LML Marine Debris Data Visualization Release 1.0 Plan

Release Date: 1/25/22 - 6/1/22
Revision Date: 3/1/22
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High Level Goals
The goal of this web application is to share data and spread awareness on marine debris. It must visually convey the impact of humans on marine life by showing the data on a map. The target audience for this application is the general public, therefore the user interface must be simple, interesting, easy to understand, and easy to interact with. This first release is to achieve a good foundation that includes all the minimum requirements outlined below.

User Stories for Release:

Sprint 1 - Setup Codebase

> "As a developer, I want a locally hosted web application to ensure our environment is set for future testing of the project, that all developers have access to."
>
> "As a developer, I want the ability to store and pull data from a backend database framework."
>
> "As a developer, I want a detailed wireframe map of the project's required pages and their visual components."
>
> "As a developer, I want formal coding practices which help make our code readable and simple for others."
>
> "As a developer, I want to know when our project can be considered out of development."
>
> "As a developer, I want a wide range of options to host my web application, and want to understand how to host under various domains."

Sprint 2 - Figuring Out Building Blocks

"As a developer, I want to design and implement the file topology for react so that we have a skeleton to code within."

"As a developer, I want to finalize the wireframe design and continue getting feedback from the sponsors regarding the visual components of the web application."

"As a developer, I want to implement the foundation of the wireframe so that all the important components of the web application are displayed."

"As a developer, I want to be able to upload our data in a .CSV file to postgreSQL, so that I can query the data and interact with it."

"As a developer, I want to understand the different map and data visualization tools available so that I can pick one to use for our web application."

Sprint 3

"As a developer, I want to have React.js and Postgres set up locally so that the whole team can have the same foundation to start working on."

"As a developer, I want to understand how the data should be compared and displayed."

"As a developer, I want to pick a data visualization tool that is minimalistic and simple to work with, so that interpreting the debris data is easy to understand."

"As a general user, I want to be able to view how the Survey Slug program collects its marine debris data."

"As a general user, I want to view the people who contributed to this website."

"As a general user, I want an informative homepage, so that I can learn about ways I can help lower the human impact on marine debris."

"As a general user, I want to have a navigation bar so that I can interact with all the different pages on the website."

Sprint 4

"As a developer, I want to pick a restricted map tool to visualize and pin select locations of rural and urban beaches."

"As an admin user, I want to be able to upload my csv file on the website and have my data safely stored and displayed."

"As a general user, I want to be able to view a page that contains the map and interactive graphs to view marine debris data."

"As a general user, I want to be able to view how the Survey Slug program collects its marine debris data."

"As a general user, I want to view the people who contributed to this website."

"As a general user, I want an informative homepage, so that I can learn about ways I can help lower the human impact on marine debris."

"As a developer, I want to understand our options to host and deploy the web application."

Sprint 5 (data visualization)

- Hosting (2)
- Implement map (1)
    - Aka just have it set up on front end functionality can be later
- Bar graph for amount of debris by beach (1)
- Bar graph to compare urban vs rural beaches (1)
- Bar graph to show debris by season (1)

Sprint 6 (Finishing up data vis and start login page)

- Generate pie charts for type of debris given a selected beach (1)
- Line graph over time (1)
- Map functionality (1 or 2)
    - Implement UI pins and images
    - Restrictive map
    - Pin filtering

Sprint 7 (hosting and any type of catch up)

- Clean up debris data UI
- Auth users for login page upload csv functionality (2-3? spencer bridget)
    - Login page front end (1)
    - Back end (1 or 2?)

Sprint 8 (finishing up and project handoff)

- Documentation
- Wrapping up project
- Final sponsor approvals
- Testing
    - Graph comparisons
    - Map functionality
    - Super admin and admin upload csv functionality

Product Backlog:

- Integrate photos within map pins
- Implement a data linter to comb through data. Cleaning up errors like negative numbers, invalid dates, etc.

Initial Presentation

Timelining

Sprint 1: Jan 26 - Feb 9
- SM: Spencer

Sprint 2: Feb 10 - Feb 23
- SM: Zack

Sprint 3: Feb 24 - Mar 9
- SM: Noah

Sprint 4: Mar 10 - Mar 30
- SM: Bridget

Quarter ends Mar 18th

Quarter starts Mar 28th

Sprint 5: Mar 31 - Apr 13

Sprint 6: Apr 14 - Apr 27

Sprint 7: Apr 28 - May 11

Sprint 8: May 12 - May 26

Quarter ends June 9th