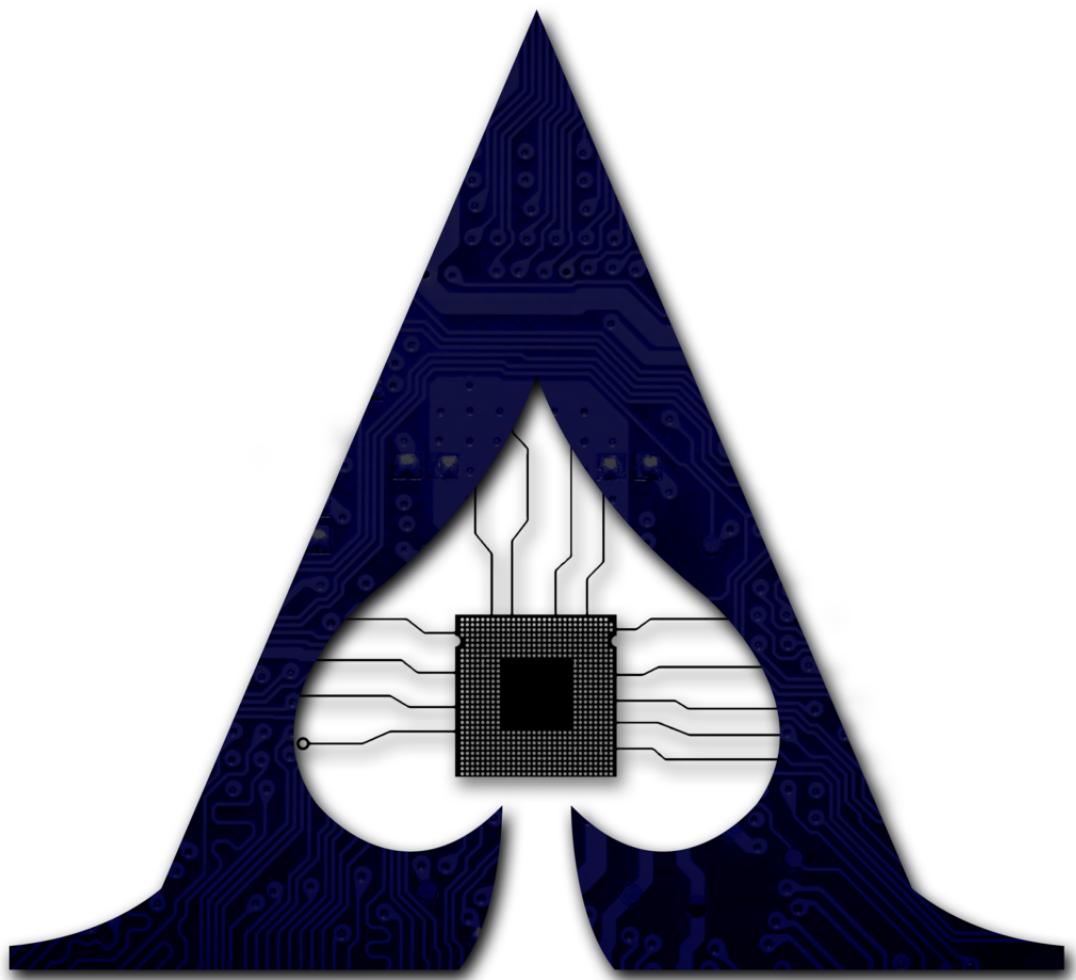
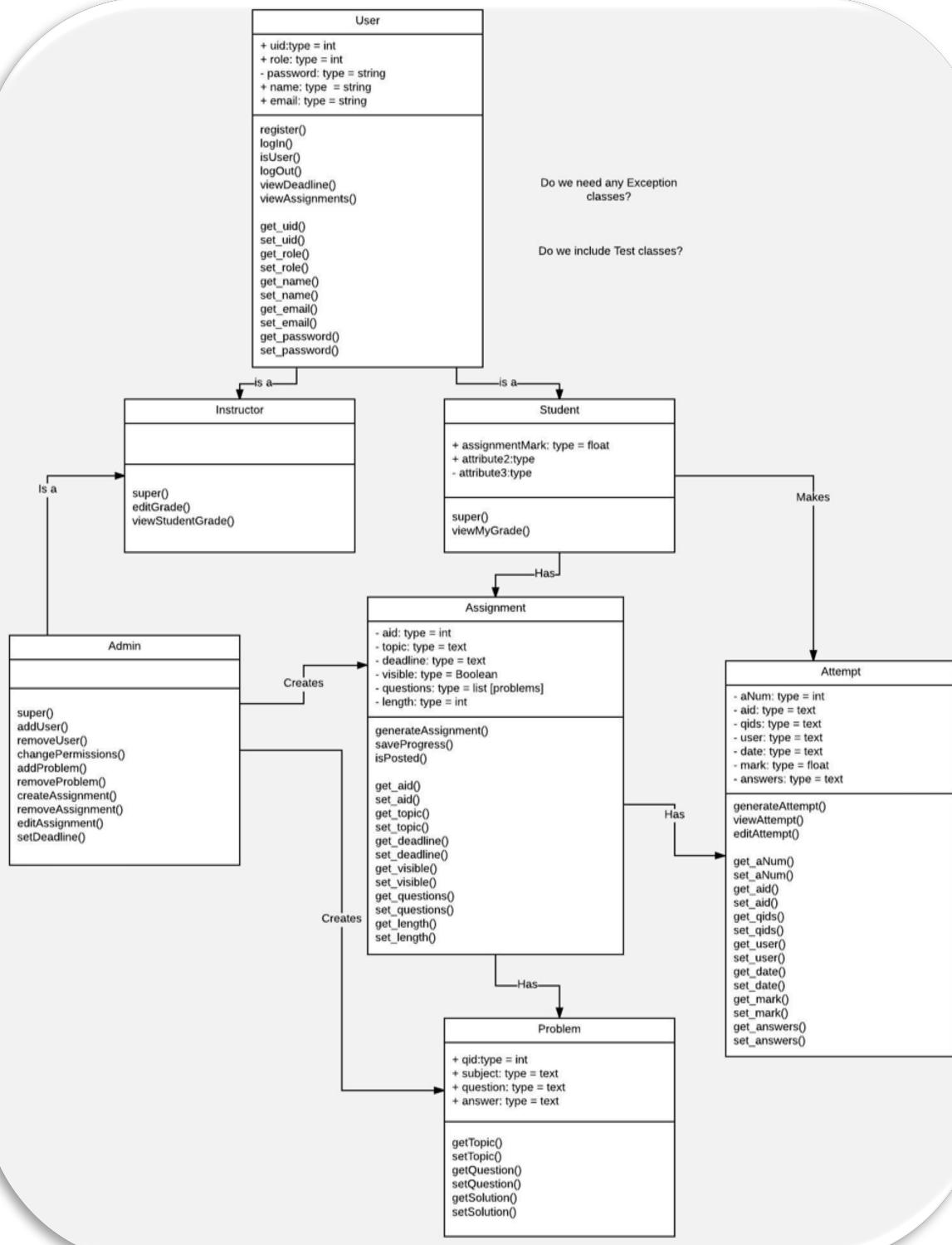


Ace of Spades



*Diana Soto, Gerrit Steinbach, Bar Slutsky,
Kezaram Tharmasegaram, Jonathan Jung-Kyun An*

UML Diagram- Sprint 2 & Sprint 3 Focus



Language Choice

We will code the program using python. Python is a simple to use language that has many features including native GUI frameworks, and documentation is readily available. Moreover we have all used python before, and this is a language that we should all be able to use effectively.

Implementation

The implementation this far will consist of creating the database, some basic functionality to interact with the database, and the GUI to accompany this.

For the GUI we will be using Tkinter, since it comes with python, it does not require any additional downloads. Furthermore there is documentation from the official python website that we can use if we need support.

<http://www.tkdocs.com/tutorial/> <https://docs.python.org/2/library/tkinter.html>

By the end of the sprint there should be a basic GUI that allows the user to manipulate the program, however advanced thematic features will be added later.

The Database will be written in sqlite. Sqlite is easy to implement, and it does not require a lot of learning in order for the programmer to create functions that use the database. Databases can also be created easily, and manipulated with little code. By the end of the sprint, the database should be ready to use with all functionality implemented.

<https://sqlite.org/docs.html> <https://docs.python.org/2/library/sqlite3.html>

Product Backlog (Admin & Student)

- As Nate/Sohee I would like to be able to Login to the admin part of the application
- As Nate/Sohee I would like to be able to add problems
- As Nate/Sohee I would like to be able to remove problems
- As Nate/Sohee I would like to be able to edit problems
- As Nate/Sohee, I would like to be able to add users to the software
- As Nate/Sohee I would like to be able to edit existing users in the software
- As Nate/Sohee I would like to be able to delete users from the software
- As Nate/Sohee I would like to be able to create a assignment.
- As Brian, I would like to be able to Login to the user part of the application
- As Brian I would like to be able to view posted assignments
- As Brian I would like to be able to complete an assignment
- As Brian I would like to be able to receive feedback for my assignment
- As (all) I would like to be able to change my password.
- As Nate/Sohee I would like to be able to set a due date for an assignment.
- As Sohee I would like to be able to extend due dates for an assignment.
- As Brian I would like to be able to review info about assignments (e.g. due dates and progress)
- As Brian I would like to be able to save my progress in the middle of work, so that I can close the app and come back to it later.
- As Brian I would like to be able to review my entire work after submission.
- As Brian I would like to be able to view my past results for any assignment.
- As Nate/Sohee I would like to be able to view all and individual student results on specific assignments.
- As Nate/Sohee I would like to be able to view a student's grade.

- As Nate/Sohee I would like to be able to edit a student assignment marks.
- As Nate/Sohee I would like to be able to sort student grades by assignment, first/last name, and ascending/descending marks.
- As Nate I would like to be able to have a choice from using either feedback templates or giving custom feedback.

Personas & User Stories

Admin

Professor Nate River

- Male, Mid 40s.
- University of Toronto Professor - Architectural Design.
- Very busy with meetings, doesn't have much time in between lectures.
- Most of the grading is done by the TAs after he provides a rubric.
- Large office, but very messy with papers.
- Does not spend a lot of time with students.
- Does not hold many office hours.
- Knows how to use computers well.
- Likes smart-phones because he does not have to use the computer.
- Does not want to spend a lot of time on the computer.
- Likes marking on paper.
- Gives a lot of informative feedback on student's submissions.
- Serious about his work.
- Very meticulous about the course running smoothly, and passes off announcing/dealing with technical delays to the TA's.
- Does not want to deal with any program errors, but would have the developers answer students directly about any issues.

Professor Sohee

- Female, mid 50s
- Professor of Statistics at University of Toronto
- Speaks English fluently
- Not knowledgeable of advanced computer systems and operations
- Will use a software if it's simplified, and there is a way for her to get support
- Holds office hours for students as scheduled on a weekly basis
- Enjoys students engaging with their homework and would like them to have an easier tool to complete homework online
- Administers a number of courses at the University, therefore very busy schedule, relies on organized and planned routines to get through tasks per day
- Prefers to students to get immediate feedback on their homework, making marking more efficient.

Student

Brian Thompson

- Male, 20 years old.
- 2+ year computer science specialist.
- Commutes to school every day, total of 2 hours.
- Comfortable doing school work on the bus, and pretty much anywhere.
- Spends a lot of time planning learning-strategies because he needs structure when studying.
- Good at managing his time, and likes to be able to estimate tasks' lengths.
- Likes math and comfortable with quantitative subjects.
- Very good with computers and technology in general.
- Likes tinkering and being able to customize things.
- Uses sites like Khan academy and likes the benefits from the concept of going through material, followed by questions that cover that material.
- Cares a lot about achievements, and a perfectionist.
- Gets Highly motivated by positive feedback
- Starts assignments as soon as assigned, tries to finish as fast as possible before starting anything new.
- Will always go the extra mile in order to maximize his results. Welcomes any opportunity for extra work.
- Would be more engaged with online learning material if there were questions that had hints and additional resources, such as the textbook, where could refer to for extra help.

Sprint Backlog- 40 Story Points Total

Sprint #2: October 23rd - October 27th

Story 1: (Total = 12 points)

“As an admin, Nate, I want to have one screen which will give me the ability to add, remove and edit problems, so that I have easy control over problems’ data.”

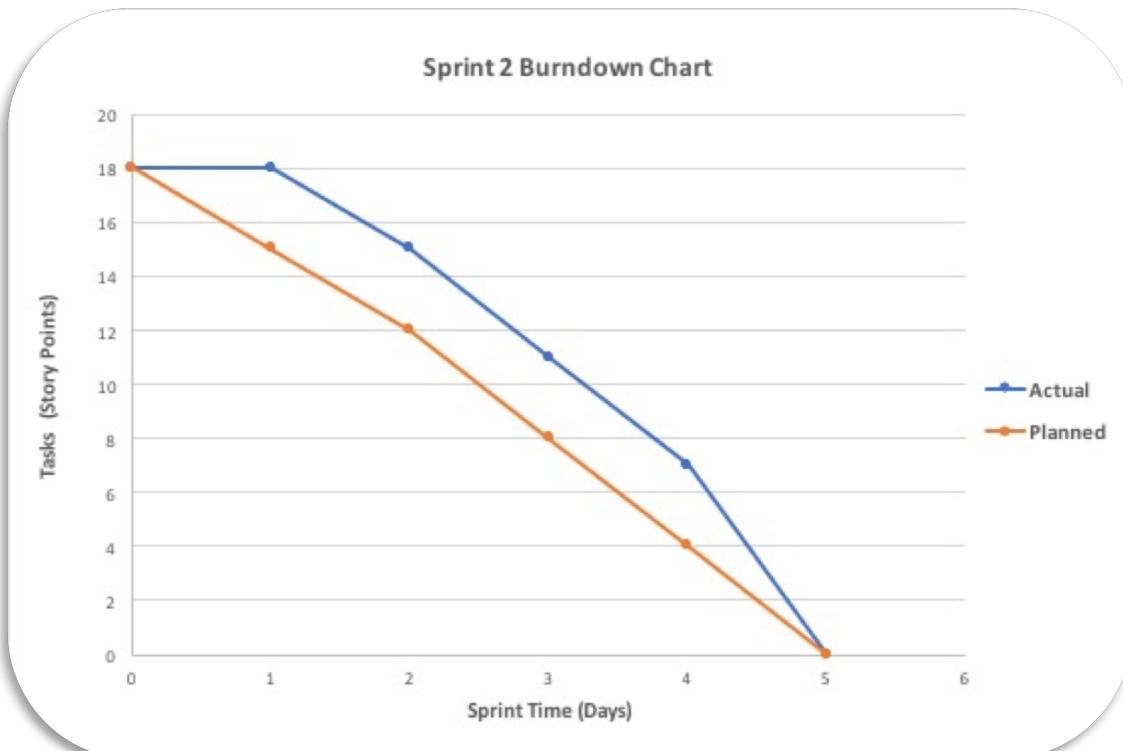
- Task 1: Create the GUI for a user management screen, which will enable an admin to view the data store in the database for each user in the system, and change it on the spot. This screen should include the interface for adding a new problem. (Diana, Gerrit) -4 points
- Task 2: Write new API functions to accommodate for the new management design. New functions: a function to update all the user fields at once, a function to create app widgets dynamically according to database information. (Jon, Kezaram) - 6 points
- Task 3: Integrate GUI with API functions effectively such that each element in the GUI operates according to the expectations in the user story.
Dependencies: T1, T2

(Diana, Gerrit, Jon, Kezaram) - 2 points

Story 2: (Total = 6 points)

“As an admin, Nate, I want to have one screen which will give me the ability to add, remove and edit users details, so that I have easy control over users’ information.”

- Task 4: Create the GUI for a user management screen, which will enable an admin to view the info stored in the database for each user in the system, and change it on the spot. This screen should include the interface for adding a new user. No dependencies. (Diana, Gerrit) - 2 points
- Task 5: Write new API functions to accommodate for the new management design. New functions: a function to update all the user fields at once, a function to create app widgets dynamically according to database information
(Bar) - 3 points
- Task 6: Integrate GUI with API functions effectively such that each element in the GUI operates according to the expectations in the user story.
Dependencies: T1, T2
(Bar, Diana, Gerrit) 1 point



Sprint #3: October 30th - November 6th

Story 1: (Total = 7 points)

“As an admin, Sohee, I want to have a screen where I can enter details about a new assignment and have the assignment created for me in the system, so that I can assign it to students whenever I want.”

- Task 7: Create the GUI for adding a new assignment. This screen will include entry boxes for each field of the assignment class: assignment_id, assignment_name, generating_formula, assignment_deadline, visibility.
(Diana, Gerrit) - 2 points
- Task 8: Implement API functions to for the functionality required by the user story. (Bar) - 3 points
- Task 9: Integrate GUI with API functions such that the functionality described in the user story is working as expected.
Dependencies: T1, T2
(Bar, Diana, Gerrit) - 2 points

Story 2: (Total = 7 points)

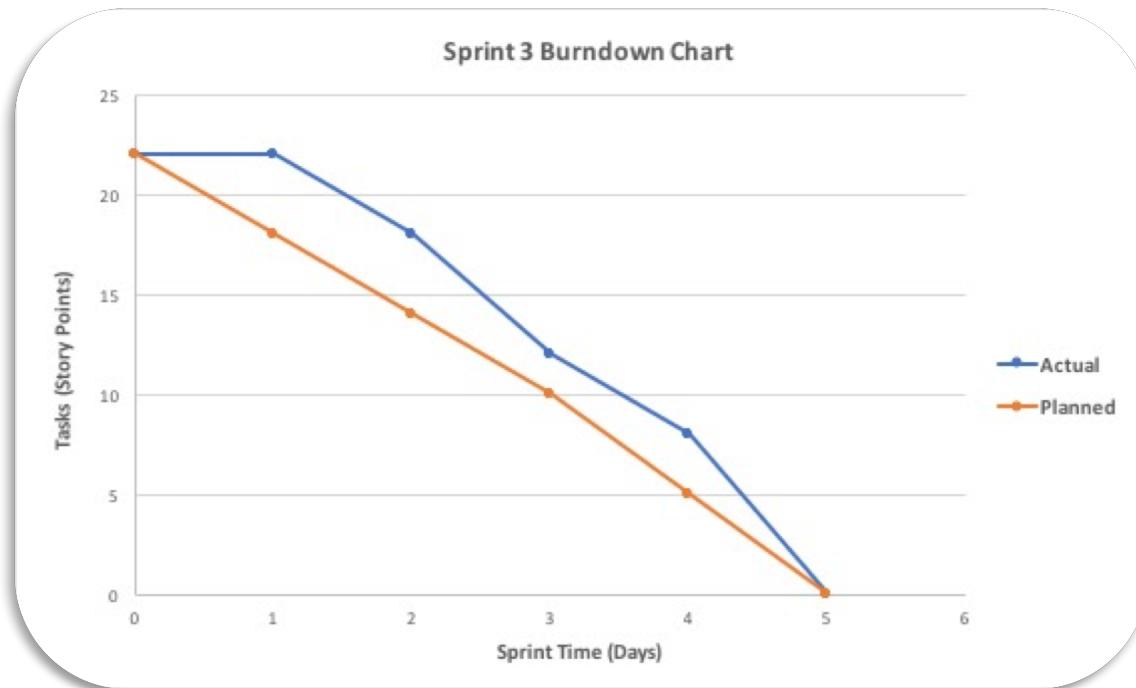
“As a Student , I want to be able to view a list of all the assignments that were assigned to me, so that I can access each assignment.”

- Task 10: Create the GUI for viewing a student’s assigned assignments. This screen will include a list of rows, each one describing an assignment’s name, deadline and grade, followed by a “view previous attempts” button and a “new attempt” button
(Diana, Gerrit) - 3 points
- Task 11: Implement API functions to for the functionality required by the user story.
(Bar) - 2 points
- Task 12: Integrate GUI with API functions such that the functionality described in the user story is working as expected.
Dependencies: T1, T2
(Bar, Diana, Gerrit) - 2 points

Story 3: (Total = 8 points)

“As a Student, I want to have a screen for each assignment, in which I can view the assigned questions, input my answer, save my progress and submit it when I’m done”

- Task 13: Create the GUI for viewing a specific assignment. This screen will display a list of all the assigned questions for that assignment, with an entry box for each corresponding answer. It will have a button for saving progress and another button for final submission.
(Jon, Kezaram) - 3 points
- Task 14: Implement API functions to for the functionality required by the user story.(Jon, Kezaram) - 3 points
- Task 15: Integrate GUI with API functions such that the functionality described in the user story is working as expected.
Dependencies: T1, T2
(Jon, Kezaram) - 2 points

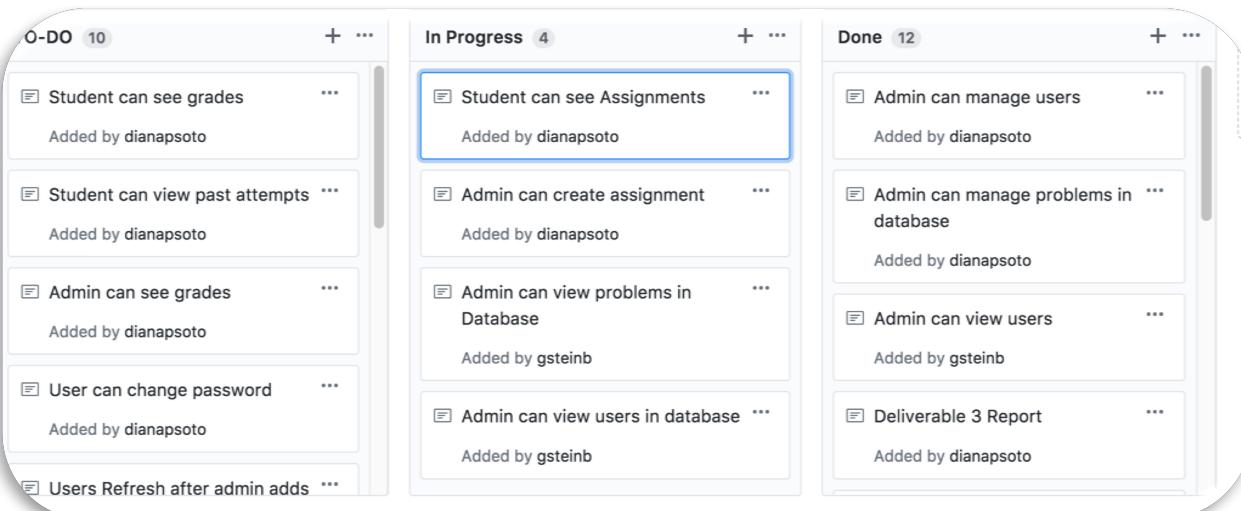
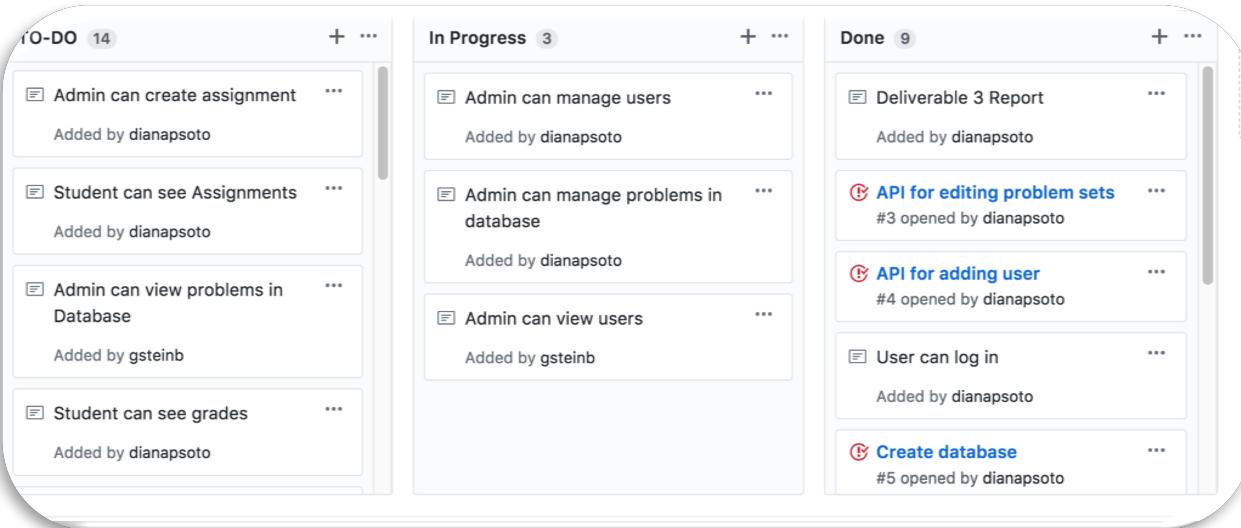


Sprint Report

**Note: Tasks 1-6 Were completed Sprint 2
Tasks 7-15 Completed Sprint 3**

Tasks	Day 1	Day 2	Day 3	Day 4	Day 5
T1		3	1		
T2			3	3	
T3				1	1
T4					2
T5					3
T6					1
T7		2			
T8		2	1		
T9			2		
T10			1	2	
T11			2		
T12				2	
T13					3
T14					3
T15					2

Task Board Screenshots for Sprint 2/3



TO-DO	+	...
<input checked="" type="checkbox"/> Admin can see grades Added by dianapsoto	...	
<input checked="" type="checkbox"/> Student can save progress on an assignment and log in again Added by dianapsoto	...	
<input checked="" type="checkbox"/> Users Refresh after admin adds user Added by gsteinb	...	
<input checked="" type="checkbox"/> Student badges Added by dianapsoto	...	

In Progress	+	...
<input checked="" type="checkbox"/> Student can attempt an assignment Added by dianapsoto	...	
<input checked="" type="checkbox"/> Student can view past attempts Added by dianapsoto	...	
<input checked="" type="checkbox"/> Student can see grades Added by dianapsoto	...	
<input checked="" type="checkbox"/> User can change password Added by dianapsoto	...	

Done	+	...
<input checked="" type="checkbox"/> Student can see Assignments Added by dianapsoto	...	
<input checked="" type="checkbox"/> Problems Refresh after admin adds problem Added by gsteinb	...	
<input checked="" type="checkbox"/> Admin can view problems in Database Added by gsteinb	...	
<input checked="" type="checkbox"/> Admin can create assignment Added by dianapsoto	...	