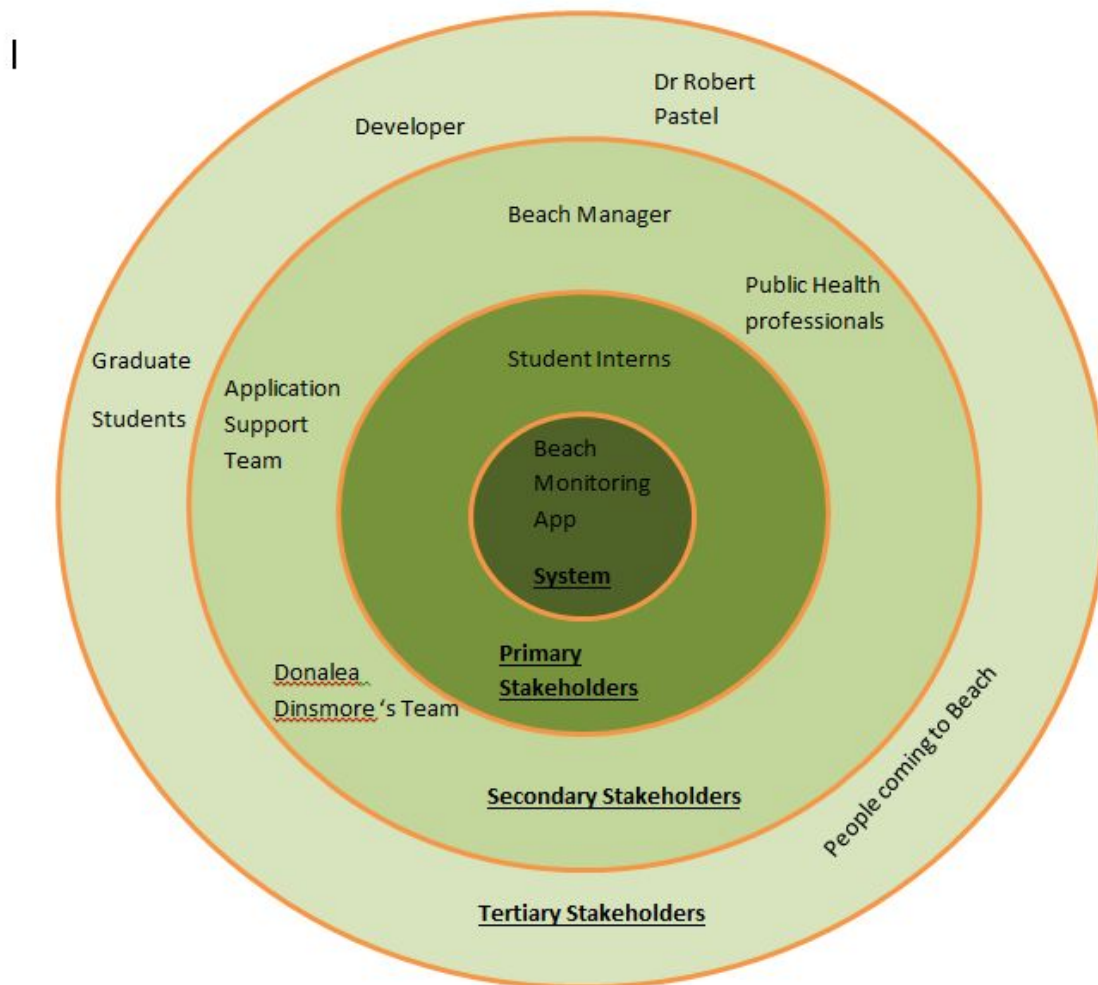
# Evaluation Assignment 1 – Website and Stakeholders, Goals and Task Analysis

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Team Phoenix

**Team Phoenix** : This Team is responsible for designing the interface for Beach Monitoring App. This app is used to collect data for the beach monitoring. This collected data is used to develop a model that predicts bacteria levels . The app will basically be a medium to update the data on the Wisconsin DNR and the health department or other entity responsible for the beach. Along with the interface team phoenix have to maintain a database for the data.

## Stakeholder Onion diagram



## Stakeholders' short descriptions

### Primary Stakeholders

**Student Interns:** Student interns are hired to collect data. They have access to smart phones and they use the mobile application Beach Monitoring App

### Secondary Stakeholders

**Beach Manager:** Beach manager is the person who uses the collected data passes as input to the model.

**Application Support Team:** It is the team involved in maintenance of the application. It provides support to the users when they face any issue.

**Donalea Dinsmore's Team:** Donalea Dinsmore's team will develop a model that predicts bacteria levels and they are part of a standardized sanitary survey. The sanitary survey information helps public health professionals identify potential causes of contamination.

**Public Health professionals:** Public Health professionals can use the predicted bacteria levels in order to identify potential cause of contamination

**Tertiary Stakeholders**

**Developer:** The undergraduate group developing the app.

**People coming to beach:** The residents near the Beach who are affected by the contamination of the beach.

**Graduate Students :** Graduate students who will evaluate the application.

**Professor Pastel:** Professor Pastel as he is the instructor for the course and allotted the projects to the undergraduates

**Stakeholder Goal Influence Table**

Stakeholder	Goal	Influences
Student Interns	<ul style="list-style-type: none"> <li>To gain research experience</li> <li>Earn money.</li> </ul>	<ul style="list-style-type: none"> <li><b>Contribution:</b>To collect data relevant for the sanitary survey.</li> <li><b>Constraints</b> are weather conditions.</li> <li>No cellular signals or wifi signals</li> </ul>
Beach Manager	<ul style="list-style-type: none"> <li>To know the predicted bacteria level by passing data to the model</li> </ul>	<ul style="list-style-type: none"> <li><b>Contribution:</b> Beach manager is responsible for updating the data collected by the student interns.</li> <li>He is also responsible for making reports of the output(bacteria level predicted) of the model</li> </ul>
Application Support Team	<ul style="list-style-type: none"> <li>To support the application users and fix any bugs in the app</li> </ul>	<ul style="list-style-type: none"> <li><b>Contribution:</b> They are responsible for providing quick issue resolution to the users of the app.</li> <li>They also monitor the app to find any bugs</li> </ul>
Donalea Dinsmore's Team	<ul style="list-style-type: none"> <li>To develop a predictive model that takes the data</li> </ul>	<ul style="list-style-type: none"> <li><b>Contribution:</b> To develop a high accuracy predictive model.</li> </ul>

	collected at the beach and predict the bacteria level	
Developer	<ul style="list-style-type: none"> <li>To develop the mobile application.</li> <li>To learn how to build a usable human computer interface</li> </ul>	<ul style="list-style-type: none"> <li><b>Contribution:</b>Responsible for designing interface of the app with good human computer interaction.</li> <li>Students have time constraint as they need to work on other courses as well</li> </ul>
Graduate Students	<ul style="list-style-type: none"> <li>To evaluate the usability of the app and learn about human computer interface with higher usability</li> </ul>	<ul style="list-style-type: none"> <li>Graduate students have to properly evaluate the interface</li> <li>Time constraint as students have other classes as well</li> </ul>
People coming to Beach	<ul style="list-style-type: none"> <li>To enjoy at the beach.</li> <li>Spent quality time with family</li> <li>Enjoy nature</li> </ul>	<ul style="list-style-type: none"> <li>People are responsible for the data collected.</li> </ul>
Public Health professionals	<ul style="list-style-type: none"> <li>To identify the potential cause of contamination using the model</li> </ul>	<ul style="list-style-type: none"> <li>Responsible to take necessary measures after knowing the bacteria levels predicted. Health professionals must take precautions to reduce contamination levels</li> </ul>
Dr Robert Pastel	<ul style="list-style-type: none"> <li>To teach usability of human computer interaction</li> </ul>	<ul style="list-style-type: none"> <li>Professor has to evaluate both undergraduate and graduate students work</li> </ul>

### Summary of the Stakeholder Goal Influence Table

**Student Interns:** Student interns are hired to collect data on the beach . They are the primary users of the application. Students interns goal is to get research experience and add this work on their resumes . They are responsible for accurate data. They may not be able to collect data

on rainy days and this is one constraint they face. Wifi signals and cellular data signals may not be available during monitoring.

**Beach Manager:** The beach Manager is responsible for all the data collected. He will be the one passing the data to the model and get the result of predicted bacteria level. He may then use this data and output to make a report , so that he can present them to the public health professionals

**Application Support Team:**This team provides support to the application. They try to fix bugs in the application or help users facing issues. They contribute by resolving issues in the application.

**Donalea Dinsmore's Team:** This is the team headed by computer scientist Donalea Dinsmore. She and her team is responsible for building a model that would take the collected data as the input and predict the bacteria level on the beach.

**Public Health professionals:** These are the officials who can take the necessary measures to reduce the contamination. The reports form the model are used by them to determine what to done , in order to reduce bacteria levels on the beach.

**Developers:** They are the undergraduate students team who will build the interface for the app. Their main goal is to learn how to design a human computer interface with high usability. They will have meetings with the computer scientist ,DONalea Dinsmore and collect the interface requirements and expectations and design the interface accordingly. As they are undergraduate students,they have other courses to complete , time is a constraint for them.

**Graduate Students:**They are the ones who will evaluate the interface. As part of the course, graduates will learn about human computer interface with high usability. Graduate students have to do research paper along with the evaluation, so time may be a constraint for them.

**People coming to Beach:** They come to visit the beach , have quality time with family or enjoy the nature. They are responsible for the data being collected. Their actions will have impact on the beach pollution . At the same time contamination will affect their health.

**Dr Robert Pastel:** As the instructor of the course , his goal is to teach the undergraduate and graduate students about the human computer interaction. He is responsible for assigning the projects to the groups and evaluating their performance

## Personas

### Primary Stakeholders

#### Emma Winter

**Age:20**

#### Undergraduate Student with Biological science

Emma has a Android phone and she is a right hander. She is an animal lover.She advocates for preservation of every species for ecological balance. Emma has good photography skills and likes to take pictures.

#### Suresh Jain

**Age:21**

**Undergraduate student in Environmental Sciences**

Suresh has a Iphone and is left hander. Suresh dreams for a pollution free environment. Suresh favourite topic of discussion is global warming. With this app, Suresh likes to collect data about the wastes around the beach . He would also like to report the pollution causing activities performed by the people visiting the beach.

**Name: Jeremy Johnson**

**Age:32**

**Data Analyst in Donalea Dinsmore Team**

Jeremy has a good experience in the field of prediction analysis. He has worked with huge amounts of disparate data and developed many predictive data models. Jeremy likes to find relationships between every data possible as he believes anything can be a factor for prediction.

**Name: Candace Flynn**

**Age 25**

**Research assistant in Donalea Dinsmore Team**

**City: Houghton**

Candace is a statistics student working under Donalea Dinsmore. She is developing predictive model for bacteria levels. Candace's area of interest is datamining and her main task is to clean the data collected by the student intern in order to feed the data to the model.

## **Simplified HTA**

**Upper level views:**

Main menu

Upload data button

See recently uploaded data button

Status of data upload button

**Lower Level views:**

Upload data Form View

Monitoring data fields

Sanitary Data fields

Submit button

Cancel Return to previous menu button

## **Summary of the simplified HTA**

- When the user opens the app , the main menu is displayed
- Upload Data button opens the form to upload data

- See recently uploaded data button displays the recently updated data
- Status of data upload button shows the status of the data upload in case of loss of wifi or cellular data connectivity
- Click on upload data button to open the form
- An empty form is displayed. User has to enter all the mandatory fields
- When the user click the submit button, the application checks whether all the mandatory fields are filled.
- If any mandatory fields are left, the empty fields are highlighted by red outline.
- Enter all the required fields and then click submit
- After submission app will check for the cellular or wifi signal, if signals not available the app will display message saying the data will be updated once the signals are available. If not the data is updated successfully
- Exit the application by clicking home button.

## Appendix:

As part of the beach monitoring application, Phoenix team is responsible to design a mobile application which would help the users to upload the data collected . The data is classified into two categories , monitoring data and sanitary data, Monitoring data is mainly about the beach and the date time the data has been collected etc., Sanitary data is about the conditions on the beach, like water temperatures, amount of algae present, bird count etc., This data when entered on the application must be updated on the database . In case of unavailability of wifi signals or cellular data signals, they must be provision to update the data later once the signals are available.