ELRC: Sprint 2 Retrospective (2/26 - 3/8)

1. Team Roles

Customer

Dr. Beverly Irby Dr. Matthew Etchells

Product Owner

Andres Santiago

Scrum Master

Minseo Park

Developers

Yi-Ting Lee Minseo Park

Andres Santiago Jacob Mathes

Brandon Nguyen Jacob Valdiviez

Chengyuan Qian

1.1. Contributions

Name	Points	Percent Share
Andres Santiago	5 (+3)	24%
Minseo Park	5 (+3)	24%
Chengyuan Qian	2	6%
Brandon Nguyen	6	18%
Jacob Mathes	6	18%
Yi-Ting Lee	3	9%
Jacob Valdiviez	0	0%

2. Project Summary

This project is the start of a journey to bring the Synergistic Leadership Theory, a modern take of leadership theory, into a practical and interactive web application. The mission is to develop a platform that not only educates on the theory but also allows users to access leadership effectiveness through The Organization and Leadership Effectiveness Inventory (OLEI).

Stakeholders include Drs. Beverly Irby and Matthew Etchells, alongside a team of students committed to transcending traditional, male-dominant leadership paradigms. The platform will feature an animated, interactive tetrahedral model representing the theory's core factors: Leadership Behaviors, Organizational Structure, External Forces, and Attitudes, Values, and Beliefs. This tool will facilitate a deeper understanding of leadership dynamics but also generate personalized leadership style analysis.

3. Sprint Achievements & Backlog

3.1. Goal

The goal of this sprint was to establish and execute user stories necessary for implementing the minimum functionalities required by the client in the final deliverable, based on the groundwork prepared in the initial sprint.

3.2. Achievements

The data schema was acting as a roadblock for the rest of the stories. The Scrum Master gathered the team members' opinions to define a data schema, because of this, we could fully support the functionalities required by the stories given in this sprint.

This sprint was the phase where we delved into actual development, so to prevent wasting work hours or energy due to communication mishaps, the project owner and scrum master engaged in very close communication with the client.

3.3. Selected User Stories

- UML Documentation & Model Rework
    Points: None (Chore)
    Assigned To: Minseo Park Brandon Nguyen Jacob Mathes
    [As a] developer,
    [So that] we can ensure that our application's architecture is clearly understood and maintainable,
    [I want to] have a set of UML diagrams that accurately represent the system's current functionalities and planned features.
    [I want to] access a comprehensive UML documentation that includes models of the system's architecture, data flow, and interaction between components.

- Feature 8: Query Survey Information
    Points: 3
    Assigned To: Andres Santiago Jacob Mathes
    [As a] Employer/Researcher
    [So that] we see the survey results related to the candidate,
    [I want to] query all survey results related to the candidate using the unique case number.

- Feature 9: Raw Survey Results
    Points: 3
    Assigned To: Yi-Ting Lee Brandon Nguyen
    [As a] employer/researcher,
    [So that] I can clearly see the answers to each question in a survey,
    [I want to] see the raw results of a survey with each section in a separate box.

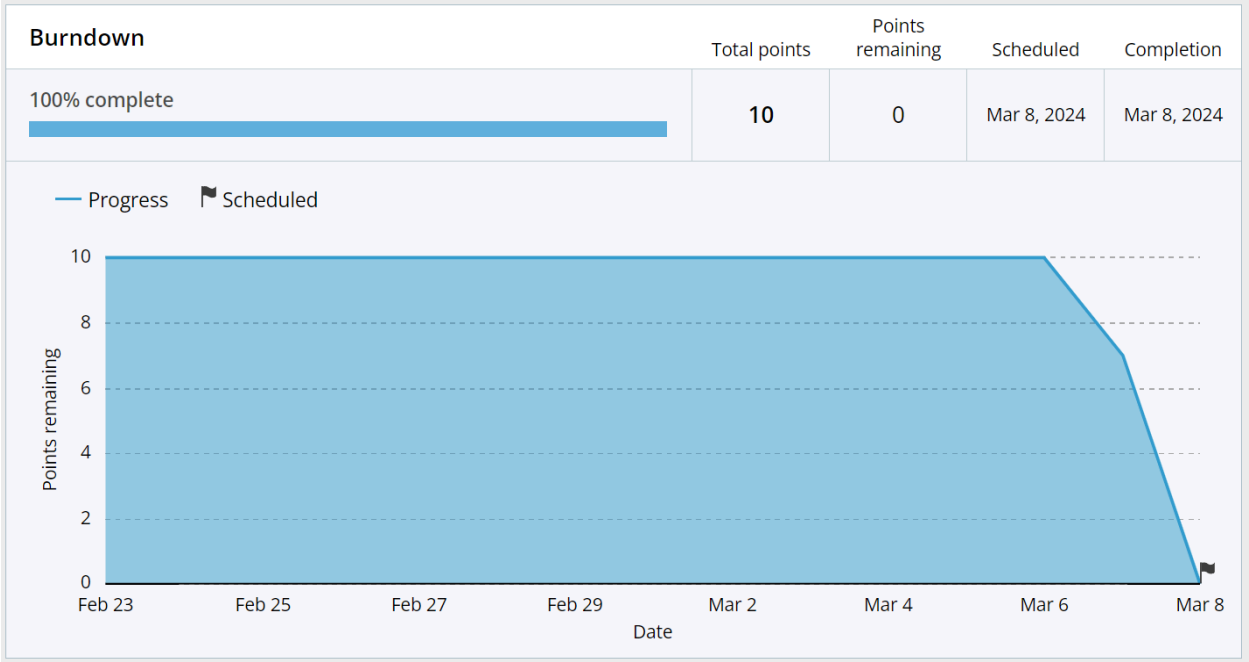
- Feature 10: Explanation For Each Question
    Points: 2
    Assigned To: Andres Santiago Chengyuan Qian
    [As a] employer/researcher,
    [So that] I can understand the implications of each survey question,

- Feature 13: Survey Invitation
    Points: 2
    Assigned To: Jacob Valdiviez Minseo Park
    [As a] candidate,
    [So that] I can have other people fill in the survey on my leadership style,
    [I want to] send invitations to other people with my unique case number.
    [I want to] see an explanation of each survey question on the survey result page.

3.4. Backlog

There is no backlog of sprint 2 deliverables.

3.5. Burndown



3.6. Changes

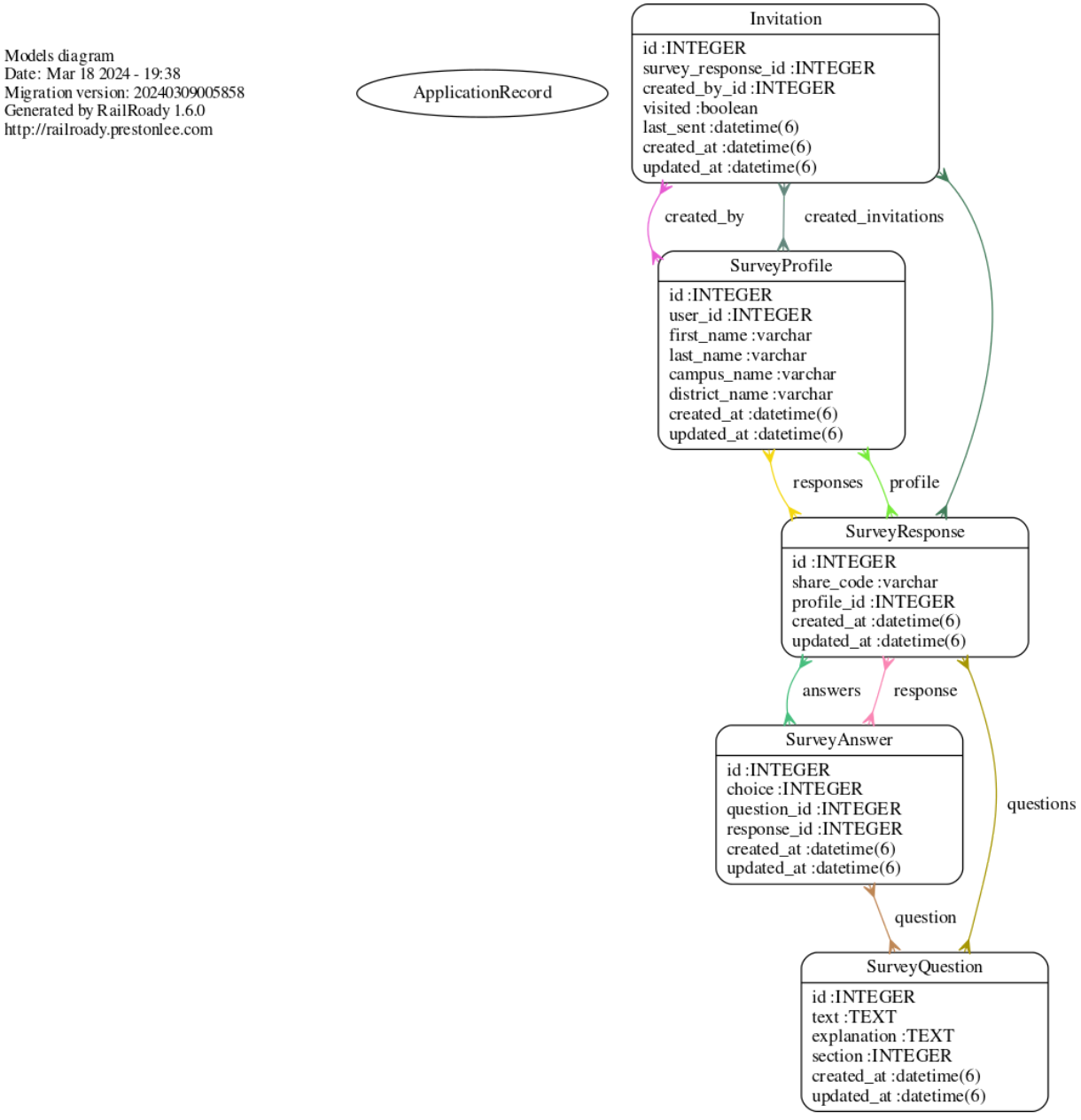
There have been significant changes in the model schema. Through communication with the client, we were able to resolve the ambiguities in the existing project requirements, and based on this, we were able to sufficiently write the models necessary for the remaining feature implementations.

In this sprint, one model and one controller were added to implement the Feature 13: Invitation story. We also made efforts to move a significant portion of the existing business logic residing in the "controller" to the "model".

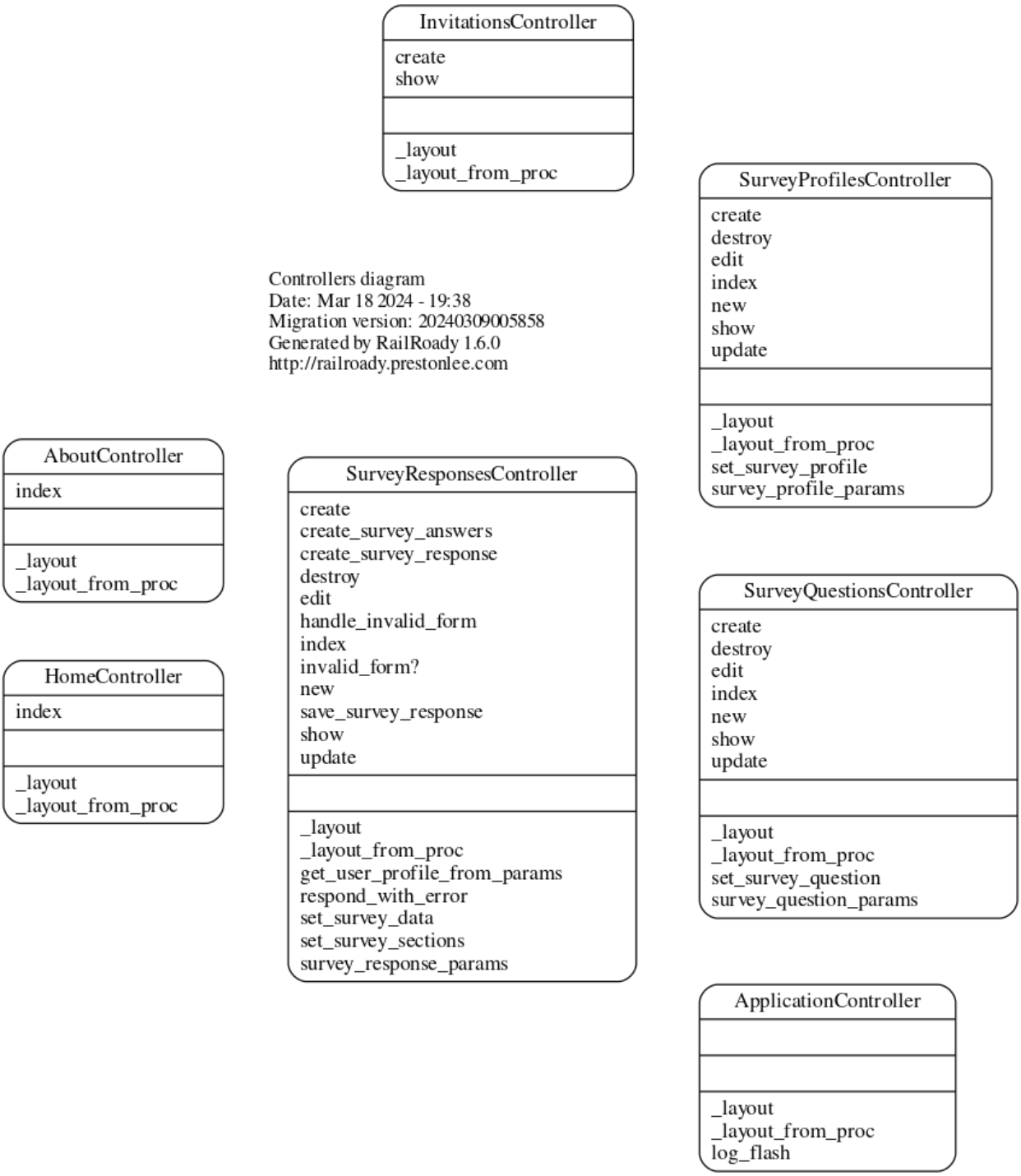
We have completed a significant portion of the RSpec and Cucumber tests, which previously existed as placeholders, into useful tests with actual meaning.

For more details, please refer to the full text of the pull request for the sprint achievements recorded in the pivotal tracker.

4. Design Diagrams



Design Diagram 1: A Complete Model Relationship



Design Diagram 2: Controller Definitions

5. Code Quality Evaluations & BDD/TDD Review

SimpleCov reports 100% percentage coverage from RSpec and Cucumber tests.
Code Climate reports 6 issues: 2 are code smells related to excessive complexity and 4 are duplications due to rails auto-scaffolded controllers and views.

At the end of sprint 2, Code Climate reports that we have an ‘A’ maintainability rating with 160 files, and a technical debt of 2 hours.

```
brandon@barn rails_root (main) $ ll
total 100K
4.0K drwxr-xr-x 11 brandon wheel 4.0K Feb 16 11:00 app
4.0K drwxr-xr-x  2 brandon wheel 4.0K Feb 16 19:41 bin
4.0K drwxr-xr-x  5 brandon wheel 4.0K Mar 18 11:38 config
4.0K -rw-r--r--  1 brandon wheel  191 Feb 16 19:24 config.ru
4.0K drwxr-xr-x  3 brandon wheel 4.0K Feb 17 00:08 coverage
4.0K -rw-r--r--  1 brandon wheel   25 Mar 18 11:38 cucumber.yml
4.0K drwxr-xr-x  4 brandon wheel 4.0K Mar 18 11:38 db
4.0K -rw-r--r--  1 brandon wheel  773 Feb 16 11:00 docker-compose.yml
4.0K -rw-r--r--  1 brandon wheel 1.9K Feb 16 11:00 Dockerfile
4.0K drwxr-xr-x  4 brandon wheel 4.0K Mar 18 11:38 features
4.0K -rw-r--r--  1 brandon wheel 2.5K Mar 18 11:38 Gemfile
 12K -rw-r--r--  1 brandon wheel  12K Mar 18 11:39 Gemfile.lock
4.0K drwxr-xr-x  4 brandon wheel 4.0K Feb 16 11:00 lib
4.0K drwxr-xr-x  2 brandon wheel 4.0K Feb 16 16:40 log
4.0K -rw-r--r--  1 brandon wheel   38 Feb 16 11:00 Procfile
4.0K drwxr-xr-x  3 brandon wheel 4.0K Feb 16 17:53 public
4.0K -rw-r--r--  1 brandon wheel  258 Feb 16 19:24 Rakefile
4.0K -rw-r--r--  1 brandon wheel  374 Feb 16 11:00 README.md
4.0K drwxr-xr-x 11 brandon wheel 4.0K Mar 18 11:38 spec
4.0K drwxr-xr-x  2 brandon wheel 4.0K Feb 28 15:48 storage
4.0K drwxr-xr-x 10 brandon wheel 4.0K Feb 16 19:24 test
4.0K drwxr-xr-x  6 brandon wheel 4.0K Feb 16 12:16 tmp
4.0K drwxr-xr-x  3 brandon wheel 4.0K Feb 16 11:00 vendor
brandon@barn rails_root (main) $ rubocop
Inspecting 84 files
....................................................................................

84 files inspected, no offenses detected
brandon@barn rails_root (main) $
```

```
brandon@barn rails_root (main) $ rspec
.....................................................................................

Finished in 0.45081 seconds (files took 4.58 seconds to load)
89 examples, 0 failures

JSON Coverage report generated for specs to /home/brandon/TAMU/CSCE606/ELRC/rails_root/coverage.         207 / 213 LOC (97.18%) covered.
Coverage report generated for specs to /home/brandon/TAMU/CSCE606/ELRC/rails_root/coverage. 207 / 213 LOC (97.18%) covered.
brandon@barn rails_root (main) $
```

```
jserver@jserver:~/work/606/csce606-ELRC-Synergistic-Leadership-Theory/rails_root$ bundle exec cucumber -f summary
  Present Analysis Results
    Invalid survey inputs ✓
    Valid survey inputs ✓

  Establish Project Data Models
    Invalid model attributes ✓
    Valid model attributes ✓

  Data Submission
    Analysis displays correct values ✓
    Analysis displays tetrahedron ✓

  Development Environment Setup
    Verify database connection ✓

  Initial UI Design
    Verify survey profile page ✓
    Verify survey form page ✓
    Verify survey qustions ✓
    Verify explanation on survey_responses page /survey_responses/1
  ✓

  Invitation
    User finishes survey and creates an invitation ✓
    Invited user visits the link ✓

  Reworked Project Data Models
    Invalid model attributes ✓
    Valid model attributes ✓

  Query Survey information
      ✓
      ✓

  Theory Exploration
    Verify about page rendering ✓
    Verify tetrahedron rendering ✓

  19 scenarios (19 passed)
  76 steps (76 passed)
  0m1.311s
  JSON Coverage report generated for features, specs to /home/jserver/work/606/csce606-ELRC-Synergistic-Leadership-Theory/rails_root/coverage.         213 / 213 LOC (10
  0.0%) covered.
  Coverage report generated for features, specs to /home/jserver/work/606/csce606-ELRC-Synergistic-Leadership-Theory/rails_root/coverage. 213 / 213 LOC (100.0%) covered
```

Breakdown

160 FILES

MAINTAINABILITY

TEST COVERAGE

Codebase summary

MAINTAINABILITY

A 2 hrs

TEST COVERAGE

A 100%

Repository stats

CODE SMELLS

2

DUPLICATION

4

OTHER ISSUES

0

6. Customer Meetings Summary

Meeting 1: Online, 2024-03-05 16:00 CST

Summary

- Discussion around the updated UML documentation and model rework. The team walked through the changes made to ensure the application's architecture is clearly understood and maintainable.
- The team mentioned the upcoming spring break and discussed plans to ensure continuity of work during this period. They committed to maintaining communication and completing any critical tasks before the break to minimize disruption
- Sponsors inquired about the plan for the next sprint. The project owner outlined the remaining features to be implemented and any anticipated challenges.
- Set the expectation for the MVP to be ready for a round of user testing with actual schools by early April, aligning with the previously discussed "market launch" timeline.

Feedback

The sponsors expressed satisfaction with the progress made during sprint 2 and the team's responsiveness to feedback. They reiterated their enthusiasm for the project and willingness to provide any additional materials or input needed to support the next phase of development.

7. Links

GitHub	https://github.com/tamu-edu-students/csce606-ELRC-Synergistic-Leadership-Theory
Pivotal Tracker	https://www.pivotaltracker.com/n/projects/2690137
Slack	https://app.slack.com/client/T06GRHECJEM/C06GY2R74KX
Live Deployment	https://elrc-app-dfcfc7cd862b.herokuapp.com/