

CS Capstone Design

Alpha Prototype Demo Grading Sheet (100 pts)

TEAM: Biosphere

Overview: The purpose of the Alpha Prototype Demo is to clearly demonstrate the extent to which all core user flows envisioned for the product are supported by the current implementation. The flow of the demo is very natural: you simply introduce each of the major usage scenarios, and then follow through each of them, just as an end-user would in using the product. Grading is based on how completely the current product supports all key functional aspects within a coherent, realistic user flow. Interface refinement, clunkiness, and aesthetics should be ignored for now; the focus is simply on functional ability to complete the user flow.

This template is fleshed out by the team, approved by CS mentor, and brought to demo as a grading sheet.

Overview of major product use cases

Based on the Requirements document and subsequent development discussions with your client and mentor, briefly describe each of the key use cases for your product:

Use Case 1: User Navigation: The end user will be able to intuitively navigate the application using the on-screen prompts. These prompts will be simple in nature because the assumption is that the end user is informed on the general purpose of the application i.e., they know that this application provides information on biodiversity and essential biodiversity variables.

Use Case2: Data Selection: The application will allow the end user to select a variable of data combinations, and provide a unique response for each combination provided.

Use Case 3: Location Selection: The end user will have access to three tools to select the location of interest. These tools include: manually entering the necessary information, a drag and drop map tool, as well an ability to select a location based on the device's GPS location.

Use Case 4: Data Visualization: The end user should be able to see a time-series line graph, and heat map(s) related to the previously selected information. This information should be easy to understand and logical for each user type.

User Flows: Detailed walk-through for each use case:

In this section, we outline the demonstrations of each use case that we have prepared, giving a step-by-step outline of the user flow that would be followed by a real user for that use case.

Use Case 1: User Navigation

User Flow

1. In this demonstration the user will be given access to a prototype of the application
 2. The user will then be asked to locate several aspects of the application. These requests will come in the form of “Please find the Contact Tab” or “Please find the deforestation scenario.”
 3. The user will not be given any guidance on how the application flows beyond some basic commands like “swipe left to see the main menu”. This is done to allow the user to have a genuine and unbiased view of the application.
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Use Case2: Data Selection

User Flow

1. The user will be able to select from a range array of parameters and associated values.
The flow goes as follows
 - a. User-Type
 - b. Location
 - c. Scenario
 - d. Scenario-Option
 2. The user should be able to select all options presented without any limitations.
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Use Case 3: Location Selection

User Flow

1. The user will be asked to test out each location selection choice with both valid and invalid options. The purpose of this use case is to test the intuitive nature, as well as the general security around the application.

2. **Drag and Drop:** Use the drag and drop tool to select a location. This should be done multiple times, with both valid and invalid ranges.
 3. **Manual Entry:** The user should be able to enter a value to be used: latitude, longitude, and distance.
 4. **GPS:** Use the device's GPS location to guide the user into selecting a valid location.
 - a. This assumes that the GPS location is valid, and not spoofed.
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Use Case 4: Data Visualization

User Flow

1. The user will select various situations i.e. values for each previous section (scenario, location, user-type, etc.)
 2. The user will then visualize the results of their produced situation. This will then be compared against predicted / pre-tested results, to determine the accuracy of this.
 3. The purpose of this section is to showcase the visualization module, and how to interact with it, as well as determine the accuracy of the given situation
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Known shortcomings: Functionality still deficient/missing:

If there were challenges you listed earlier that were not covered by a demo, list here. This will hopefully be a short list...but better to be clear about where you are. If you have items here, you could list (if applicable) any pending plans/schedule to get this implemented.

This alpha prototype demonstration comes with a handful of assumptions, and known shortcomings.

(1). The data displayed in the visualization may look random, because it is, we have not been provided with the real data associated with these scenarios, and scenario options. This will be dealt with once we have acquired and tested the application with refined real data.

(2). The number of graphs and charts will be skewed since the data generated will use 1-2 variables rather than the intended 10-14 output variables (which will result in 20 - 28

visualizations). This will be dealt with once we have acquired and tested the application with refined real data.

(3). The style of the application is incredibly barebones and is focused more on “does this work” rather than the appearance of the application, and as such has some limitations related to the overall intuitive nature of the application.

(4). **[STRETCH]** The data exportation module only works on some devices, in some situations. These bugs cannot be fully ironed out until all previous sections can be properly completed. The biggest hold up right now is the client.

(5) **[STRETCH]** The language translation module will be very limited, since not all text will have been inputted, and experts have not been able to translate the language directly.