CodeHS

Project: Collecting Data

Discussion:

In the last unit, we learned how to collect and store data from our websites. In this unit, we will analyze the data that we collect from websites to make informed decisions about how to improve the websites that we create. This process of making decisions based on data analysis is called **data driven decision making.** Data driven decision making is a central strategy in product development, and follows a couple of key steps:

1. **Define your product:** What is your product, what's the purpose of it, and how is it used?

2. **Develop Hypotheses:** How do you suspect users are interacting with your site/product? What updates or improvements will be necessary the next time you develop your product?

3. **Identify Data Sources:** How are you collecting data from your users? What parts of your site are set up to collect data?

4. **Collect and Organize Data:** How will you collect and organize data so it can be used?

5. **Analyze Data:** With the data you've collected, what can we infer about next steps for product improvement?

6. **Make Decisions:** What should we do based on what the data says?
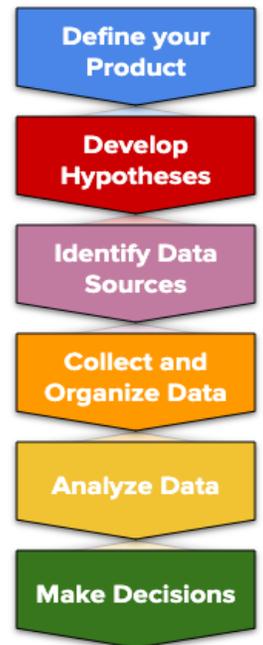
For this project, you will create a simple website that tracks which elements on a page a user clicks, and collects survey data from users about their experience using the site. This information will then be used to create a data analysis with potential website improvements.

For example, you could create a website that shares new baking recipes with users. The site collects information every time a user clicks a new recipe. In addition, there is a rating at the bottom of each recipe so users can rate and review the recipes. Then, based on the data collected, make recommendations for which recipes to keep, which ones to eliminate, and make decisions about what new recipes to add to the site.

Requirements:

For this project, there are several requirements:

1. Must use a .css, .js, and .html file to separate the different languages that will be used. There should be at least *two* html files for the different pages a user might visit.
2. Projects must make use of **localStorage or Firebase** as a means of storing data.

3. The website must collect **three unique datasets** from users that can be used to inform decision making. A dataset is considered unique if it answers a different question than another dataset. For example, tracking clicks for a recipe might answer the question "Which recipe visited most often?", and tracking each recipe rating might answer the question "Which recipe is most popular?". Because these are different questions, these can be considered unique datasets.
4. There must be at least **six unique stylings** used to enhance the aesthetic quality of the site. These styles can be as simple as font-size, or as complex as a flex-box container.
5. Must be tested by at least **10 classmates,** and include a **user testing questionnaire.**
6. There must be a **1-2 page data analysis report** that analyzes the results of the data you collect from your site, as well as recommendations for how to improve the usability of the site.

In addition to the project requirements, this project will be evaluated using the following rubric:

Web Design Rubric

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Style	Code spacing is well thought out. The code is written with proper indentation, and any programmer would be able to discern what the layout of the page would be simply by looking at each file used in the program.
Effort	Product reflects high effort. Assignment was completed on time, the student was respectful throughout the whole process, and the product is aesthetically pleasing. There are no substantial issues with the useability of the page.
Project Requirements	Program contains all of the required components outlined in the project description.
Complexity and Efficiency	Script and styling choices are efficient and utilize variables, functions, and/or data structures appropriately. There isn't a simpler way to create a similar program.

The rubric above highlights what mastery in each category should look like, and what a perfect score would be for the project. Each category is given a score from 1 - 4.

Next Steps:

The following exercises will help you develop the groundwork for completing this project. Each lesson is titled with a different data driven decision making process, making it easy for you to make informed data decisions.