

COSC 499: Capstone Software Engineering Project

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GitHub Projects

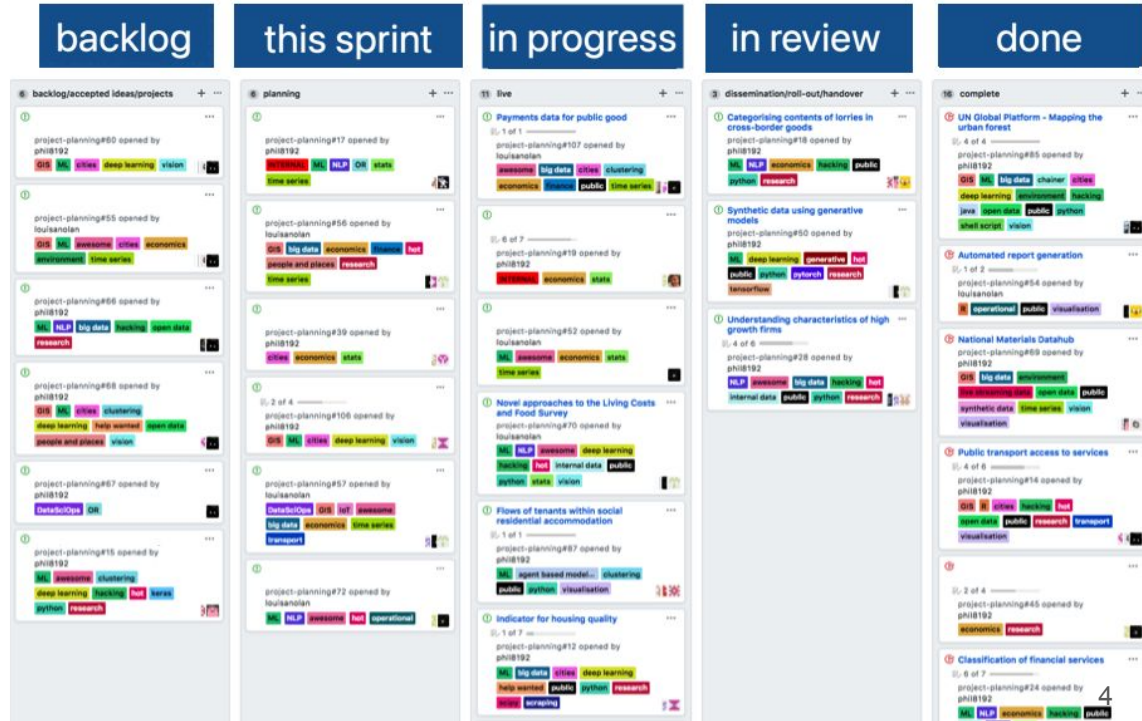
- A way to organize PRs, **issues**, and tasks on a **Kanban board**
- How are these related?
 - Breakdown features into tasks per person → task board
 - Team collaborates on code repository → PRs
 - Notice something wrong? Flag the problem to get it fixed → issues
 - Each issue is automatically connected to a task card

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- For more details on projects:
<https://docs.github.com/en/issues/planning-and-tracking-with-projects>
- See resource for creating project boards
 - <https://docs.github.com/en/issues/organizing-your-work-with-project-boards/managing-project-boards/about-project-boards>
 - Try using the "Automated kanban with review" template

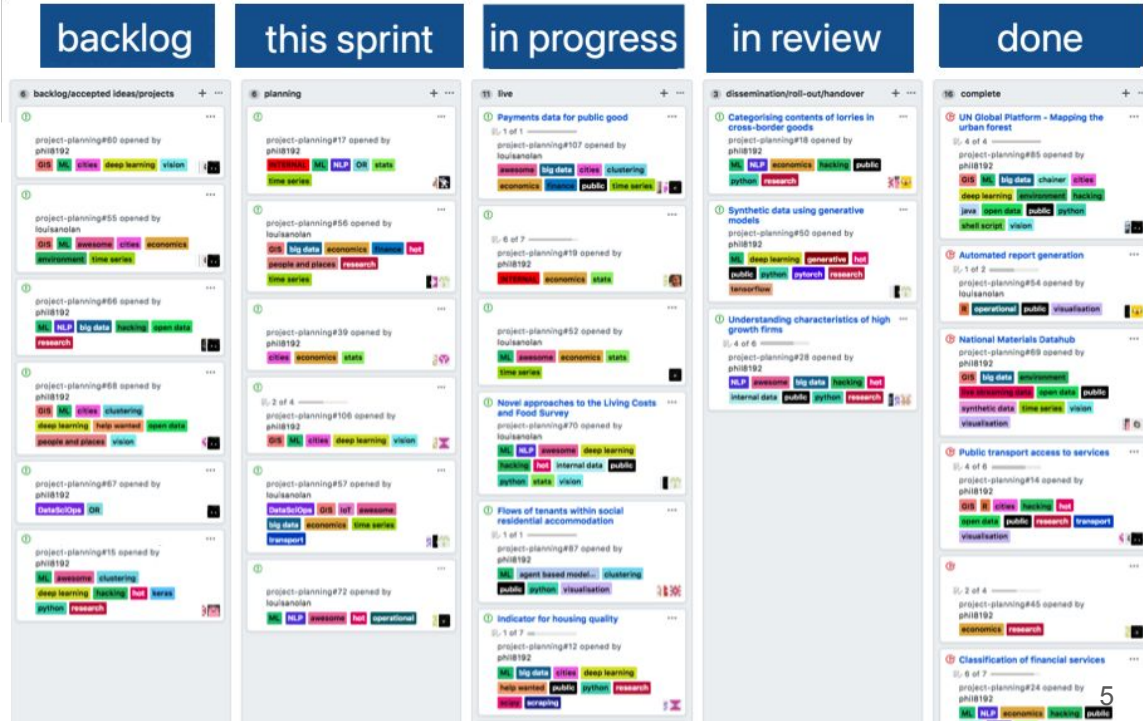
Example Project Board

- Everyone reviews project status and workflow with this board



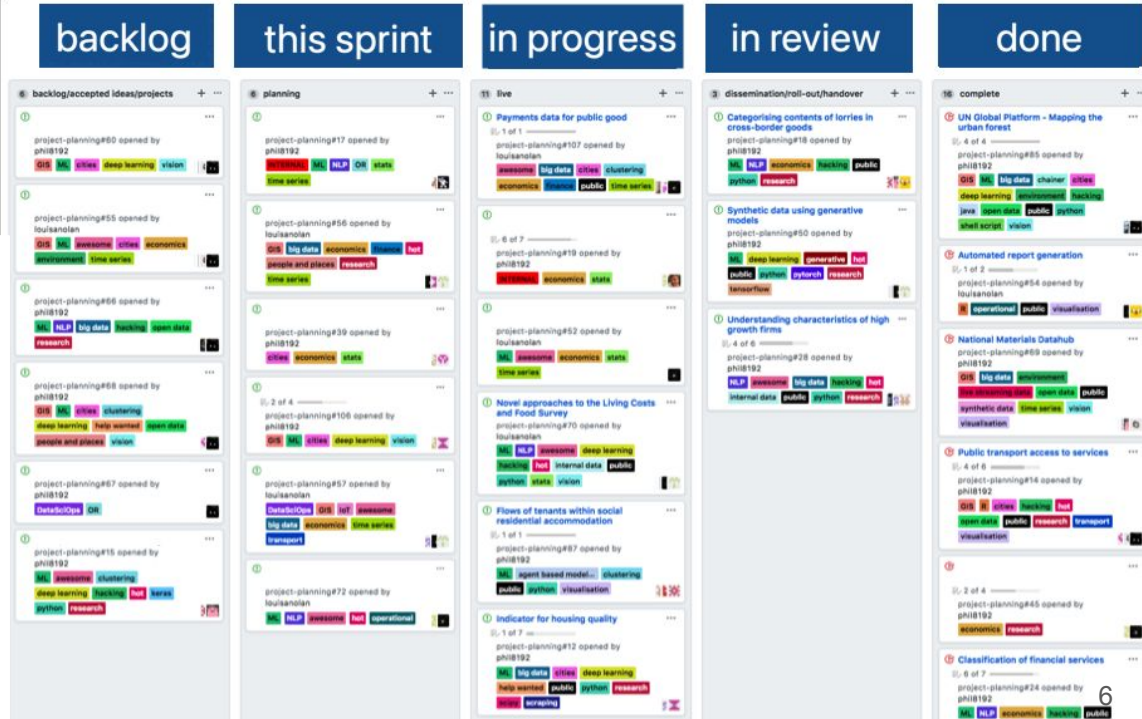
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- Each **stack** (column) shows a card's status



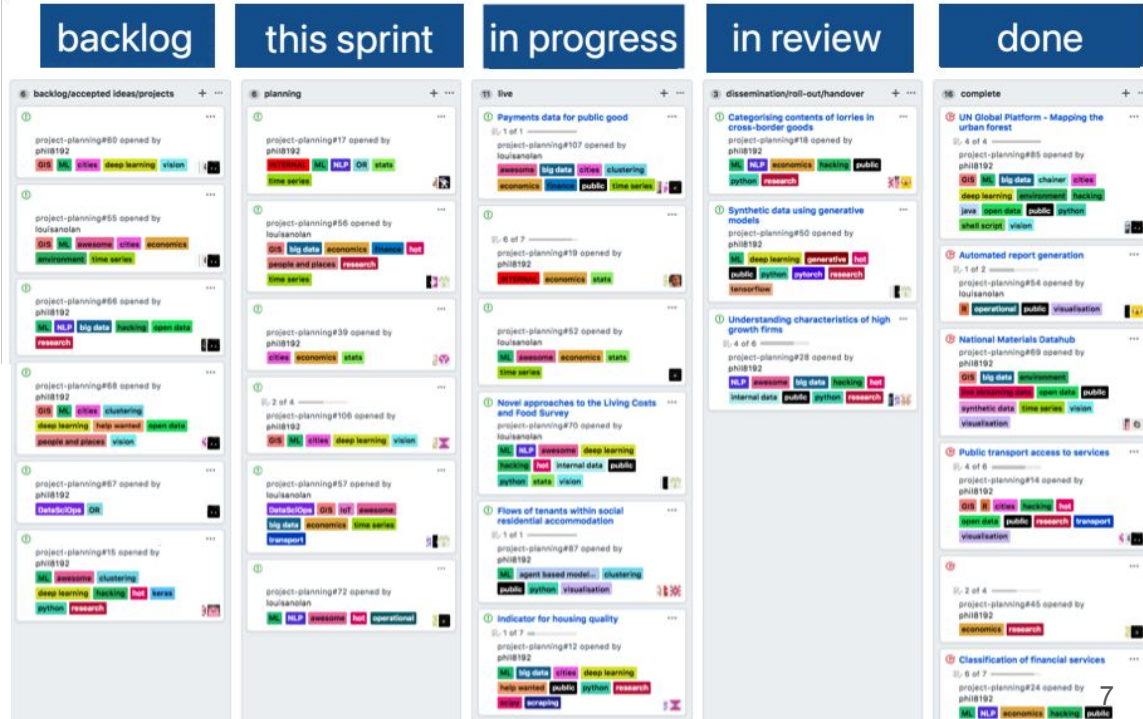
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- Each **card** is a task (associated with an issue)



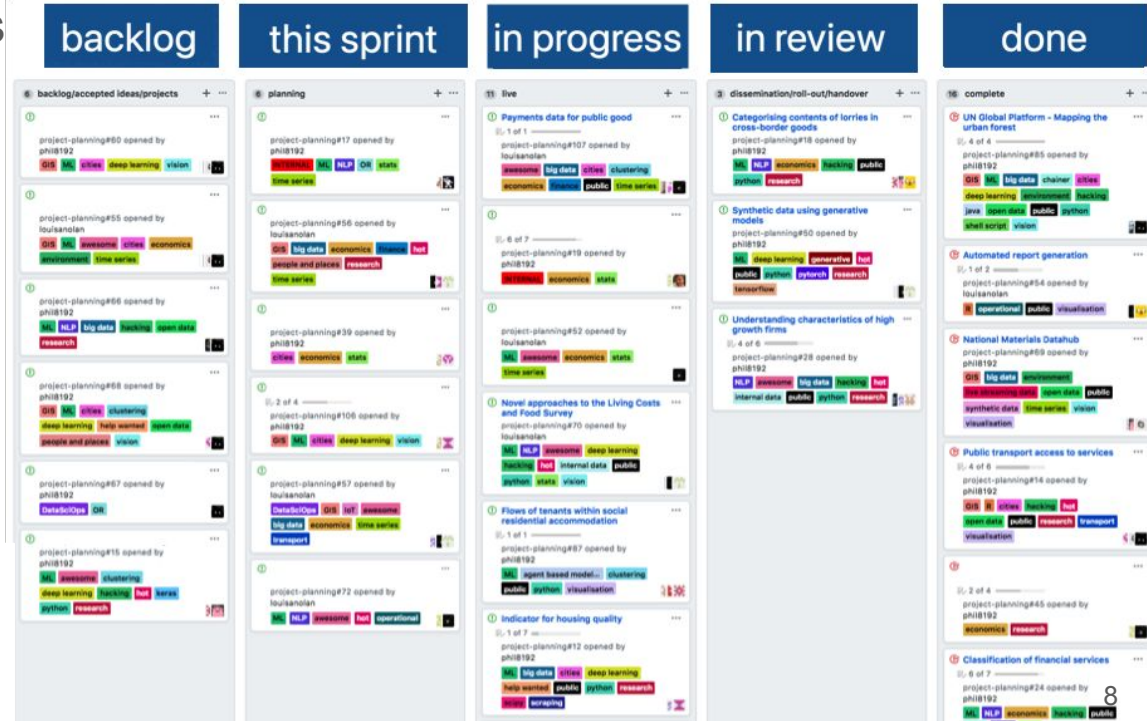
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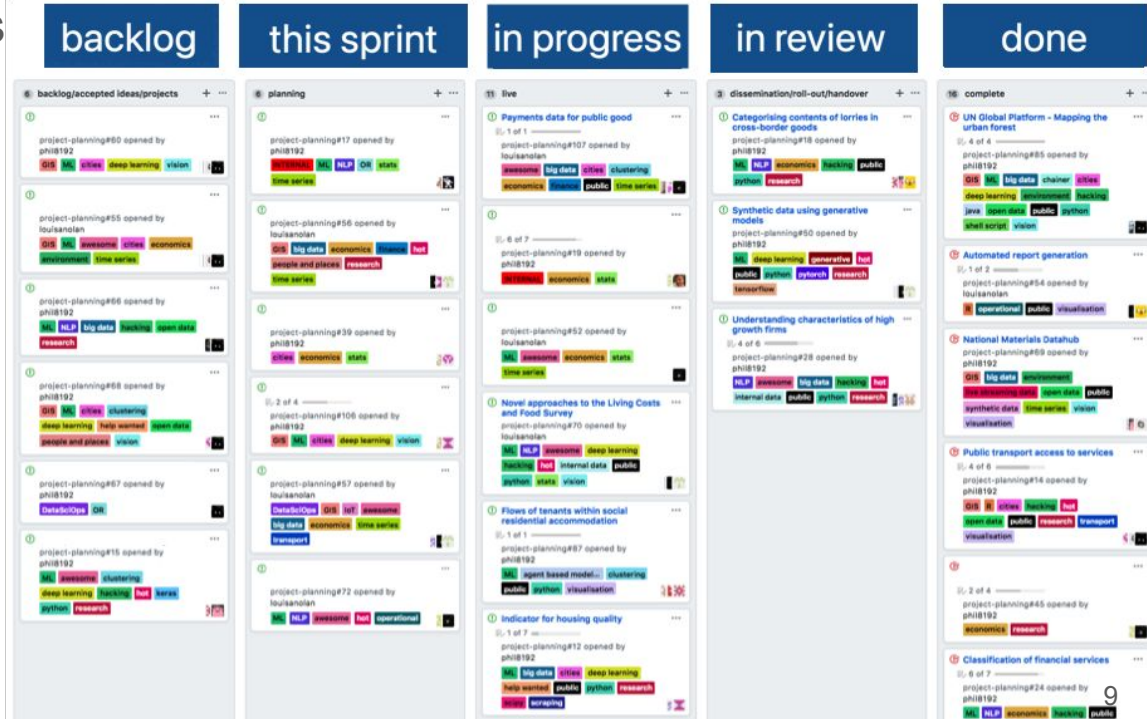
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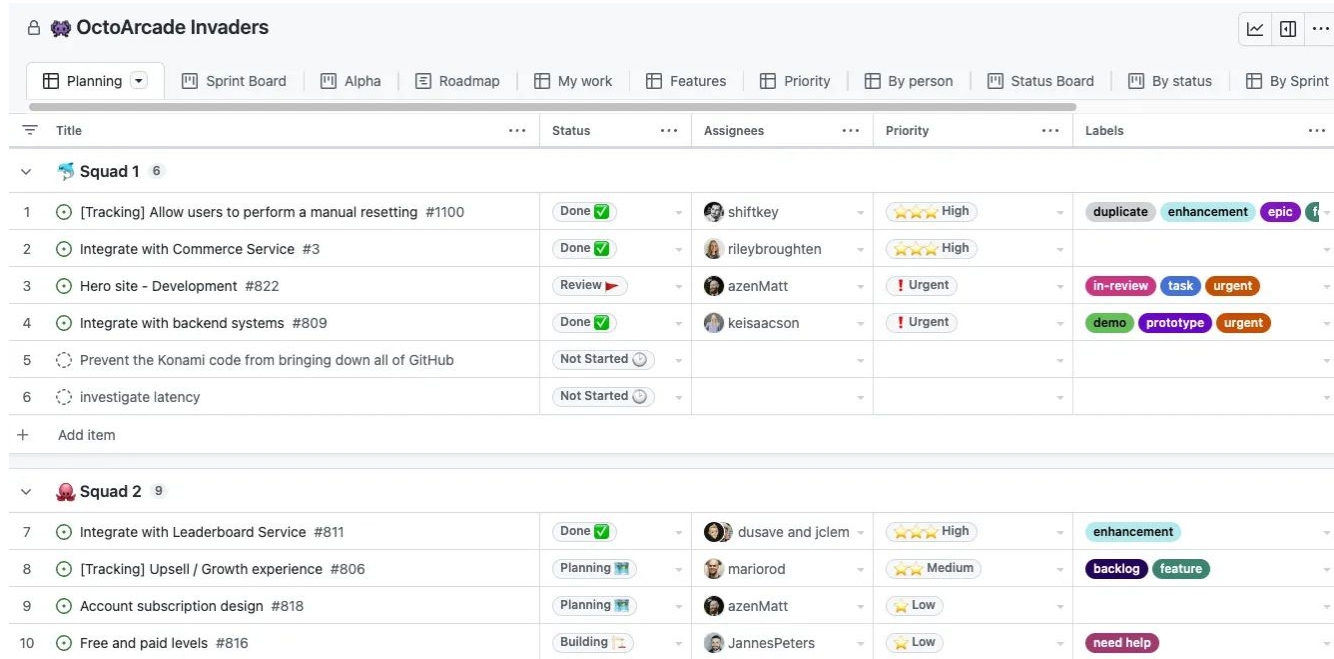


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- Manage your own cards



Alternative View for Weekly Checkpoints



The screenshot shows a GitHub project view for 'OctoArcade Invaders' in the 'Planning' view. The interface includes a navigation bar with various views like 'Sprint Board', 'Alpha', 'Roadmap', 'My work', 'Features', 'Priority', 'By person', 'Status Board', 'By status', and 'By Sprint'. Below this is a table with columns for Title, Status, Assignees, Priority, and Labels. The table is divided into two sections: 'Squad 1' and 'Squad 2'. Each row represents a task with its title, status (e.g., Done, Review, Not Started), assignee, priority (e.g., High, Urgent, Low), and various labels (e.g., duplicate, enhancement, epic, in-review, task, urgent, demo, prototype, need help).

Title	Status	Assignees	Priority	Labels
Squad 1				
1 [Tracking] Allow users to perform a manual resetting #1100	Done ✓	shiftkey	High	duplicate, enhancement, epic
2 Integrate with Commerce Service #3	Done ✓	rileybroughten	High	
3 Hero site - Development #822	Review ▶	azenMatt	Urgent	in-review, task, urgent
4 Integrate with backend systems #809	Done ✓	keisaacson	Urgent	demo, prototype, urgent
5 Prevent the Konami code from bringing down all of GitHub	Not Started ⌚			
6 investigate latency	Not Started ⌚			
Squad 2				
7 Integrate with Leaderboard Service #811	Done ✓	dusave and jclm	High	enhancement
8 [Tracking] Upsell / Growth experience #806	Planning 📅	marirod	Medium	backlog, feature
9 Account subscription design #818	Planning 📅	azenMatt	Low	
10 Free and paid levels #816	Building 🏗️	JannesPeters	Low	need help

- See "Table" layout in <https://docs.github.com/en/issues/planning-and-tracking-with-projects/customizing-views-in-your-project/changing-the-layout-of-a-view>

GitHub Issues

- Unrelated to a feature or task, you might notice a change is needed

Filters Labels 11 Milestones 1 [New issue](#)

14 Open ✓ 134 Closed Author Label Projects Milestones Assignee Sort

- Fix Permission Error** bug #302 opened on Apr 26, 2022 by carson-ricca Initial Release
- Fix UQJ Status for Java and Parsons Questions** bug #299 opened on Apr 26, 2022 by carson-ricca Initial Release
- Course module backend permissions and error messages need to be made** enhancement #221 opened on Jul 19, 2021 by aadiraju
- Fix profile details** bug #201 opened on Jun 18, 2021 by aadiraju
- Avoid suppress on UQJ filters in course-question-snippet** bug #199 opened on Jun 18, 2021 by aadiraju
- Submission Detail View** #157 opened on Apr 7, 2021 by carson-ricca Initial Release

- Track with issues

- Connect issues to tasks on your project board

- See

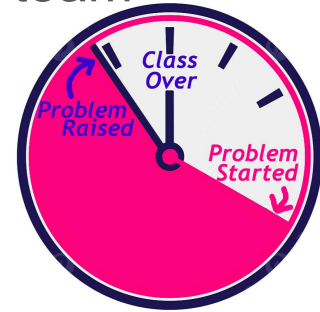
<https://docs.github.com/en/issues/organizing-your-work-with-project-boards/tracking-work-with-project-boards/adding-issues-and-pull-requests-to-a-project-board>

Tracking Team Progress

- Recall we want to track project productivity and team satisfaction
- Large class size prevents us from closely supervising each team

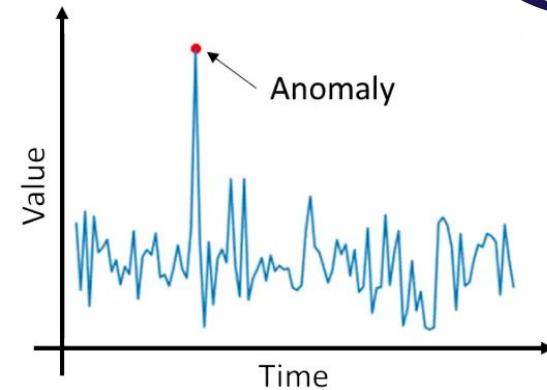
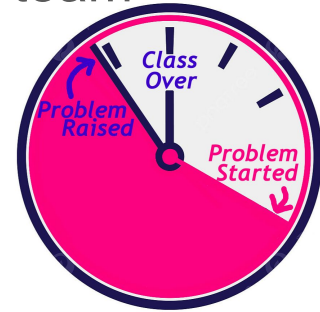
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- Large class size prevents us from closely supervising each team
- Past issues experienced in large Capstone:
 - Did not start implementation *until too late*
 - Individuals and teams had questions but did not ask *until too late*
 - Bullying issues and not brought up *until too late*
 - Individuals being frustrated and not brought up *until too late*



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 - Bullying issues and not brought up *until too late*
 - Individuals being frustrated and not brought up *until too late*
- Goal is to avoid "*too late*" situations
 - Use **weekly checkpoints**
 - Team log
 - Personal log
 - Peer evaluation assessment
 - Weekly in-class support



Weekly Team Log (Expected Time: ~ 5 min)

- In repo as a new .md file
- One per team

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 - Team name with work performed start date to end date
 - Recap your milestone goals:
 - Which features were in the project plan **for this milestone?**
 - Which tasks from the project board are associated with these features?
 - [Burnup chart](#) (velocity)



Overview

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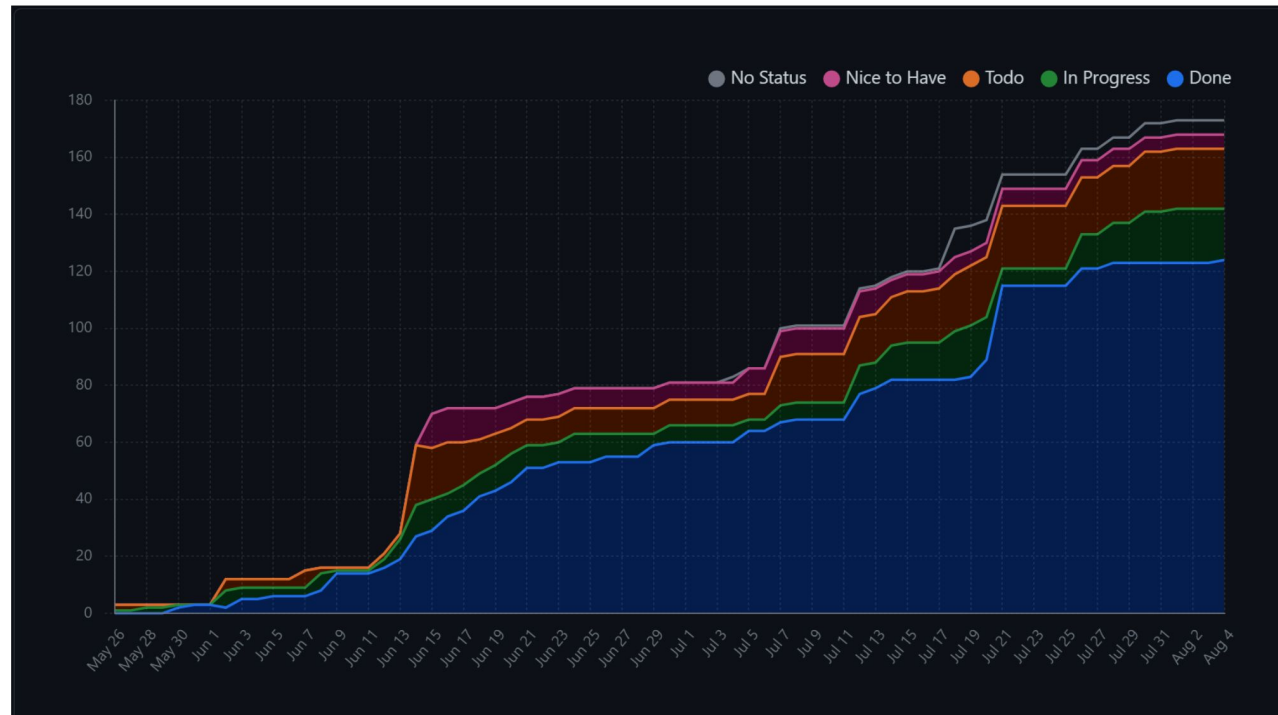
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 - **Burnup chart** (velocity)
 - Quick reminder of username → student name
 - Table view of completed tasks on project board (by which username)
 - Table view of in progress tasks on project board (by which username)
 - Test report
 - Optional text: Additional context that we should be aware of

Overview

Details

Example: Burnup Chart

- Accumulative view of tasks done, tasks in progress, and tasks left to do
- Visual representation of team's **velocity**
- Planned work (straight line at top) vs. completed work



Example: Completed Tasks

- Screenshot from GitHub Projects

Associated task and issue IDs →

Issue title

Team member username (redacted)

Completed Tasks

156	✓	Upload Backup	#287	[Redacted]	Done
157	✓	Edit Job Details frontend styling	#289	[Redacted]	Done
158	✓	Edit job details client-side validation	#290	[Redacted]	Done
159	✓	Projections Styling	#291	[Redacted]	Done
160	✓	Push custom order to projector	#294	[Redacted]	Done
161	✓	Change projector account password	#295	[Redacted]	Done
162	✓	Styling - Fix un-archive styling	#277	[Redacted]	Done
163	✓	Styling - Match trash and archive icons and overlay	#278	[Redacted]	Done
164	✓	Styling - Move archive and delete icons to be hidden behind edit b...	#279	[Redacted]	Done
165	✓	Styling - Clean up unneeded styles	#280	[Redacted]	Done
166	✓	Styling - Consolidate repeated styles into one file	#281	[Redacted]	Done
167	🔄	Refactor DB + Backend to make manager a VARCHAR	#134	[Redacted]	Done
154	✓	Finish import CSV	#285	[Redacted]	Done
155	✓	Download backup	#286	[Redacted]	Done
128	✓	Job Details Overlay Window - Graphs and Summaries	#61	[Redacted]	Done


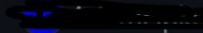



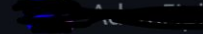














Example: In Progress Tasks

- Screenshot from GitHub Projects
- Number of In Progress tasks should be relatively fewer than number of Completed tasks

username (redacted)



In Progress

168	 History Screen - Crazy Query #261			In Progress	
169	 History Screen #220			In Progress	
170	 Change static dropdown options to dynamically pull from Global D... #148			In Progress	
171	 fix mass_remove.php to end assignment date (see desc) #269			In Progress	
172	 Help screen #296			In Progress	

Test Report

- Put all tests in the tests/ directory in your repo
- Are tests passing?
- Regression testing:
 - Have a script to run all tests (check availability for your framework)
 - Ensure new feature does not break existing work
 - Script output showing tests run and summary of total tests passed/failed
 - Screenshot or pipe output to a dated file and include in repo
- Automated coverage (later)

Example: Test Report

- Django test output
- Run command
- "ok" is pass

```
(cdk) david@earth:carlsberg-cdk $ fab test
[localhost] local: www/manage.py test webservices --settings=settings_test -v 2 --failfast
Creating test database for alias 'default' (':memory:')...
Creating tables ...
Creating table auth_permission
Creating table auth_group_permissions
Creating table auth_group
Creating table auth_user_user_permissions
Creating table auth_user_groups
Creating table auth_user
Creating table auth_message
Creating table django_content_type
Creating table django_session
Creating table django_site
Creating table django_admin_log
Installing custom SQL ...
Installing indexes ...
No fixtures found.
test_GET_returns_xml (webservices.tests.HelloWorldTestCase) ... ok
test_GET_with_basic_auth_returns_200 (webservices.tests.HelloWorldTestCase) ... ok
test_GET_without_basic_auth_returns_401 (webservices.tests.HelloWorldTestCase) ... ok
test_POST_returns_amended_xml (webservices.tests.HelloWorldTestCase) ... ok
test_POST_save_request_in_file (webservices.tests.HelloWorldTestCase) ... ok
test_POST_saves_content_in_file (webservices.tests.HelloWorldTestCase) ... ok
test_POST_with_basic_auth_returns_200 (webservices.tests.HelloWorldTestCase) ... ok
test_POST_without_basic_auth_returns_401 (webservices.tests.HelloWorldTestCase) ... ok

-----
Ran 8 tests in 0.091s

OK
Destroying test database for alias 'default' (':memory:')...

All tests passed - have a banana!

Done.
```

Clockify

- time tracking, integrated with GitHub

Weekly Personal Log (Expected Time: ~ 3 min)

- In repo as .md file
- Same file per person (append new entry to file)

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- Same file per person (append new entry to file)
- Expected content for each entry:
 - Applicable date range
 - Type of tasks you worked on (screenshot from Peer Eval question)
 - Recap on your week's goals
 - Which features were **yours** in the project plan **for this milestone?**
 - Which tasks from the project board are associated with these features?
 - Among these tasks, which have you completed/in progress **in the last week?**
 - Optional text: Additional context that we should be aware of


Weekly Peer Evaluation (Expected Time: ~ 3 min)

- Workload distribution questions
 - Decision making (e.g. task assignment, design choices, code patterns, stylistic variations)
 - Talking/discussions (in-person and online)
 - Doing project work (independently or together)


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- Satisfaction questions
 - Variety of factors on team dynamics

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 - Types of tasks you worked on in the last week (checklist) 
- include in personal log

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 - Satisfaction questions
 - Variety of factors on team dynamics
 - Types of tasks you worked on in the last week (checklist) 
 - Additional context
 - Acknowledgement
 - Problems
 - Anything else
- Your responses will **NOT** be released to teammates

include in
personal log



Account



Dashboard



Courses



Calendar



Inbox



History



Help

2023W1-2

Home

Announcements

Assignments

Quizzes

Grades

People

Pages

Course Evaluation

My Media

[Team Formation](#)

COSC 499 001 2023W1-2 Capstone Software Engineering Project

COSC 499: Capstone Software Engineering Project

For Winter 2023 Terms 1-2

- Download the [course outline](#) that covers course objectives, grading, and various course and university policies. We will review this in the first lecture but if you miss it or forget the information, you can always come back and reference this document.
- **Office Hours:** Tuesdays 2:00-3:00pm and by appointment.
- Important Dates: See the [university calendar](#) for important dates and deadlines.
- Available Projects: See the list of [projects](#).

View Course Stream

View Course Calendar

View Course Notifications

To Do

- [discord server for capstone](#) ×
COSC 499 001
2023W1-2 Capstone Software Engineering Project
Sep 5 at 6:24am
- [team formation survey now available](#) ×
COSC 499 001
2023W1-2 Capstone Software Engineering Project
Sep 8 at 3:34pm
- [Consent to Study](#) ×
COSC 499 001
2023W1-2 Capstone Software Engineering Project
2 points











Preview Evaluations

List of Evaluations

[Back to Instructor View](#)

Hello, **K Phan**. You can complete a evaluation or view the results if they are released by your instructor.

Show entriesSearch:

Evaluation	↕ Completion	↕ Closing Date	↕ Actions
Weekly #3	0 / 1	Sept. 27, 2023, 11:59 p.m.	 
Weekly #4	0 / 1	Oct. 4, 2023, 11:59 p.m.	 
Weekly #6	0 / 1	Oct. 18, 2023, 11:59 p.m.	 
Weekly #5	0 / 1	Oct. 11, 2023, 11:59 p.m.	 
Weekly #9	0 / 1	Nov. 8, 2023, 11:59 p.m.	 

Considering the team meetings and team discussions this past week (both online and in-person), how much time would you say each person spent talking?

Please assign each member of the team (including yourself) a percentage value (0-100%).

Erin Hiebert

-%

K Phan

-%

Teresa Saller

-%

Justin Schoenit

-%

Seth Akins

-%

Total: 100%

Remaining: 0%

Percent distribution values must add up to 100%.

Considering the team meetings and team discussions this past week (both online and in-person), how much time would you say each person spent making decisions?

Please assign each member of the team (including yourself) a percentage value (0-100%).

Erin Hiebert

-%

K Phan

-%

Teresa Saller

-%

Justin Schoenit

-%

Seth Akins

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Total: 100%

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Considering the team meetings and team discussions this past week (both online and in-person), how much time would you say each person spent working on the project?

Please assign each member of the team (including yourself) a percentage value (0-100%).

Erin Hiebert

-%

K Phan

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Which of the following are you dissatisfied with? Check ALL that apply.

- the amount of work everyone is contributing
- how tasks are allocated to individuals
- the way people help each other
- people's willingness to express their opinions and raise concerns
- people's openness to other's differing opinions
- the way our team interacts with each other
- the progress the team is making as a whole
- how other team members view your opinions and/or your work
- how other team members are treating you overall

What types of tasks did you work on this past week? Check ALL that apply. When you are done, take a screenshot of this question with your answers and include it in your personal weekly log.

- System administration (related to server, network, operating systems, etc.)
- Project planning
- Assigning people to tasks
- Deciding on task priorities
- Creating designs on paper or in digital format
- Coding
- Writing automated tests for your code
- Doing manual testing for your code
- Testing other people's code to see if it breaks
- Documenting your code
- Reviewing other people's code
- Writing class reports
- Giving presentations
- Watching other team's presentations
- Making video demos
- Watching other team's video demos
- Team meetings
- Helping others with their work
- Receiving help from others on my work
- Figuring out a problem on my own (e.g., research, troubleshooting, approach to bug fix)
- Something else (explain separately)

Is there anyone you would like to acknowledge who helped with your progress this week?

Your response here...

Is there any context that we should be aware of that might explain the problems you encountered this week?

Your response here...

Provide any other comments you want to share with the teaching staff.

Your response here...

Weekly In-Class Support

- Before we start
 - Have your work merged
 - Be prepared to do live demo

DO NOT delete your branch history
Show up with your development machine

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- Before we start
 - Have your work merged
 - Be prepared to do live demo
- Meet with TAs (and instructor)
 - We will do our best to meet every team each week (still sorting out admin issues)
 - Selection based on weekly checkpoints, team needs, and randomness

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- While you wait
 - Reflect on your submitted weekly checkpoint
 - Plan for/work on upcoming week

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- Topics of discussion:
 - Review GitHub collaboration process and repo insights
 - Project progress: review task board
 - Receive technical opinions and advice
 - Team dynamics

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Next Steps



- Complete team coding exercise
- Complete your first weekly checkpoint, which includes:
 - Team log
 - Personal log
 - Peer evaluation
- Next week: Software Engineering
 - Software development lifecycle
 - Agile development process
 - Test driven development