Evaluation Assignment # 1

Stakeholders, Goals and Task Analysis

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Programming Staff - Staff Gauge

SYSTEM(Staff Gauge):

Staff Gauge application forms a citizen scientist network which allows its users to upload the hydrology data about wetland and water stream from sites places on trails, in parks, and along rivers around the world. Basically our application has a HTML based form to collect the data from users which is compatible on mobile and web browsers. The data to be uploaded can be either text or picture which is stored in database(Tomcat) server in compliance with ODM schema typical to hydrology data storage. The users can not only have the access to data which they have uploaded but can have access to the data uploaded by other users.

STAKEHOLDERS:

Stakeholder Onion Diagram:

The Stakeholder Onion Diagram is a way of visualizing the relationship of stakeholders to a project goal.

The Stakeholder Onion Diagram usually consists of four components such as

1. System
2. Primary Stakeholders
3. Secondary Stakeholders
4. Tertiary Stakeholders

1. System:

In this project the application 'Staff Gauge' is considered as the system.

2. Primary Stakeholders:

The scientists who are conducting research on the staff gauge hydrology data can use the data collected in the database for their research. The users who use the application to know about the level of water at a particular area.

3. Secondary Stakeholders:

The volunteers and the scientists who upload the data to the database are the secondary stakeholders as they are the ones how are benefited by the system and using it.

4. Tertiary Stakeholders:

The developer team , consultants , Professor Dr. Pastel (not a direct user of the app but can monitor it), society(the people of the areas who are benefited by the results of the system), Michigan Technological University(overall outcome of the application through

student's involvement).
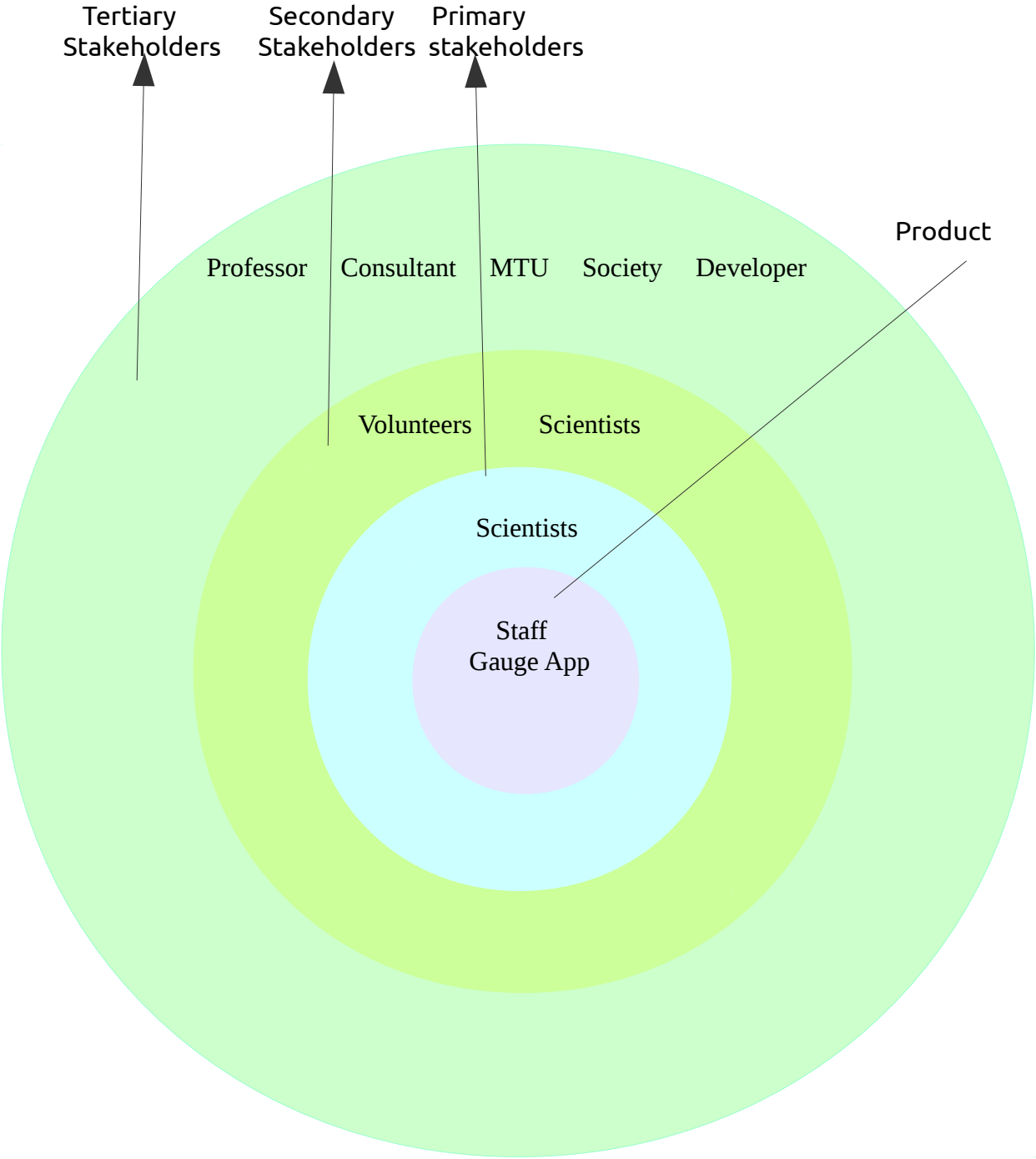
STAKEHOLDER ONION MODEL

Stakeholders Goal Influence Table:

Stakeholder	Goals	Contributing Influences	Constraining Influences
Scientist	Collect complete data and view results	Analysis of the aggregate data and interactions with developers	Programmable input and viewing access
Volunteers	Collection of Data	Upload Data	Easy & comprehensive interactions
Consultant	Efficiency of the application	Application Evaluation	Evaluation ability of the consultants
Professor	Completion of Application in time	Project design	Project Constraints
Developers	Robust completed application	Application design and implementation	Design, time and interaction constraints
MTU	Completed efficient Application	Application Protocols	Application constraints
Society	Use of Data		

Stakeholders Goal Influence Table Summary:

The most valuable contribution of data in this application is given by the volunteers as these volunteers are the ones who gather the information from all around the world. Scientists are the ones who contribute and constrain the most they are the ones who aggregate the data collected by volunteers. Scientists even provide constraints like the requirements of the application etc. Even the volunteers who are the main source of information requires the application to be simple so that any volunteer can use the application irrespective of their educational and technical skills.

Developers contribute to the analysis , design and implementation of the application according to the requirement of the scientist but the only constraint is the time for the completion of the project and if the interactions with the scientist isn't that good this may

also be a constraining influence. Consultants contribute to the usability evaluations and checks the efficiency of the application.

PERSONAS:
Primary Users:
Robert Jason
Gender: Male

Age: 42

Height: 6' 2"

Weight: 210lbs

Occupation: Scientist(Hydrologist)

Education: Phd in Environmental Science

Residence: Denver, Colorado

Tech Savvy: He is technically sound and uses both mobile and desktop.

Jason is a Hydrologist currently working in University Of Colorado in the forestry department. His research is mostly on the availability of water on earth. He has good teaching skills. He's so focused on his work. He is too interested in camping so he goes on camping along with his family. He has a good inter-net access both at work and in home.

Tim Rutherford
Gender: Male

Age: 22

Height: 6' 4"

Weight: 200lbs

Occupation: Student

Education: Studies Aerospace engineering

Residence: Los Angeles, California

Tech Savvy: He is technically sound and uses both mobile and laptop.

Rutherford is so adventurous. He always goes on trips to other continents during vacation. And mostly travels by sea. He is a fitness freak and works out everyday. He generally clicks a picture of what ever he sees. He prefers to use mobile mostly rather than

his laptop as it has a very good inter-net access. He refers himself to a regular user of internet.

Secondary Users:

Douglas Johnson

Gender: Male

Age: 30

Height: 5'10"

Weight: 195lbs

Occupation: Fisher Man

Education: High School Drop Out

Residence: Kingstown, West Indies

Tech Savvy: He is a novice user of his mobile.

Johnson is extremely hard working. He has the daily routine of going to work. He is good in both speaking and writing in English. He browses very rarely due to the lack of good inter-net facility and lack of knowledge to use his smart phone. The only thing he does often with his mobile is click pictures.

David Fernandes:

Gender: Male

Age: 45

Height: 6'

Weight: 220lbs

Occupation: Entrepreneur

Education: MBA in finance

Residence: London, United Kingdom

Tech Savvy: He is a good user of his mobile and desktop.

Fernandes is work oriented. He loves scuba diving and does it when ever he gets a chance to do so. He is very good at business technics. He always uses his mobile or desktop to refer to the stock exchange. He usually browse more than 4 hours when he is at work. He refers himself to the very regular user of the inter-net.

Simplified Hierarchical Task Analysis:

Start the Application

Home Page

    Form

        New form

            Location Selection

                Select Location of where the data is related to

            Timestamp

                Save

                Cancel

            Data type

                Text

            Gauge Number

                Save

                Cancel

            Water Level

                Save

                Cancel

            Picture

                Browse Picture

                Save

                Cancel

            Upload Form

                Confirm

                Cancel

        Edit form
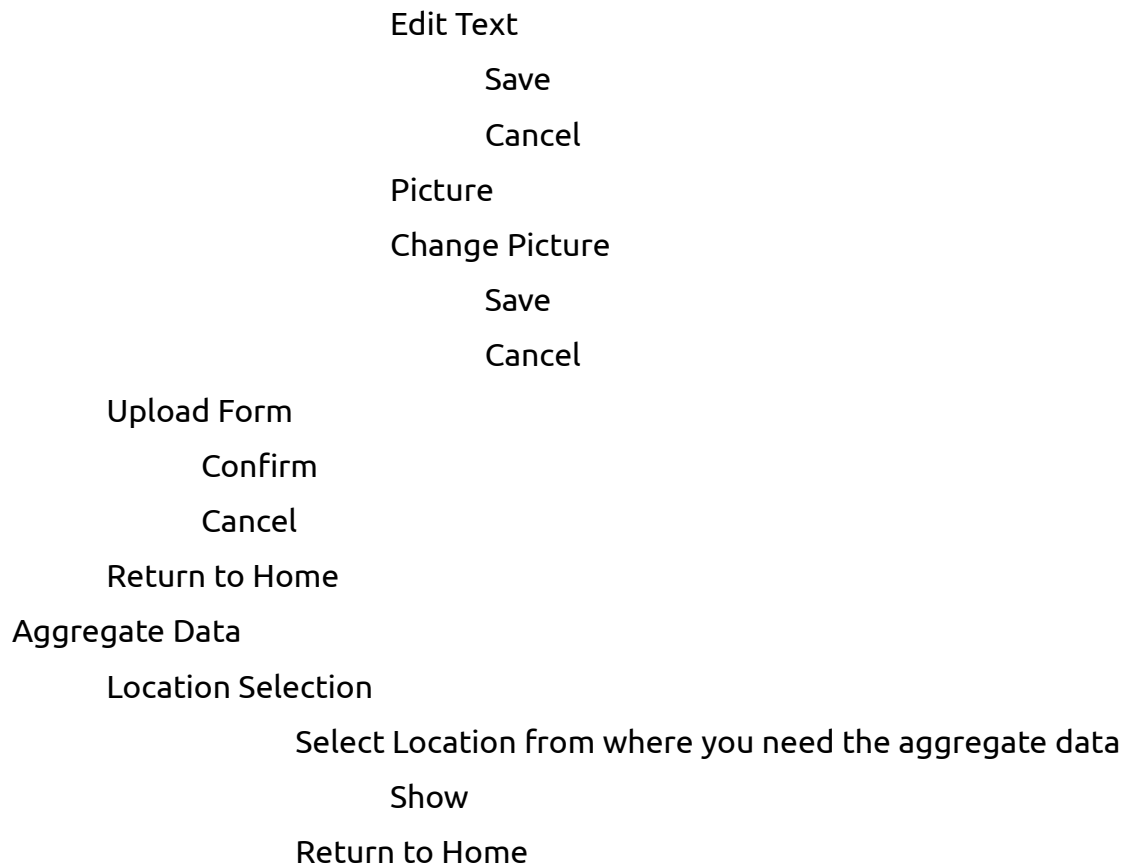
            Form list

                Form 1

                Form 2

                Form 3

                ....

                Form type list

                    Text

Edit Text

Save

Cancel

Picture

Change Picture

Save

Cancel

Upload Form

Confirm

Cancel

Return to Home

Aggregate Data

Location Selection

Select Location from where you need the aggregate data

Show

Return to Home

Summary of Hierarchical Task Analysis:

The 'Staff Gauge' application has a menu with two options for the end users who uses it : Form, aggregate data.

The user will login to their account from the homepage of the web application. Now if the user wants to upload the data he selects the form option then he has the option to either change the existing form or to add a new form. If the same user wants to upload a updated information about the same staff gauge then he can select the existing form. Then he can select which type of data he needs to change I.e either the text or the image. If the user wants to upload the information of a new staff gauge then he can select new form which then gives the location selector where he can select the location to where the data corresponds to. He then selects the type of data he needs to change I.e either the text or the image. The image selection should allow its user to upload multiple images. Then select upload to update your form in the database and confirm it.

Users can even look at the information of the other users by selecting the aggregate

data option. By selecting this user will be asked about the location from where he needs the aggregate data. After selecting the location user can select show option to get the aggregate data along with his data if uploaded from a particular location .