

Design Support Document

Project: Green Stormwater Infrastructure in SE Michigan

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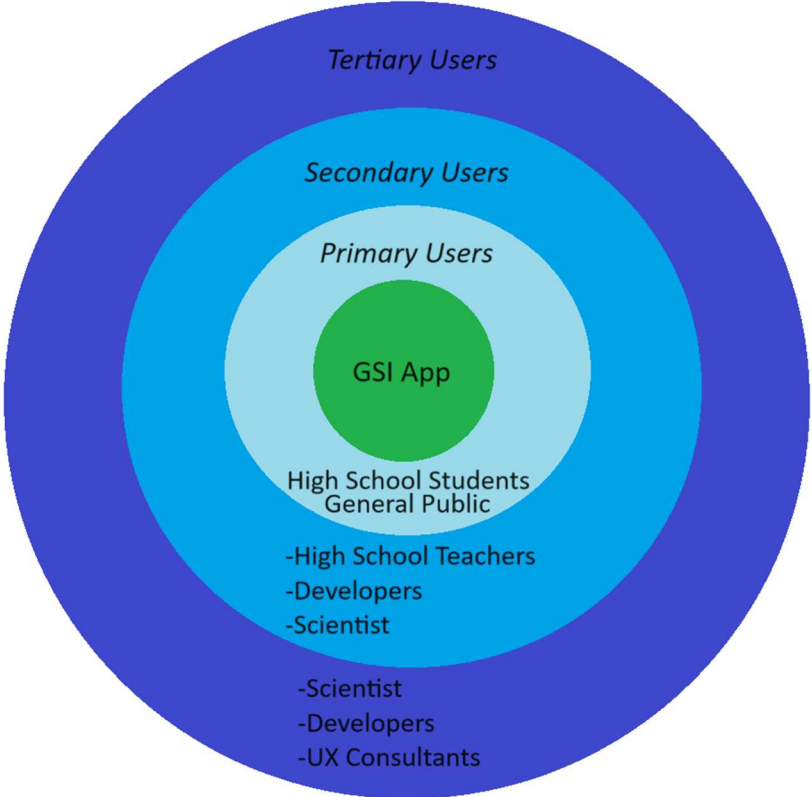
Maxim Reuchlein

System Description:

Green Stormwater Infrastructure(GSI) refers to the various environmentally friendly practices designed to manage and mitigate stormwater runoff in urban areas. It aims to replicate the natural water cycle disrupted by urbanization by using techniques like rain gardens, green roofs, permeable pavements, bioswales, rainwater harvesting, tree planting, and constructed wetlands. These methods not only help control flooding and improve water quality but also enhance urban biodiversity, provide recreational spaces, and contribute to the beautification of cities. This project aims to allow high school students to identify and upload GSI locations in their area and educate the general public about the importance of having GSI.

Stakeholder Analysis:

Onion Diagram



Stakeholder Description

1. High School Students- High School students studying in and around Southeast Michigan schools.
2. General Public- Any member of the public that can access the internet.
3. High School Teachers- Teachers responsible for training the students in the app usage and GSI education.
4. Scientist- Responsible for monitoring and collecting the GSI data being uploaded to the application along with moderation.
5. Developers- Responsible for developing, debugging and releasing the application for usage.
6. UX Consultants- Responsible for testing the application's usability and ensuring the client requirements are clearly understood among the developer team.

Goal-Influence Table

Stakeholder	Goal	Influence
High School Students	Obtain and Supply information on GSI locations for better education in Environmental Sciences	Primary users of the GSI App along with being the primary contributors of information that is hosted on the app
General Public	Read and get educated on the importance of GSI through the app.	Although a primary user, their influence is limited to possible feedback on the hosted information and UX
High School Teachers	Use the GSI App themselves and train the students how to use it	Will provide similar inputs to the High School Students with the added influence of training them in the usage of the app

Scientist	Collect the GSI information being uploaded to the app and propagate the importance of GSI among the target users	Will provide the initial data for the app. Also has moderator access to the information being supplied to the app. High influence on the design of the app due to being the client
Developers	Utilise a robust development methodology to effectively deliver what the client requires and provide the good experience to the Users.	Responsible for the entire development process right from requirement gathering to the delivery of the app.
UX Consultants	Ensure the correct translation of client requirements and streamline the User experience for the app	Responsible for providing constructive feedback to make the GSI App easy to use and provide a pleasant User experience.

Personas

Primary Users:

1. Name- Mr. Zoomer

Age- 16

Description- Zoomer is a High School Student enrolled in an Environmental Science class who has a mild interest in the field. Zoomer will be learning about GSI and its importance in the prevention of flooding in his class and will be doing some hands-on activities of identifying and uploading GSI locations in his locality.

2. Name- Mr. Boomer

Age- 65

Description- Mr. Boomer is a retiree who spends the day playing chess and reading articles online and offline. He has basic exposure to technology and mostly uses it just to browse news and videos. He will be navigating the GSI website to obtain more information on the topic.

Secondary Users:

1. Name- Mrs. Millennial

Age- 37

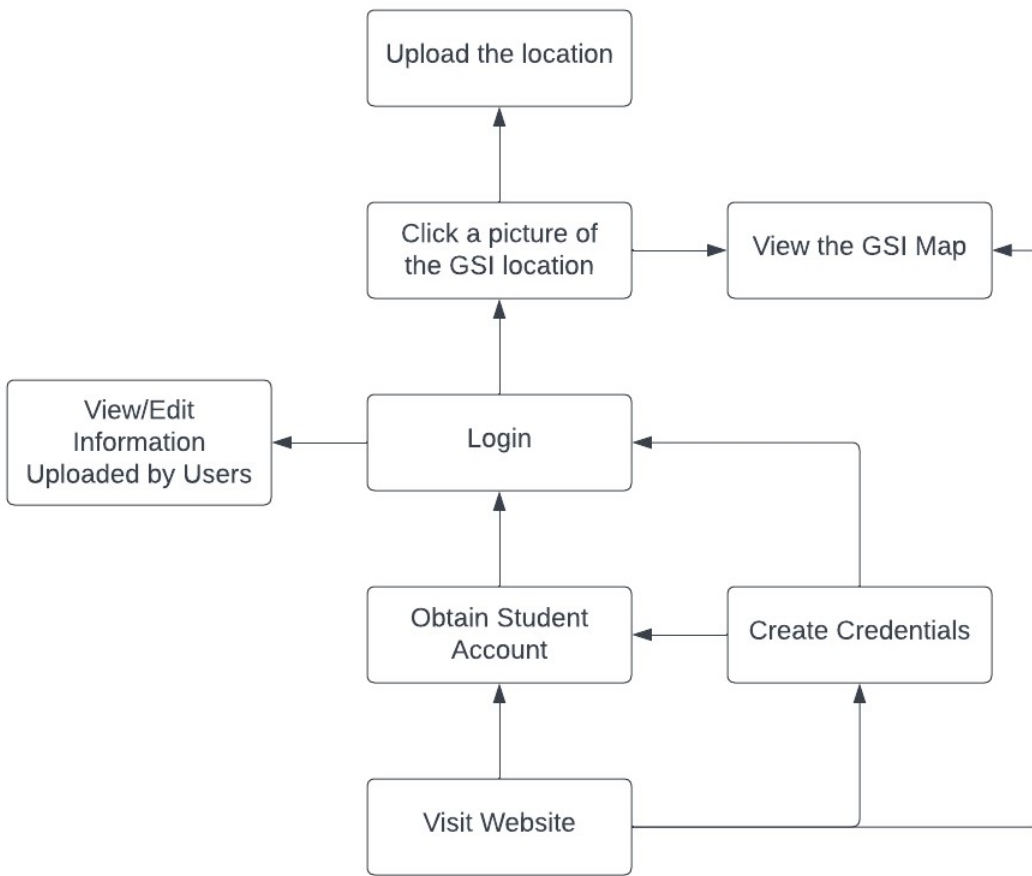
Description- Millennial is a High School Teacher who is teaching Zoomer in the Environmental Science class. She is well-educated in this field but only intermediately experienced with technology. She will be responsible for introducing Zoomer to the app and training him how to use it for recording data.

2. Name- Ms. Scientist

Age- 34

Description- Scientist is a researcher in the field of GSI and wants to highlight its importance among the public. She also wants to encourage younger generation to understand the importance of GSI by allowing them to go into the field and record their own observations. She will be able to monitor the data being supplied by students like Zoomer to ensure its authenticity.

Hierarchical Task Analysis



Appendix

The interview for this application was conducted by Development team with UX Consultants present. Hence, the Development team's interview is held as the primary document here.