

Sprint 3 Retrospective Report

CSCE 120 Autograder Frontend

Scrum Master: Qinyao Hou

Product Owner: Saksham Mehta

Links

- [GitHub](#)
- [Slack Invite](#)
- [GitHub Projects](#)
- [Heroku Deployment](#)

Dates of the Sprint

Planning: 19 October to 25 October

Development: 26 October to 1 November

Information about team and member contributions

Members	<u>Assigned Tasks</u>	<u>Points</u> SUM(story_pts/num_devs)	<u>Percentage of Development</u>
Qinyao Hou (Scrum Master)	Implement Test Block Partial Fix Test Scenarios based on the Dynamic Test Block Test Drag-and-Drop	$\frac{1}{2} + \frac{1}{2} + \frac{1}{2} = 1.5$	10.7%
Saksham Mehta (Product Owner)	File Upload, File Browser Partial	$3/3 + 2/2 = 2$	14.3%
Max Smith	Update Cucumber config, Test case editor UI updates, Update Test Schema, Test Drag-and-drop	$2/1 + 1/1 + 1/1 + \frac{1}{2} = 4.5$	32.1%
Md Hasan Al Banna	File Upload, File Browser Partial	$3/3 + 2/2 = 2$	14.3%
Mainak Sarkar	File Upload	$3/3 = 1$	7.1%
Ryan	Assignments Table UI Update,	$2/2 = 1$	7.1%

Gonzalez	Implement Test Block Partials		
Riddhi Ghate	Test Grouping UI Updates	2/1 = 2	14.3%

Sprint Goal:

Sprint 3 will focus primarily on usability and functionality of the test case editor, as well as implementing UI changes requested by the client.

Sprint Achievements and Summary of Stories implemented in this Sprint:

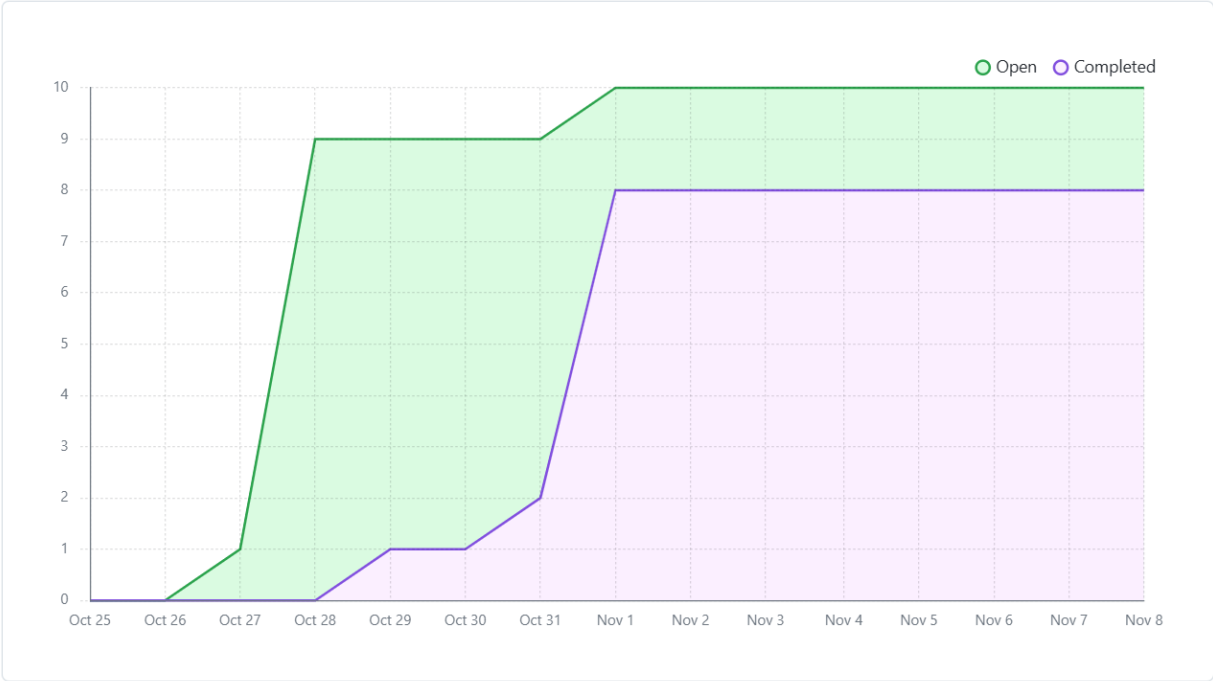
Story Number	Story	Completion
1	Update Test schema	Completed
2	Test Case Editor UI Updates	Completed
4	Move Tests b/t Groupings	Partially Completed(Scope of the Story is Narrowed)
9	File Upload	Completed
10	Test Grouping UI Updates	Completed
13	Assignments Table UI Update	Completed
14	File Selection Partial	(Pushed to Next Sprint)
15	Implement Test Block Partials	Completed
16	File Browser Partial	Completed
17	Add Cucumber config to enable JS scenarios testing	Partially completed (encountered unexpected problems)

Sprint backlog items and status:

Story Number	Task	Explanation
1	<p>Update Test schema</p> <ul style="list-style-type: none">• Modify the schema of Tests model (test_type)<ul style="list-style-type: none">◦ actual_test changed to test_block◦ test_block type changed to JSONB• Updating the naming/usage of this attribute in the code• Fixing all tests that will fail due to this change• Within Test model, implement get_test_block_str()<ul style="list-style-type: none">◦ Depending on test type, properly construct string for code.tests	Completed
2(-)	<p>Test Case Editor UI Updates</p> <ul style="list-style-type: none">• Improve layout to follow wireframe• Move test block to bottom• Rendering of correct partial based on test type	<p>Partially Completed (Scope of the Story is Narrowed). During development we underestimate the difficulty in stimulating drag and drop operations in cucumber scenarios. Therefore we simply finished the drag and drop within groups</p>
4	<p>Move Tests b/t Groupings</p> <ul style="list-style-type: none">• Drag and drop test cards within a group and between groups	Completed
9	<p>File Upload</p> <ul style="list-style-type: none">• Add interface to upload a file from the user's machine to a specific path	Completed
10	<p>Test Grouping UI Updates</p> <ul style="list-style-type: none">• Remove grouping name update• Addition of point editor next to each test• Point total at top• Add confirmation for deleting test grouping (low priority)	Completed
13	<p>Assignments Table UI Update</p> <ul style="list-style-type: none">• Left-justified text	Completed

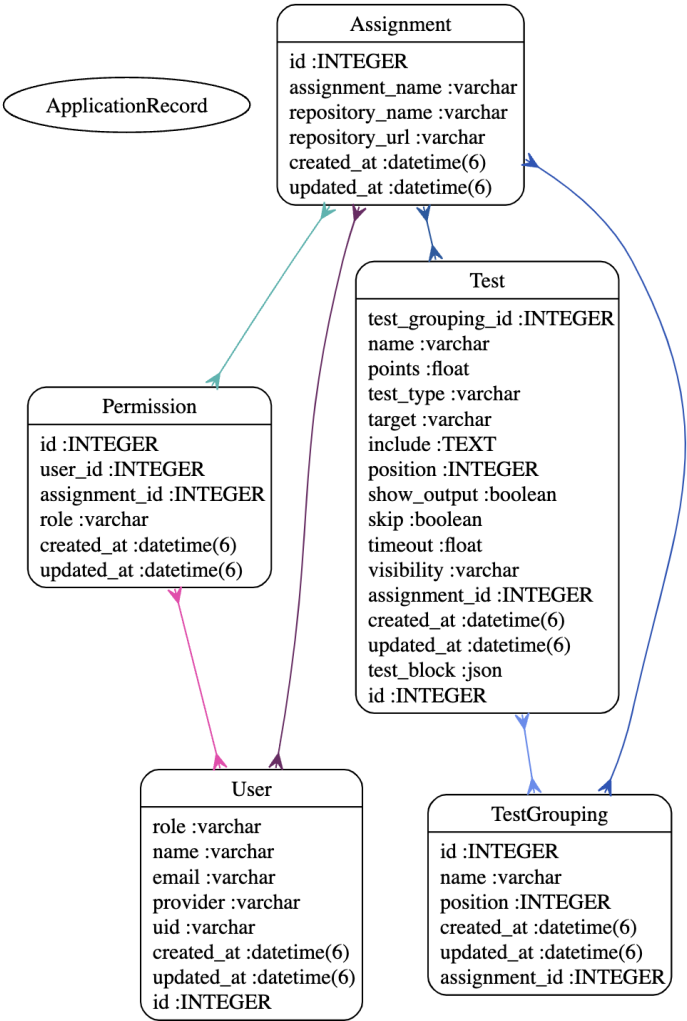
	<ul style="list-style-type: none"> • Button renaming • Highlighting sorted column • Retarget link to edit page • Remove "Edit" button 	
14	File Selection Partial <ul style="list-style-type: none"> • Get GitHub file tree • Produce nested, scrollable checkbox dropdown • Array of file paths is produced from selected files 	(Pushed to Next Sprint) Implementation was complete; However, a few cucumber scenario steps were failing randomly, which could not be fixed within the sprint's time-frame.
15	Implement Test Block Partials (partially completed from Sprint 2) <ul style="list-style-type: none"> • Implement all partials as text boxes/fields • Hook partials up to populate the test's <code>test_block</code> attribute 	Completed
16	File Browser Partial <ul style="list-style-type: none"> • Display file tree of remote repo • Directory dropdown 	Completed
17(+/-)	Add Cucumber config to enable JS scenarios testing	Partially Completed (Pushed to Next Sprint) During development we found that testing the relevant JavaScript in cucumber scenarios required modification in web driver settings in the test environment. We experienced conflicts of different environments of devices and struggled to fix some issues in this sprint, but still have some unsolved left for the next sprint.

Burndown Chart:



Design diagrams:

Models diagram
Date: Nov 08 2024 - 23:26
Migration version: 20241027212147
Generated by RailRoady 1.6.0
<http://railroady.prestonlee.com>



Documentation of changes

- Wireframes of Assignment page and Test Case edit page with different partials

Sorting Directions

Assignments

Assignment Name ▲	Created On ▲	Last Updated ▲	Actions
Assignment ...1	10-15-2024 23:17	10-15-2024 23:17	<button>Export to Gradescope</button> <button>Manage Access</button>

Left Aligned

Hyper Link to take you to view page of the tests

Tests Total points: 95

Grouping 1

1.1 Test 1 1pt.

1.2 Test 2 2pt.

1.3 Test 3 1.5pt.

Grouping 2

2.1 Test 4 1.5pt.

2.2 Test 5 1pt.

2.3 Test 6 0.5pt.

File Tree +

Directory

Directory

Directory

File

Directory

Directory

File

Test Name

Test Type ▼

Target File

Show stdout to Students ☒

Skip test Execution ☒

Timeout (sec)

Gradescope Visibility ▼

Includes

code.cpp

helper.h +

Dynamic Test Block

For block partials use example as follows:

Tests Total points: 95

Grouping 1

1.1 Test 1 1pt.

1.2 Test 2 2pt.

1.3 Test 3 1.5pt.

Grouping 2

2.1 Test 4 1.5pt.

2.2 Test 5 1pt.

2.3 Test 6 0.5pt.

File Tree +

Directory

Directory

Directory

File

Directory

Directory

File

Test Name

Test Type ▼

Target File

Show stdout to Students

Skip test Execution

Timeout (sec)

Gradescope Visibility ▼

Includes

code.cpp

helper.h +

Approved Included(Compile or Memory Errors) +

code.cpp

helper.h

- Changes in our Assignment Table's User-Interface: Remove the "Edit" button, and retarget link to the edit page with other UI changes

Assignments

Search... x

Search Assignment

Assignment Name▲	Created On▲	Last Updated▲	Actions	
max-assignment	10-28-2024 16:54	10-28-2024 16:54	Export to Gradescope	Manage Access
assignment-test-19	11-02-2024 00:41	11-02-2024 00:41	Export to Gradescope	Manage Access

Create Assignment

- Changes in our Test Editor's User-Interface:
 - Drag and drop within the test groups

New Test Grouping +

Total Points: 20

1) Miscellaneous x

Tests

1) test1 (10.0 pts.)

2) test2 (10.0 pts.)

2)

Test Name

Create Test

Grouping Number

Test Number

Points

Test Type

Please select a test type

Includes

Add .cpp or .h paths separated by spaces

Target

Show output

Skip

After drag and drop

New Test Grouping +

Total Points: 20

1) Miscellaneous x

Tests

1) test2 (10.0 pts.)

2) test1 (10.0 pts.)

2)

Test Name

test2

Delete Test

Update Test

Grouping Number

Test Number

1

Points

10.0

Test Type

unit

Includes

Add .cpp or .h paths separated by spaces

Target

target

- Follow the wireframe UI to show the metadata of test cases

Add New Test

max-assignment

Export to Gradescope

New Test Grouping +

Total Points: 0

No tests found for this assignment.

Test Name

Create Test

Grouping Number

Test Number

Points

Test Type

compile

Includes

Add .cpp or .h paths separated by spaces

Target

Show output

Skip

File Tree for /tests folder

c++

Timeout

Gradescope Visibility

Visible

Compile Path

Enter Compile Path

- Render partials based on the test type

When the test type is compile, render compile partial

Test Type

compile

Target

Show output

Skip

Timeout

Includes

Add .cpp or .h paths separated by spaces

Gradescope Visibility

Visible

Compile Path

Enter Compile Path

Add Compile Path

When the test type is unit, render unit partial

Test Type

unit

Target

Show output

Skip

Timeout

Includes

Add .cpp or .h paths separated by spaces

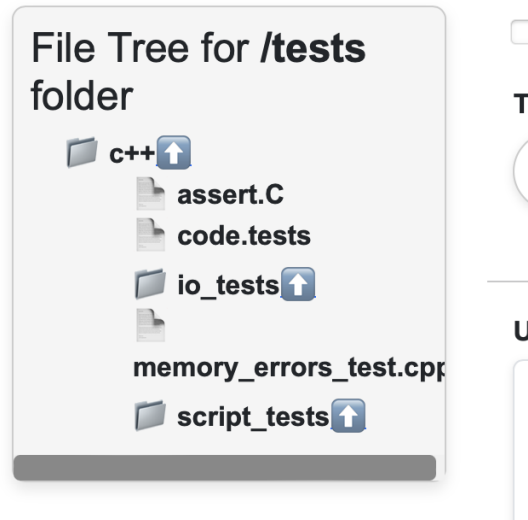
Gradescope Visibility

Visible

Unit

Enter Unit

- File upload in the file tree



Test points editor in the left column (with the total points)

ass1

Add New Test Export to Gradescope

New Test Grouping +

Total Points: 20

1) Miscellaneous x

Tests

1) test2 (10.0 pts.)

2) test1 (10.0 pts.)

2)

File Tree for /tests folder

- c++
 - assert.C
 - code.tests
 - io_tests
 - memory_errors_test.cpp

Test Name: test2

Delete Test Update Test

Grouping Number: Test Number: 1 Points: 10.0

Test Type: unit

Includes: Add .cpp or .h paths separated by spaces

Target: target

Show output Skip

Timeout:

Gradescope Visibility: Visible

Unit:

Evaluations of code and test quality: CodeClimate gives us an 'B' with 8 code smells.

Rubocop: No violations

Coverage RSpec + Cucumber: 99.03%

Customer Meeting

Meeting: 4 November 2024, Monday at 12:00 pm, on Zoom

The client requested the following additions:

- Radio button for single-choice file selection
- Live update for points, rather than having to click several buttons
- Includes field should be replaced with checkbox file selection
- "Create Test" should be greyed out until minimum necessary information is entered
- Asterisks should be next to all required fields
- Add units to Timeout field
- Assignment creation needs to make necessary updates to run_autograder script
- Test case deletion should require confirmation
- Approved includes can just be a textbox that expects one entry per line

bdd & tdd

Both tdd and bdd were followed for this sprint using cucumber scenarios and rspec tests.

Summary:

Positives from this sprint:

1. We were able to meet a lot of our goals to meet the client's requirements
2. Communication improved a lot from the last sprint
3. Received acceptance tests early
4. A lot more collaboration between the members to integrate tasks
5. A better planning (wireframe about UI) helps with the tasks
6. Focus on functionality and finish a strong MVP
7. Better assessment of story complexity

Improvements for future sprints:

1. Adhere to the assigned priority/order to reduce issues with dependencies between user stories.
2. Begin development earlier in the sprint to reduce stress towards the end and to allow time to handle problems that crop up.
3. Use a staging deployment to ensure that the app works in the production environment before deploying to the main deployment.
4. Focus more on the usability in this sprint