



# Time Saver

An elegant task tracking solution  
for busy students

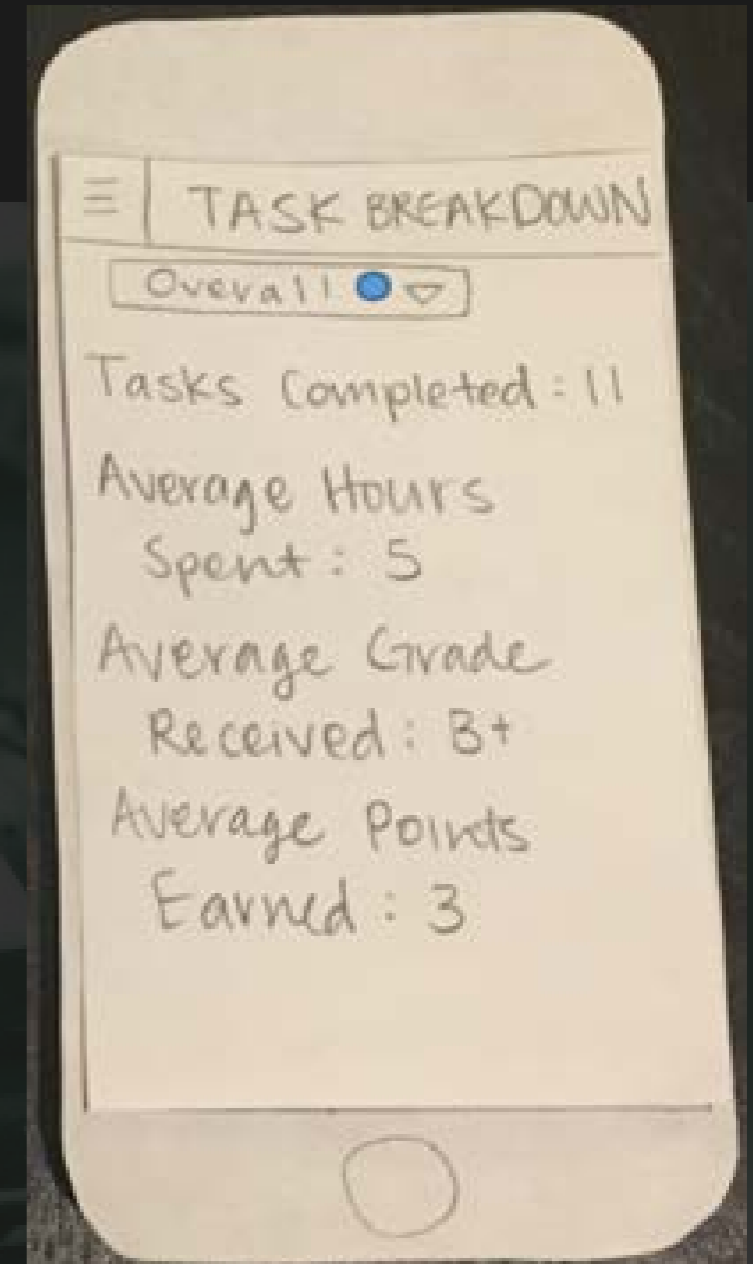
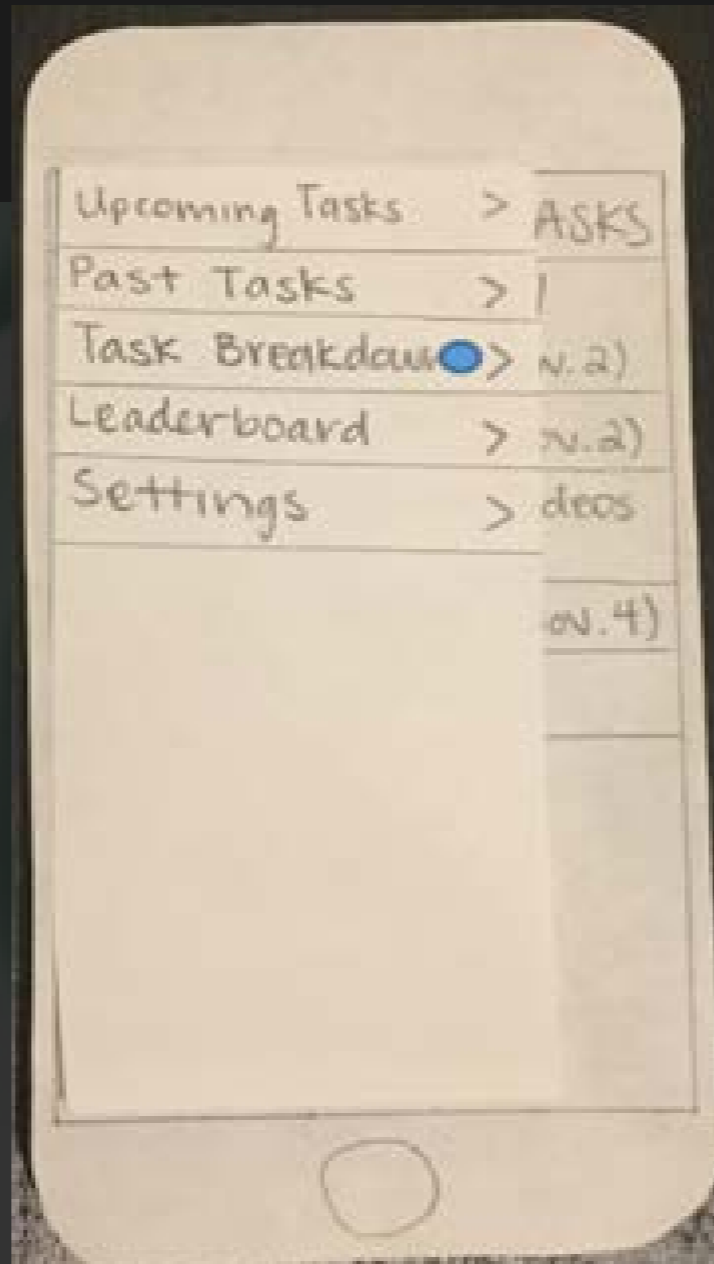
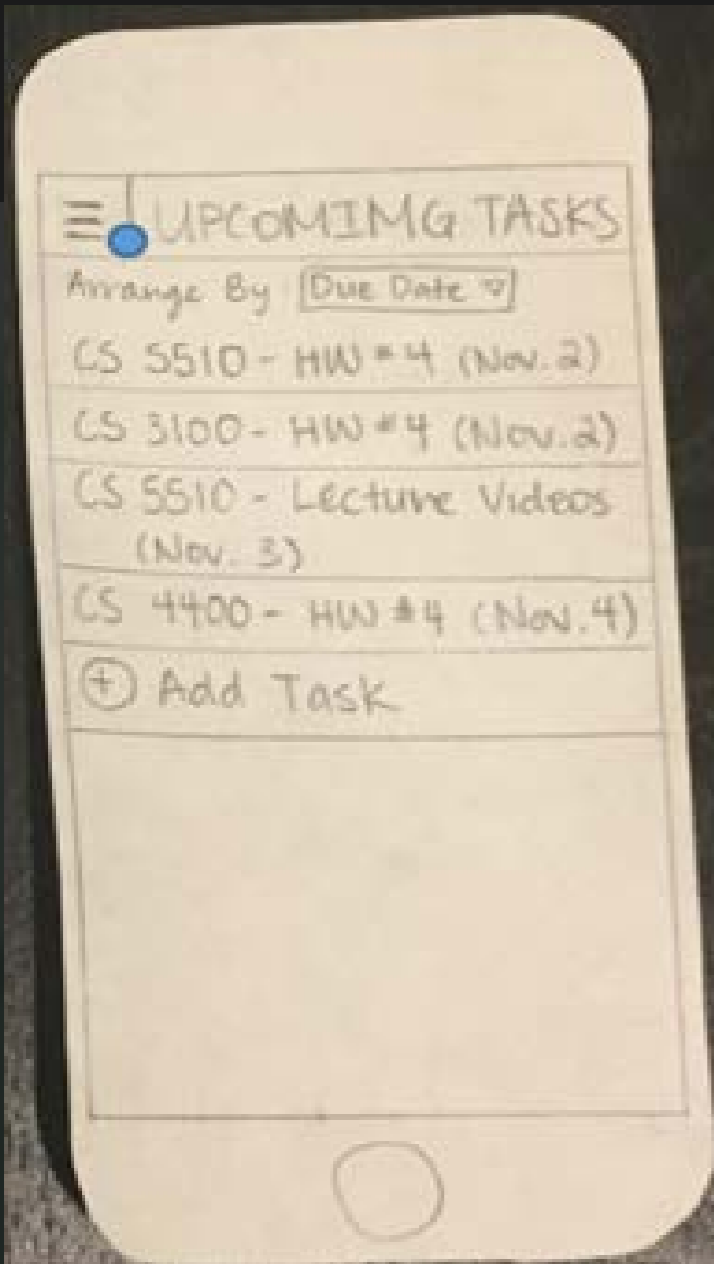
- Anne Aoki:** storyboarding, design, user studies, writing
- Alex Anderson:** user studies, design
- Matt Willden:** ideation, writing, user studies
- Brandon Tobin:** storyboarding, user studies, design

## THE PROBLEM

- ▶ Students have a hard time staying on track while studying.
- ▶ Most students have some sort of way to plan their day but it's lacking.
- ▶ This leads to increased anxiety as well as poor grades.
- ▶ Students only use about 65% of their study time for on-task work.
- ▶ Most modern time tracking applications don't analyze how the user accomplishes their tasks or if they could have been completed more efficiently.

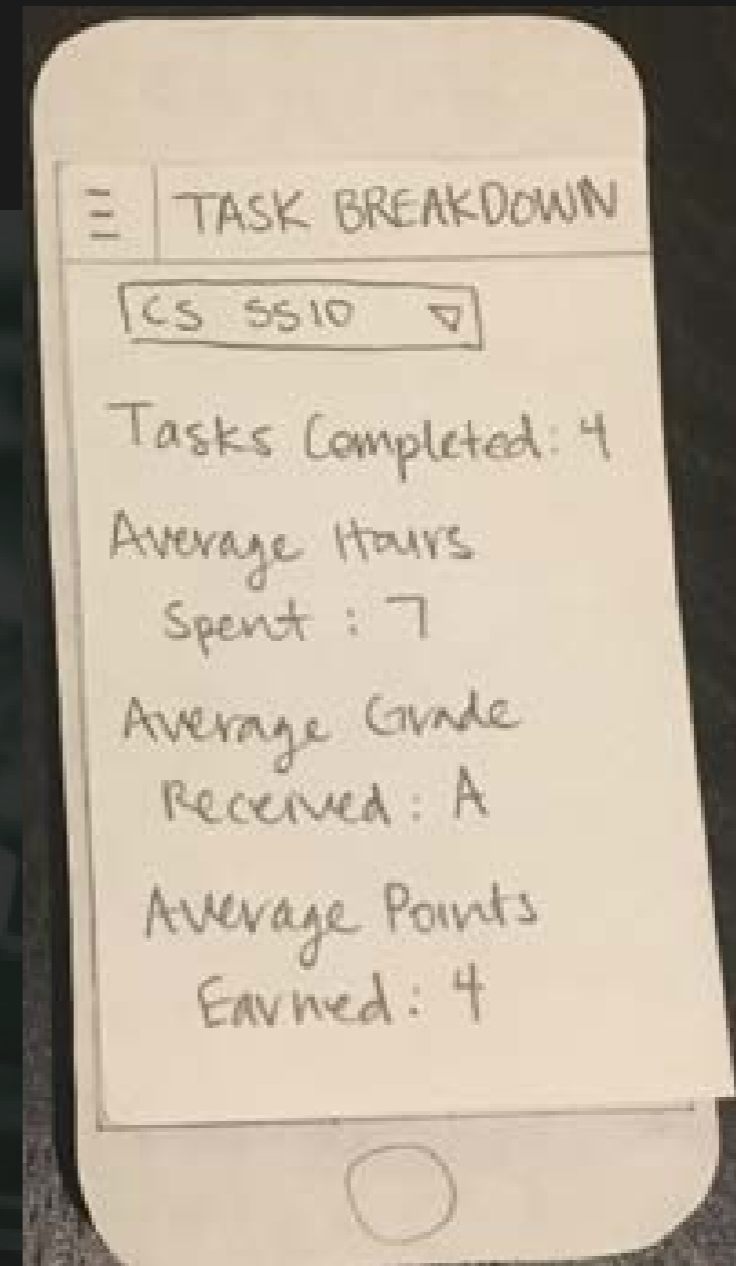
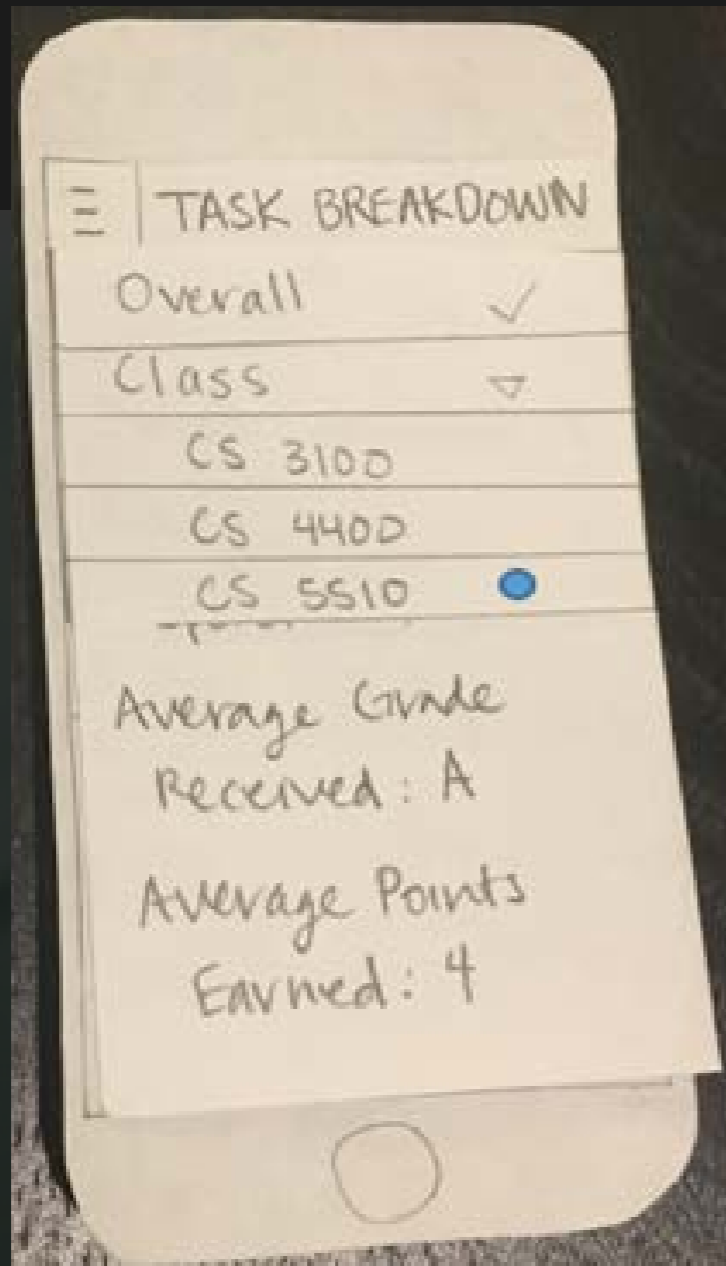
# INITIAL PAPER PROTOTYPE

## Reflecting on How Time Was Spent (1/2)



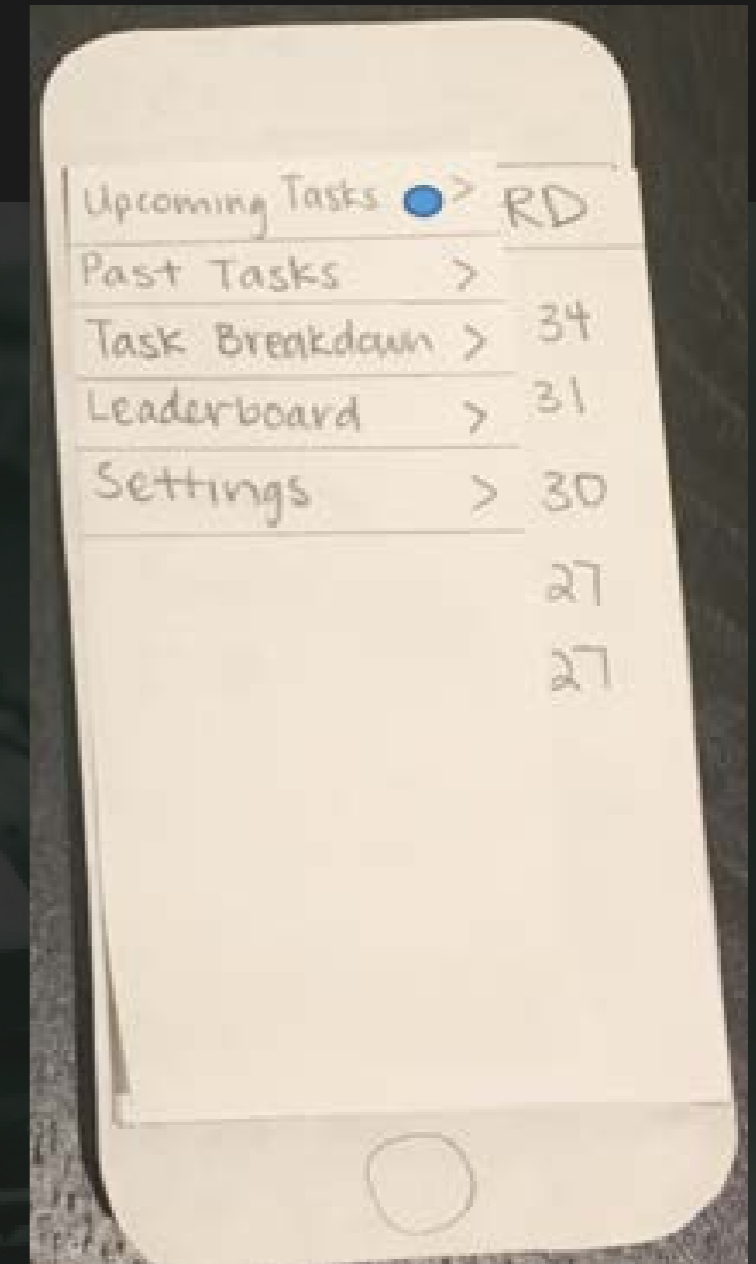
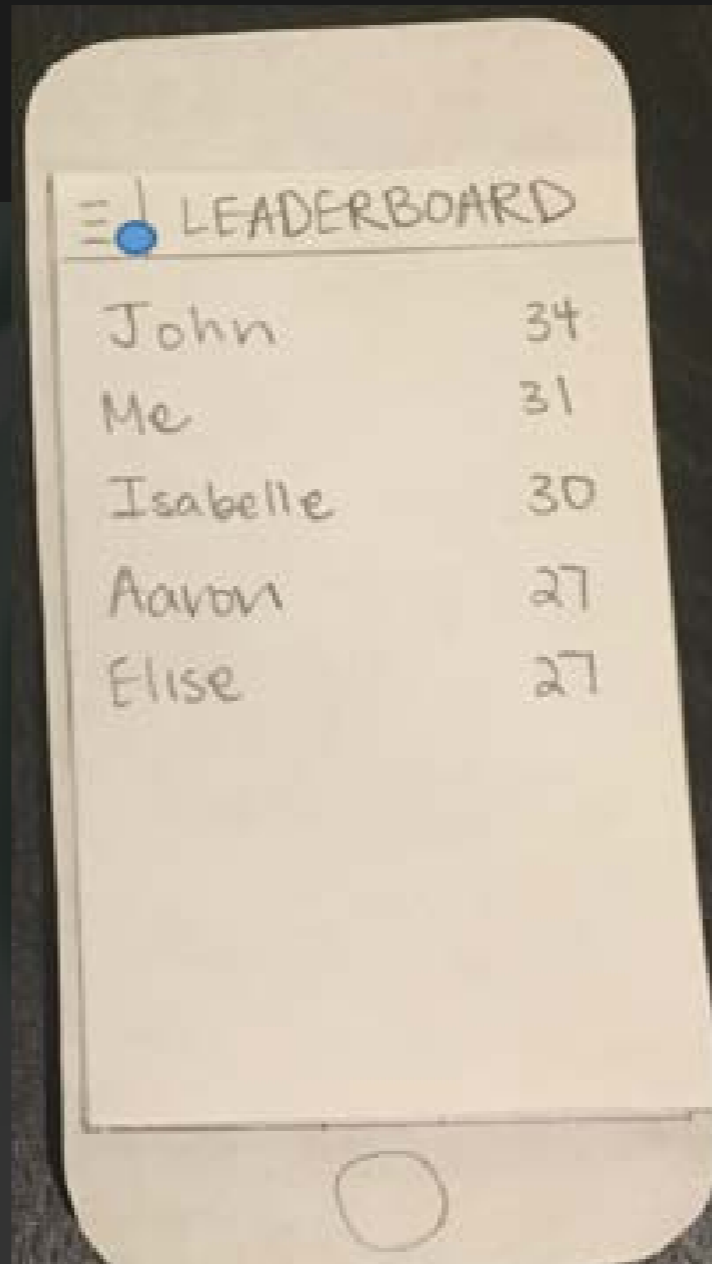
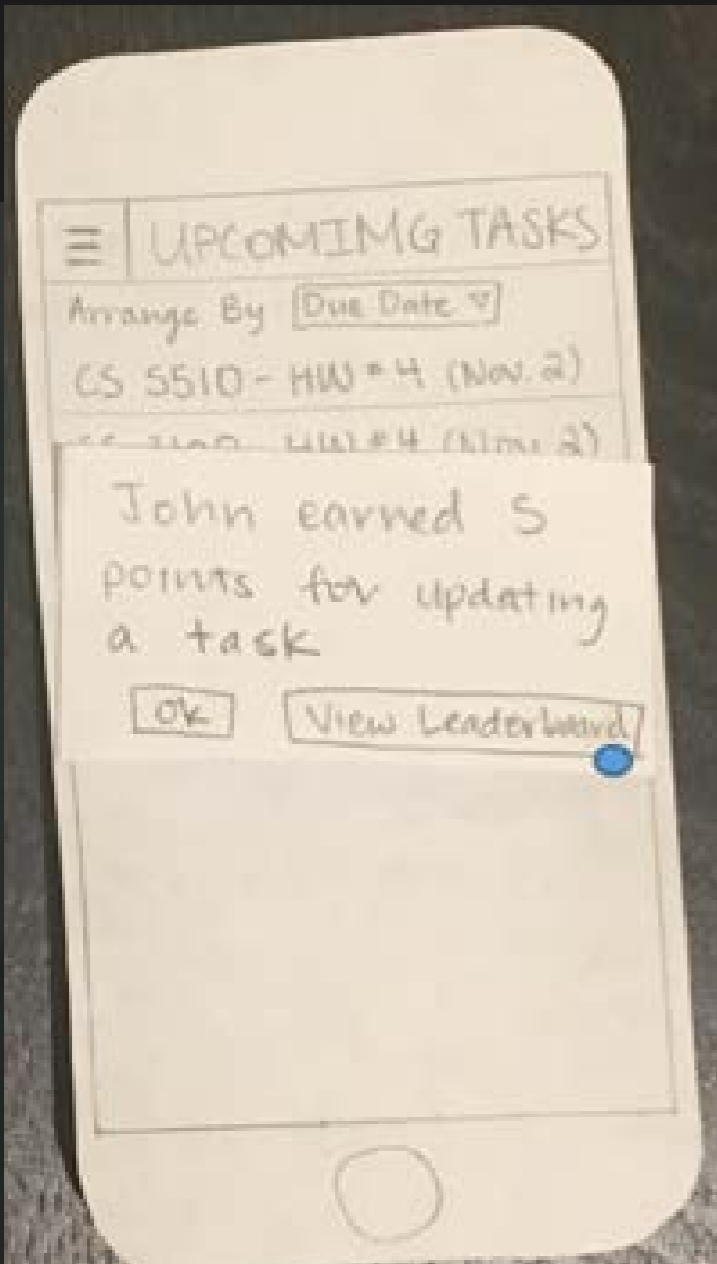
# INITIAL PAPER PROTOTYPE

## Reflecting on How Time Was Spent (2/2)



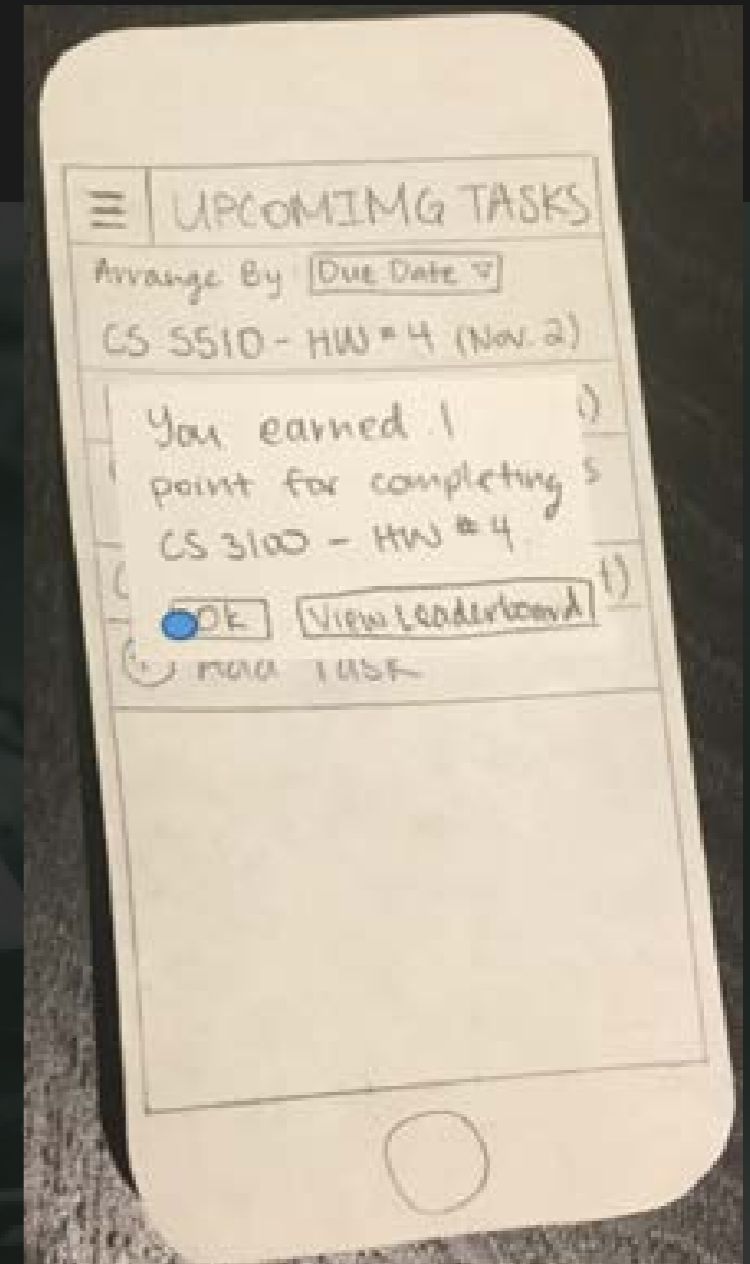
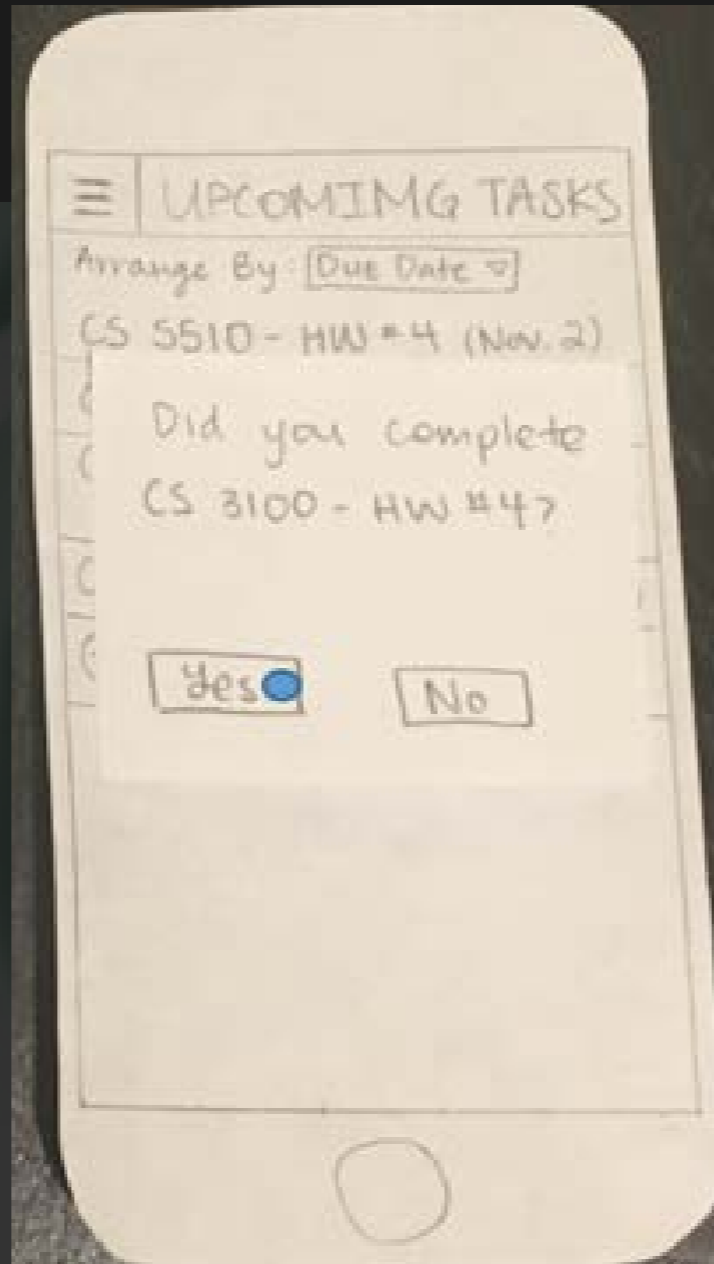
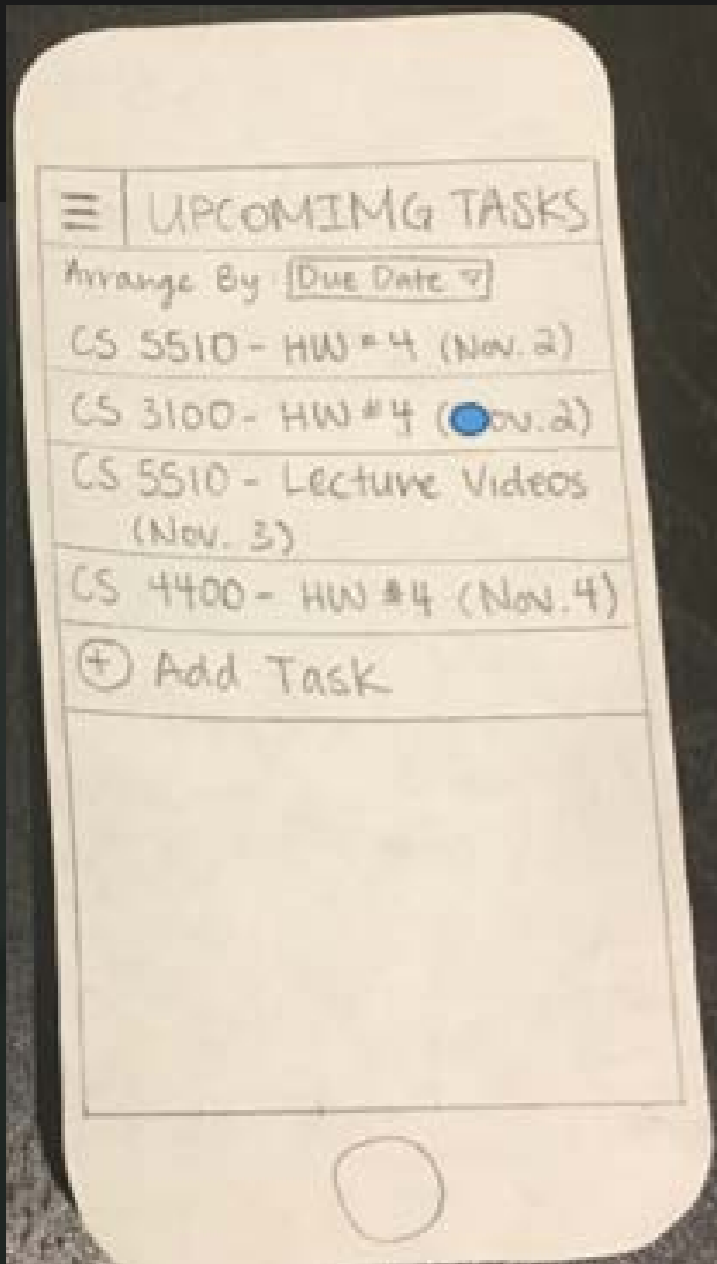
# INITIAL PAPER PROTOTYPE

## Finding an Incentive (1/6)



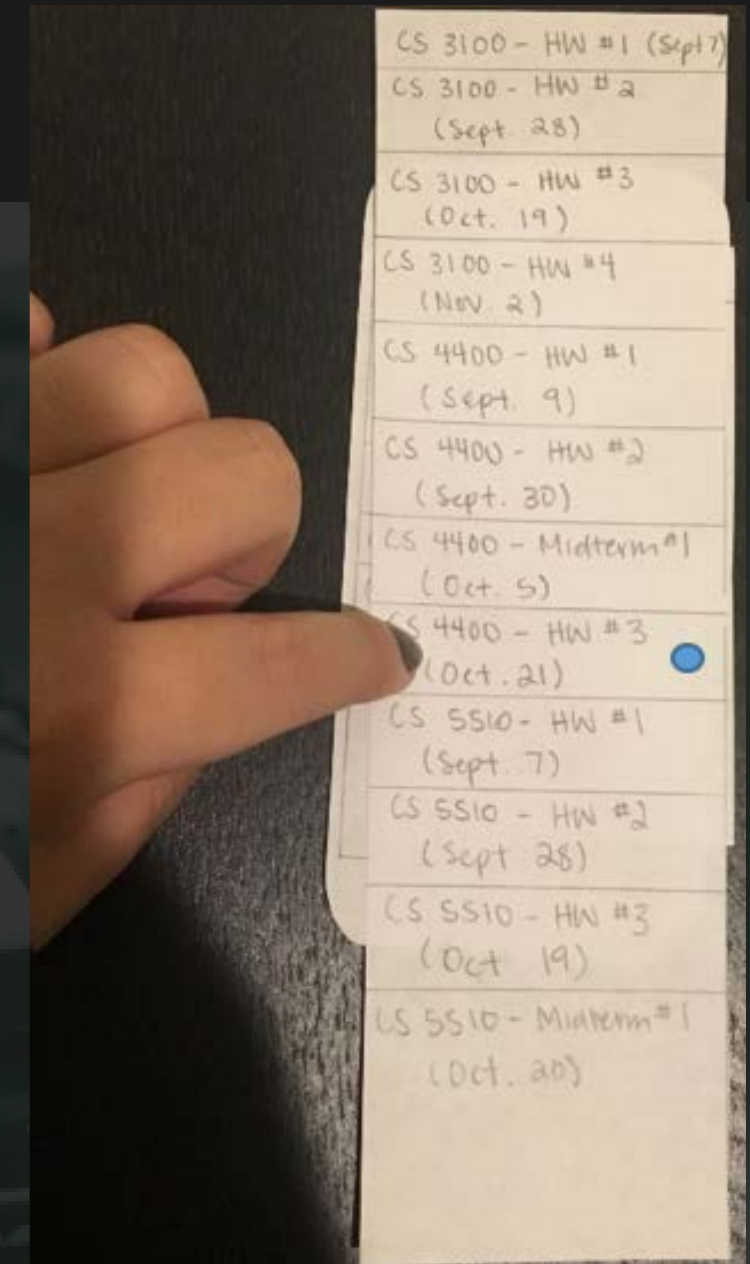
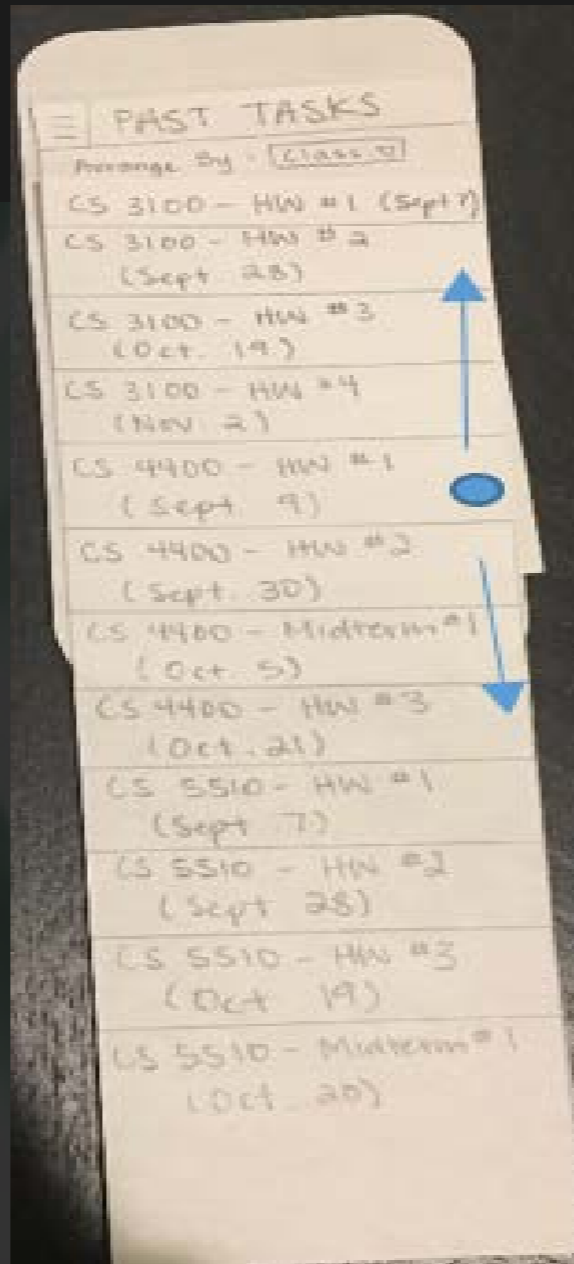
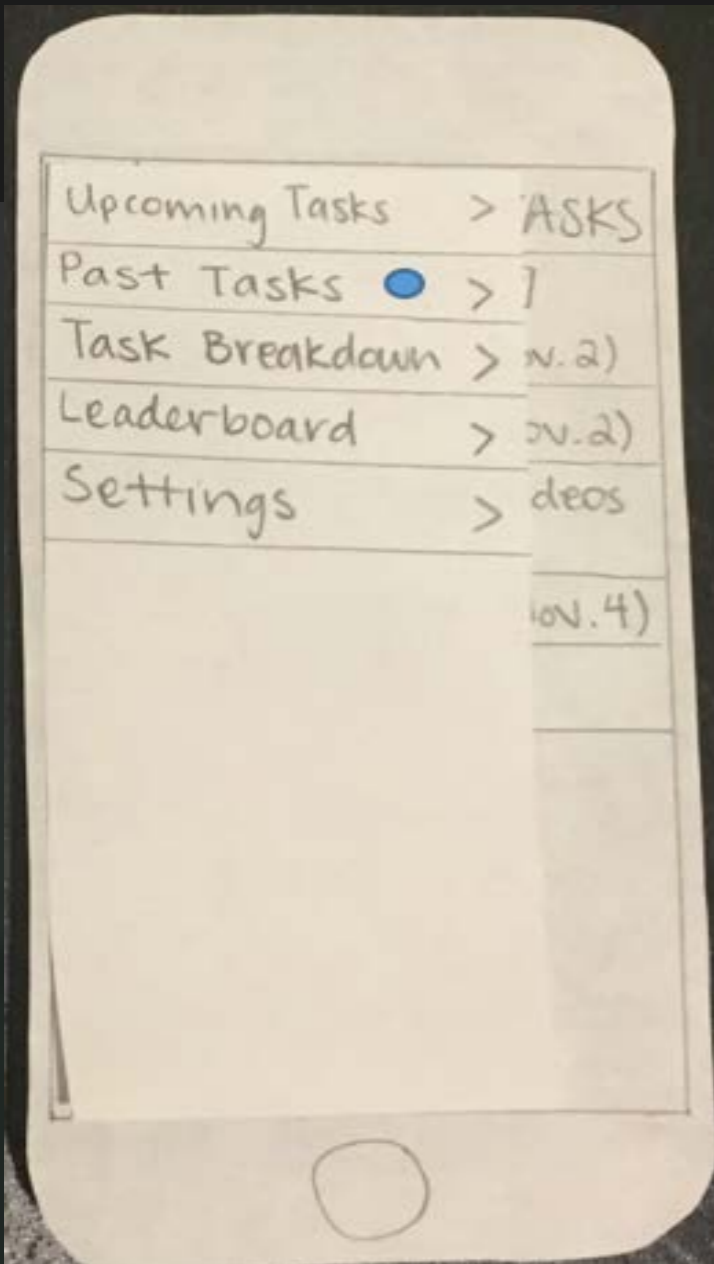
# INITIAL PAPER PROTOTYPE

## Finding an Incentive (2/6)



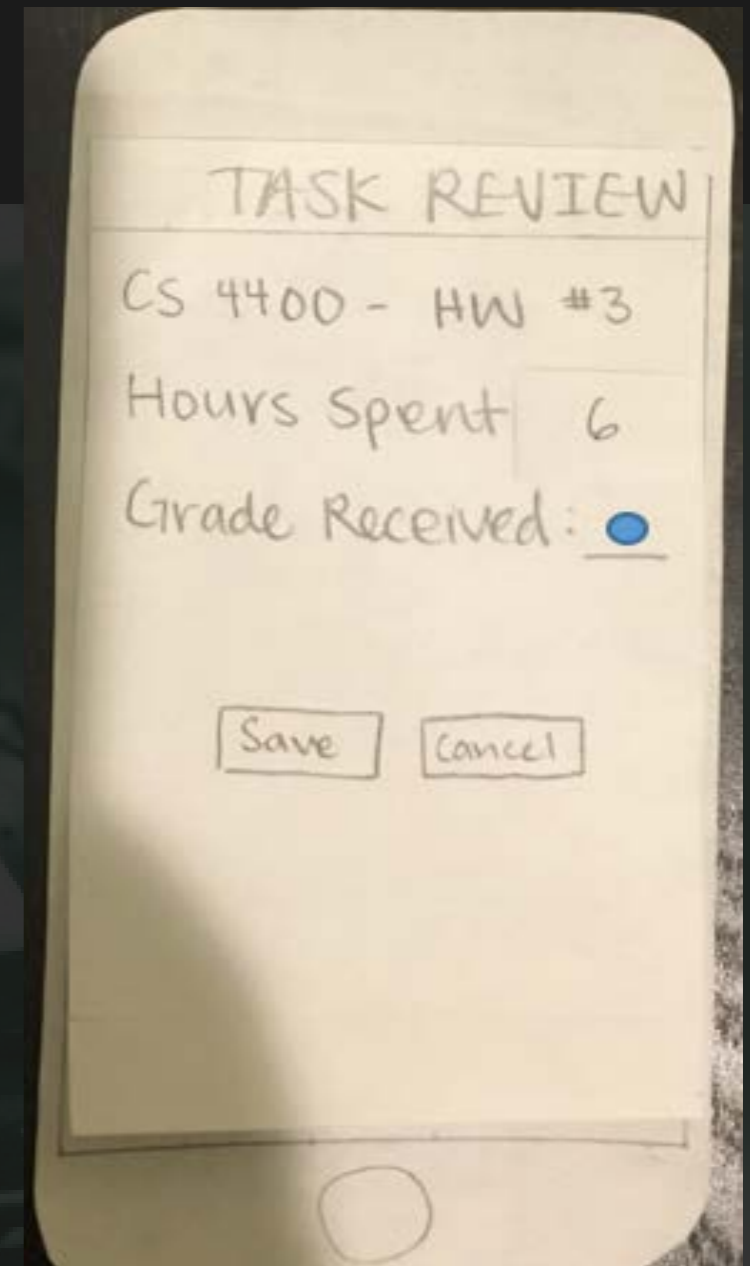
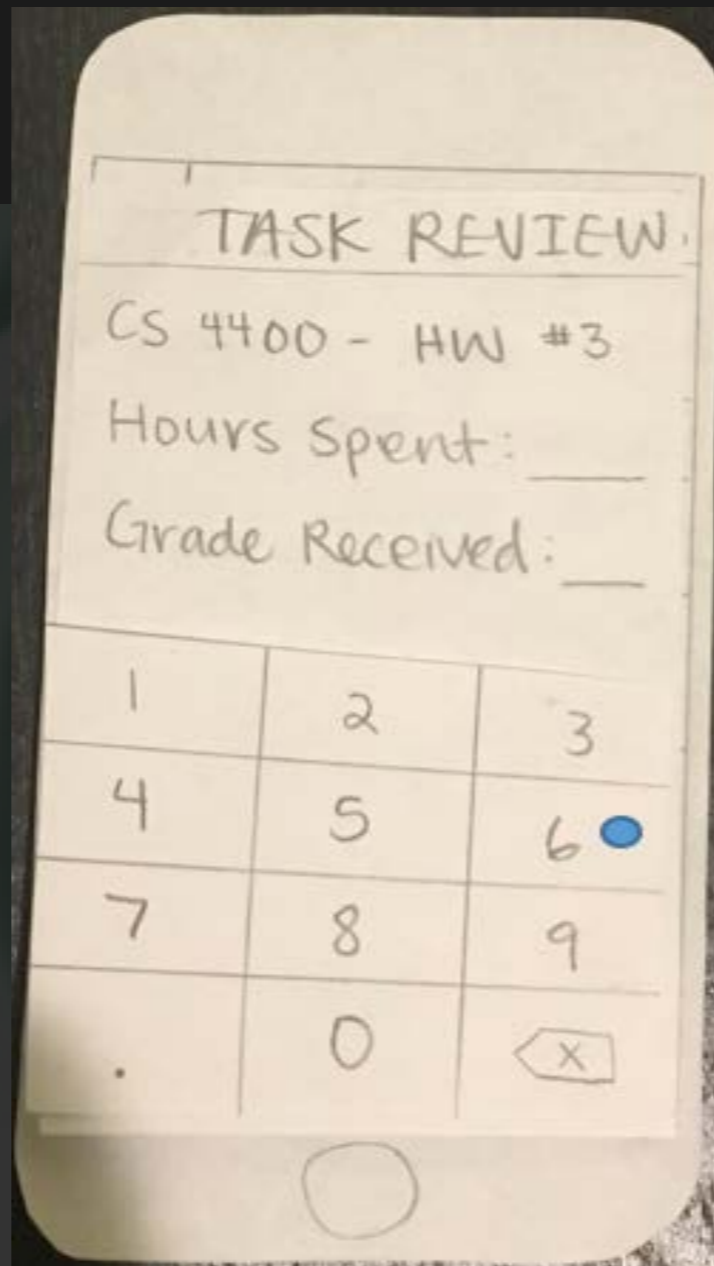
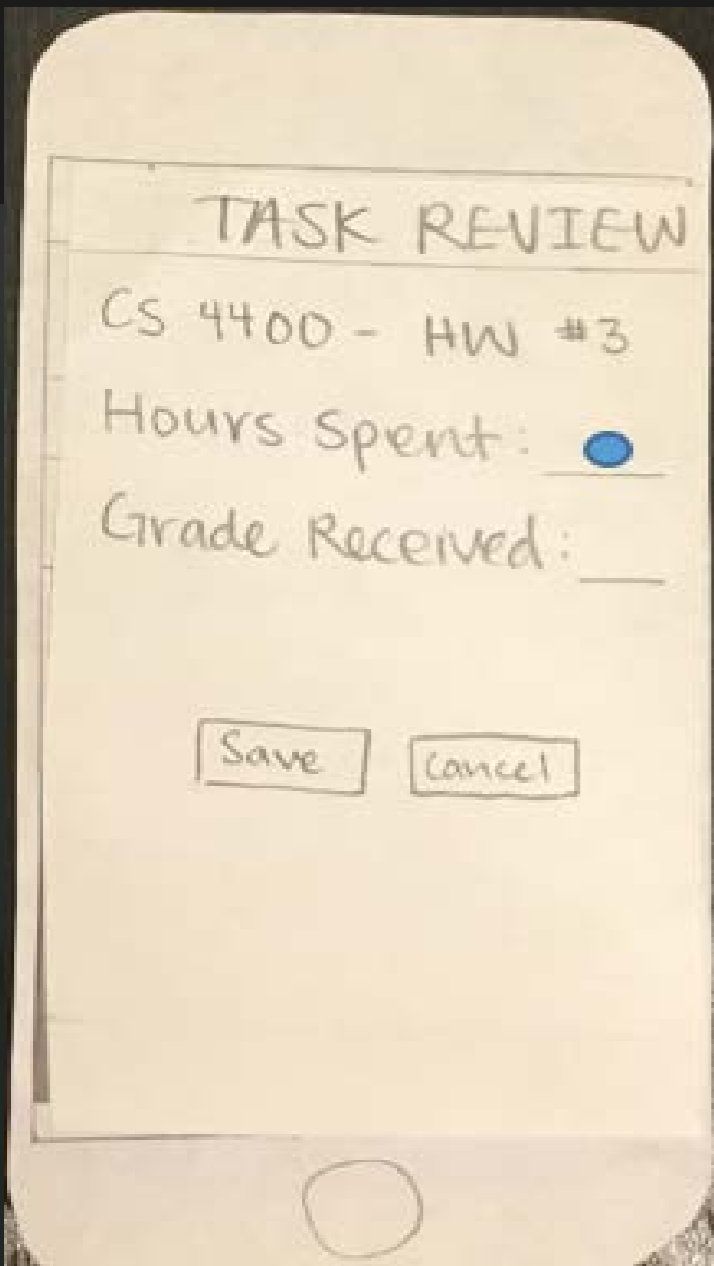
# INITIAL PAPER PROTOTYPE

## Finding an Incentive (3/6)



# INITIAL PAPER PROTOTYPE

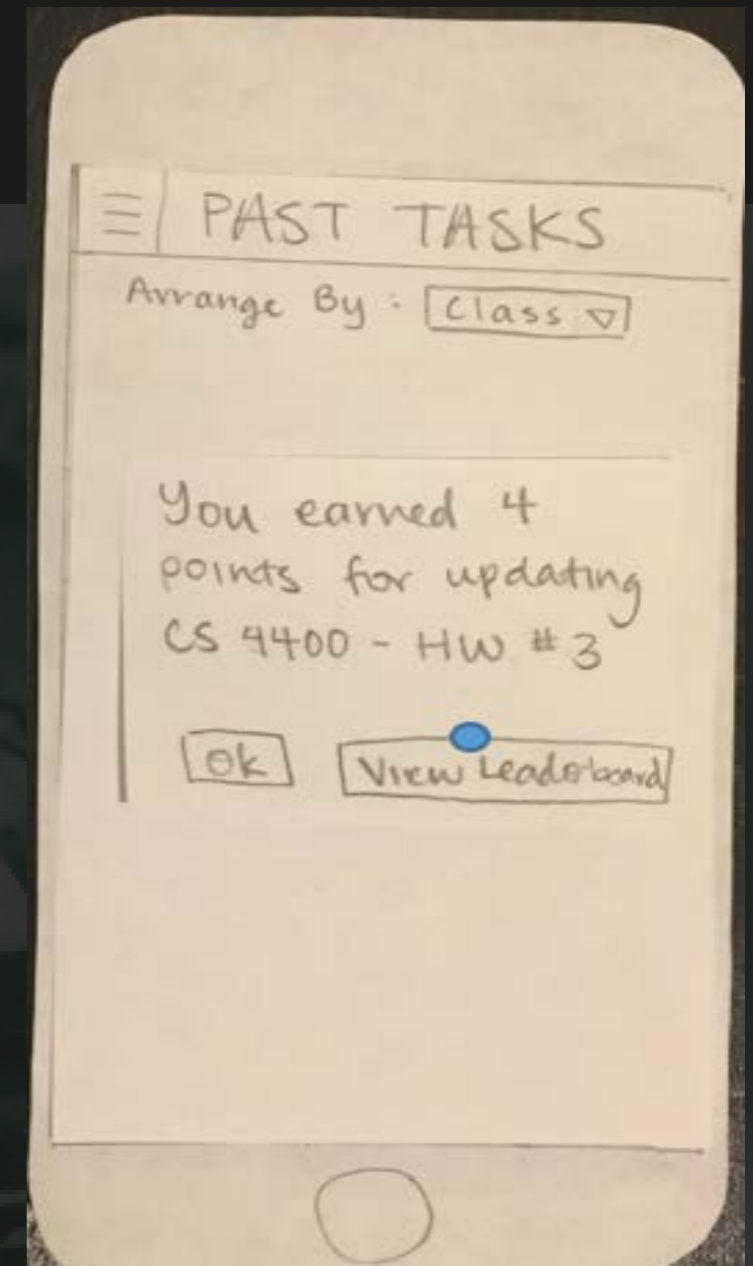
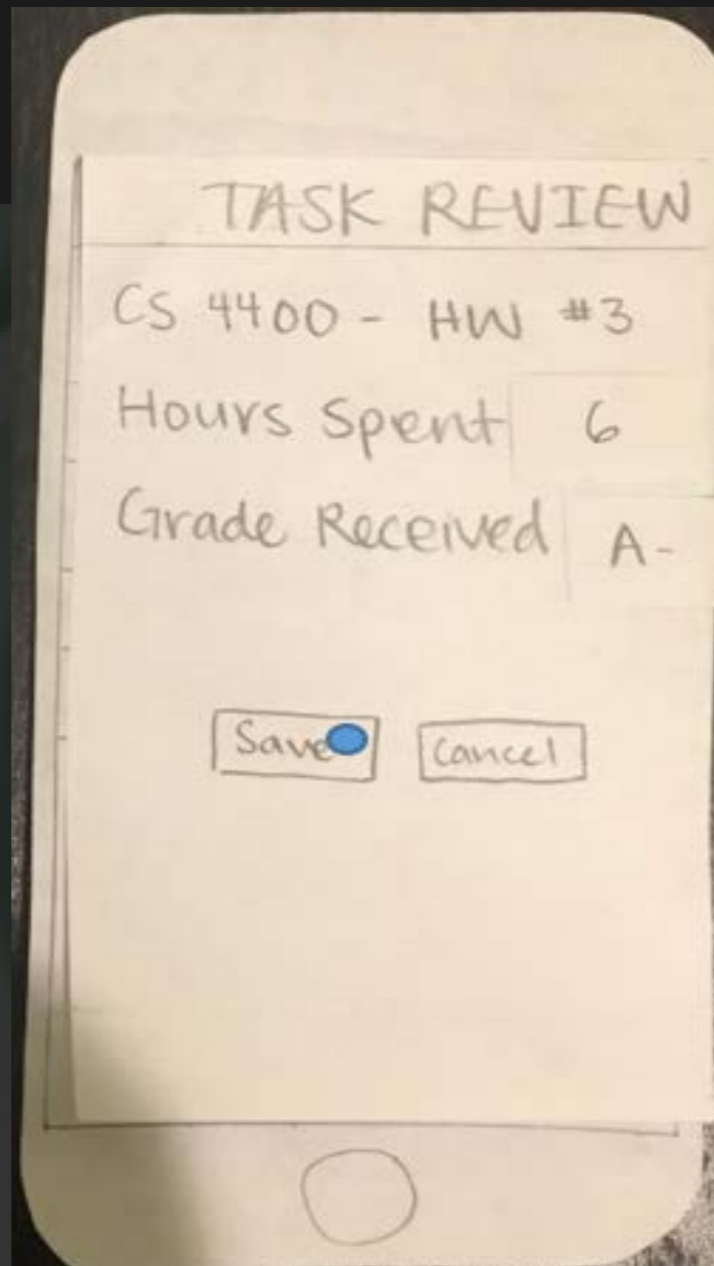
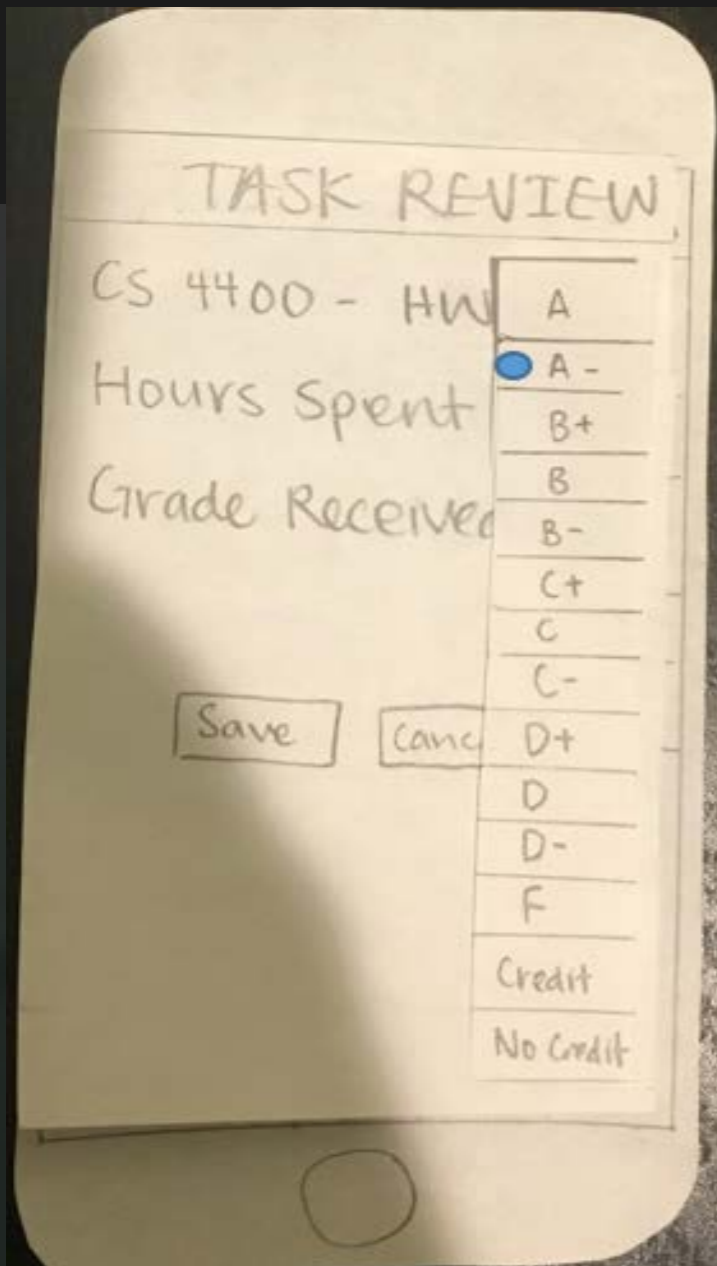
## Finding an Incentive (4/6)





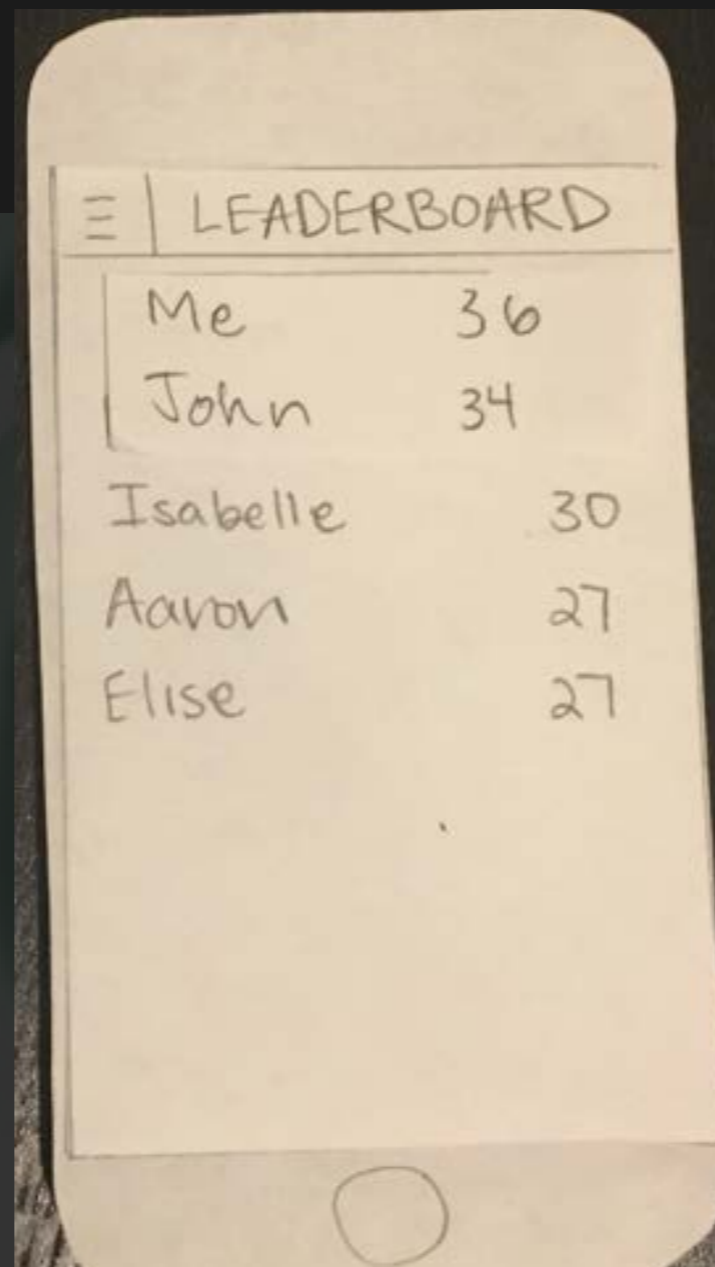
# INITIAL PAPER PROTOTYPE

## Finding an Incentive (5/6)



# INITIAL PAPER PROTOTYPE

## Finding an Incentive (6/6)




A photograph of a hand-drawn paper prototype on a smartphone screen. The prototype is a simple table titled "LEADERBOARD" with a hamburger menu icon on the left. The table lists five entries with names and scores: Me (36), John (34), Isabelle (30), Aaron (27), and Elise (27). The drawing is done in black ink on a light-colored paper.

LEADERBOARD	
Me	36
John	34
Isabelle	30
Aaron	27
Elise	27

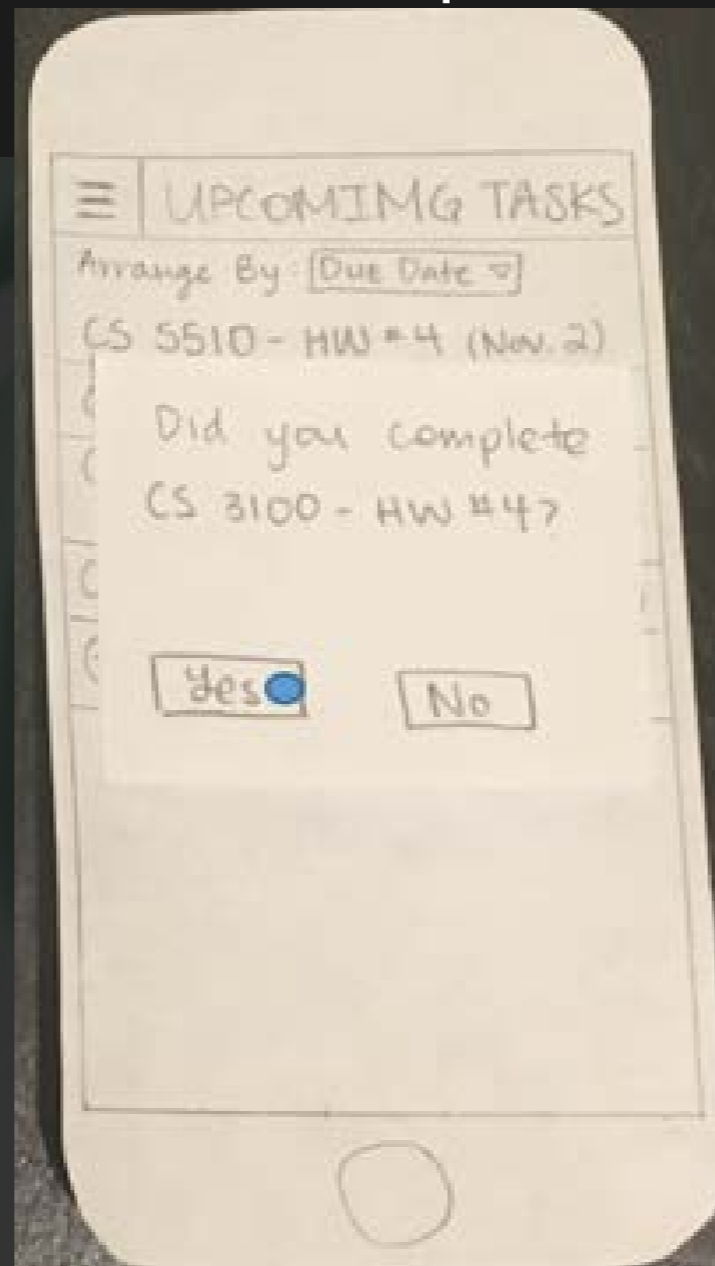
# HEURISTIC EVALUATION

## Violations

- ▶ The user should be able to add time spent on a task when marking the task complete.
  - ▶ The user cannot delete an upcoming task.
  - ▶ The user cannot delete a past task.
- 

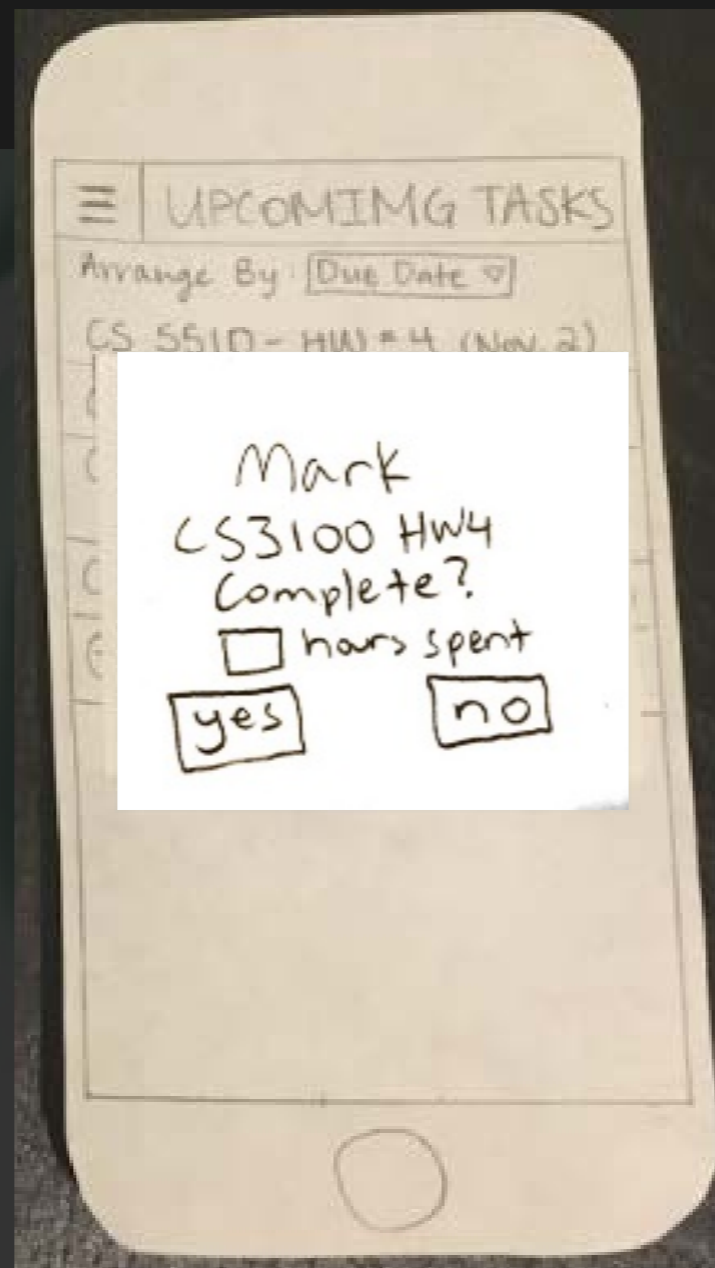
## HEURISTIC EVALUATION

The user should be able to add time spent on a task when marking the task complete.



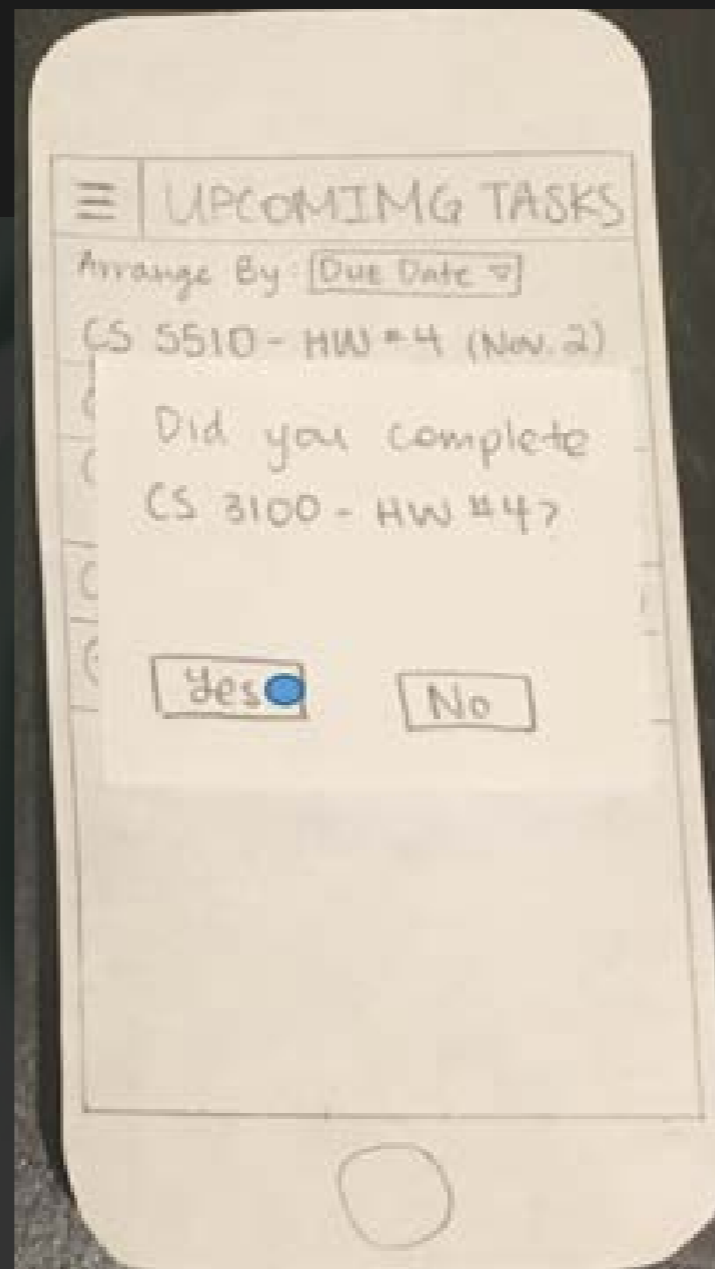
## HEURISTIC EVALUATION

The user should be able to add time spent on a task when marking the task complete.



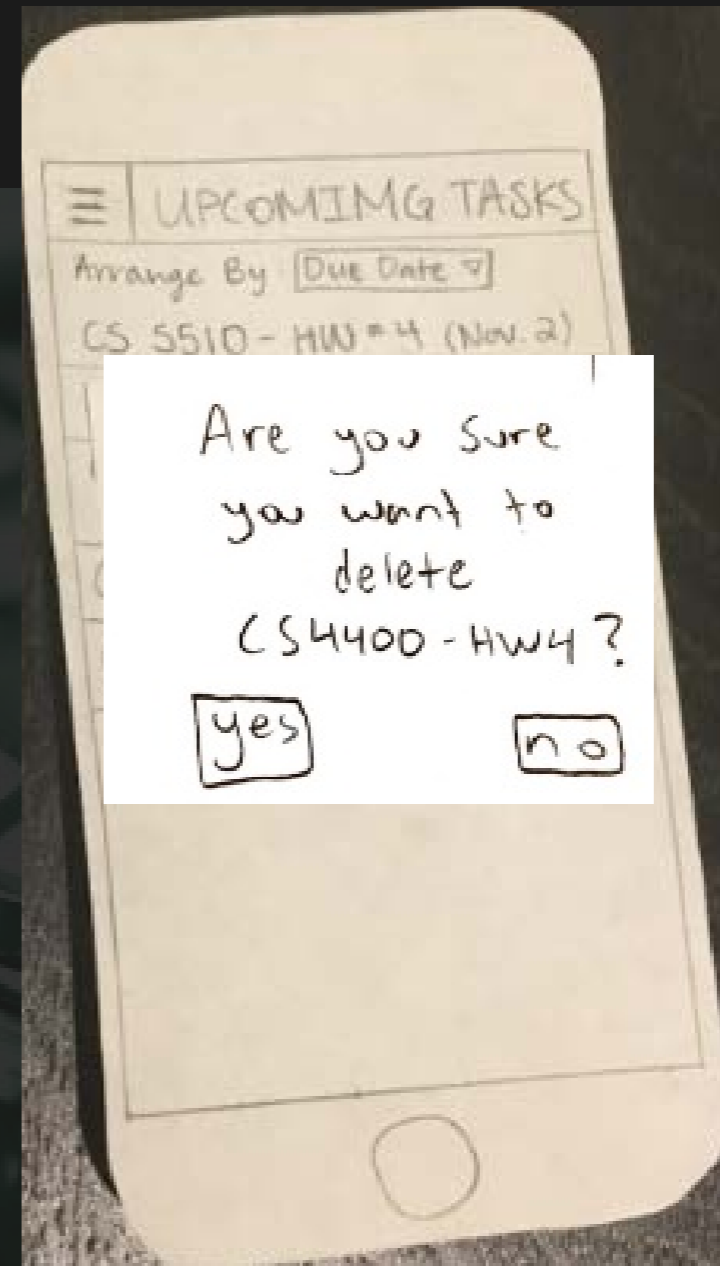
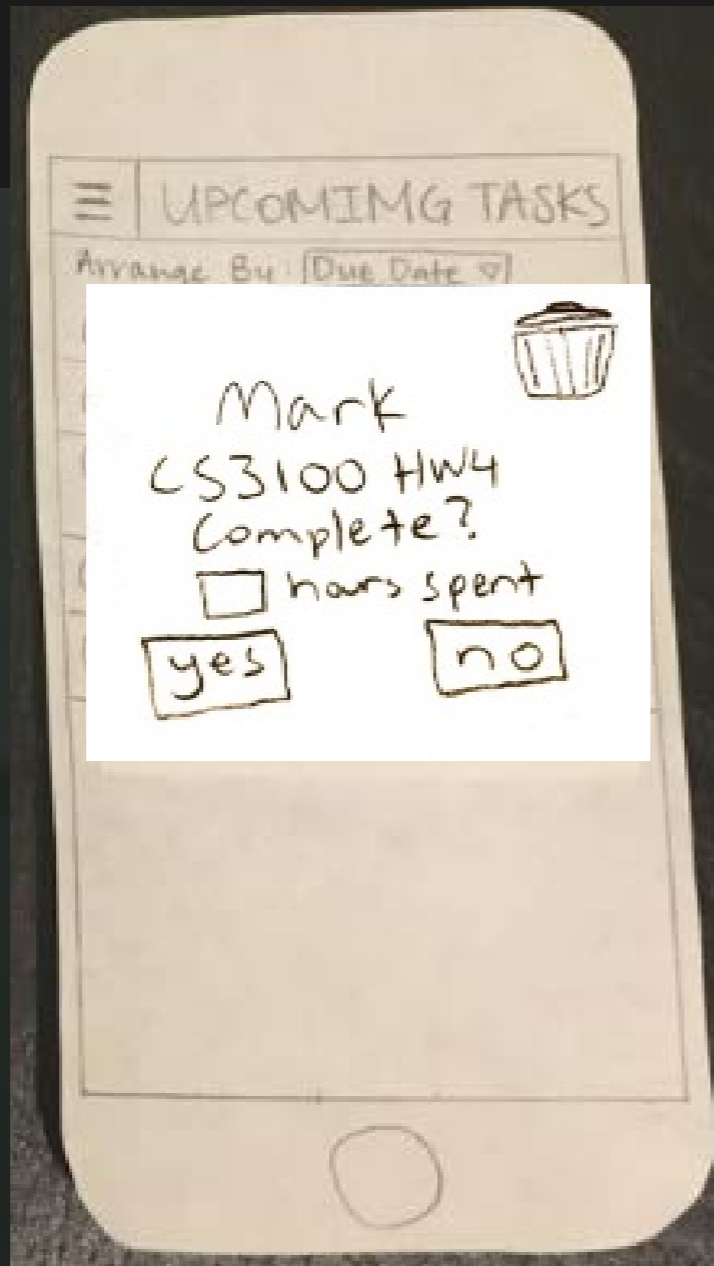
# HEURISTIC EVALUATION

The user cannot delete an upcoming task.



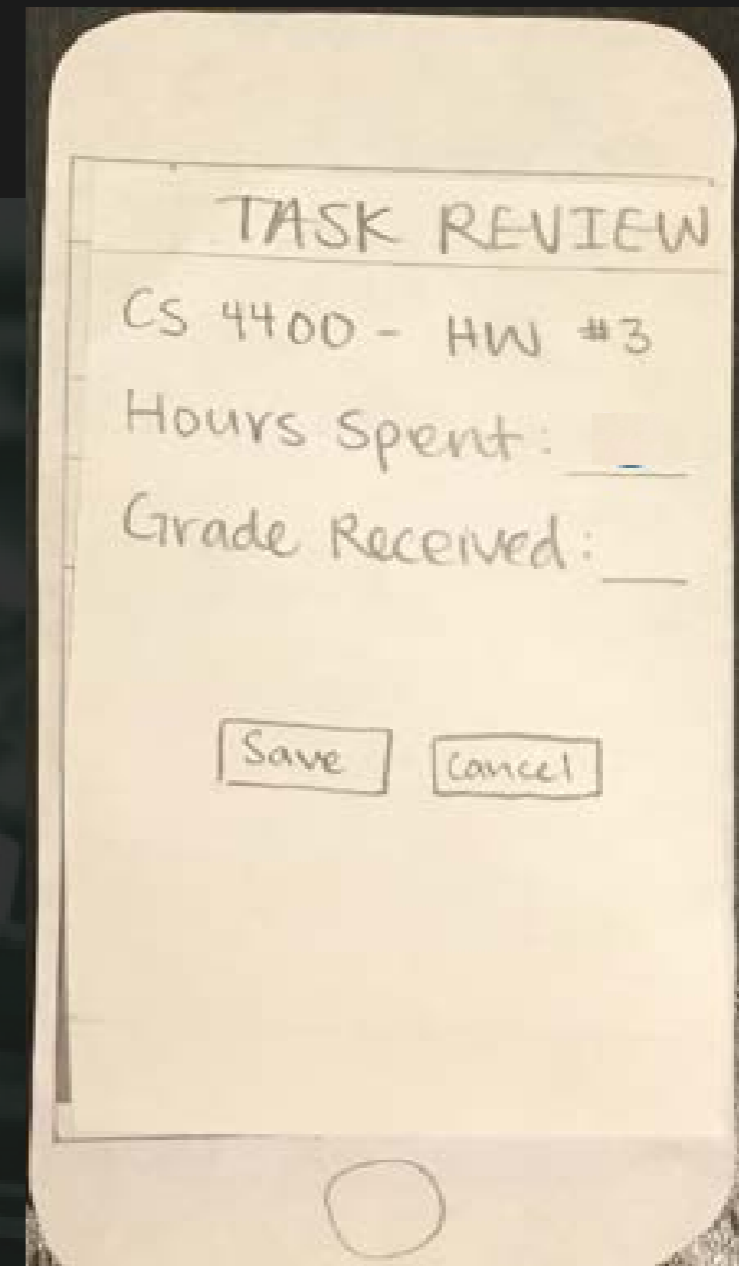
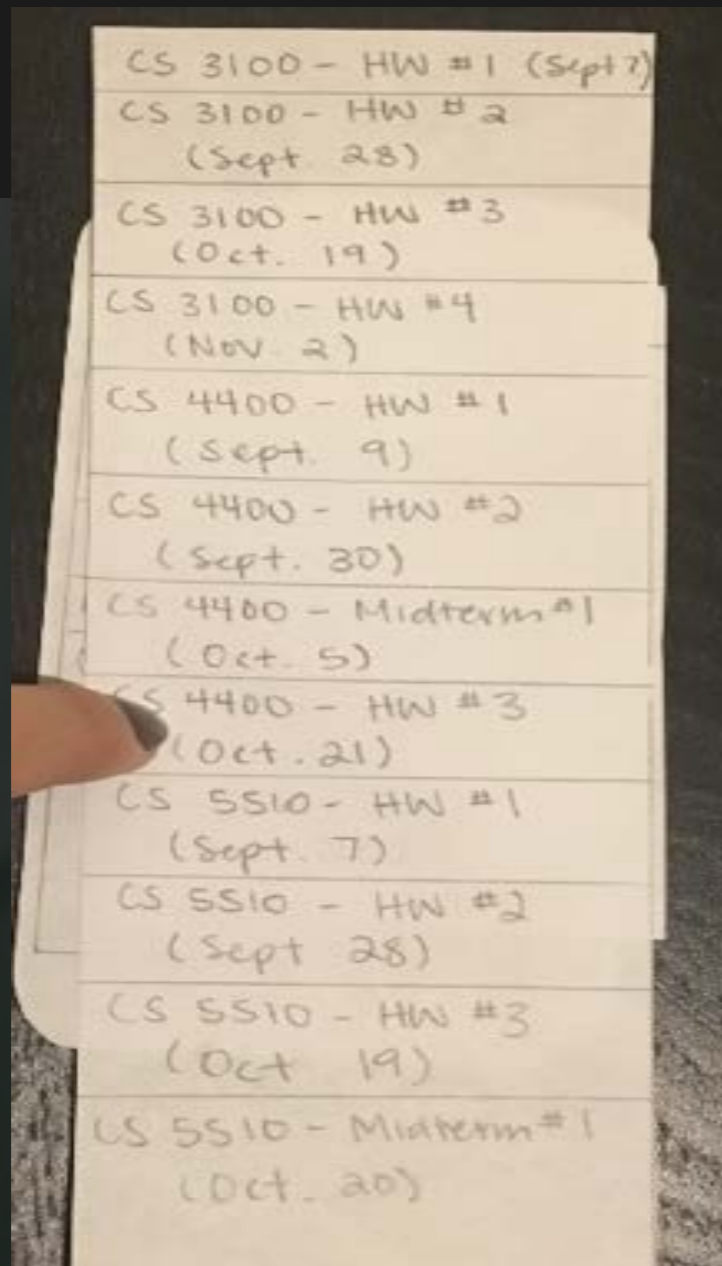
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The user cannot delete an upcoming task.



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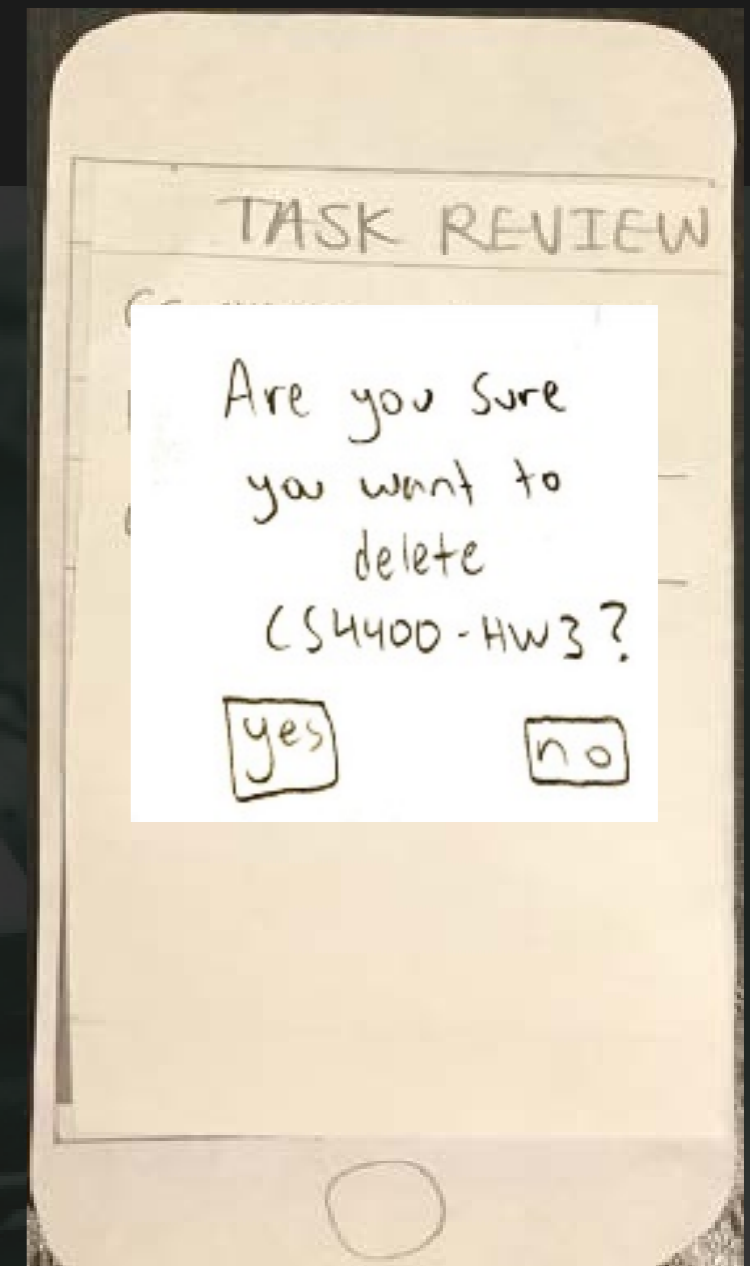
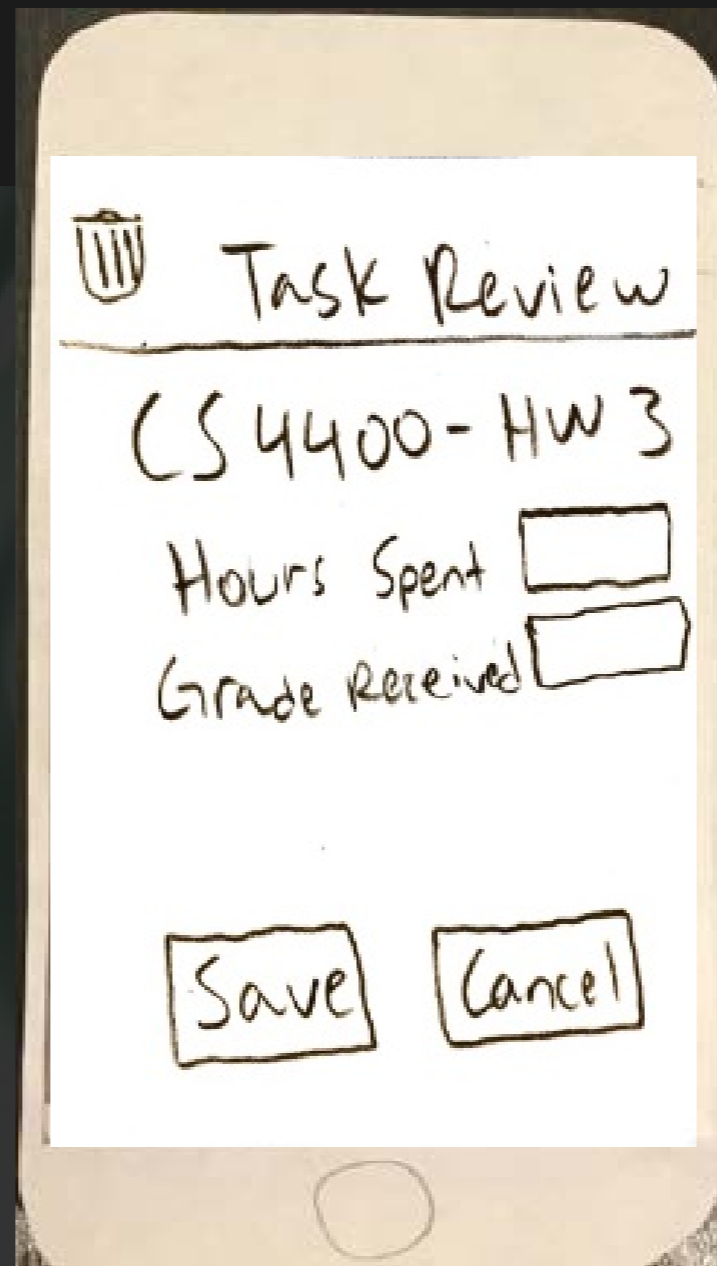
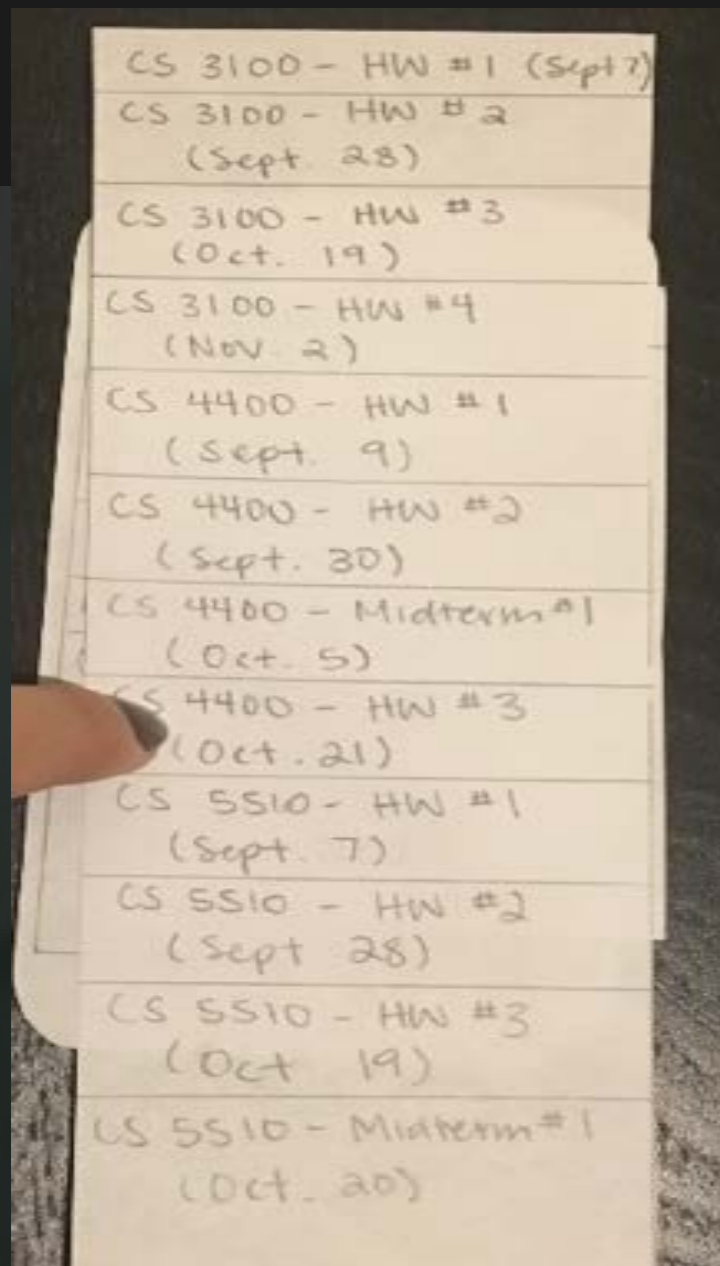
The user cannot delete a past task.





# HEURISTIC EVALUATION

The user cannot delete a past task.



# TESTING OVERVIEW

## Methodology & Approach

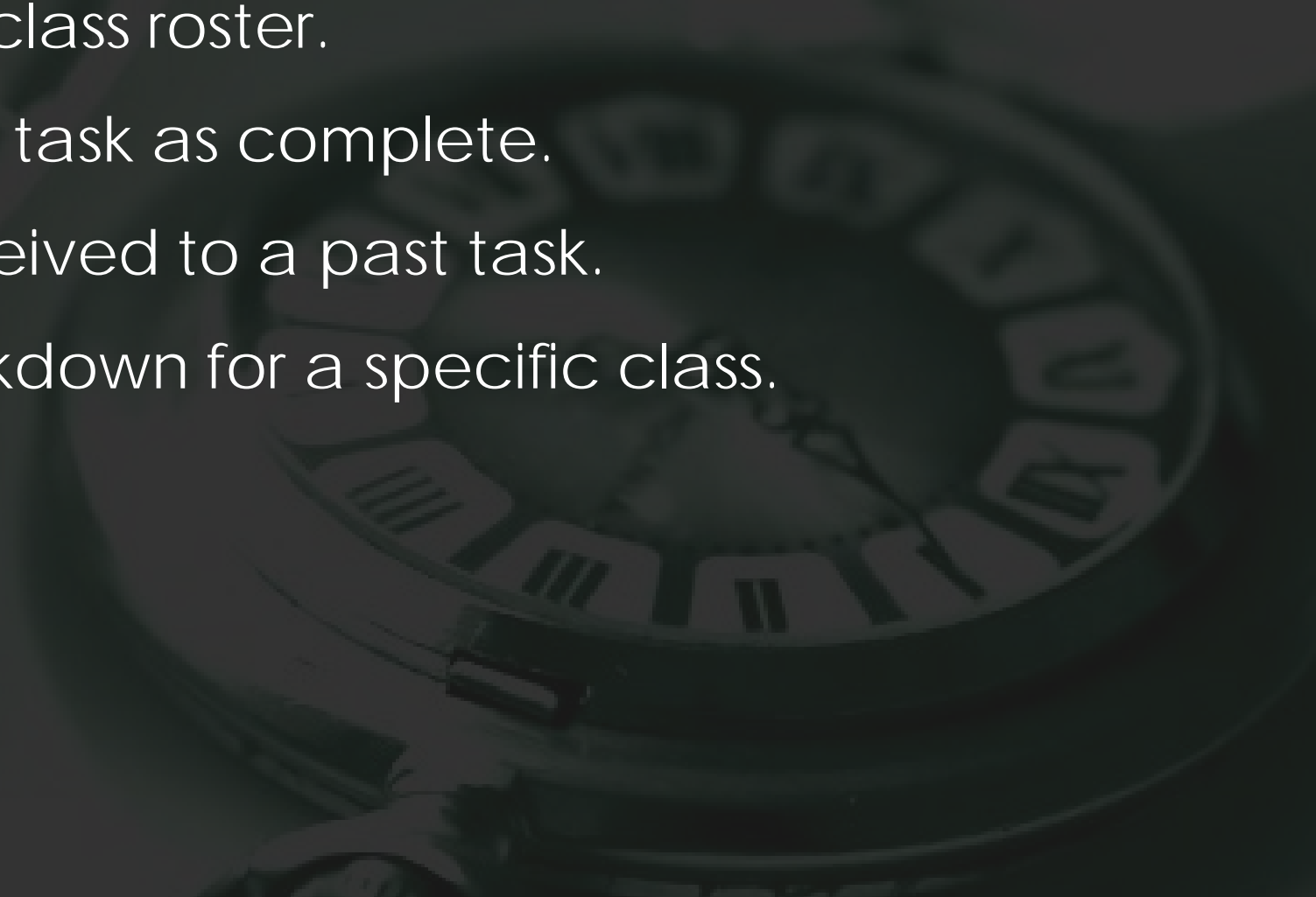
- ▶ Approached students in the Undergrad Lab and Marriott Library
- ▶ Computer: Anne/Brandon
- ▶ Facilitator: Anne/Brandon
- ▶ Observer: Alex and Matt

## Participants

- ▶ Student 1: Computer Science Major
- ▶ Student 2: Mechanical Engineering Major
- ▶ Student 3: English Major

# TESTING PROCESS

## Prompted Tasks

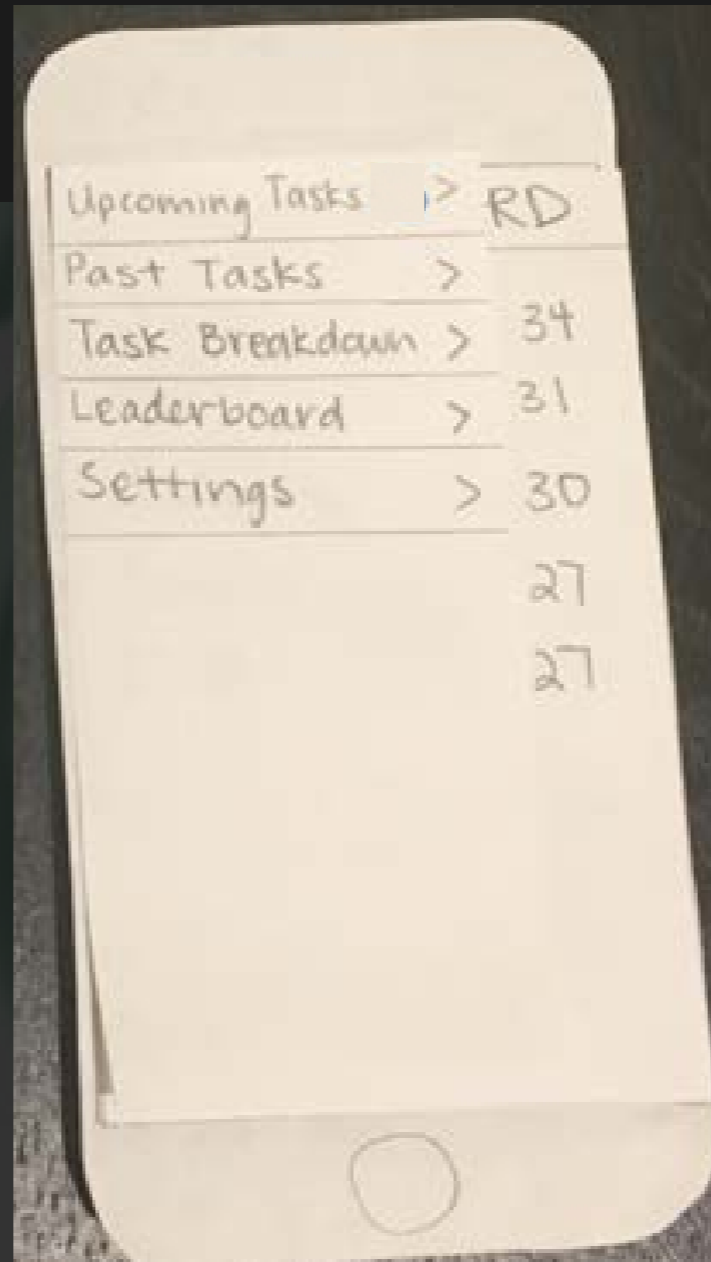
- ▶ Add a task to the “Upcoming Tasks” screen.
  - ▶ Add a class to the class roster.
  - ▶ Mark an upcoming task as complete.
  - ▶ Add the grade received to a past task.
  - ▶ View the task breakdown for a specific class.
- 

## TESTING RESULTS

- ▶ The user found it difficult to add/remove classes.
- ▶ The user cannot link a task with a specific class.
- ▶ The user cannot determine which tasks have been graded on the "Past Tasks" screen.
- ▶ The user cannot edit the information for an upcoming task.
- ▶ The user should confirm a task has been completed before adding time spent.

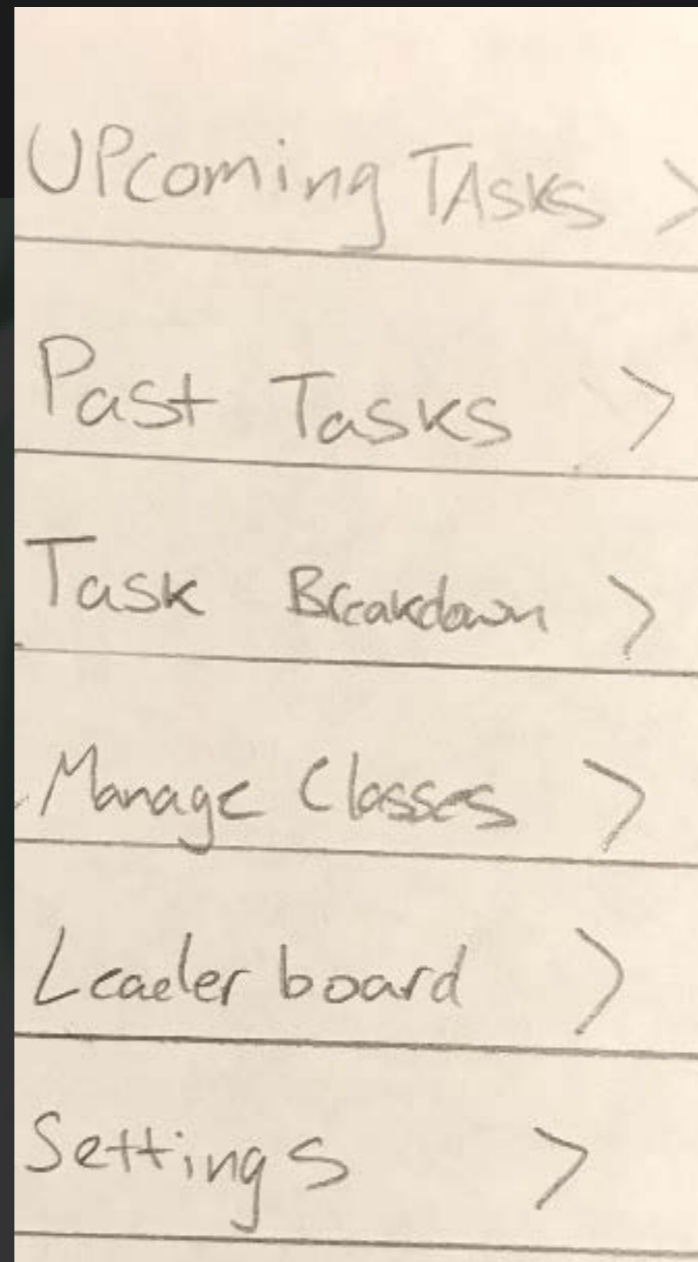
## TESTING RESULTS: STUDENT 1

The user found it difficult to add/remove classes.



## TESTING RESULTS: STUDENT 1

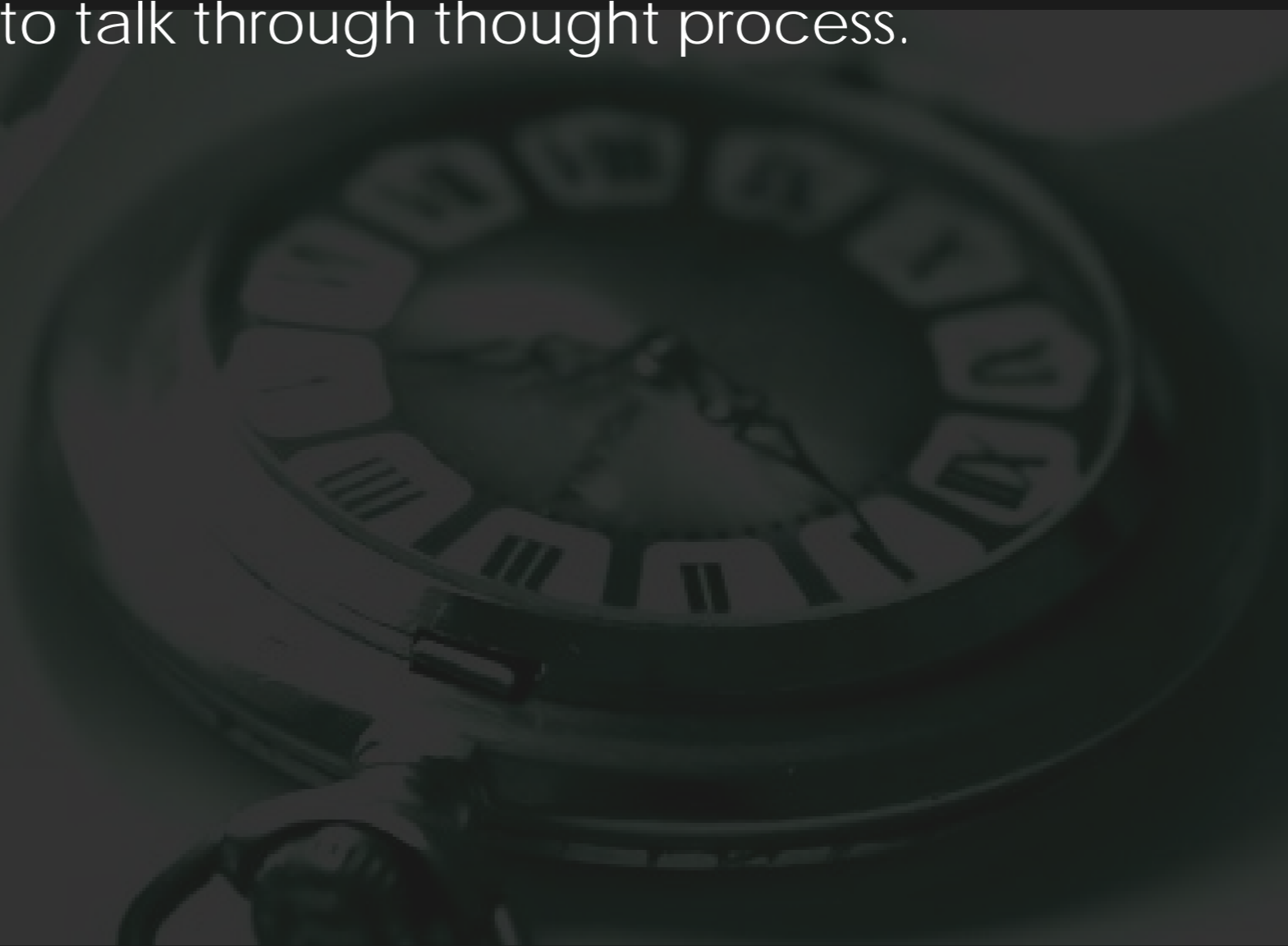
The user found it difficult to add/remove classes



## TESTING RESULTS: STUDENT 1

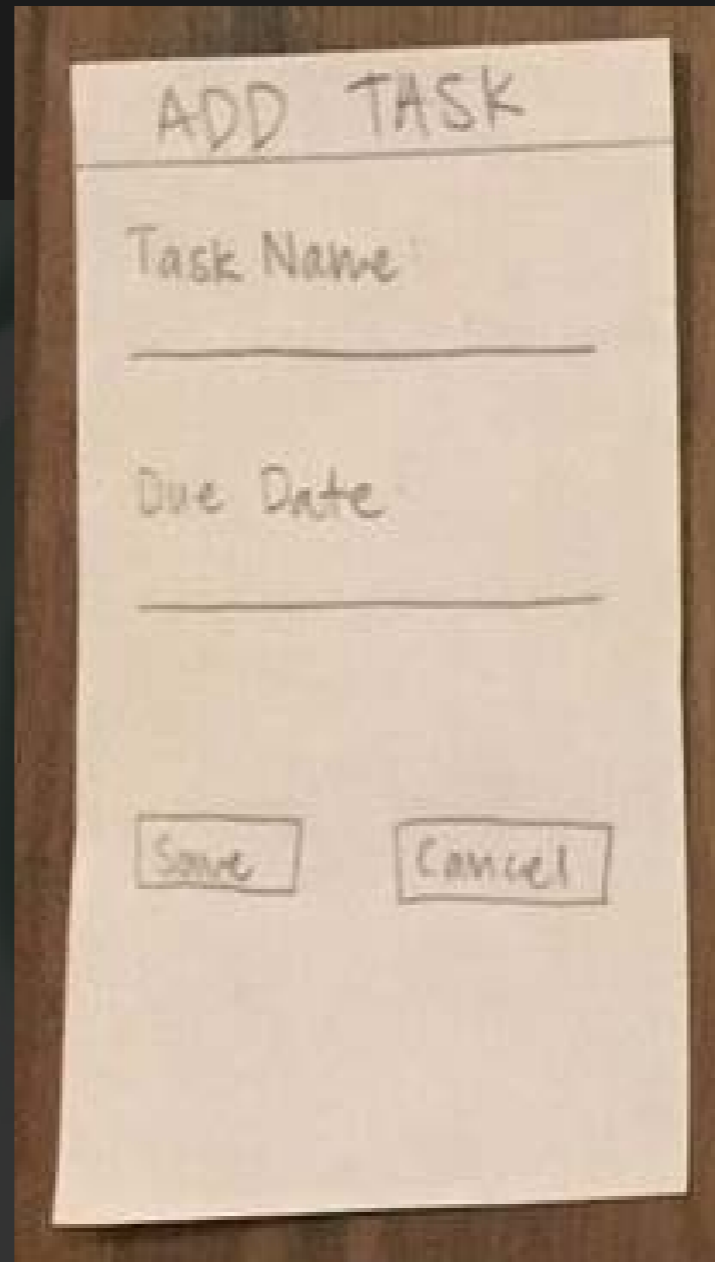
Learned about general testing process:

- ▶ Give background information about the application.
- ▶ Ask the participant to talk through thought process.



## TESTING RESULTS: STUDENT 2

The user cannot link a task with a specific class.



A hand-drawn sketch of a form titled "ADD TASK" on a piece of paper. The form has two input fields: "Task Name" and "Due Date", each followed by a horizontal line. At the bottom, there are two buttons labeled "Save" and "Cancel".



## TESTING RESULTS: STUDENT 2

The user cannot link a task with a specific class.

ADD TASK

---

Class CS4400 >

---

Task Name

---

Due Date

---

ADD | CANCEL

< | CLASSES | OK

---

• CS4400

---

CS 3100

---

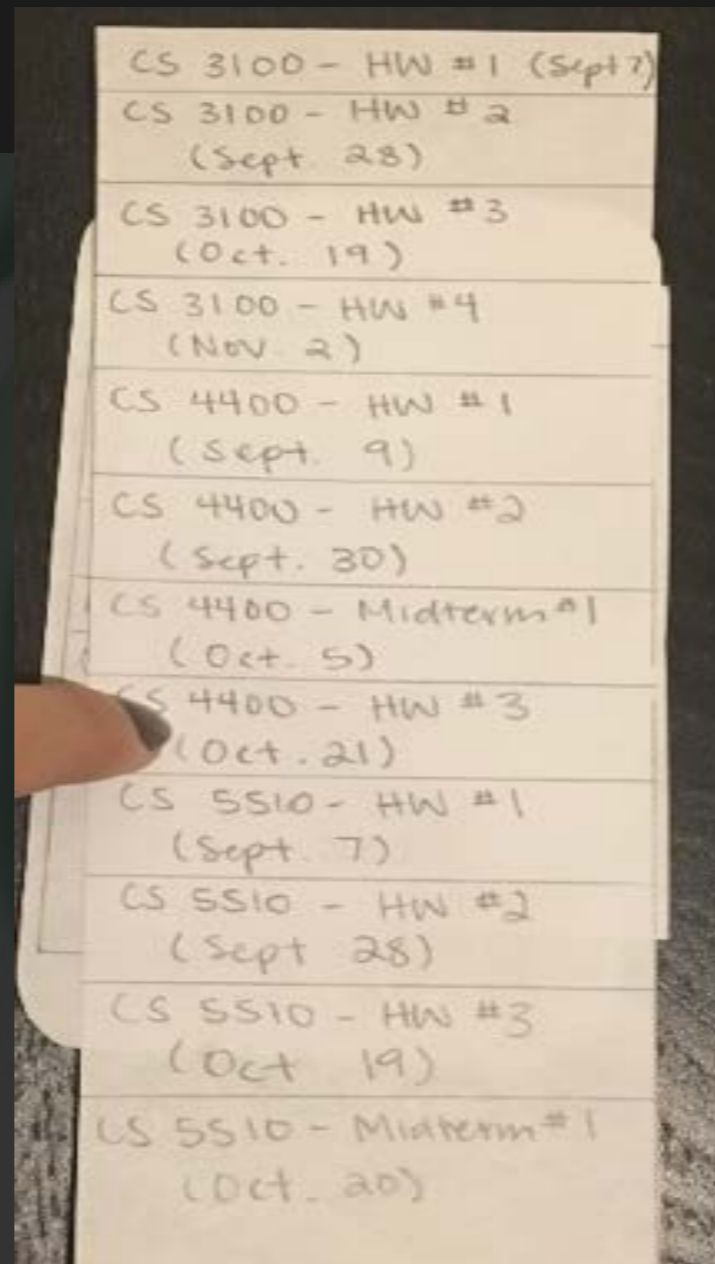
CS 5510

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+

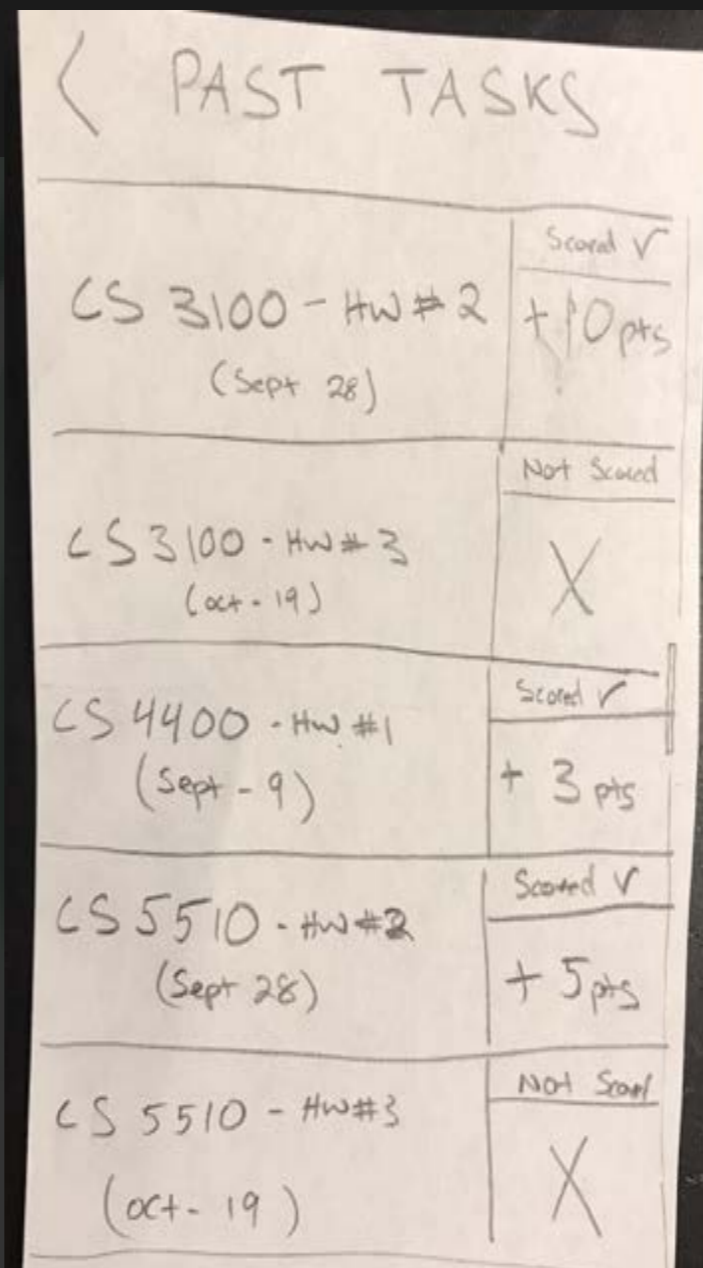
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The user cannot determine which tasks have been graded on the "Past Tasks" screen.



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The user cannot determine which tasks have been graded on the "Past Tasks" screen.

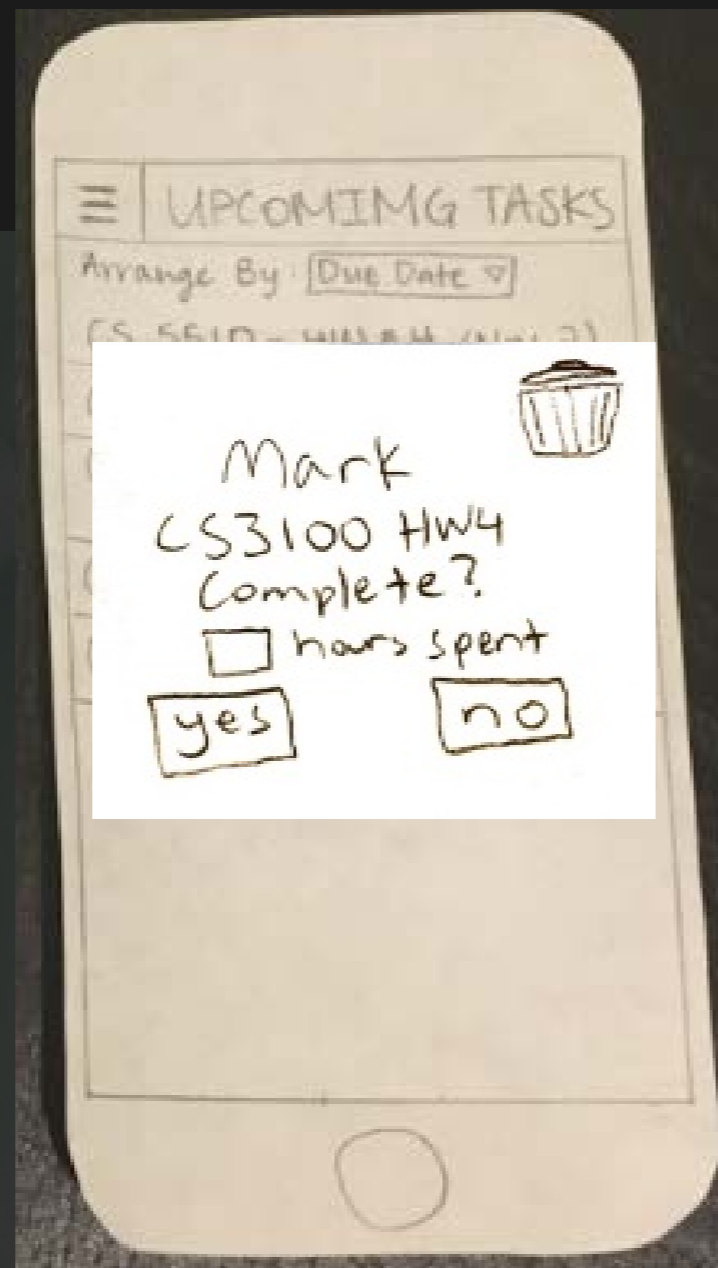


A handwritten note titled "PAST TASKS" with a back arrow icon. It lists five tasks in a table-like format, showing course numbers, homework numbers, dates, and scores. The tasks are: CS 3100 - HW #2 (Sept 28) with a score of +10 pts; CS 3100 - HW #3 (Oct 19) marked as Not Scored with an X; CS 4400 - HW #1 (Sept 9) with a score of +3 pts; CS 5510 - HW #2 (Sept 28) with a score of +5 pts; and CS 5510 - HW #3 (Oct 19) marked as Not Scored with an X.

Task	Score
CS 3100 - HW #2 (Sept 28)	Scored ✓ + 10 pts
CS 3100 - HW #3 (Oct 19)	Not Scored X
CS 4400 - HW #1 (Sept 9)	Scored ✓ + 3 pts
CS 5510 - HW #2 (Sept 28)	Scored ✓ + 5 pts
CS 5510 - HW #3 (Oct 19)	Not Scored X

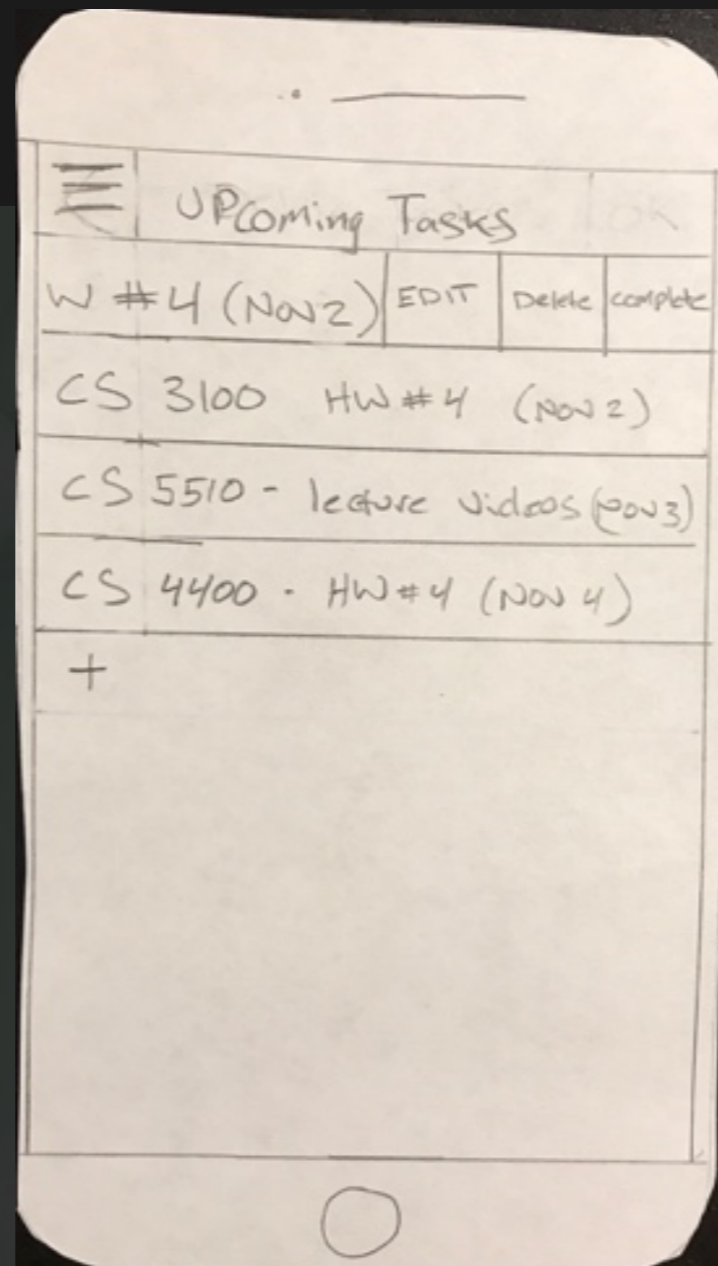
## TESTING RESULTS: STUDENT 3

The user cannot edit information for an upcoming task.



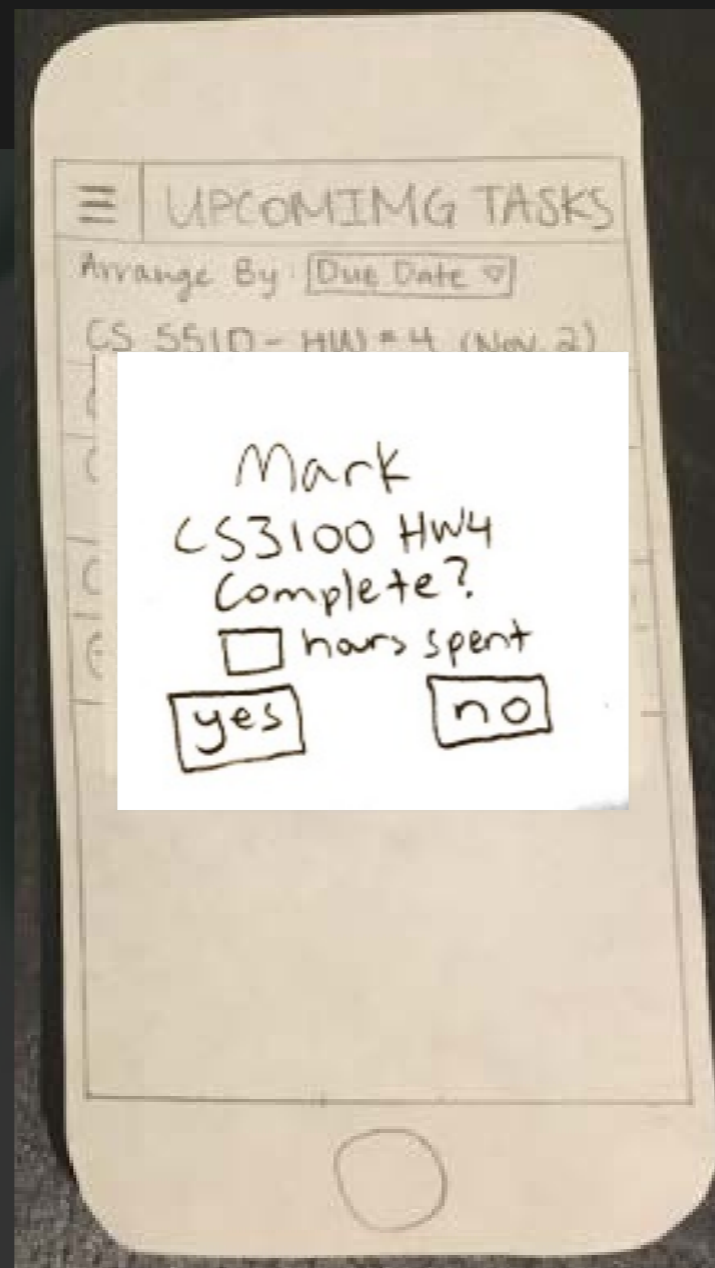
## TESTING RESULTS: STUDENT 3

The user cannot edit information for an upcoming task.



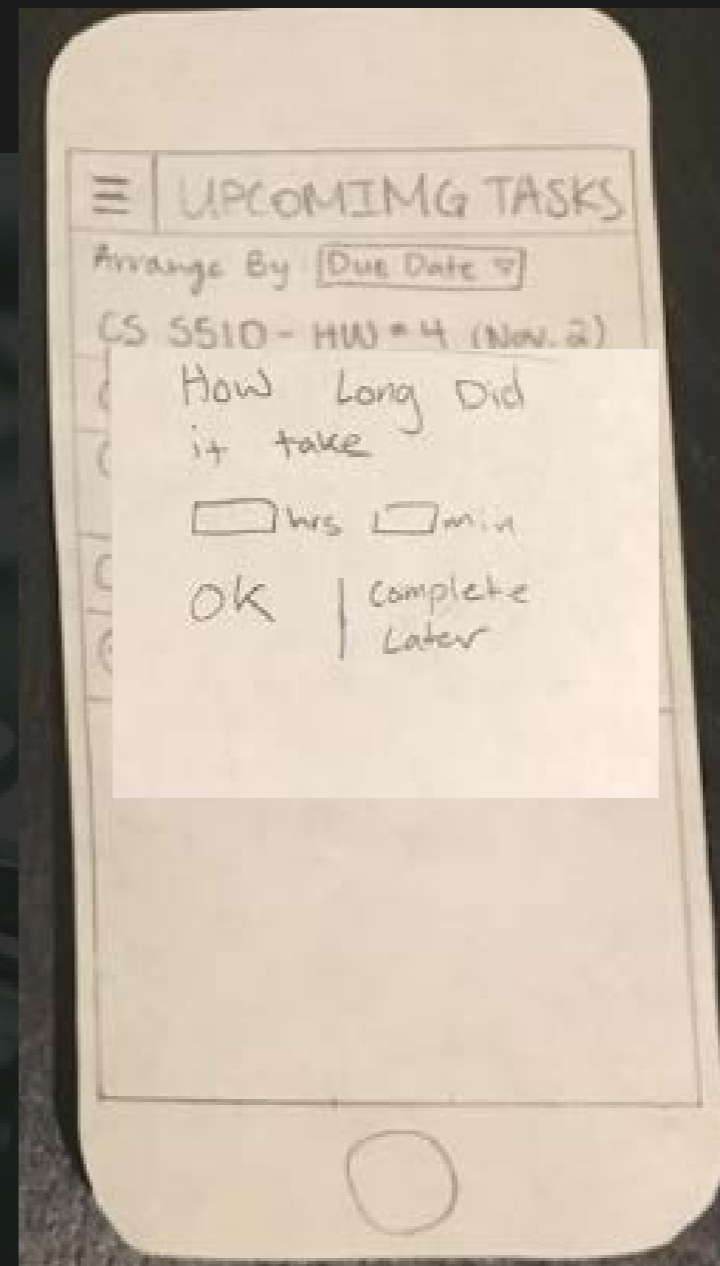
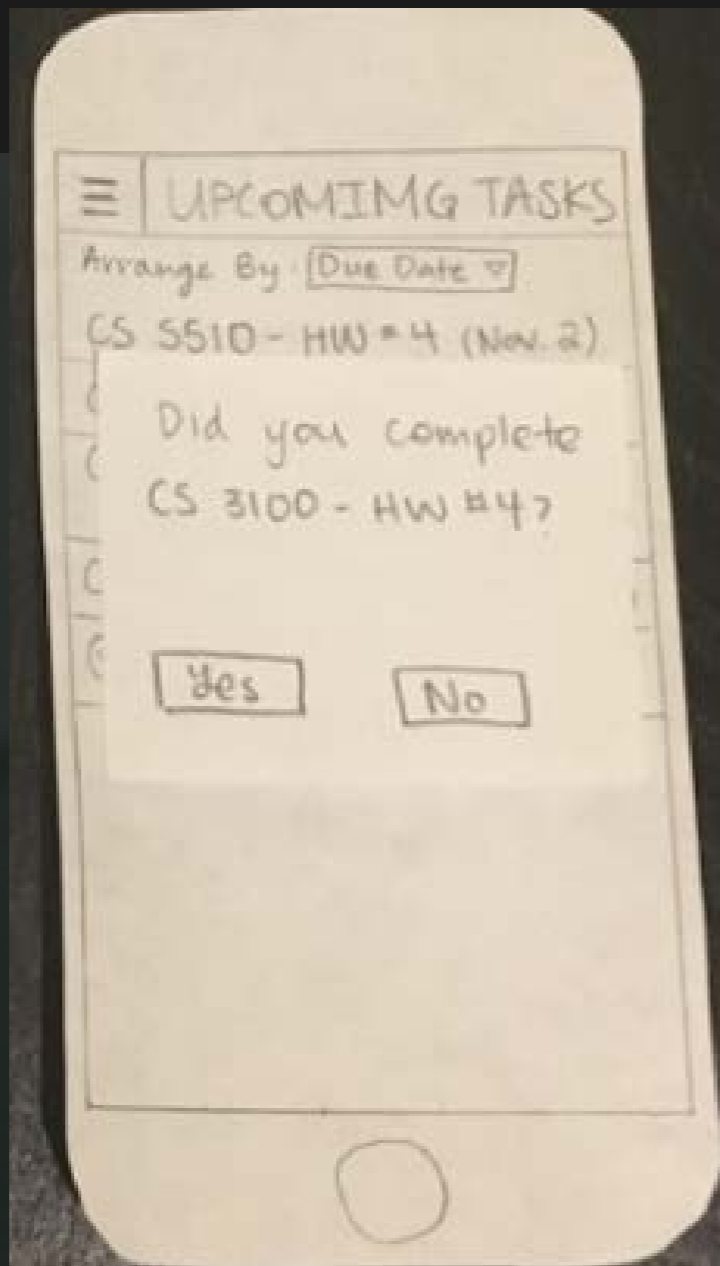
## TESTING RESULTS: STUDENT 3

The user should confirm a task has been completed before adding time spent.



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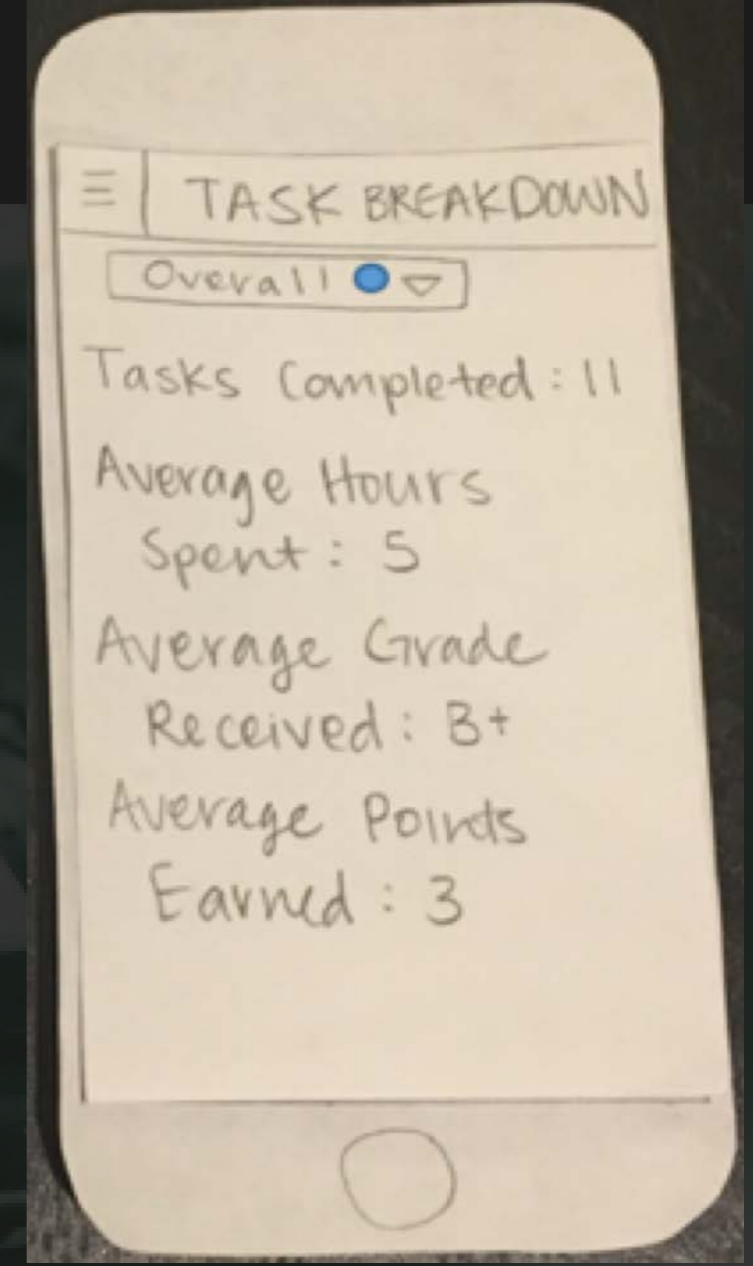
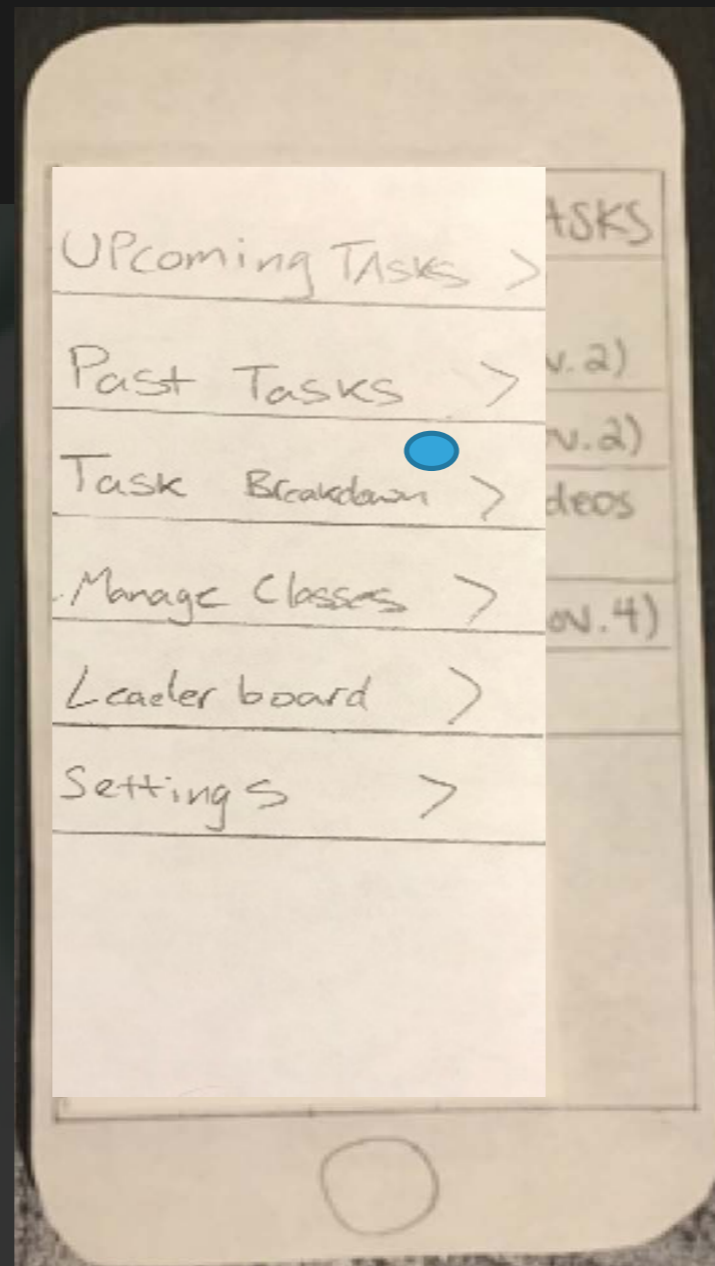
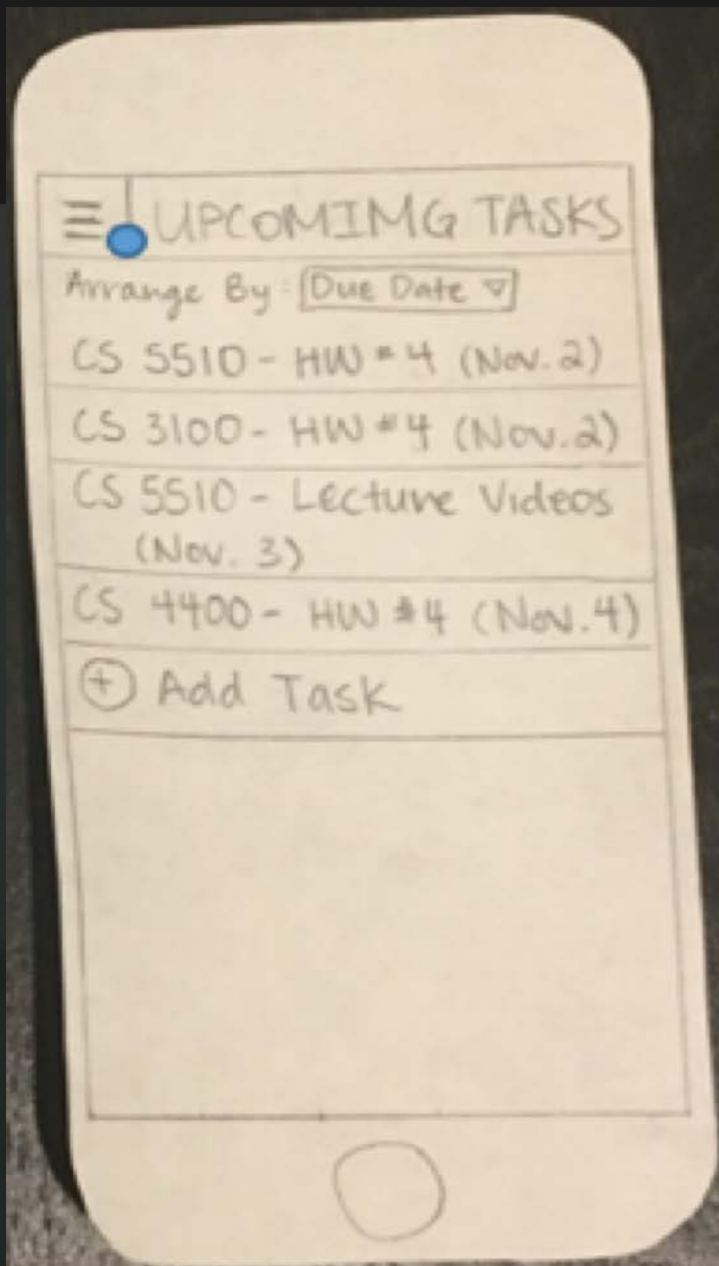
## TESTING RESULTS: UNREVISED ISSUES

- ▶ The user does not know how to exit out of the number pad.
- ▶ The user cannot manage the leaderboard.



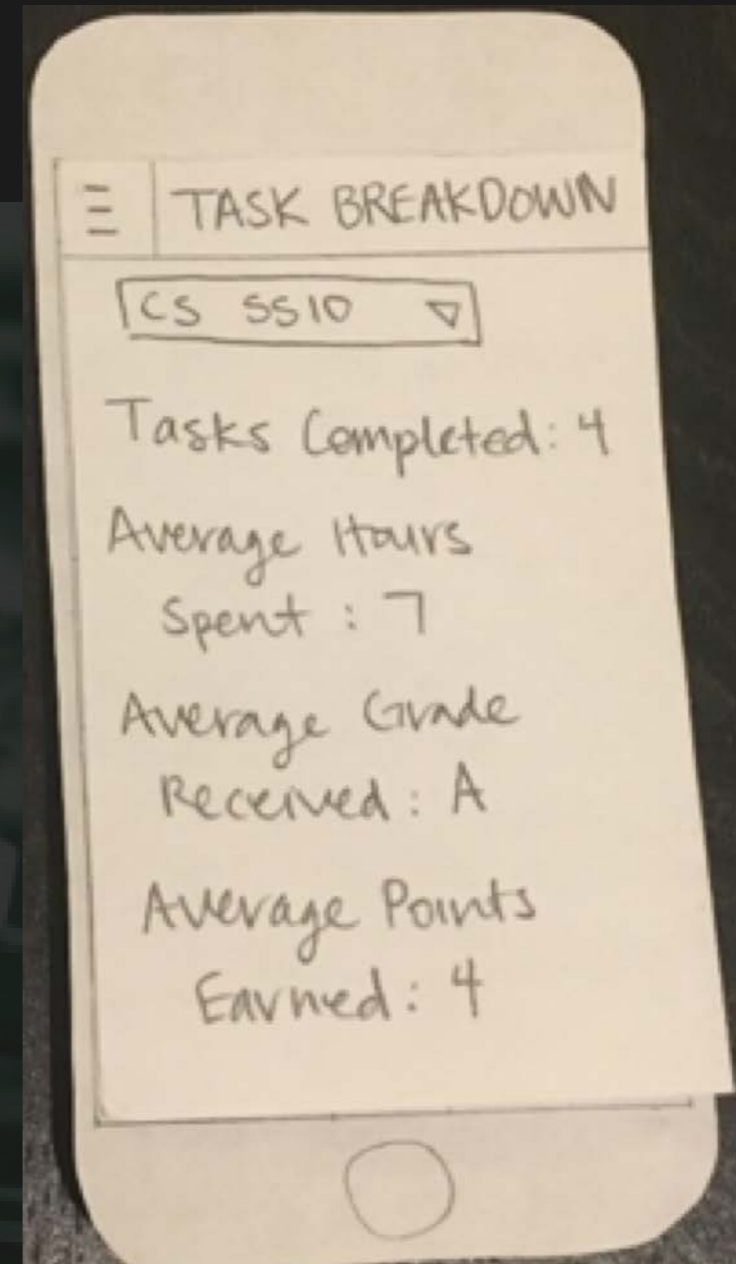
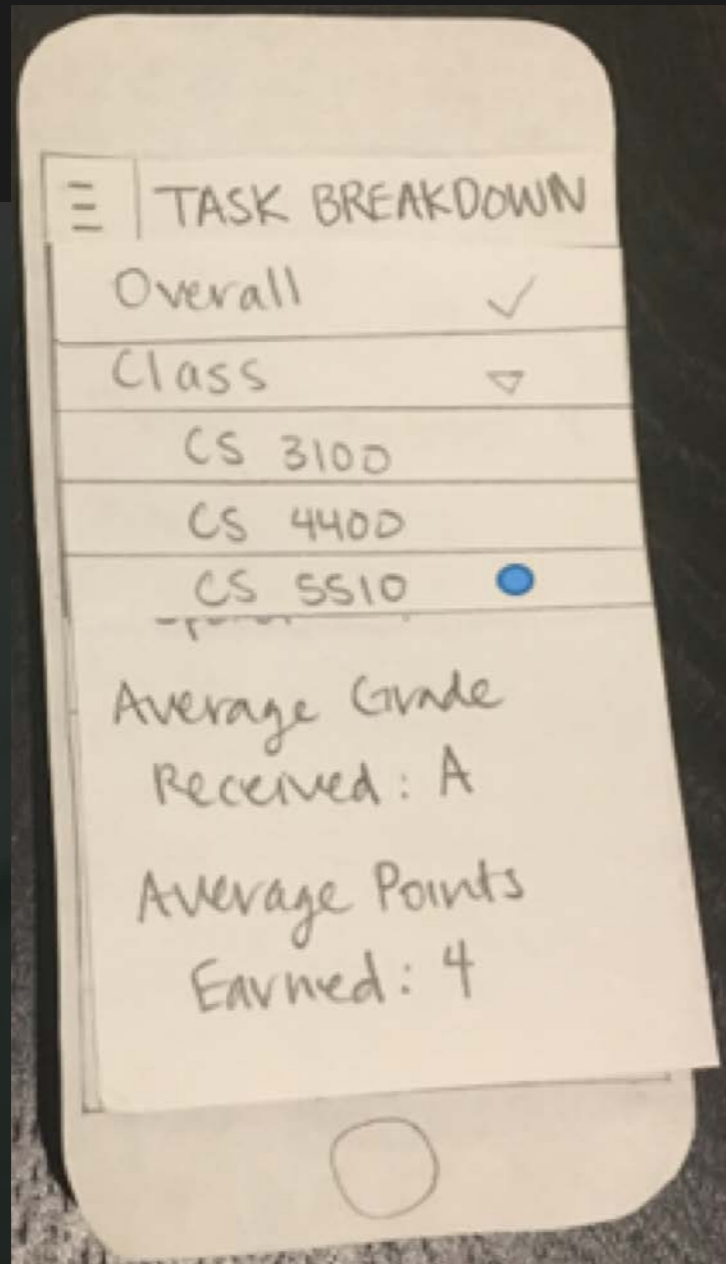
# FINAL PAPER PROTOTYPE

## Reflecting on How Time Was Spent (1/2)



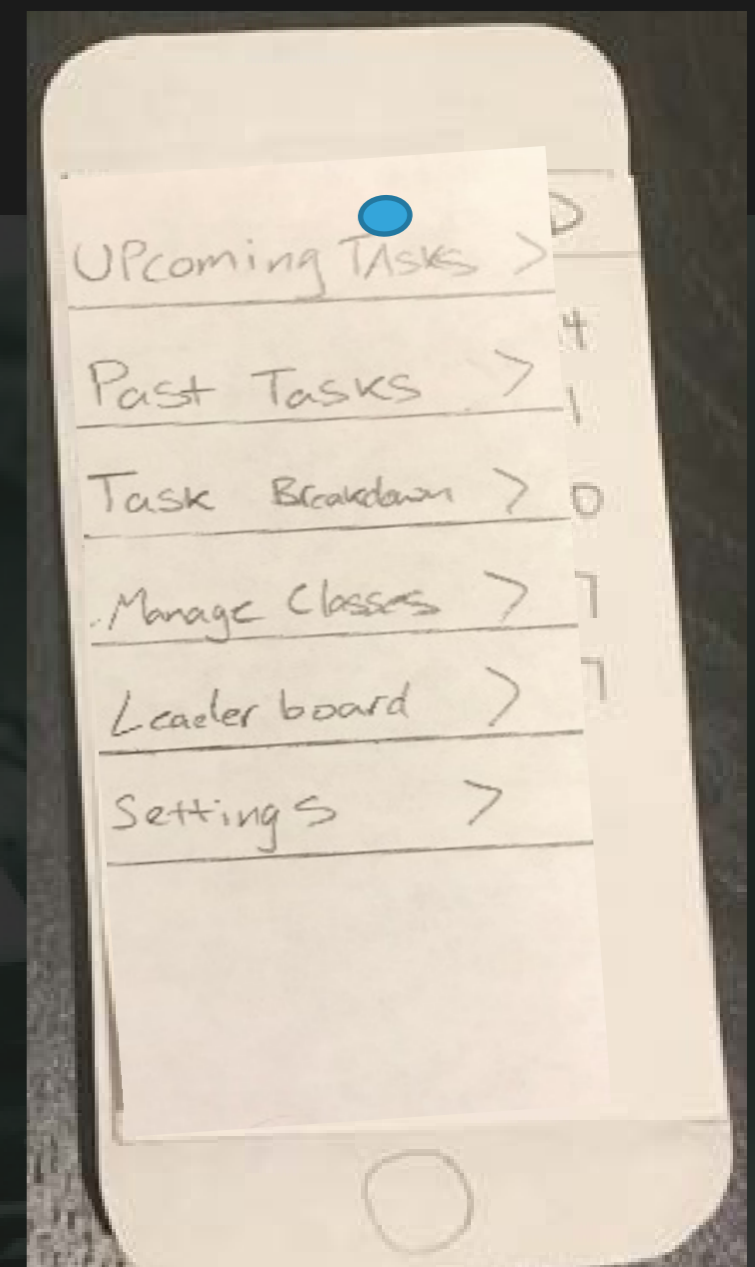
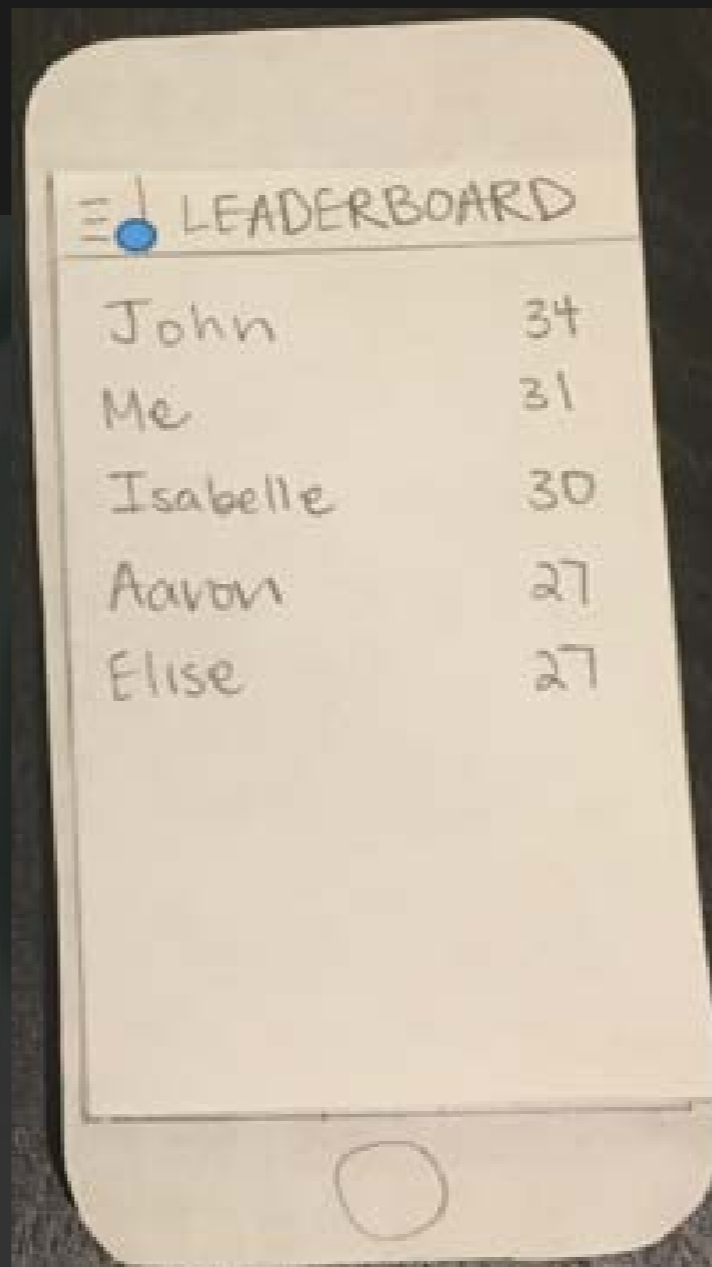
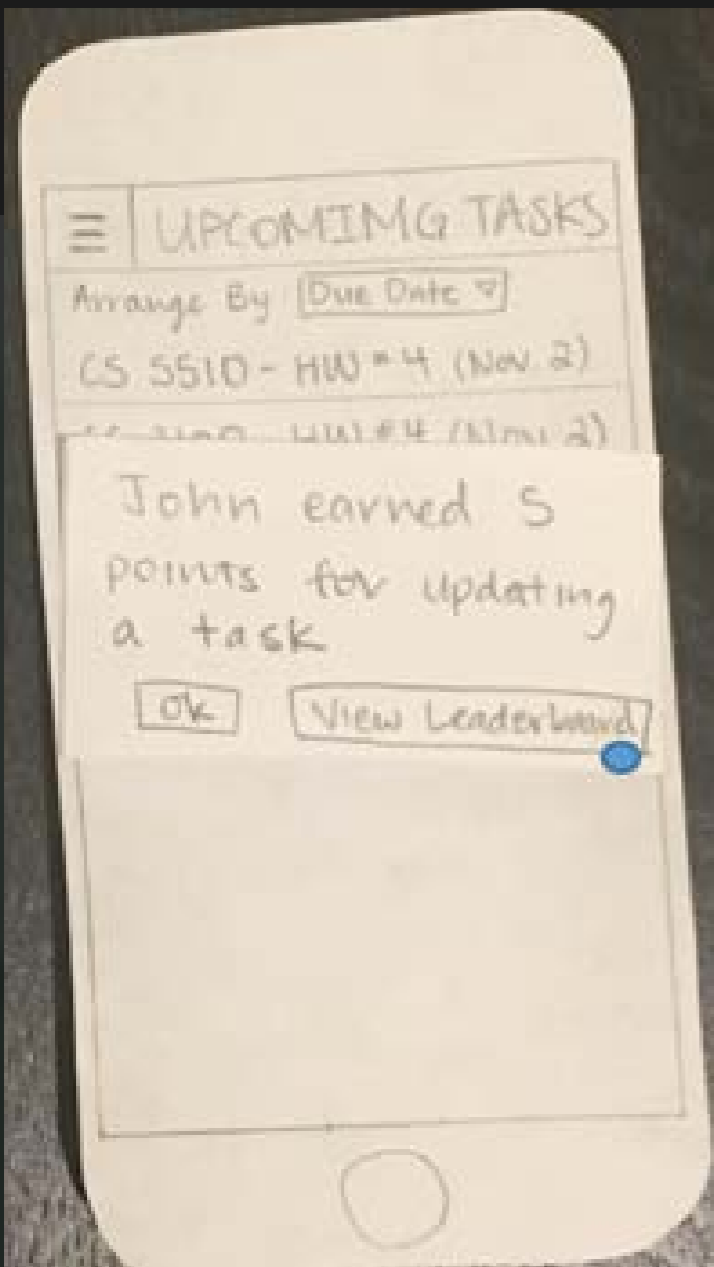
# FINAL PAPER PROTOTYPE

## Reflecting on How Time Was Spent (2/2)



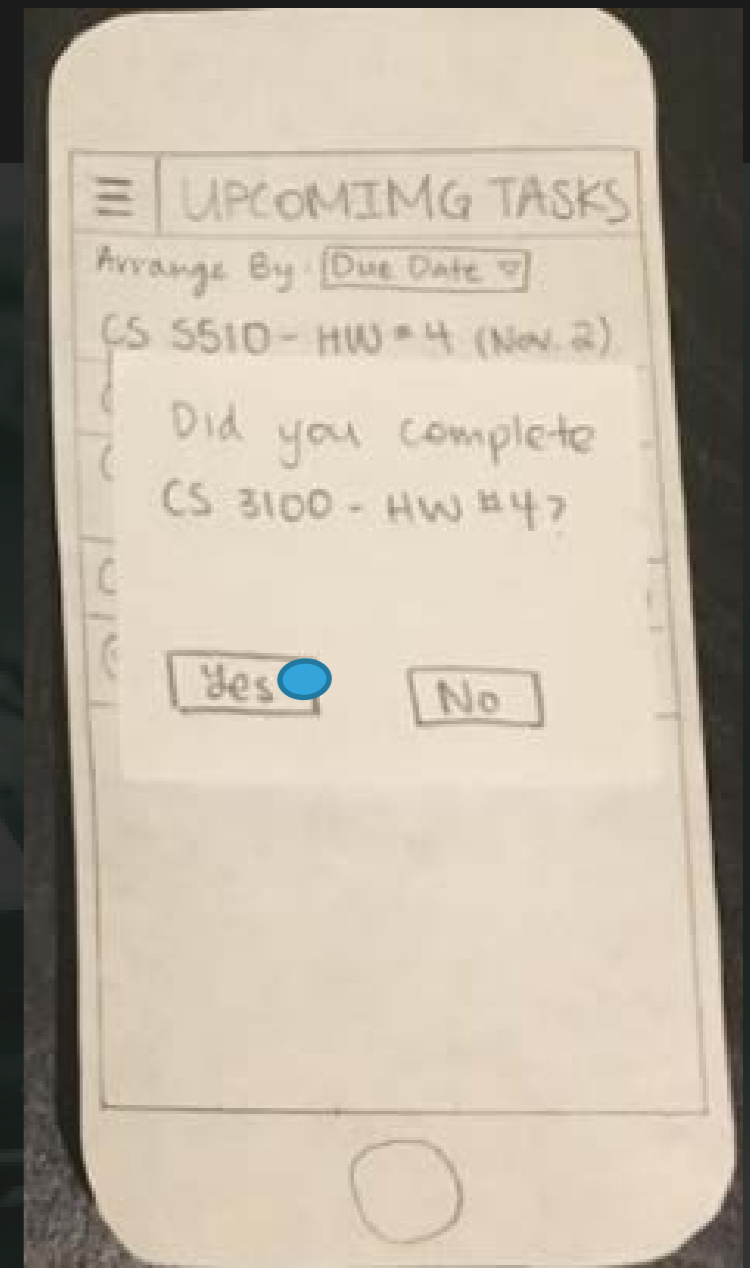
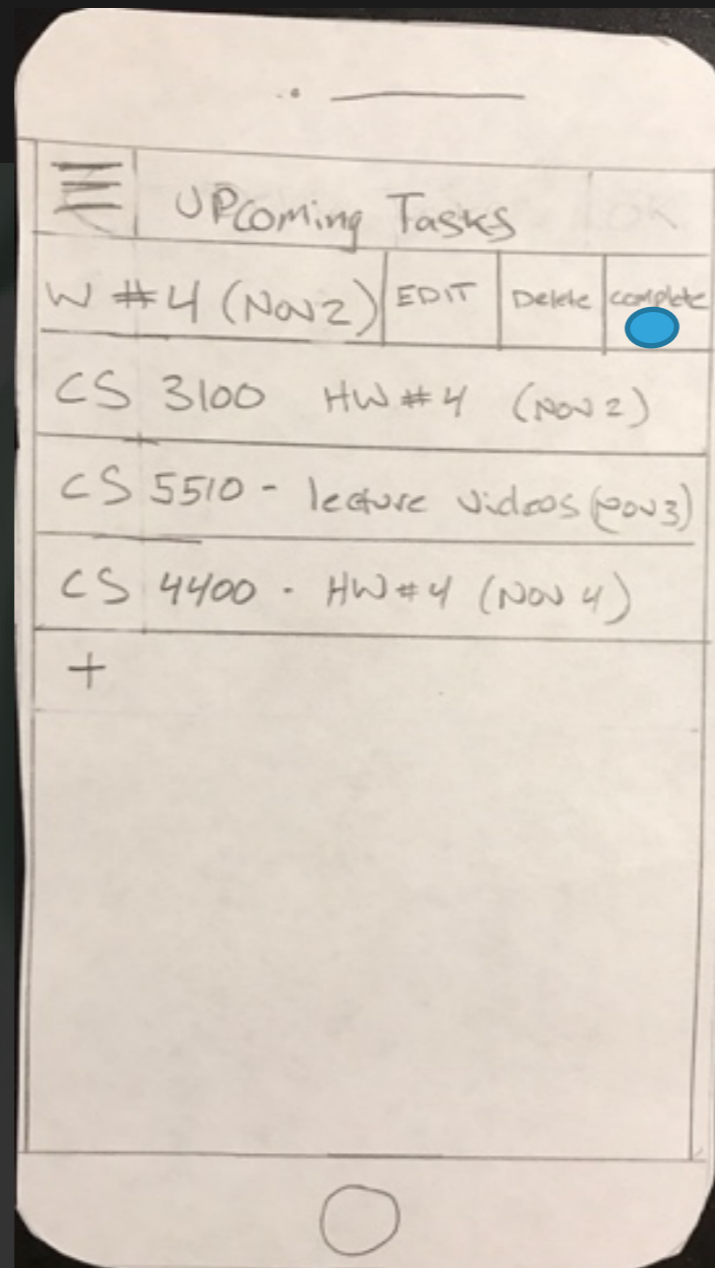
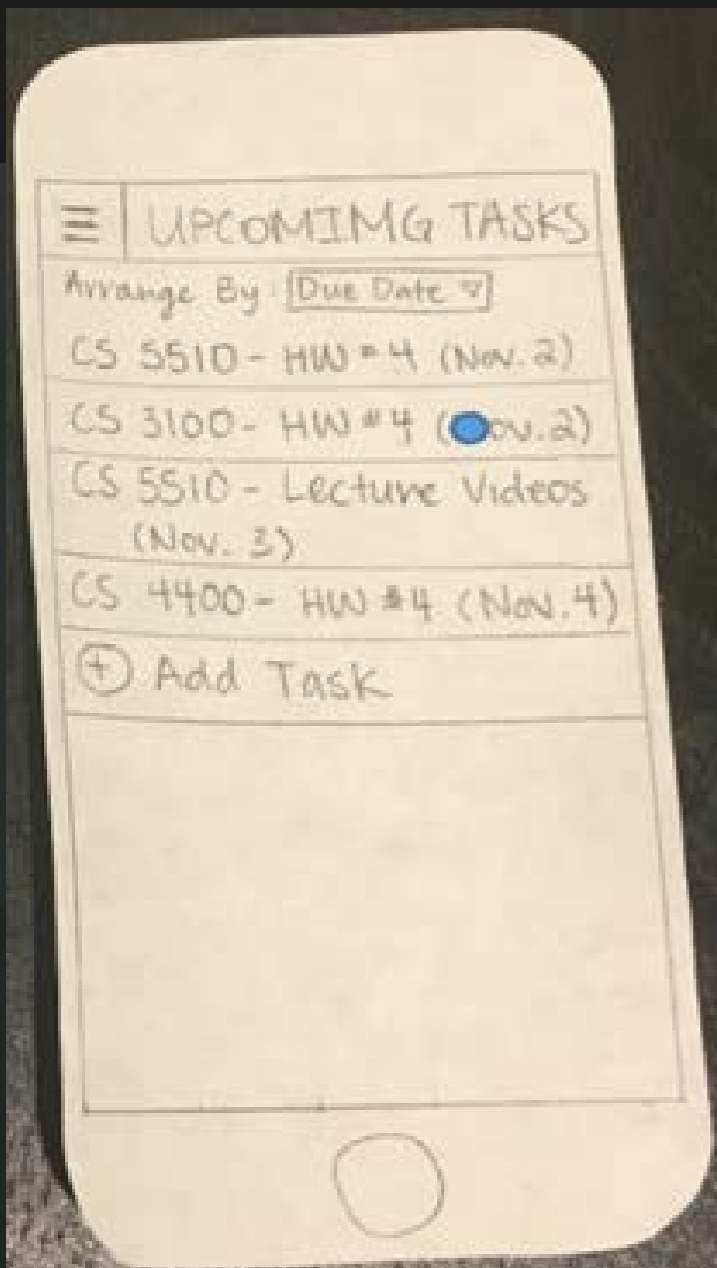
# FINAL PAPER PROTOTYPE

## Finding an Incentive (1/6)



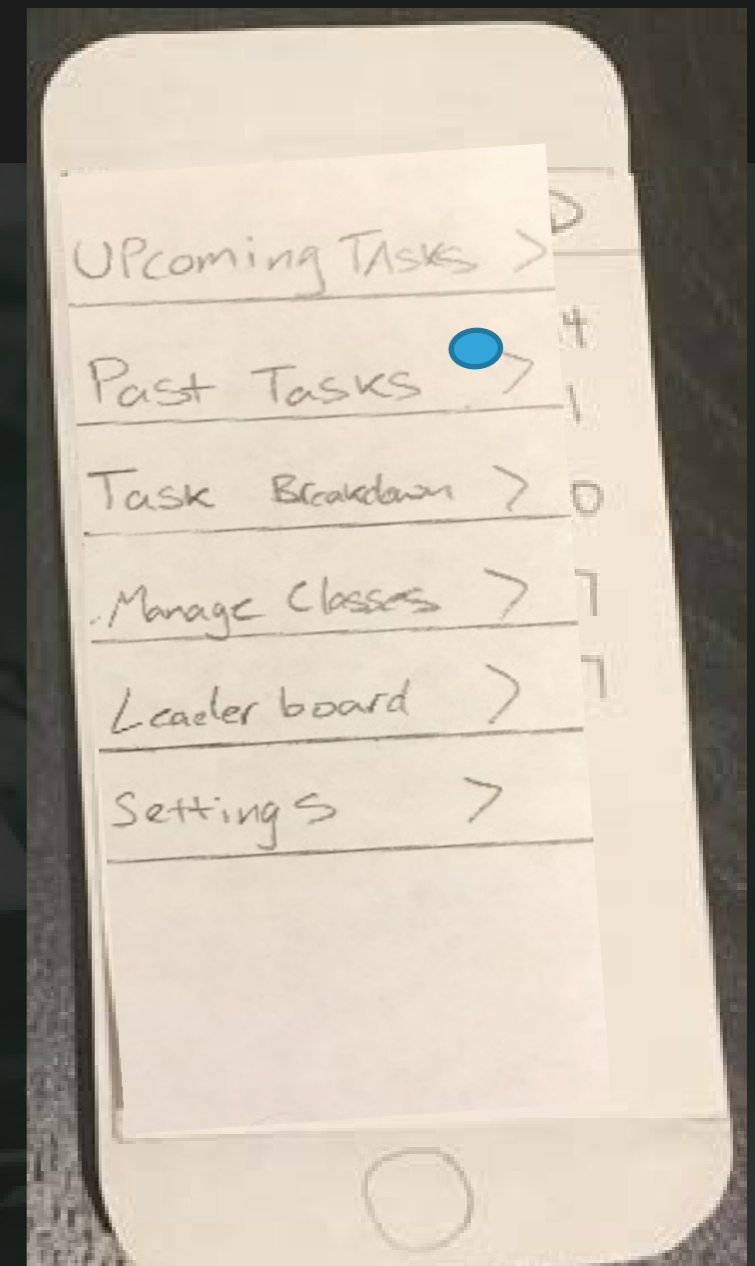
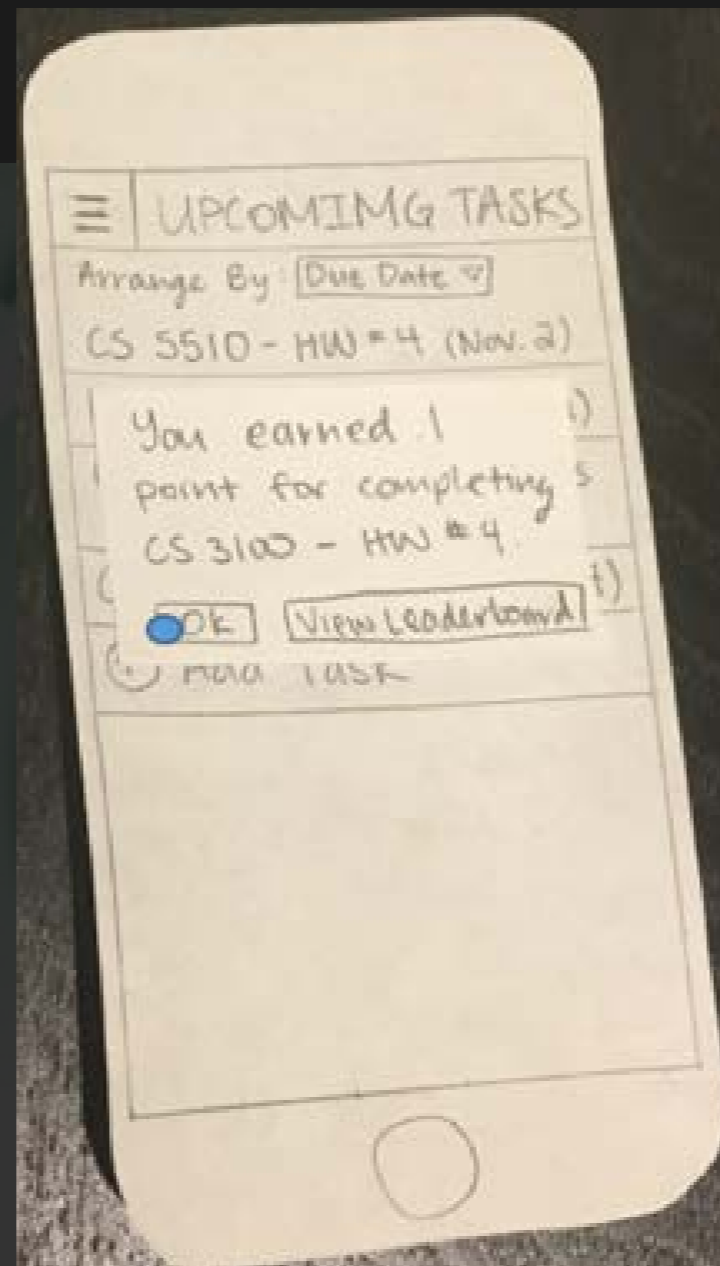
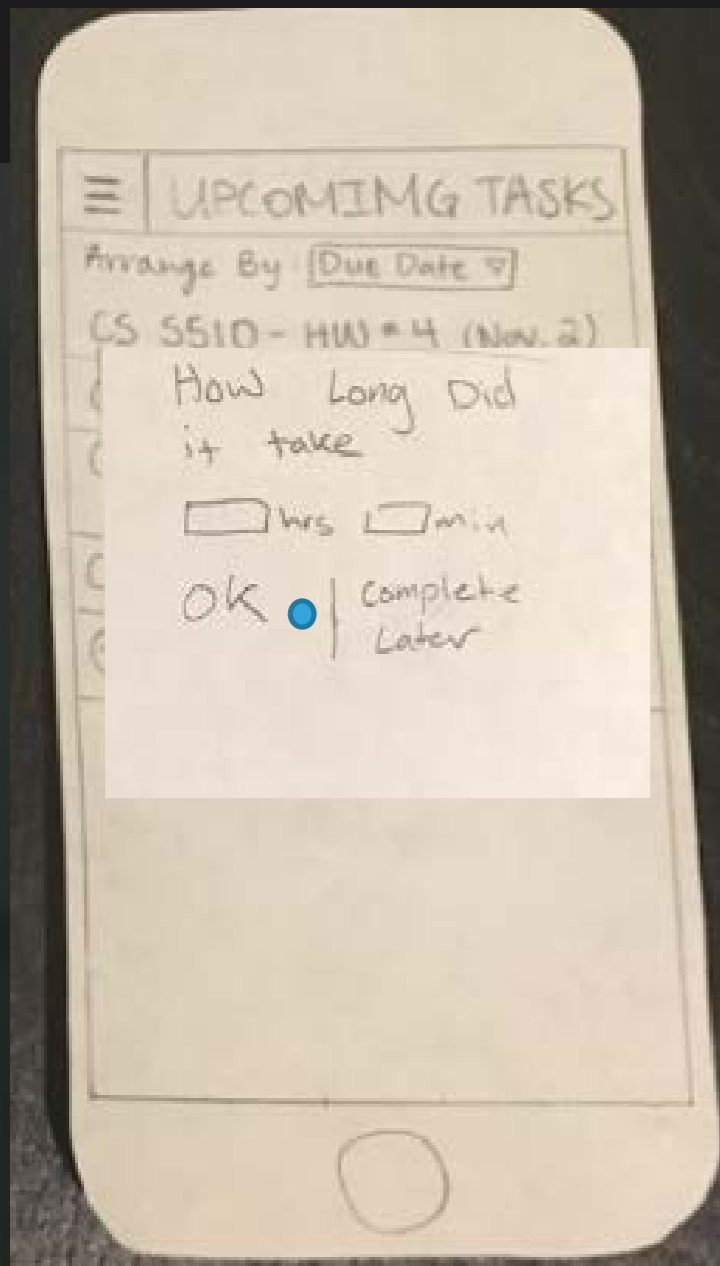
# FINAL PAPER PROTOTYPE

## Finding an Incentive (2/6)



# FINAL PAPER PROTOTYPE

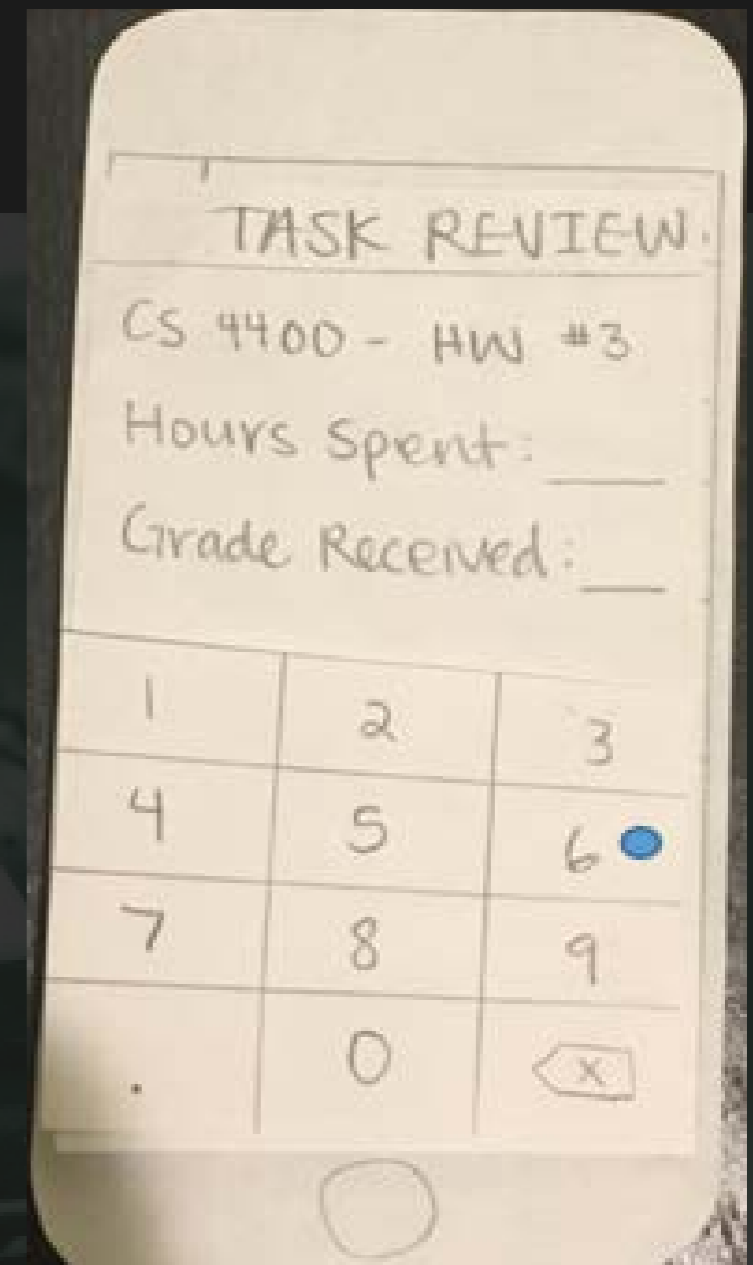
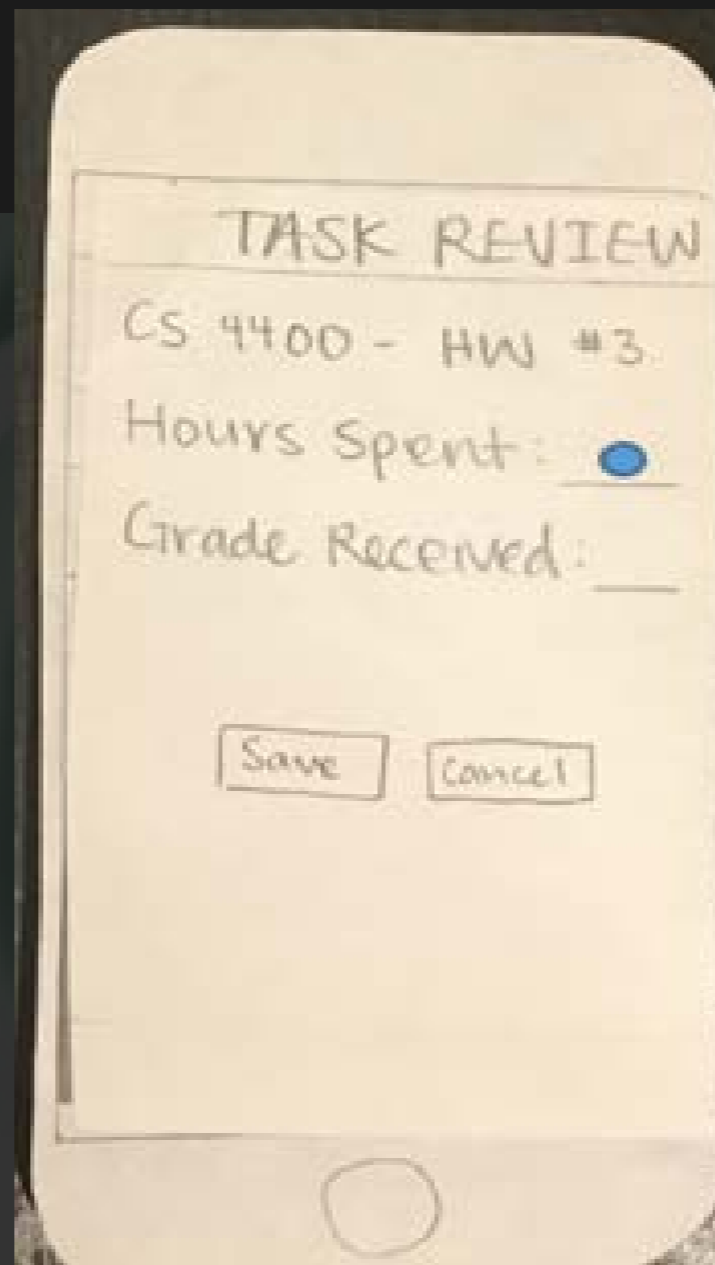
## Finding an Incentive (3/6)



# FINAL PAPER PROTOTYPE

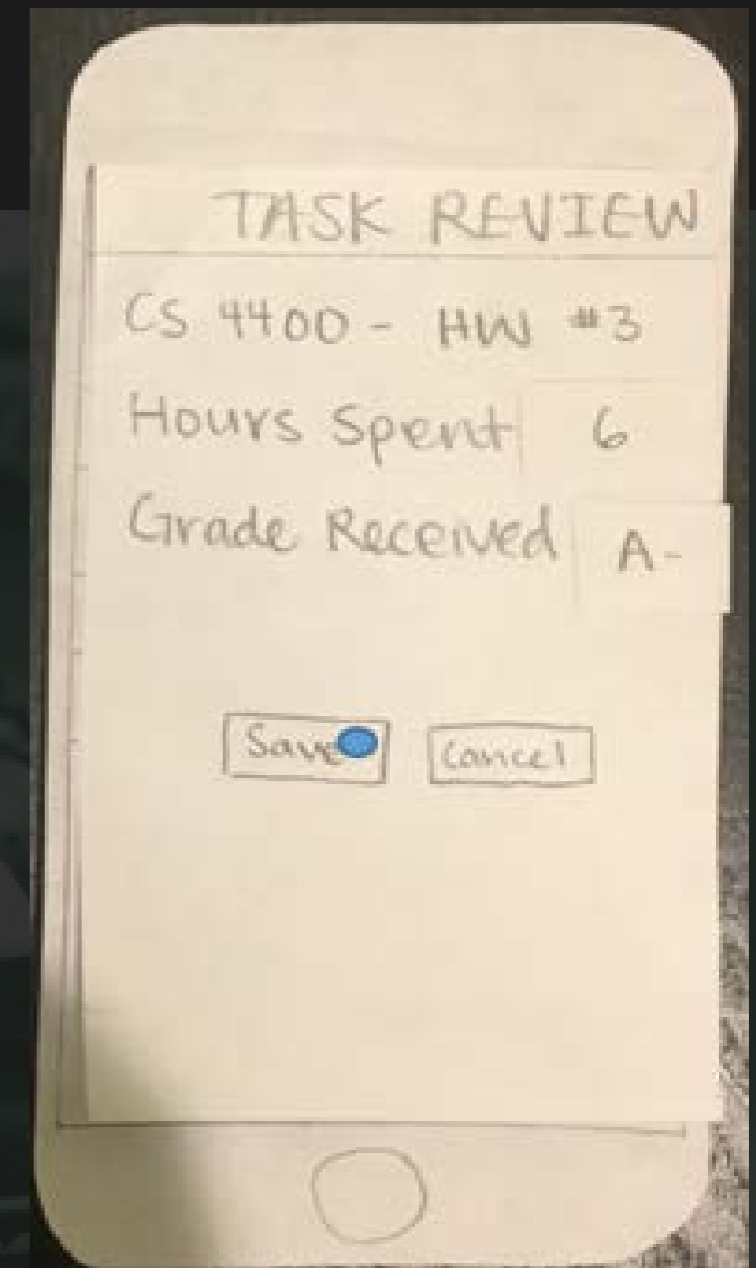
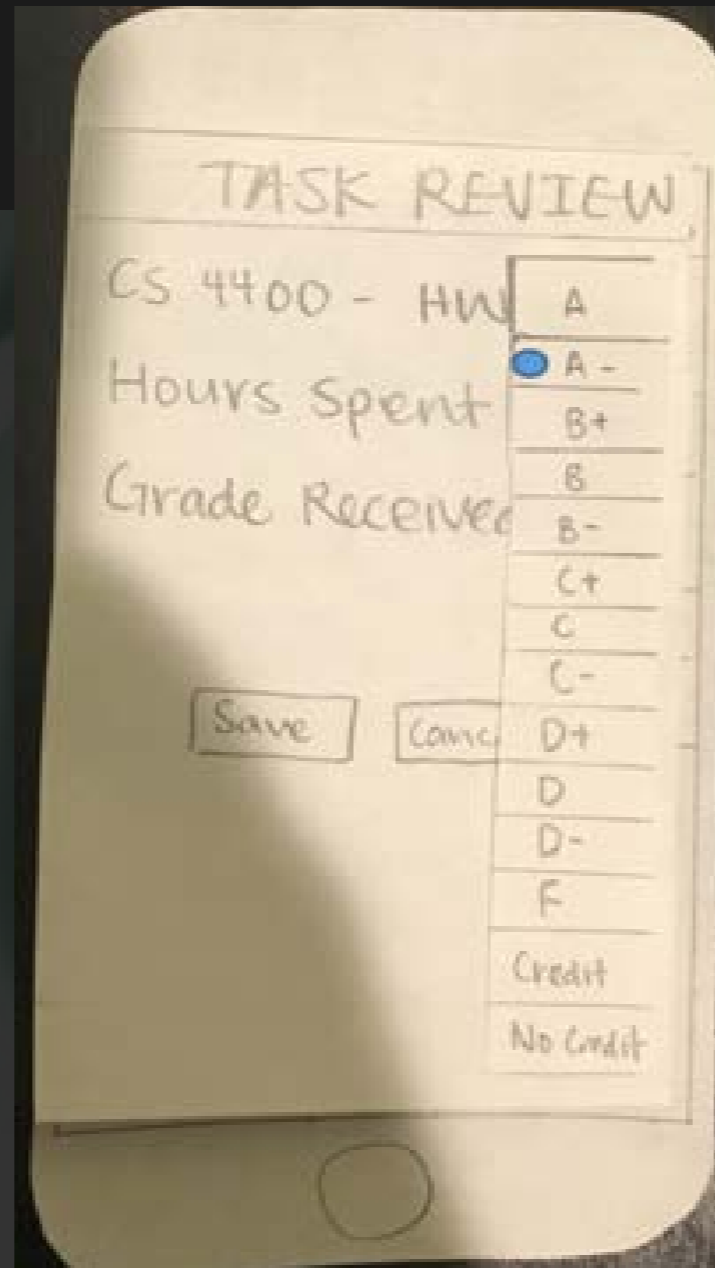
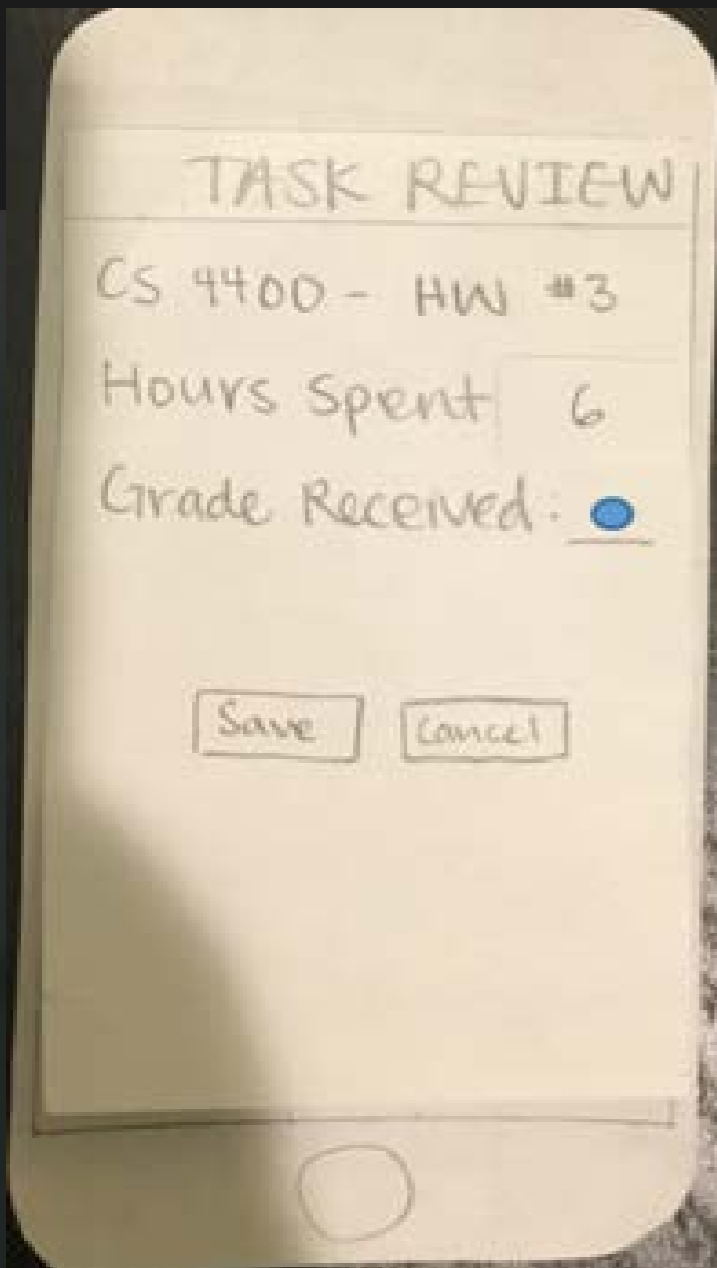
## Finding an Incentive (4/6)

CS 3100 - HW #1 SEPT 17	Scored +2
CS 3100 - HW #2 (SEPT 28)	Not Scored X
CS 3100 - HW #3 (OCT 19)	Scored +5
CS 3100 - HW #4 (NOV 4)	Not Scored X
CS 4400 - HW #1 (SEPT 9)	Scored +5
CS 4400 - HW 2 (SEPT 30)	Scored +5
CS 4400 - Midterm 1 (OCT 5)	Scored +10
CS 4400 - HW #3 (OCT 21)	Not Scored X
CS 5510 - HW #1 (SEPT 7)	Scored +1
CS 5510 - HW #2 (SEPT 28)	Scored +5
CS 5510 - HW #3 (OCT 19)	Not Scored X
CS 5510 - Midterm 1 (OCT 20)	Not Scored X



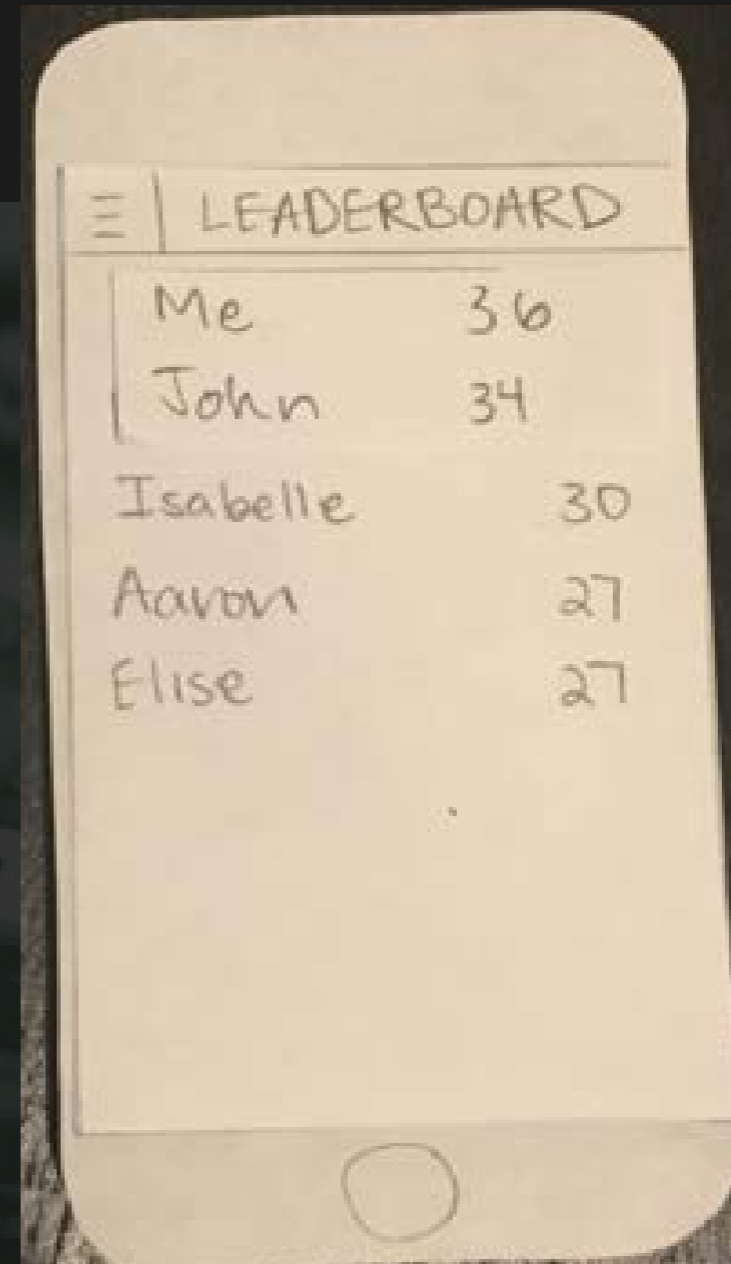
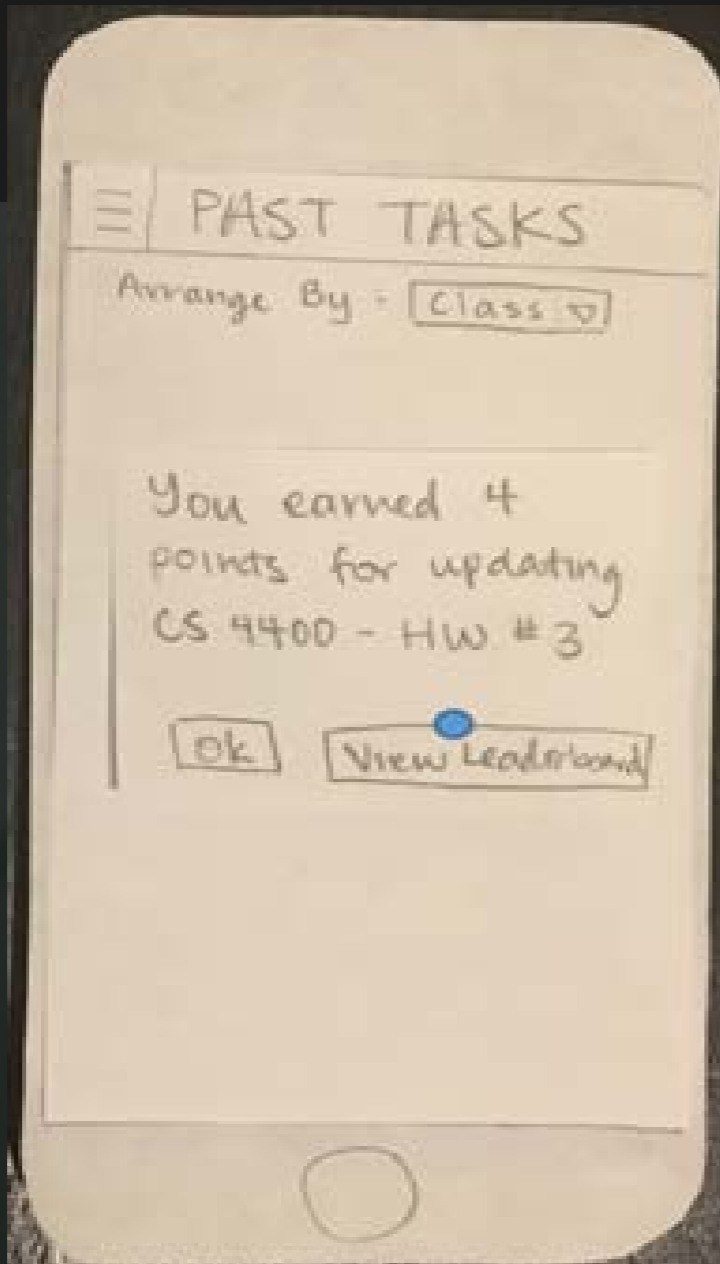
# FINAL PAPER PROTOTYPE

## Finding an Incentive (5/6)



# FINAL PAPER PROTOTYPE

## Finding an Incentive (6/6)






# DIGITAL MOCKUP 1

## Reflecting on How Time Was Spent (1/2)

### Upcoming Tasks

Sort By:  ▼

- CS 3100 - Homework 4 (Nov. 4)
- CS 5510 - Lecture Videos (Nov. 4)
- CS 5510 - Homework 4 (Nov. 4)
- CS 4400 - Homework 4 (Nov. 6)

 Add Task

### Menu

- Upcoming Tasks >
- Past Tasks >
- Task Breakdown ● >
- Edit Classes >
- Leaderboard >
- Settings >

### Task Breakdown

Overall ● ▼

- Tasks Completed: 11
- Average Hours Spent: 5
- Average Grade Recieved: B+
- Average Points Earned: 3

# DIGITAL MOCKUP 1

## Reflecting on How Time Was Spent (2/2)

**Task Breakdown**

Overall ▾  
CS 4400 ●  
CS 3100  
CS 5510  
CS 5540

Tasks 11

Average Hours Spent: 5

Average Grade Recieved: B+

Average Points Earned: 3

**Task Breakdown**

CS 4400 ▾

Tasks Completed: 2

Average Hours Spent: 3

Average Grade Recieved: A-

Average Points Earned: 5

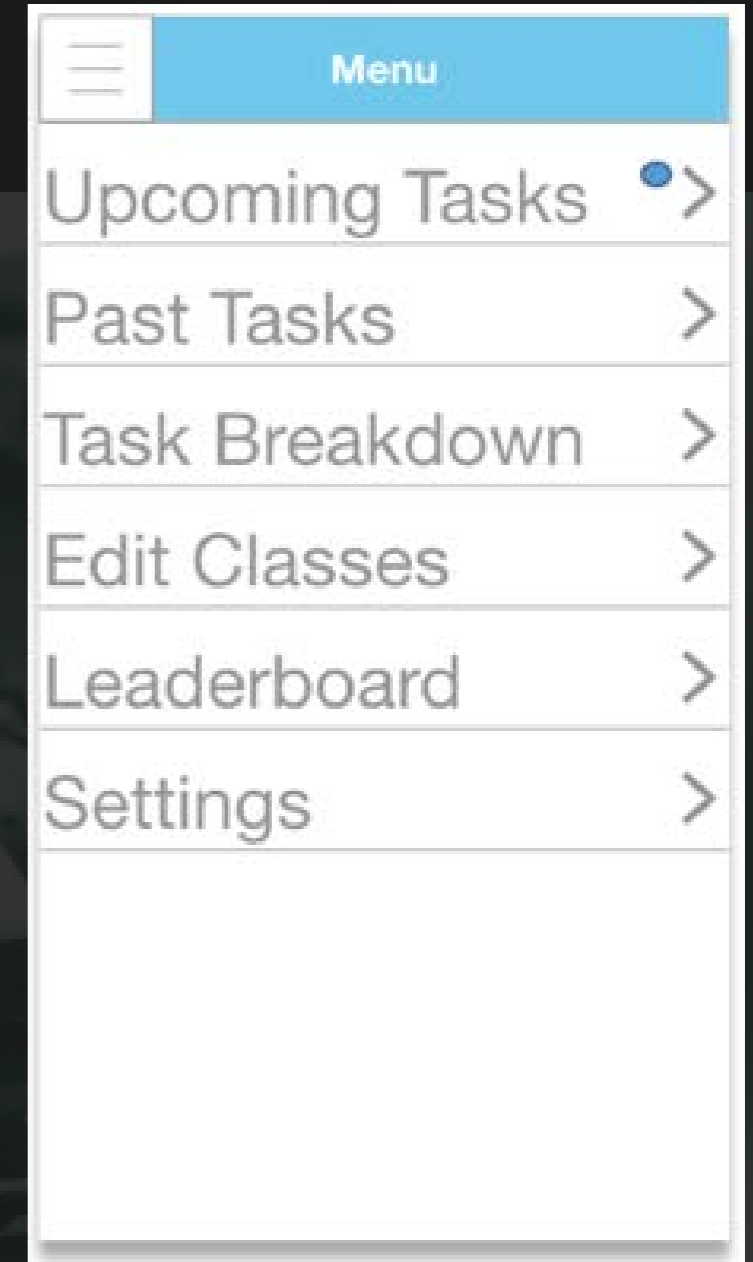
# DIGITAL MOCKUP 2

## Finding an Incentive (1/6)



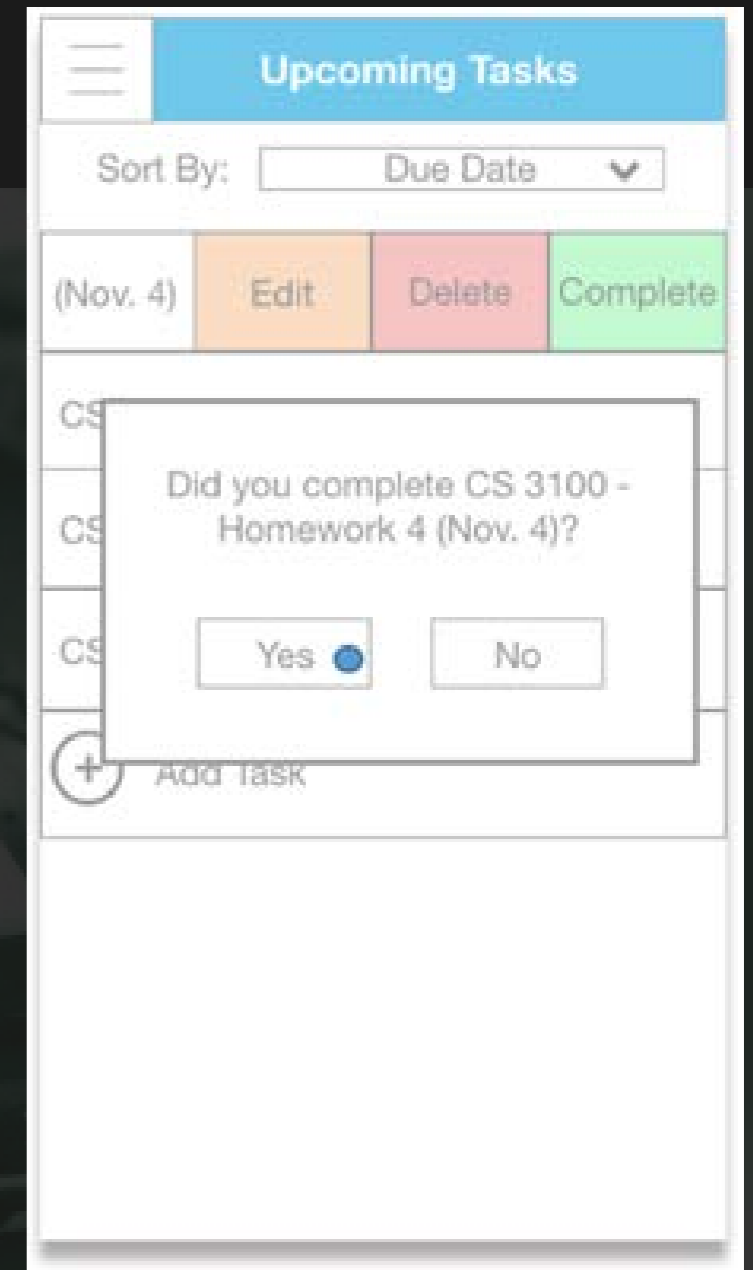
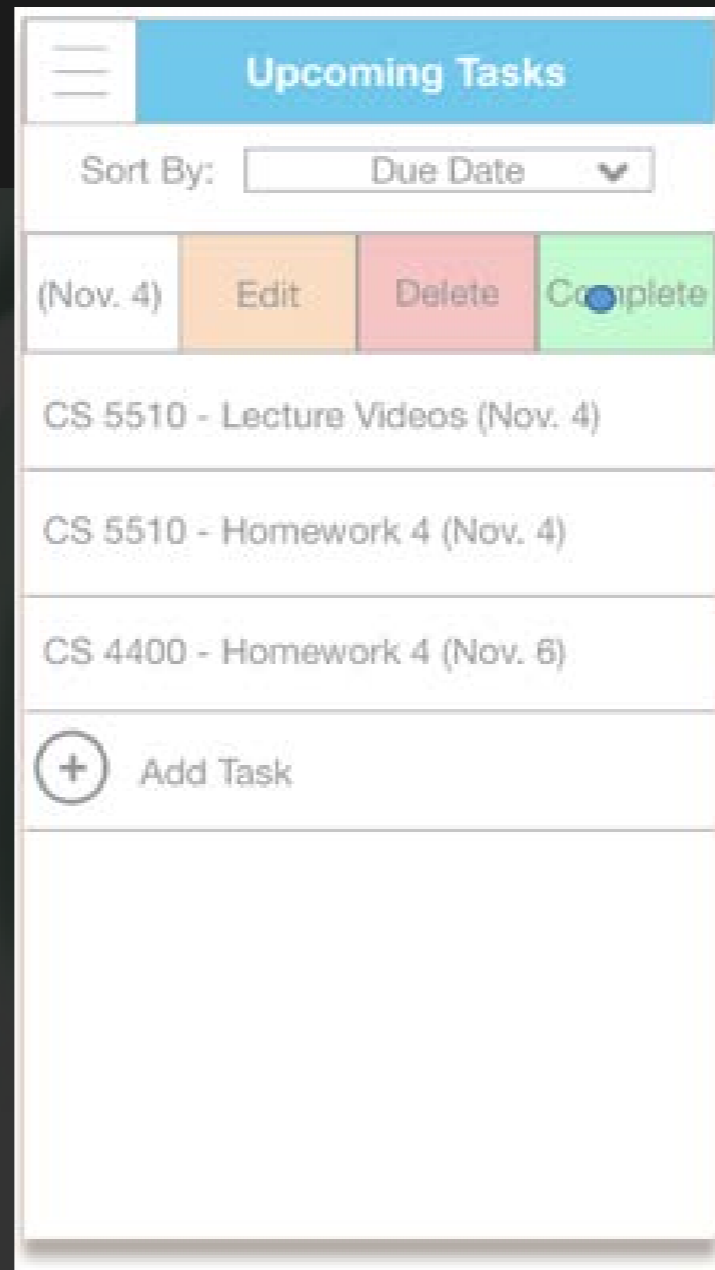
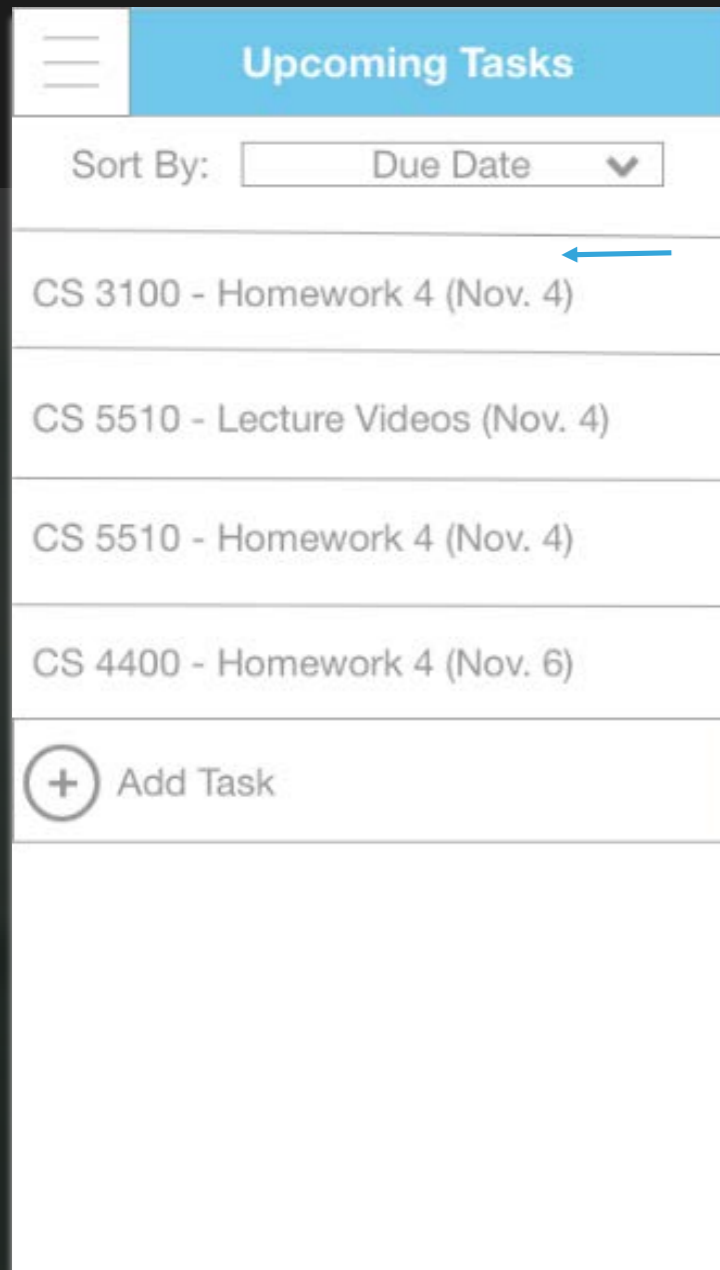
The image shows a "Leaderboard" screen with a blue header and a white background. A hamburger menu icon is in the top left. The data is as follows:

Name	Score
John	34
Me	31
Isabelle	30
Aaron	27
Elise	27



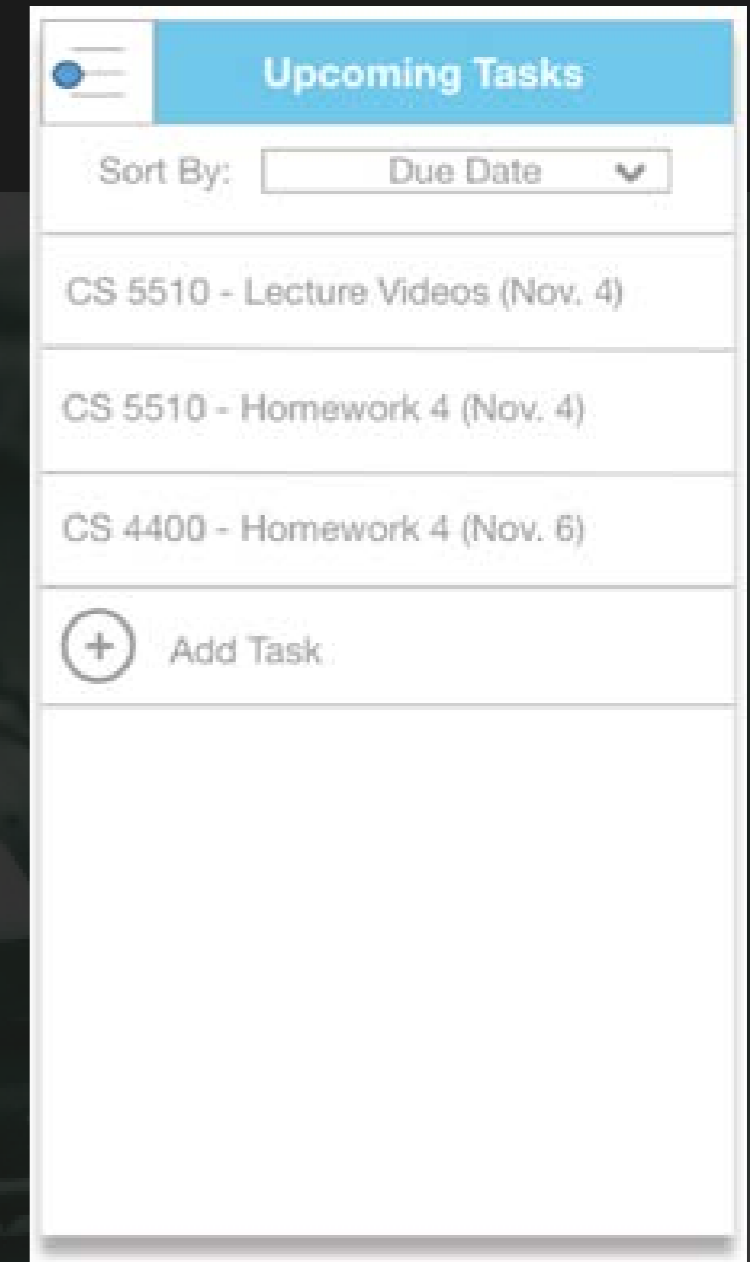
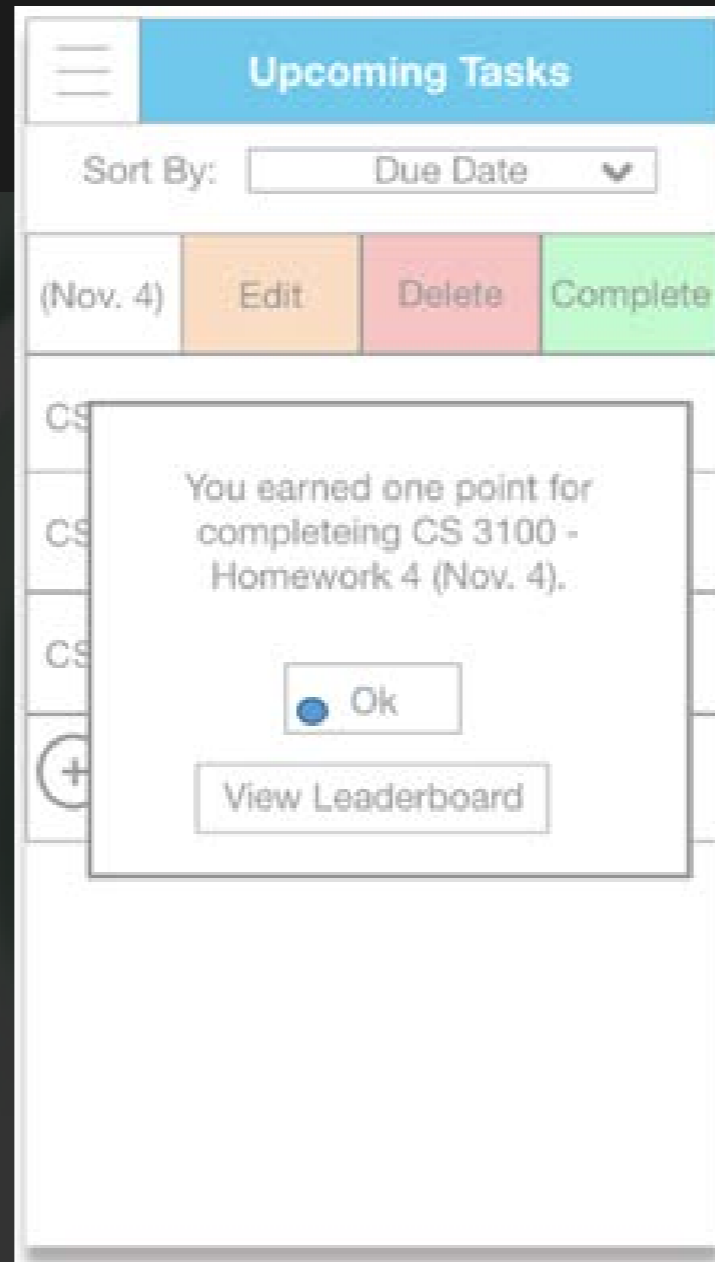
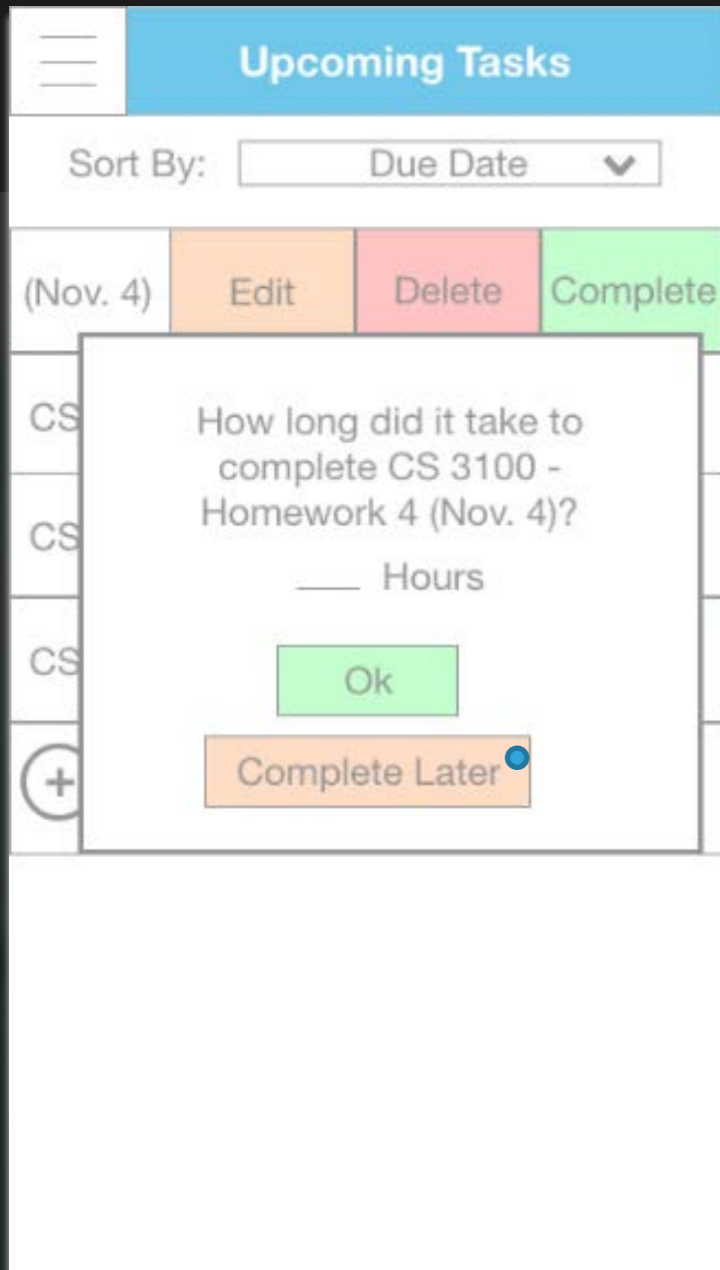
# DIGITAL MOCKUP 2

## Finding an Incentive (2/6)



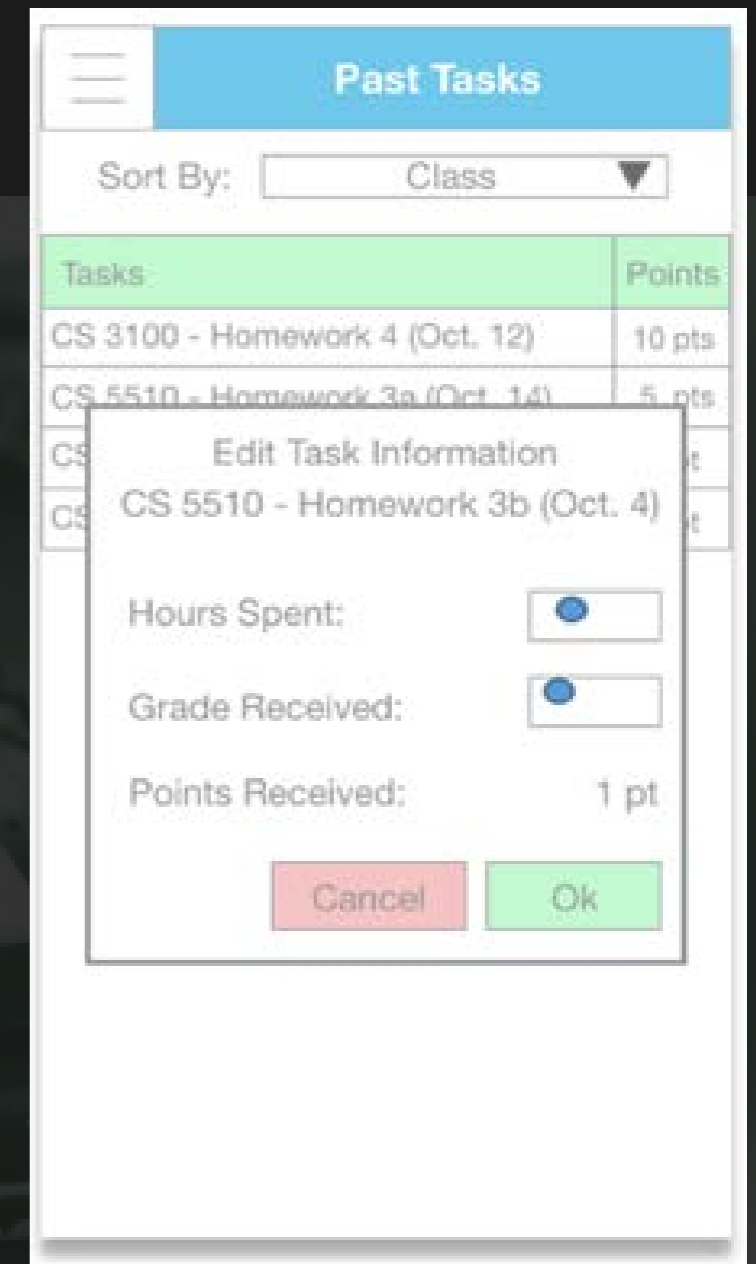
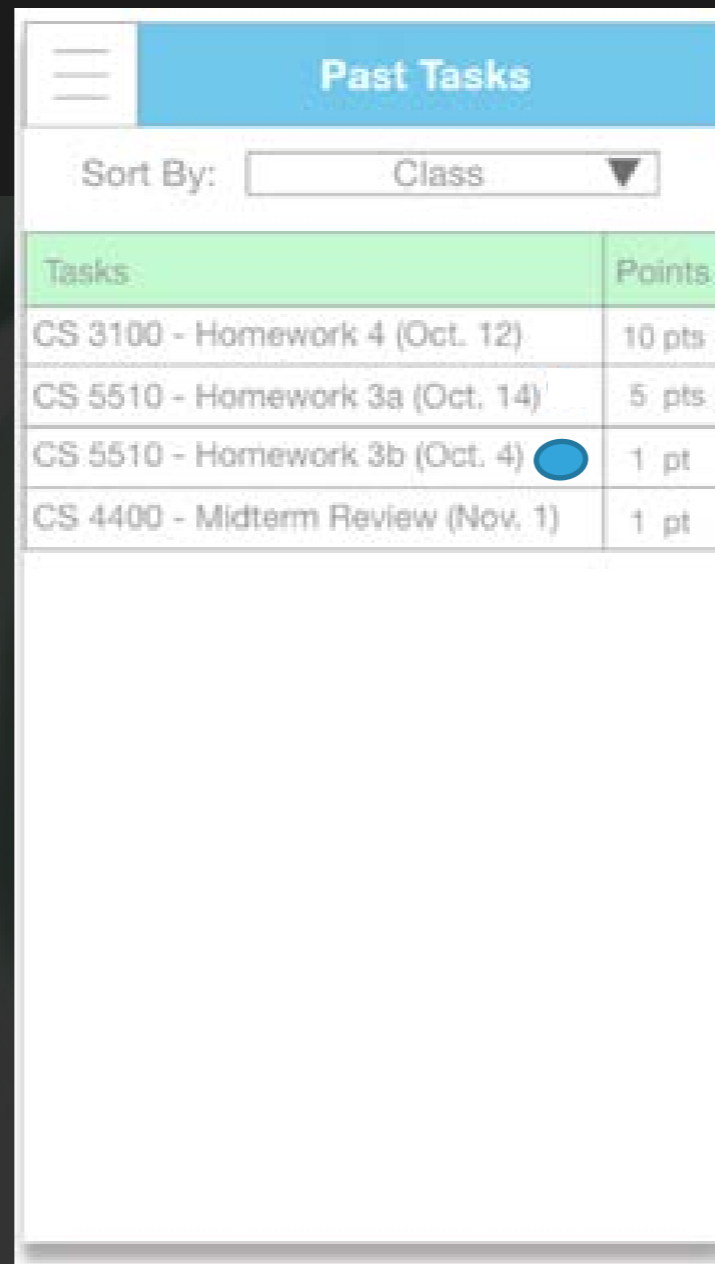
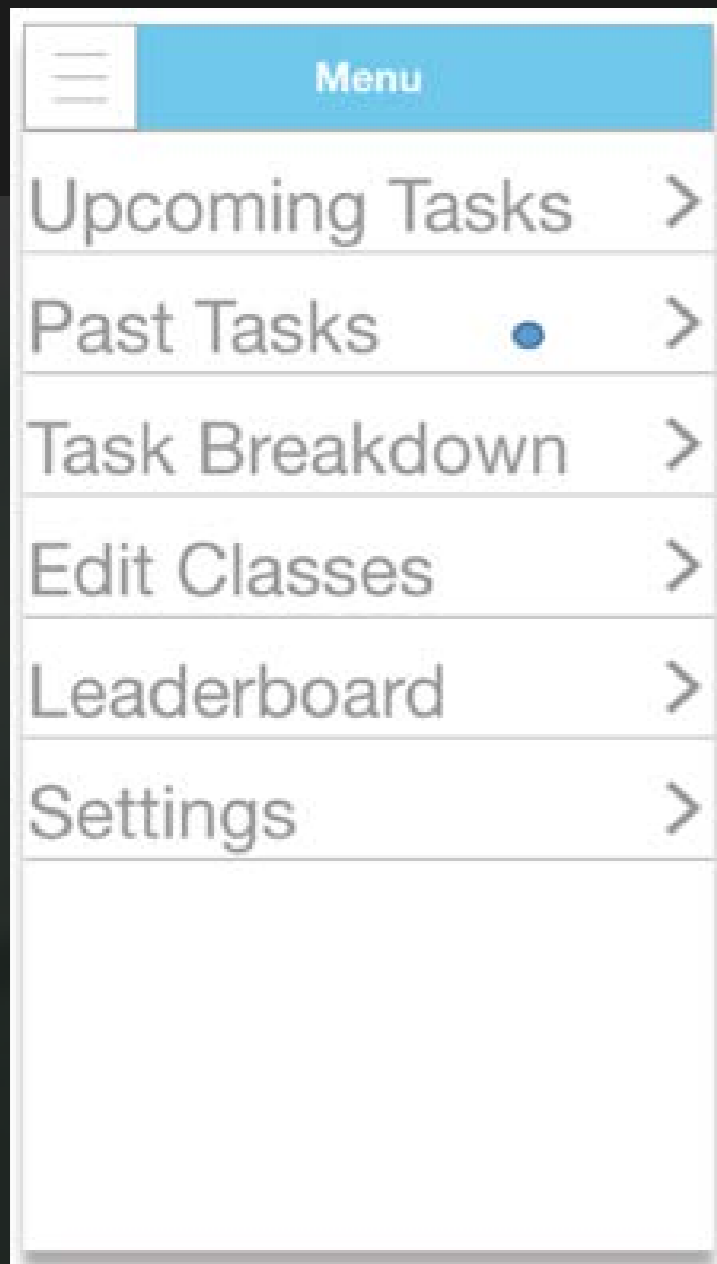
# DIGITAL MOCKUP 2

## Finding an Incentive (3/6)



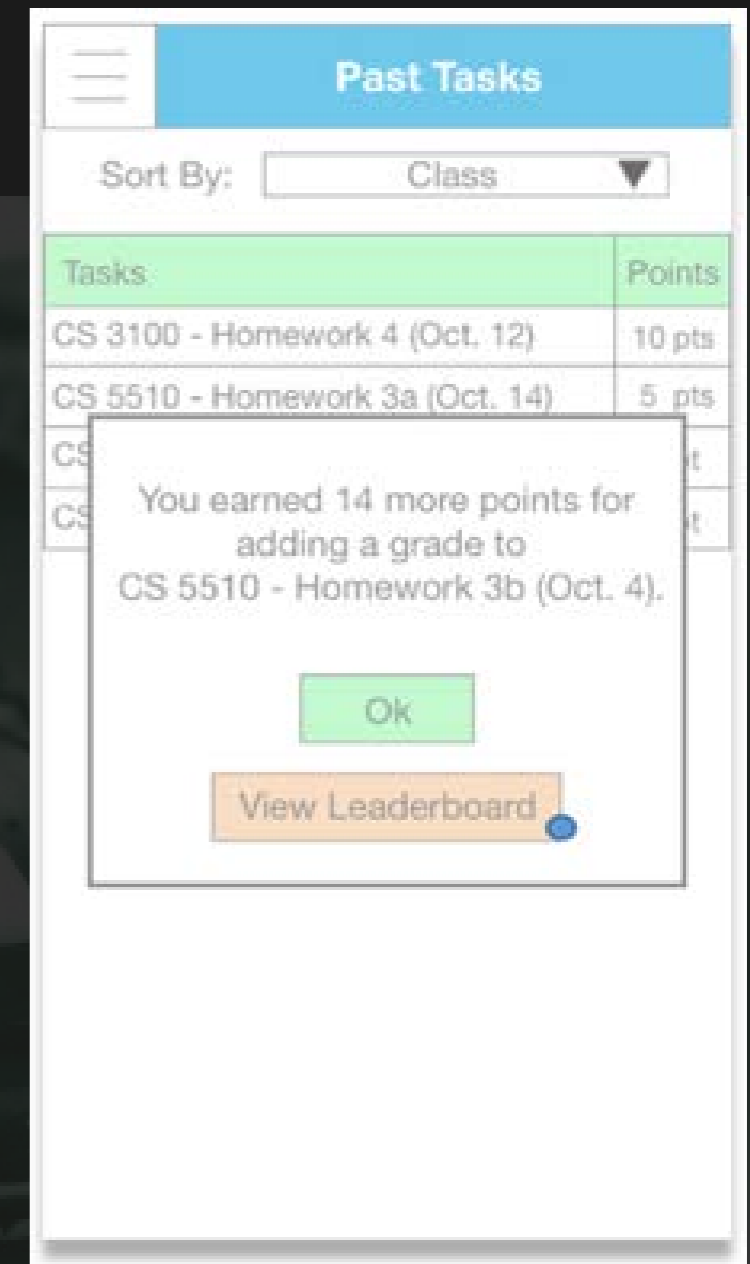
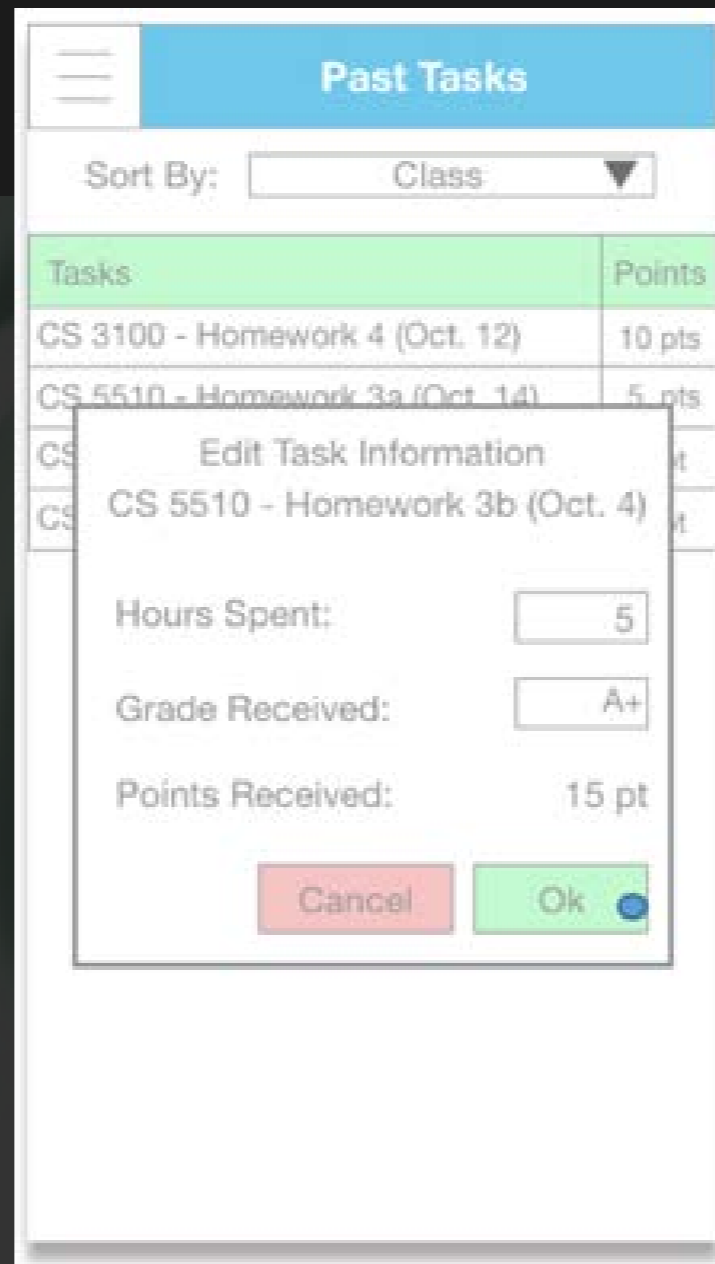
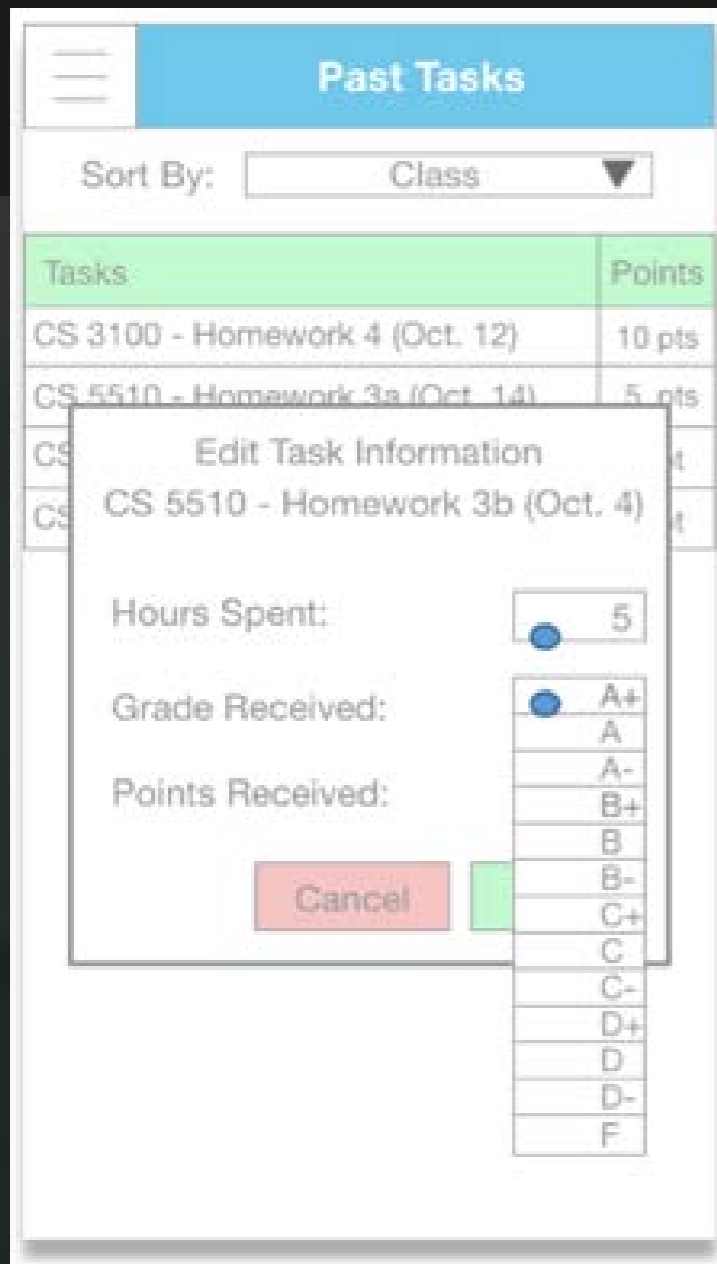
# DIGITAL MOCKUP 2

## Finding an Incentive (4/6)



# DIGITAL MOCKUP 2

## Finding an Incentive (5/6)



# DIGITAL MOCKUP 2

## Finding an Incentive (6/6)

Leaderboard	
Me	45
John	34
Isabelle	30
Aaron	27
Elise	27



## SUMMARY

- ▶ An iterative design process is crucial to a great design.
- ▶ There is always room for improvement.
- ▶ Participants are the greatest source of inspiration.
  - Asking our participants questions helped us understand the implementation.

THANK YOU!

ANY QUESTIONS?

