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Software Engineering Week 2 Lab

Idea 1: Logging Deflection Calculator

Functional Areas:

1. Calculator aspect allows users to find the logging deflection. Users can input measurements into the calculator which are put into specific formulas in order to output the correct deflection. The specific formulas used will be visible to the user for validation purposes.
2. Google Maps API (Offload map, option to generate when in service “generate map” button, replaces real-time map with generated map). This can be used to create estimates for deflection.
3. The “Log history” function will show as a widget below the search bar. This functional area will provide all recent measurements that the user has previously done and keep the record in case the user would like to revisit their calculations.

Categories of Users:

1. Loggers / Students - for in-the-field and educational purposes. All users would need access to the same features with little to no variations.
2. Logging enthusiasts

Non-Functional Areas:

1. An information button positioned at the top of the page describing the relevant buttons, forms, and functional elements of the page to help the user.
2. Displaying a graphic of a demo will help the user understand which inputs to add. We will attempt to deploy our application on both IOS and Android.

Potential Conflicts:

1. Funding for IOS publishing and developing
2. Integrating Google Maps

Interview Sheet / Questionnaire:

1. What equations are used to calculate the deflection?
    a. What data are the field workers going to be able to input into the app?
    b. What are the desired outputs?
2. Which platforms do forestry workers use, Google Play or IOS?
3. What models are relevant to forestry workers, is there a graphic we should use or generate?
4. How often do workers come back to previous calculations, is it important to store the data they calculate for later use?
5. Do workers have tools to pinpoint location or coordinates while out of service range?

Idea 2: Local Fishing and Foraging Info

Functional Areas:

GUI will display up-to-date info from web scraped official fishing and wildlife department internet pages. A search bar will be used to search through the different animals and wildlife species so that the user can look up the relevant information they need. Google Maps API will be used to show relevant regions and how to reach them.

Categories of Users:

A user who is an angler will be able to view/search fish season, size, and bag limits so that they are able to fish legally. Another category of user will be Foragers, who will use the app to see restrictions /suggestions of recent information from local government resources. This app will NOT be used for identification purposes. All users will be using the app for relevant information, no users will be permitted to input information.

Non-Functional Areas:

The application will display Fish and Plant example pictures as well as diagrams including physical descriptions of the fish / plant respectively to help users confirm their identification. Additionally, the app will display a visually pleasing user interface. This is an optional feature to help attract users or improve the general user experience.

Potential Conflicts:

Offline use on the coast will not be possible and could create conflicts. Users would need to have accessed and saved the information before leaving cell service coverage.

Interview Sheet / Questionnaire:

What websites and data do you use to learn about foraging seasons and bag limits? How much service do you have while foraging? What regions are relevant for foraging?