

EE 491 Homework 1

Date: 2/10/15

Group number: DEC1608

Project title: Reiman Garden Butterfly Interpretation Application

Client &/Advisor: Dr. Rover

1. What is the project about? What are the goals?

This project is to develop a web interface to complement the experience of visiting the Christina Reiman Butterfly Wing. The goal is to deliver information about individual species of butterflies, butterfly conservation efforts, interesting butterfly facts, and other butterfly-related information to the visitor in an intuitive and engaging manner.

This web app should be well suited for working on any screen size ranging from tablet and desktop browsers to smart phone browsers. In addition to running on a visitor's mobile device, the web app will be run on two touch screen kiosks at Reiman Gardens.

2. What are the project specifications?

Functional Requirements

Visitor Requirements

- 1) Visitor must be able to look up a butterfly based on physical traits
- 2) Visitor must be able to view statistics about the current state of the butterfly wing
- 3) Visitors must have access to a photo gallery

Potential Additional Visitor Requirements

- 1) Social Media check in
- 2) Submit photos to Reiman Gardens

Administrative Requirements

- 1) Admin must be able to quickly and easily log a butterfly release
- 2) Must be able to add/edit/remove butterflies to/in/from the system
- 3) Must be able to add photos of butterflies to the system
- 4) Must be able to set a butterfly of the day

Non-Functional Requirements

- 1) The web app must be aesthetically pleasing for the viewer and render well on all screen sizes
- 2) The web app should be intuitive to use

Specifications

The system will run on a web server with a SQL database to store records. The system will use the Twitter Bootstrap framework to assist with constructing dynamically sizing webpages. The technology used for the server side application is still under discussion. Possible choices include PHP or Node.js.

3. Why are they[specifications/requirements] important/needed

Specifications and requirements in general are important because they set clear expectations for the project. This aids in communication between the client and the developers. Formal specifications and requirements also allow for the project's functionality to be prioritized. In the event of mutually exclusive goals or a time crunch, requirements and their associated priorities dictate which functions/requirements must be satisfied and which should be cut.

The primary drive of our functional requirements revolves around how do we get information to the user in an effective manner. The system's end goal is to be an efficient means of conveying information about butterflies and Reiman Gardens to visitors. As such, the functional requirements are about what information should be available, and how the user can retrieve it.

One of our projects highest priorities is the UI. The past version of this product suffered significantly because of an inadequate and confusing UI. As such, most of our nonfunctional requirements and specifications revolve around the development of a responsive UI.

4. What are project specification and requirements? How do they differ?

Specifications and requirements are frequently confused. They convey nearly the same information, but are subtly different. Requirements should technically contain only business logic. In other words, the requirements are only what the system should do. Specifications bring in the technical perspective, and describe how the requirements will be implemented and what technology will be used.

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