Final Project Sprint 01

**Effort: [Individual](https://docs.google.com/document/d/1w-JOtg74mWMsuwHzq-NuErUZCVKAl2fo/edit" \l "heading=h.gjdgxs)**

Points: 50 pts

Deliverables: Upload this document as Word document or PDF containing answers and separate video file that is zipped or share a link to video from YuJa in canvas. Do not upload both video and document in a zip file.

Goals:

**ABET Outcome 2: Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.**

* **Create** effective and efficient web app **designs** that include.
  + Develop solutions utilizing OOP principles and relationship
  + Develop unit, integration and system testing that are automated following industry best practices
* **Implements** the **solution** effectively using agile methodologies, web app theories, design patterns and architectures.
* **Evaluate** and **test** to ensure it meets requirements and functions as intended.

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[1 Web App Functionality](#_heading=h.yqfwu4c13peq)

[2 Project Design and Planning (10)](#_heading=h.3znysh7)

[2.1 Design the Data Structures and Routes](#_heading=h.7c9apuk0b8kr)

[2.2 Rspec Testing](#_heading=h.rzd25bnze517)

[2 Sprint 01 Project Development and Demonstration](#_heading=h.q6yie0cnpbcw)

[2.1 Project Task Management and Version Control (10)](#_heading=h.1zk38hmyu0cw)

[2.2 Development (20)](#_heading=h.tyjcwt)

[2.3 Customer Demonstration (10)](#_heading=h.1bxjcuqdp77r)

# Final Web App Project

## 1 Web App Functionality

App should contain the following **unless you have permission** from me to do something different

Highlight below what you completed in iteration 01 when you submit

* Create new Rails App
* App must have at least 2 models that contain
  + at least 2 required attributes for each model
  + At least 4 different data types
  + One of the following relationships
    - One to one
    - One to many
* One stakeholder: A user that has an [association](https://guides.rubyonrails.org/v7.1/association_basics.html) with at least another item (model) where the user can
  + - Register
    - Logout
    - Login
    - Create a new item
    - Edit item
    - Destroy Item
* Another stakeholder: Should be able to view and search items (do not need to log in but can have requirement that other stakeholder also must log in)
  + App should show list of all items on page
  + Display information about each item individually
* Implement UI
  + Using Bootstrap
  + Responsive to different size screens
  + Design for Accessibility
    - ARIA Labels
    - [Dos and don'ts on designing for accessibility](https://accessibility.blog.gov.uk/2016/09/02/dos-and-donts-on-designing-for-accessibility/)
* Implement Rspec Testing
  + 4 unit tests for model
  + 4 System Tests with Capybara
    - 2 different user story tests with happy and sad path scenarios
* Feature Research, Design and Implementation

## 2 Project Planning and Design (10)

Put all user stories as Issues in your repository

|  |
| --- |
| Create a public github Repository  Link to repository:  https://github.com/Kylertk21/AeroMaps  Create a Backlog of Issues for your User Stories  Link to GitHub Issues:  https://github.com/users/Kylertk21/projects/5 |

### 2.1 Design the Data Structures and Routes

|  |
| --- |
| Include UML model and describe   * Model Validations * Model Relationships * Routes |

### 2.2 Rspec Testing

|  |
| --- |
| Identify the 4 unit tests you will write for a model |
| Identify the System Tests  List the 2 user stories with the steps for happy and sad path scenarios |

2.3 UI

[Design for accessibility](https://accessibility.blog.gov.uk/2016/09/02/dos-and-donts-on-designing-for-accessibility/)

|  |  |
| --- | --- |
| **Users** | **Design Practice to be Implemented** |
| autistic spectrum |  |
| screen readers |  |
| low vision |  |
| physical or motor disabilities |  |
| D/deaf or hard of hearing |  |
| dyslexia |  |

# 2 Sprint 01 Project Development and Demonstration

## 2.1 Project Task Management and Version Control (10)

**Break into Tasks**

Decide what user stories you will implement for this sprint and the tasks.

Suggestion: Focus on functionality and unit tests for two models

List User Story tasks and development tasks for this spring. Include a time estimate to help you budget your time. You can either put it below or create a task board that contains a user story number with a task and time estimate.

Example Tasks

* Models/Database set up,
* Model validations and relationships
* TDD rspec model unit testing
* Routes and Controller
* Views
* Search
* Seed Database
* UI and Accessibility
* Model Testing
* Rspec System testing

|  |  |  |
| --- | --- | --- |
| User Story and Development tasks | Tasks | Time Estimate |
| Development Set Up |  |  |
| 1 User story |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Create a **public** Project board in github for Sprint 01 with the following columns

|  |  |  |  |
| --- | --- | --- | --- |
| Sprint Backlog | To Do | In Process | Done |

Add tasks for the user stories

|  |
| --- |
| Link to public project github task board:  https://github.com/users/Kylertk21/projects/5/views/1 |

You will also create a new github repository for using git to version your project. Follow version control practices.

|  |
| --- |
| Link to public project github repository  https://github.com/Kylertk21/AeroMaps |
| How you used version control with git and github |

## 2.2 Development and Testing (20)

Give a description and the commands for the following

|  |
| --- |
| How you created a new docker instance. |
| How you installed rails |
| How you created your models and set up database |

Problems Solving

|  |
| --- |
| Describe an issue you encountered and explain what you did to resolve the issue. |
| What resources helped you the most for completing sprint 01? |
| What concepts do you understand better after doing sprint 01? |
| How were your estimates for your tasks in comparison to the actual time? |

## 2.3 Customer Demonstration (10)

Create a video screencast to demonstrate the requirements for sprint 01 as if you are presenting to your customer.

* Give brief overview of app and problem statement
* Demonstrate behavior of app: A user that has an association with at least another item (model) where the user can
  + - Register
    - Logout
    - Login
    - Create a new item
    - Edit item
    - Destroy Item