

# Office Hour Tracker - Sprint 4 Retrospective

2024/11/15

1. Dates of sprint: Mon, Nov 4, 2024 – Fri, Nov 15, 2024

2. Links:

a. Project management tool Page:

<https://tamu-team-office-tracker.atlassian.net/jira/software/projects/SCRUM/boards/1>

b. Github Repo:

[et-tran50/CSCE\\_606\\_Office\\_Hours\\_Tracker](https://github.com/et-tran50/CSCE_606_Office_Hours_Tracker)

c. Heroku deployment: <https://office-hours-tracker-a63f1f6d64ad.herokuapp.com/>

3. Team member contributions (an overview of team member capacity and effort done in the sprint. A table / chart of team members' percent of fair share effort):

Story	Status	Story Points	Assignee
As an <Admin>, I want to <view the data in both histogram and table form>, so that <I can easily interpret the data>	Completed	2	Chen-Hung
As an <Admin>, I want to <be able to navigate the portal effectively>, so that <better view relevant information>	Completed	2	Gourangi
As an <Admin/TA/Student>, I want to <sign in>, so that <no bugs arise in the process>	Completed	2	Bryson
As an <Admin>, I want to <ensure the student csv functions work accordingly>, so that <I can gauge the attendance for each day>	Completed	2	Nhat

As an <TA>, I want to <use the TA portal>, so that <I can ensure that I am signed in to my shifts>	Completed	2	Franklin
As a <product owner>, I want to <prioritize the story that should be addressed in this sprint>, so that <the client can use the product after this sprint.>	Completed	2	Ethan
As a <scrum master>, I want to <arrange daily meetings and remove difficulties encountered by teammates>, so that <the developers will have reasonable progress during the sprint>	Completed	2	Nazaro

Story points from sprint 1 - 4

The task assigned and points can be found in the section 3 “Team member contributions” of sprint retrospective document.

Name	Sprint number: Tasks (Points)	Total Points
Chen-Hung	<ul style="list-style-type: none"> <li>- Sprint 1: As a &lt;student/TA/Admin&gt;, I want to &lt;login&gt;, so that &lt;I can enter the system&gt;. (2)</li> <li>- Sprint 2: As a &lt;scrum master&gt;, I want to &lt;arrange daily meetings and remove difficulties encountered by teammates&gt;, so that &lt;the developers will have reasonable progress during the sprint&gt; (2)</li> <li>- Sprint 3: As an &lt;Admin&gt;, I want to &lt;see attendance graphs&gt;, so that I can understand attendance trends. (2)</li> <li>- Sprint 4: As an &lt;Admin&gt;, I want to &lt;view the data in both histogram and table form&gt;, so that &lt;I can easily interpret the data&gt;</li> </ul>	8
Gourangi	<ul style="list-style-type: none"> <li>- Sprint 1: As a &lt;student/TA&gt; I want to &lt;show I am here&gt;, so that &lt;system can record the attendance of me&gt;. (2)</li> </ul>	8

	<ul style="list-style-type: none"> <li>- Sprint 2: As a &lt;Student/TA&gt;, I want to see &lt;already registered when marking attendance repeatedly&gt;, so that &lt;a new entry is not added to same time slot.&gt; (2)</li> <li>- Sprint 3: As a &lt;product owner&gt;, I want to &lt;prioritize the story that should be addressed in this sprint&gt;, so that &lt;the client can use the product after this sprint.&gt; (2)</li> <li>- Sprint 4: As an &lt;Admin&gt;, I want to &lt;be able to navigate the portal effectively&gt;, so that &lt;better view relevant information&gt; (2)</li> </ul>	
Bryson	<ul style="list-style-type: none"> <li>- Sprint 1: As a &lt;product owner&gt;, I want to &lt;prioritize the story that should be addressed in this sprint&gt;, so that &lt;the client is able to use the product after this sprint.&gt; (2)  Note: The original table in sprint 1 retrospective mentions that the person is in charge of cucumber test. Here we try to make the task assignment more clear by including role as product owner.</li> <li>- Sprint 2: As a &lt;Admin/TA/Student&gt;, I want to &lt;know my role after login&gt;, so that &lt;I can check if I am registered correctly&gt; (2)</li> <li>- Sprint 3: As an &lt;admin&gt; I want to &lt;upload a Admin/TA email file&gt;, so that &lt;I can change the Admins/TA if needed.&gt; (2)</li> <li>- Sprint 4: As an &lt;Admin/TA/Student&gt;, I want to &lt;sign in&gt;, so that &lt;no bugs arise in the process&gt; (2)</li> </ul>	8
Nhat	<ul style="list-style-type: none"> <li>- Sprint 1: As a &lt;student&gt;, I want the &lt; the navigation between pages to be seamless&gt;, so that &lt;I have a smooth and enjoyable user experience&gt;: subtask-Create database for User (2)  Note: The work mentioned at the sprint 1 retrospective is actually a division of a story, so we classify it under a subtask.</li> <li>- Sprint 2: As an &lt;Admin&gt;, I want to &lt;download the attendance data from TA and student&gt;, so that &lt;I know the number of person joined the slot&gt; (2)</li> <li>- Sprint 3: As a &lt;scrum master&gt;, I want to &lt;arrange daily meetings and remove difficulties encountered by</li> </ul>	8

	<p>teammates&gt;, so that &lt;the developers will have reasonable progress during the sprint&gt; (2)</p> <ul style="list-style-type: none"> <li>- Sprint 4: As an &lt;Admin&gt;, I want to &lt;ensure the student csv functions work accordingly&gt;, so that &lt;I can gauge the attendance for each day&gt; (2)</li> </ul>	
Franklin	<ul style="list-style-type: none"> <li>- Sprint 1: As a &lt;TA/Admin&gt; I want to &lt;download&gt; the number of students per hour so that &lt;we can use the records for scheduling purposes&gt; (2)</li> <li>- Sprint 2: As a &lt;product owner&gt;, I want to &lt;prioritize the story that should be addressed in this sprint&gt;, so that &lt;the client is able to use the product after this sprint.&gt; (2)</li> <li>- Sprint 3: As an &lt;admin&gt; I want to &lt;change the available courses&gt;, so that &lt;courses information can be updated each semester&gt; (2)</li> <li>- Sprint 4: As an &lt;TA&gt;, I want to &lt;use the TA portal&gt;, so that &lt;I can ensure that I am signed in to my shifts&gt; (2)</li> </ul>	8
Ethan	<ul style="list-style-type: none"> <li>- Sprint 1: As a &lt;scrum master&gt;, I want to &lt;arrange daily meetings and remove difficulties encountered by teammates&gt;, so that &lt;the developers will have reasonable progress during the sprint&gt; (2)</li> </ul> <p>Note: The original table in sprint 1 retrospective mentions that the person is in charge of rspec test. Here we try to make the task assignment more clear by including role as scrum master.</p> <ul style="list-style-type: none"> <li>- Sprint 2: As a &lt;student&gt;, I want to &lt;select from a dropdown of course&gt;, so that &lt;I know which course I am marking attendance for&gt; (2)</li> <li>- Sprint 3: As an &lt;Admin&gt;, I want to &lt;see student attendance in UI&gt;, so that I can have a record of attendance for analysis in UI (2)</li> <li>- Sprint 4: As a &lt;product owner&gt;, I want to &lt;prioritize the story that should be addressed in this sprint&gt;, so that &lt;the client can use the product after this sprint.&gt;. (2)</li> </ul>	8
Nazaro	<ul style="list-style-type: none"> <li>- Sprint 1: As a &lt;student&gt;, I want the &lt; the navigation between pages to be seamless&gt;, so that &lt;I have a smooth and enjoyable user experience&gt;:</li> </ul>	8

	<p>subtask-Create database for User: subtask - GUI styling (2)</p> <p>Note: The work mentioned at the sprint 1 retrospective is actually a division of a story, so we classify it under a subtask.</p> <ul style="list-style-type: none"> <li>- Sprint 2: As a &lt;TA&gt; I want to &lt;show I am here&gt;, so that &lt;system can record the attendance of me&gt; (2)</li> <li>- Sprint 3: As a &lt;User/TA&gt;, I want to &lt;make the GUI more intuitive&gt;, so that &lt;users can navigate the application easily and have a positive user experience&gt; (1)</li> <li>- Sprint 3: As an &lt;Admin&gt;, I want to &lt;see the list of TA checked in&gt;, so that &lt;the admin can use it to process payroll&gt; (1)</li> <li>- Sprint 4: As a &lt;scrum master&gt;, I want to &lt;arrange daily meetings and remove difficulties encountered by teammates&gt;, so that &lt;the developers will have reasonable progress during the sprint&gt; (2)</li> </ul>	
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#### 4. Sprint goal:

We want to ensure that the functionality and usability of this application works as intended and to rid our app of all bugs. By doing this, we allow our client to use this product in semesters to come.

#### 5. Sprint Achievement:

We have fix several major problems to make the app more useable

- The data downloaded are all in CST time zone, so the client don't have to do UTC to CST time conversion
- In the authentication process, the user won't reach an error page when they press back, increasing the user experience.
- It is now more intuitive to see the histogram and download data section. In the past, there were two sets of buttons controlling histogram and download data, and now it has been merged to one.
- The app is now more usable on mobile devices by making it more responsive.

## 6. Sprint backlog item and status

1) As an <Admin/TA/Student>, I want to <sign in>, so that <no bugs arise in the process>

**Point (2) - Bryson**

**Estimated Time: 1.5 hr**

**Task:**

(\*) i) There has been a bug presented when trying to sign in using Google Authentication. We want to relieve this issue to create a seamless experience for when a user accidentally selects

Change/Reason: Merge two tasks into one because they convey the same meaning

2) As an <TA>, I want to <use the TA portal>, so that <I can ensure that I am signed in to my shifts>

**Point (2) - Franklin**

**Estimated Time: 3 hr**

**Task:**

i) We want to ensure that the names of the TA's appear on the attendance form that the administration views for payroll.

ii) There has also been a bug discovered on the TA page, more specifically an error when a button is clicked.

(\*) ii) Make the TA csv file show data in CST timezone.

Change/Reason: We observe that the database writes time in UTC timezone, so one has to do some post-processing to get data in CST time.

3) As an <Admin>, I want to <be able to navigate the portal effectively>, so that <better view relevant information>

**Point (2) - Gourangi**

**Estimated Time: 3 hr**

**Task:**

i) We want to ensure that the download button on the administration page correctly produces a CSV of the selected information.

ii) We have discovered a bug, when we click on the download data button, then click back, the download data button no longer works.

4) As an <Admin>, I want to <ensure the student csv functions work accordingly>, so that <I can gauge the attendance for each day>

**Point (2) - Nhat**

**Estimated Time: 3 hr**

**Task:**

i) We want to ensure that the fields selected, such as date range, course, produce the appropriate CSV file.

(\*) ii) Make the csv file show data in CST timezone.

Change/Reason: We observe that the database writes time in UTC timezone, so one has to do some post-processing to get data in CST time.

5) As an <Admin>, I want to <view the data in both histogram and table form>, so that <I can easily interpret the data>

**Point (2) - Chen**

**Estimated Time: 3 hr**

**Task:**

i) We want to restructure the administrative page to view the database in both histogram and table form.

ii) We want to create a new page that is specific to viewing data only, and ensure that the data in both the histogram and the table align.

(\*) ii) Make the histogram show data in CST timezone.

Change/Reason: Fix UTC and CST time zone differences

**6) As a <product owner>, I want to <prioritize the story that should be addressed in this sprint>, so that <the client can use the product after this sprint.>**

Point (2) - Ethan

**Tasks:**

- a. Discuss with teammates about the story that should be put in this sprint
- b. Write rspec tests to ensure that each component works normally.

Estimated Time: 3 hrs

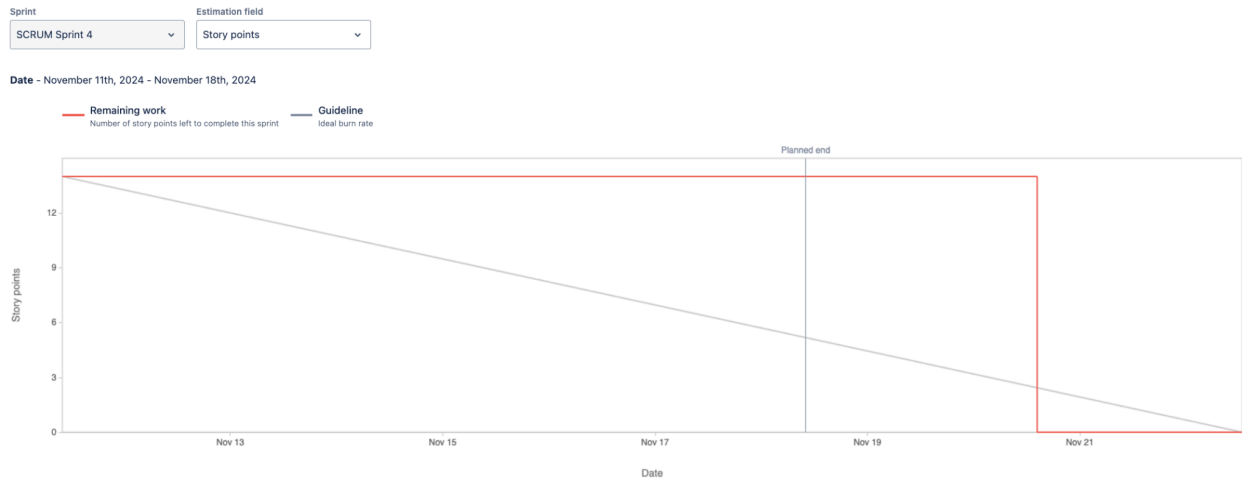
**7) As a <scrum master>, I want to <arrange daily meetings and remove difficulties encountered by teammates>, so that <the developers will have reasonable progress during the sprint>**

Point (2) - Nazaro

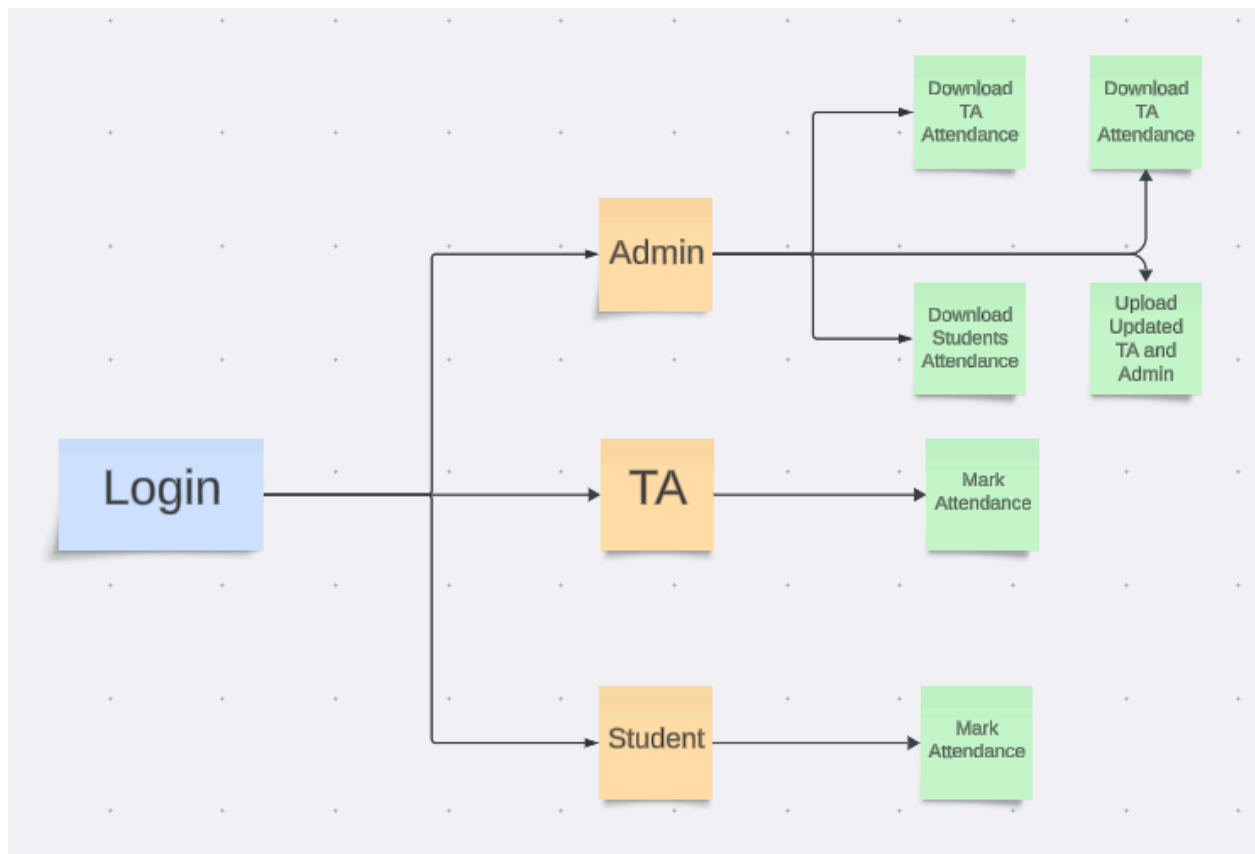
Estimated Time: 3hrs

- a. Hold regular stand-up meetings to learn about people's progress and to remove obstacles in the development process
- b. Write cucumber tests to ensure that the functions are working properly.
- c. Ensure that pages are responsive

7. burndown(A burndown chart for the sprint.):



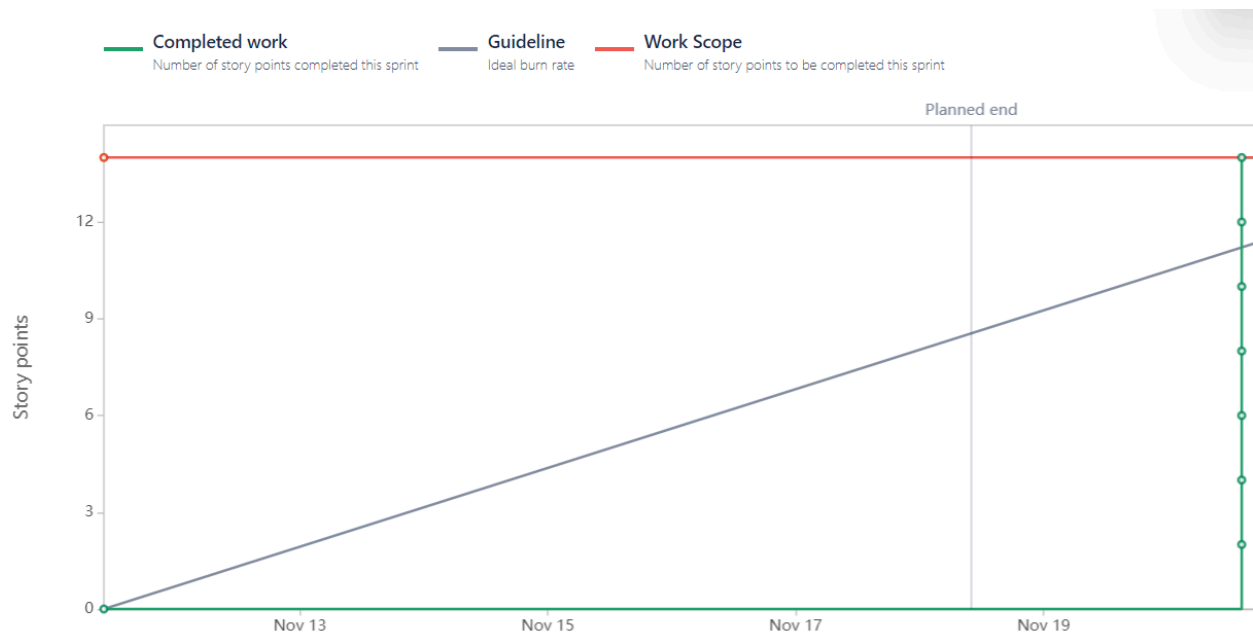
## 8. Design Diagram for the sprint





## 9. Documentations of changes:

Following is the burnup report of the story points throughout the sprint:



**Sprint Duration:** Mon, Oct 25, 2024 – Fri, Nov 1, 2024

### 1. **Sprint Initiation:** The sprint began with the addition of all tasks:

- Allow admins, TAs, and students to sign in without encountering bugs (SCRUM-39).
- Enable TAs to use the portal to ensure their shifts are correctly logged (SCRUM-40).
- Improve the admin portal for effective navigation to view relevant information (SCRUM-41).
- Ensure student CSV functions work as expected to gauge daily attendance (SCRUM-42).
- Provide data visualization in both histogram and table forms for easy interpretation (SCRUM-43).
- Prioritize stories for the sprint to ensure the client can use the product after the sprint (SCRUM-44).
- Arrange daily meetings and address difficulties encountered by the team (SCRUM-45).
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### 2. **Progress Updates:**

- As issues were completed, the total completed story points increased steadily from 0 at the start of the sprint to 14 by the end of the sprint.

### 3. **Scope Changes:**

- No new tasks were added during this sprint; the scope remained constant at 14 story points.
- The focus was on completing the planned tasks without introducing additional scope.
- **Estimate Updates:** Estimates remained consistent throughout the sprint, as the scope was clearly defined and no adjustments were necessary.

Date	Event	Issue	Completed	Scope
Mon, Nov 11 2024, 10:02am	Sprint started	<a href="#">SCRUM-39</a> As an <Admin/TA/Student>, I want to <sign in>, so that <no bugs arise in the process> <a href="#">SCRUM-40</a> As an <TA>, I want to <use the TA portal>, so that <I can ensure that I am signed in to my shifts> <a href="#">SCRUM-41</a> As an <Admin>, I want to <be able to navigate the portal effectively>, so that <better view relevant information> <a href="#">SCRUM-42</a> As an <Admin>, I want to <ensure the student csv functions work accordingly>, so that <I can gauge the attendance for each day> <a href="#">SCRUM-43</a> As an <Admin>, I want to <view the data in both histogram and table form>, so that <I can easily interpret the data> <a href="#">SCRUM-44</a> As a <product owner>, I want to <prioritize the story that should be addressed in this sprint>, so that <the client can use the product after this sprint.> <a href="#">SCRUM-45</a> As a <scrum master>, I want to <arrange daily meetings and remove difficulties encountered by teammates>, so that <the developers will have reasonable progress during the sprint>	0	14
Wed, Nov 20 2024, 2:21pm	Issue completed	<a href="#">SCRUM-39</a> As an <Admin/TA/Student>, I want to <sign in>, so that <no bugs arise in the process>	0 → 2	14
Wed, Nov 20 2024, 2:21pm	Issue completed	<a href="#">SCRUM-40</a> As an <TA>, I want to <use the TA portal>, so that <I can ensure that I am signed in to my shifts>	2 → 4	14
Wed, Nov 20 2024, 2:21pm	Issue completed	<a href="#">SCRUM-41</a> As an <Admin>, I want to <be able to navigate the portal effectively>, so that <better view relevant information>	4 → 6	14
Wed, Nov 20 2024, 2:21pm	Issue completed	<a href="#">SCRUM-42</a> As an <Admin>, I want to <ensure the student csv functions work accordingly>, so that <I can gauge the attendance for each day>	6 → 8	14

- Completion:** By the end of the sprint, all initially planned and newly added tasks were completed, demonstrating effective progress and adaptability throughout the sprint.

## 10. Evaluation of code and test quality

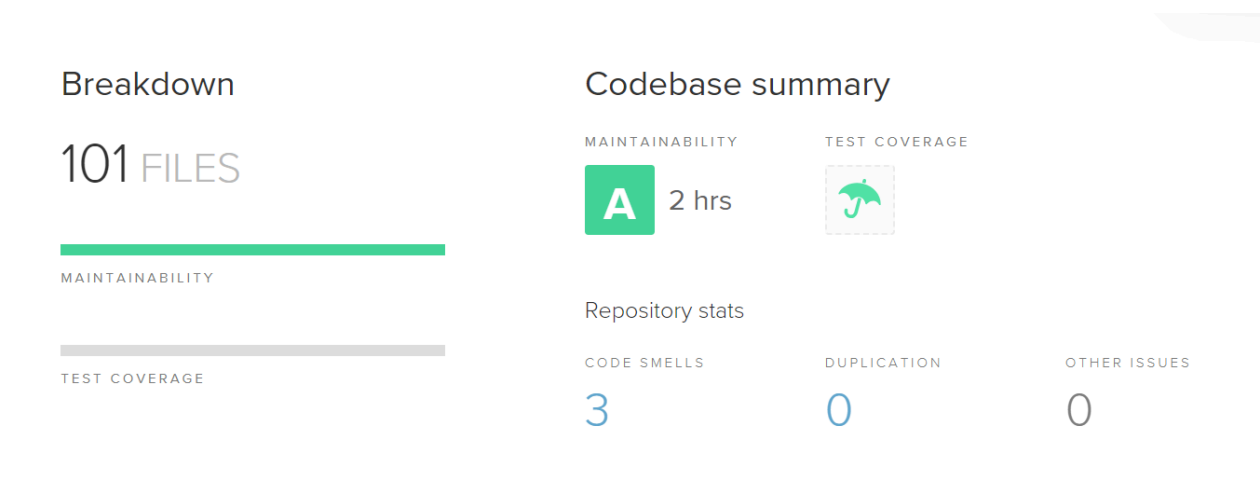
### a. Coverage

- Coverage report generated for Cucumber Features, RSpec to /home/user/office-hours-tracker/coverage.
- Line Coverage: % (the data given by rspec)

### b. Code Climate Smells

### c. Code Climate Style

The image below shows the climate report of the current codebase, the maintainability is at level A.



## 11. Customer meeting

Demo date: **2024/11/13**

During the meeting, we demonstrated the following functionalities to the client:

- Uploading TA/Admin CSV files to update the list of people allowed to access specific pages.
- The attendance graph shows the number of students attending each time slot.
- Downloading student/TA attendance data as a CSV file.
- Full Course CRUD functionality.

The client requested that the app be mobile-responsive, ensuring students can easily access it on their phones. She also asked to receive a copy of the final report once it's completed.

## 12. BDD & TDD

<BDD>

### Feature: Admin Page

- **As an Admin**
  - I want to log in and view the Admin page

#### Scenario 1: Admin logs in with mocked Google OAuth account

- Given the following courses exist:

| course\_number | course\_name | instructor\_name | start\_date | end\_date |

| ENGR 102 | Engineering Lab I - Computation | Niki Ritchey | 2024-08-19 | 2024-12-31 | ENGR 200 | Dummy Course 1 | Dummy Professor | 2024-08-19 | 2024-12-31 |

- Given I am logged in with:
  - Name: "name\_admin"
  - Email: "admin@admin.com"
- And I am on the page "Home"
- When I click "Login with Google"
- Then I should see "Howdy, name\_admin!"
- When I am on the page "Admin"
  - And I set:
    - Start date: "2024-10-01"
    - End date: "2024-10-18"
  - And I select "Student" from the "Attendance Type" dropdown
  - And I click "Download Data"
- Then I should receive a CSV file
  - And the CSV file should contain the correct attendance data

## Scenario 2: Admin logs out

- Given the following courses exist:

| course\_number | course\_name | instructor\_name | start\_date | end\_date

| ENGR 102 | Engineering Lab I - Computation | Niki Ritchey | 2024-08-19 | 2024-12-31 | ENGR 200 | Dummy Course 1 | Dummy Professor | 2024-08-19 | 2024-12-31 |

- Given I am logged in with:
  - Name: "name\_admin"
  - Email: "admin@admin.com"
- And I am on the page "Home"
- When I click "Login with Google"
- And I click the link "Logout"
- Then I should see "Office Hours Tracker"

## Scenario 3: Attendance form submits correctly and updates histogram

- **Given** the following courses exist:

| course\_number | course\_name | instructor\_name | start\_date | end\_date |

| ENGR 102 | Engineering Lab I - Computation | Niki Ritchey | 2024-08-19 | 2024-12-31

- **Given** I am logged in with:
  - **Name:** "name\_admin"
  - **Email:** "admin@admin.com"

- **And** I am on the page "Home"
- **And** I click "Login with Google"
- **When** I select "ENGR 102" from the "course\_id" dropdown within the ".centered-table" section
- **Then** the histogram should be updated with the correct attendance data

<TDD> :

#### GET #upload\_email

- **Test:** Returns a successful response.
- **Purpose:** Verifies that the admin can access the upload email page and the view renders correctly.
- **Test:** Assigns `@current_user`.
- **Purpose:** Ensures that the correct user is assigned upon accessing the upload email page.

#### #valid\_email? method

- **Test:** Returns `true` for valid email addresses.
- **Purpose:** Confirms that the `valid_email?` method correctly identifies valid email formats.
- **Test:** Returns `false` for invalid email addresses.
- **Purpose:** Validates that invalid email formats are correctly flagged as invalid.

#### POST #upload\_emails (when valid email provided)

- **Test:** Sets a success flash message without modifying the actual file.
- **Purpose:** Ensures that an email is successfully added to admin emails and that success feedback is shown.

#### POST #upload\_emails (when invalid email provided)

- **Test:** Does not append the email and sets an alert flash message.
- **Purpose:** Ensures that invalid email formats are rejected, and appropriate feedback is displayed.

#### POST #upload\_emails (when valid CSV file uploaded)

- **Test:** Overwrites emails in the target file and sets a success flash message.
- **Purpose:** Confirms that valid CSV uploads successfully replace the target file's contents and provide success feedback.

#### **POST #upload\_emails (when invalid file format uploaded)**

- **Test:** Does not overwrite emails and sets an alert flash message.
- **Purpose:** Ensures only CSV files are accepted and invalid formats trigger an alert.

#### **POST #upload\_emails (when no email or file provided)**

- **Test:** Sets an alert flash message.
- **Purpose:** Ensures that either an email or file is required for processing, with feedback for missing data.

#### **#overwrite\_emails method**

- **Test:** Overwrites the target file with emails from the provided CSV file.
- **Purpose:** Confirms that `overwrite_emails` correctly updates the file with new emails only, ensuring accuracy in file updates.