



Reiman Gardens Butterfly Application

December 6, 2022

sddec22-05.sd.ece.iastate.edu

Welcome to the Christina Reiman Butterfly Wing

Nathan's Note



There are some species of butterflies that you can pretty much count on being present in the Christina Reiman Butterfly Wing any time you visit. The Owl butterflies, individual belonging to the family Caligo, are or one of those groups. In the Butterfly Wing there are five different species that are typically on exhibit. Native to Central and South America this large butterfly is easy to identify as it has what look like a large owl eye on each of it hidwings, hence the name Owl butterfly. The Owl is typically a dawn and dusk flying butterfly so on a regular visit you

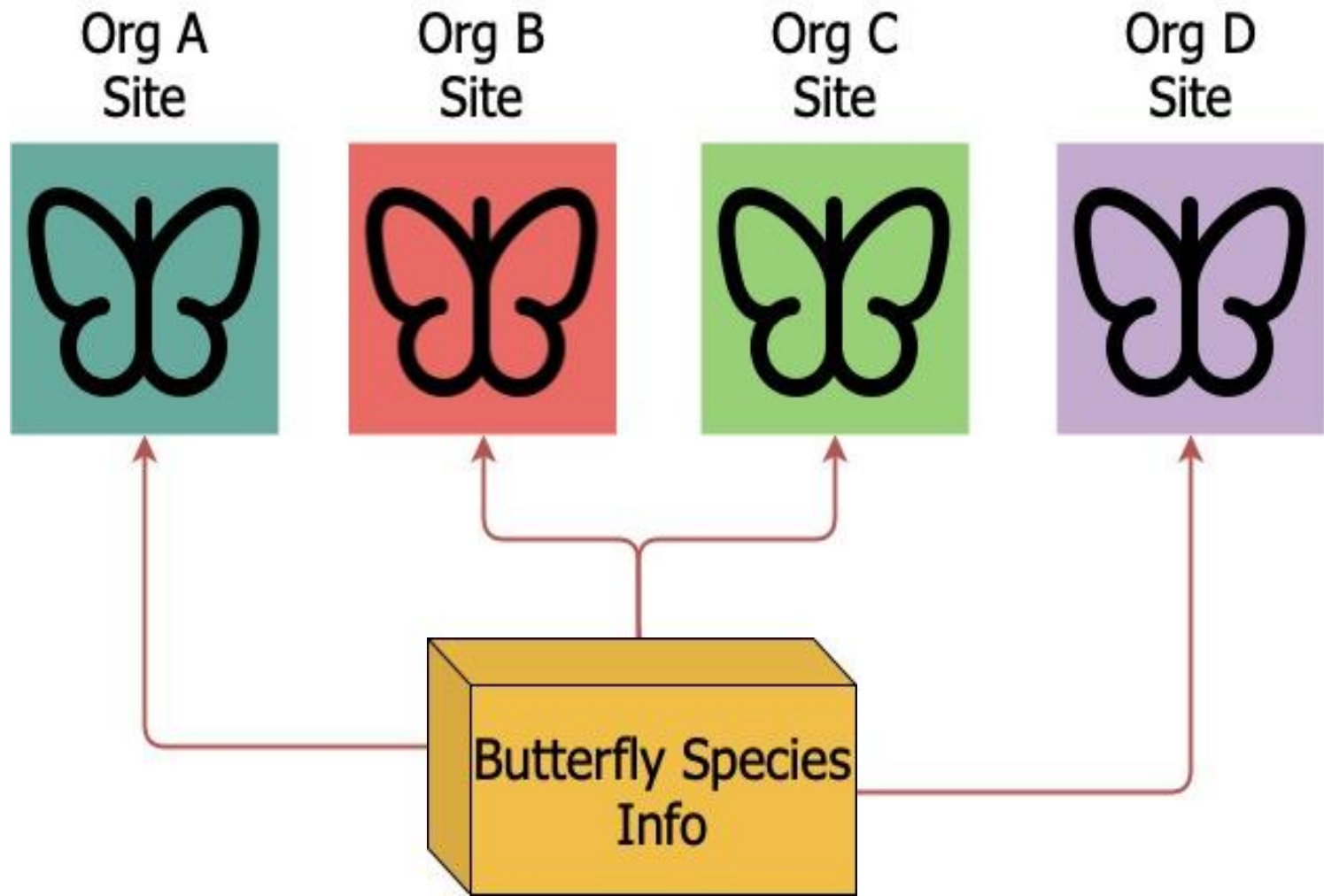


Butterfly Of The Day

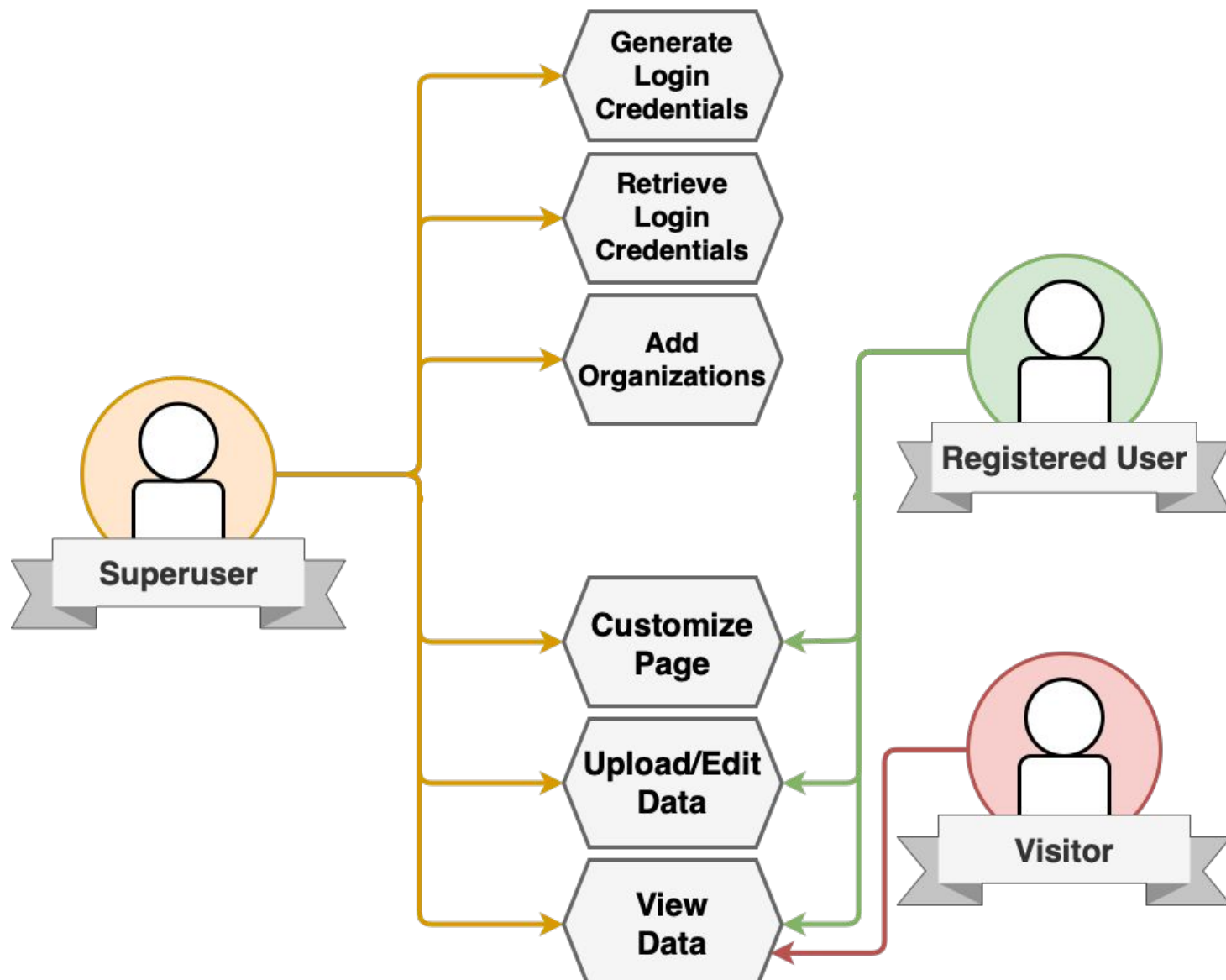
*Autumn Leaf
Doleschalia bisaltide*

Fact Of The Day

There are currently 42 of the Autumn Leaf in the Wing right now, and 5694 pupae have been received for this butterfly since we opened



Reiman Garden Butterfly Website



Non-functional Requirements

- 🦋 Consistent styling site-wide
- 🦋 Users stay within their access rights
- 🦋 Cross-platform compatibility
- 🦋 Scalability
- 🦋 Maintainability

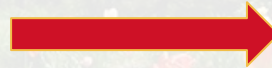
Potential Risks and Mitigation

Primary Risks (Spring 2022):

- 🦋 Cloud Service
 - ~70% probability
 - Critical effects on project



- 🦋 External Statistics Program
 - ~80% probability
 - Negligible effect on project



- 🦋 User Hierarchy complications
 - ~35% probability
 - Critical effect on project



Implementation (Fall 2022):


- 🦋 Cloud Service
 - Went over allotted time to ensure functionality


- 🦋 Custom Statistics Program
 - Compiled statistics using custom implementation

- 🦋 User Hierarchy complications
 - Updated schema to meet project needs

Resources and Costs

Costs:

 Domain ownership

 Main cost: AWS

- Most cost-effective over project lifetime
- Hosting and data storage

Project Schedule

					Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Research																
Research	100%	3/1/22	8/23/22													
Phase 1																
Cloud Services	100%	9/1/2022	10/29/22													
Admin Page	99%	9/1/22	10/29/22													
Login Page	100%	9/1/22	10/29/22													
Global Framework	99%	9/1/22	10/29/22													
Phase 2																
Home Page	95%	10/31/2022	12/15/22													
Gallery	100%	10/31/22	12/15/22													
Stats Page	50%	10/31/22	12/15/22													
Explore Gardens	95%	10/31/22	12/15/22													
Testing																
Testing	100%	9/1/22	12/15/22													

Testing Plan

Performed by client to verify system

Acceptance Testing

Tests the complete and fully integrated product

System Testing

Modules are connected and tested as a group

Integration Testing

Each component is tested individually for expected behavior

Unit Testing

Software Technologies



Software:


- Server
 - Amazon Web Services (AWS)
 - Cognito
 - DynamoDB
 - Amplify
 - GraphQL
- APIs
 - OpenStreetMap(Nominatim)
- Libraries
 - React
 - Material-UI


Lessons Learned

 AWS

 Time management

- Working through bottlenecks
- Start early

 Working as a team

 Working for a client

Conclusion - Current Status

- 🦋 Create thorough documentation and organized resources for future work on project
- 🦋 Document suggestions for future improvements