enGauge

enGauge

With enGauge, students anonymously and immediately give feedback, and professors address the feedback in real time.

Sloane
CS, Senior Year

Marie
CS, Junior Year

Tina
CS, Junior Year

Karna
MBA-GSB, 2nd Year

Agenda

- Heuristic Evaluation Results
- Revised Designs
- Prototyping tools
- Future Plans
- Demo

Problem

Students:

- Stigma associated with asking probably bad questions
- Large classrooms seem less engaging
- Don’t feel like telling the professor to adjust his pace

Professor:

- No simple and standardized ways to gauge the understanding level of class
- Need a way to filter the most relevant question for students
- Understand how the class is doing in different topics

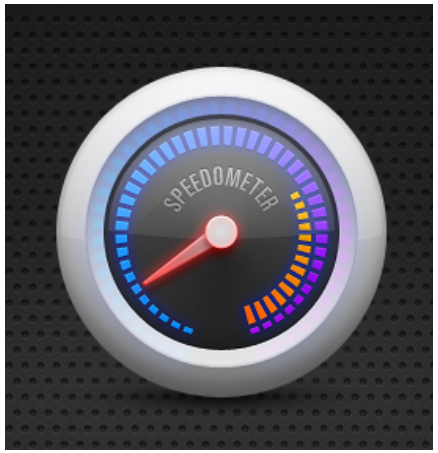
Solution - Student

<u>Slow Down or Speed Up</u>
Give immediate feedback to professor

<u>Ask Questions Anonymously</u>
Easy to ask question without worrying about being judged/laughed at

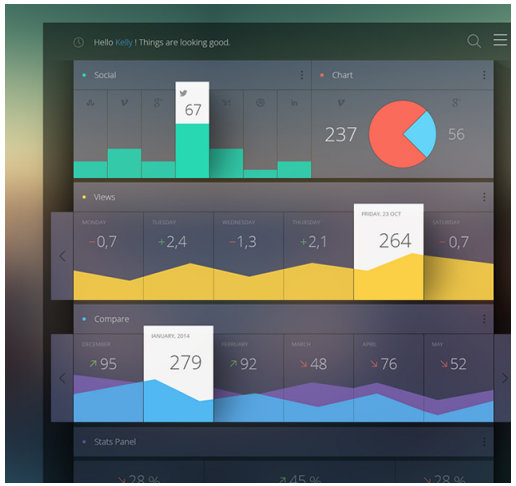
<u>Upvote relevant question</u>
Support the question/topic that matters to you

Solution - Professor



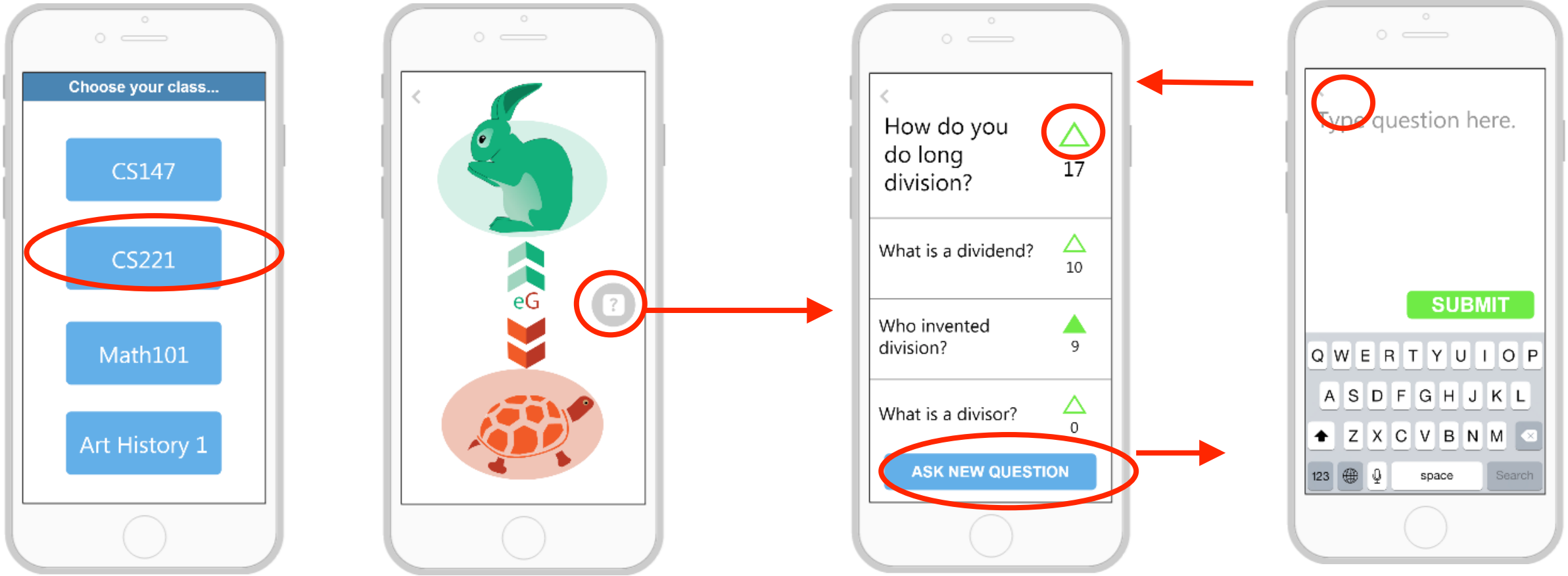
Immediate Feedback
Real-time quantification of state of class

Pick most relevant question
Ability to address question affecting the most people

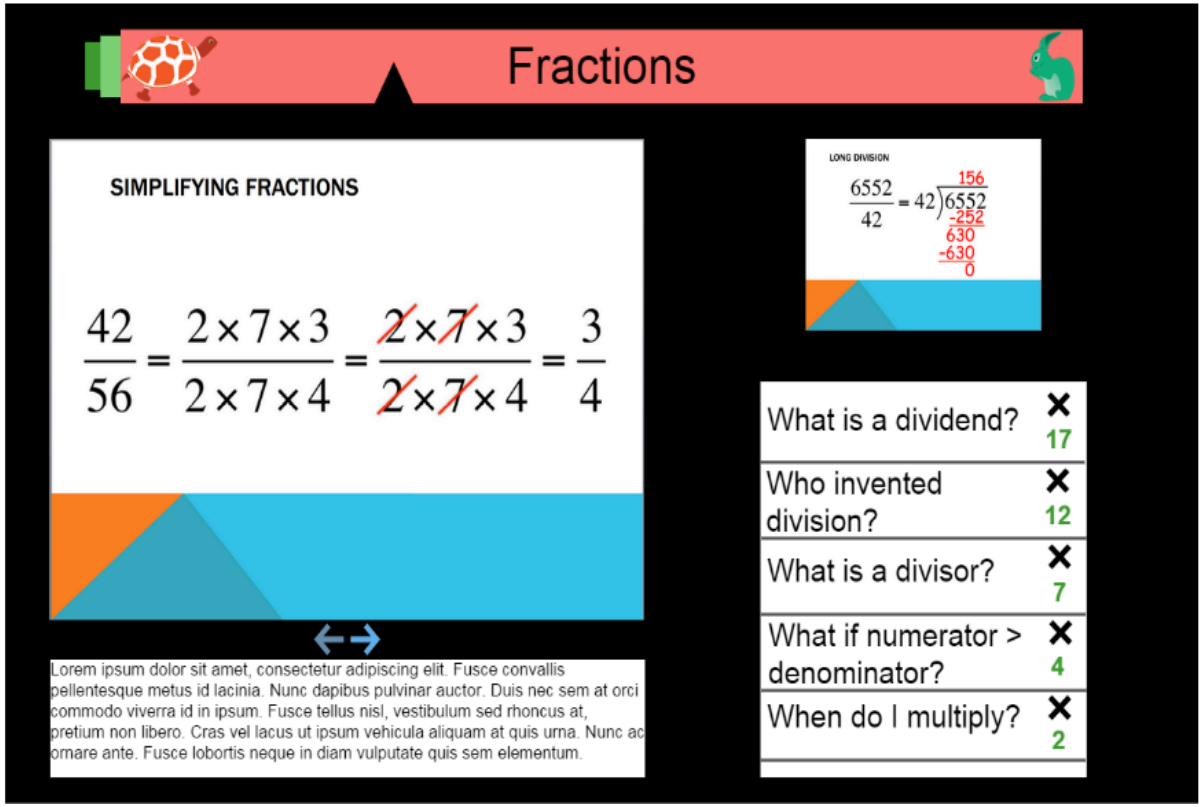


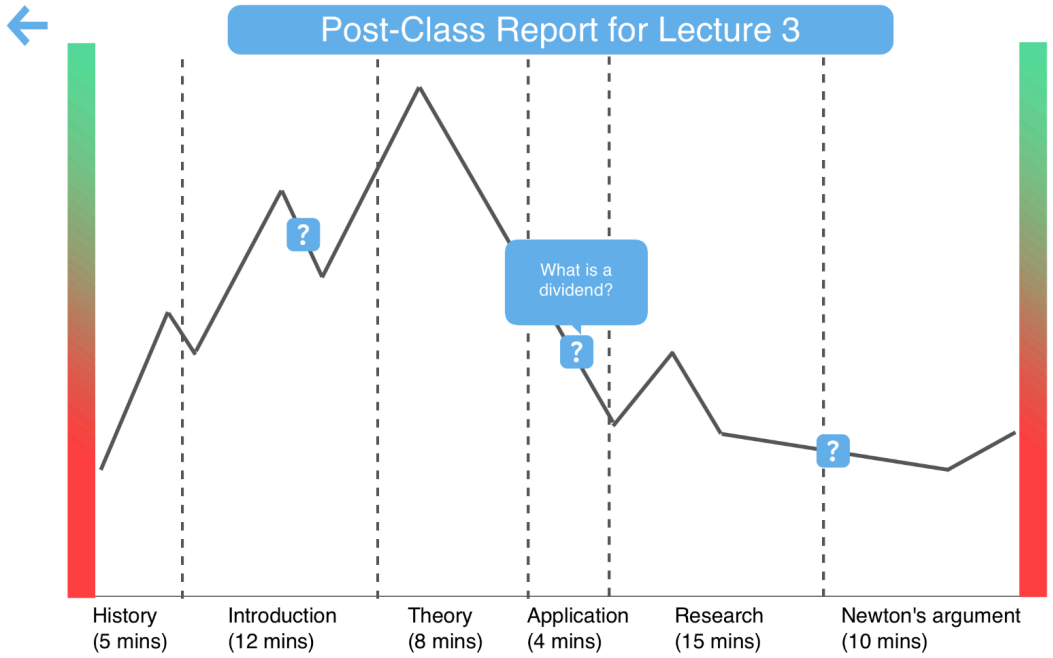
Analyze the class
Detailed topic-wise analytics of class depicting time spent, questions answered and level of student confidence

Solution – Student



Solution - Professor





Heuristic Evaluation - Summary

Category	**# Viol. (sev 0)**	**# Viol. (sev 1)**	**# Viol. (sev 2)**	**# Viol. (sev 3)**	**# Viol. (sev 4)**	**# Viol. (total)**
[H2-1: Visibility of Status]	0	0	2	2	0	**4**
[H2-2: Match Sys & World]	0	1	2	0	0	**3**
[H2-3: User Control]	0	0	1	1	1	**3**
[H2-4: Consistency]	0	2	0	1	0	**3**
[H2-5: Error Prevention]	0	0	1	0	0	**1**
[H2-6: Recognition not Recall]	0	1	1	0	0	**2**
[H2-7: Efficiency of Use]	0	0	0	1	0	**1**
[H2-8: Minimalist Design]	0	3	0	0	0	**3**
[H2-9: Help Users with Errors]	0	0	0	1	0	**1**
[H2-10: Documentation]	0	1	0	0	0	**1**
Total Violations by Severity	**0**	**8**	**7**	**6**	**1**	**22**

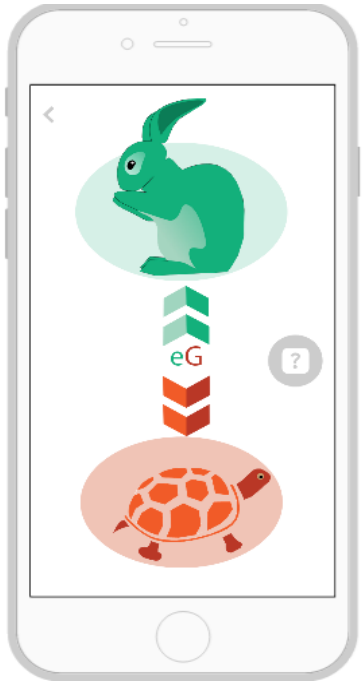
Key changes - Student

H2-3 User control and freedom- Severity 4

Student Task 1 of Tortoise and Hare, if single click counts, no way for student to know if he/she has clicked on one of them for that topic

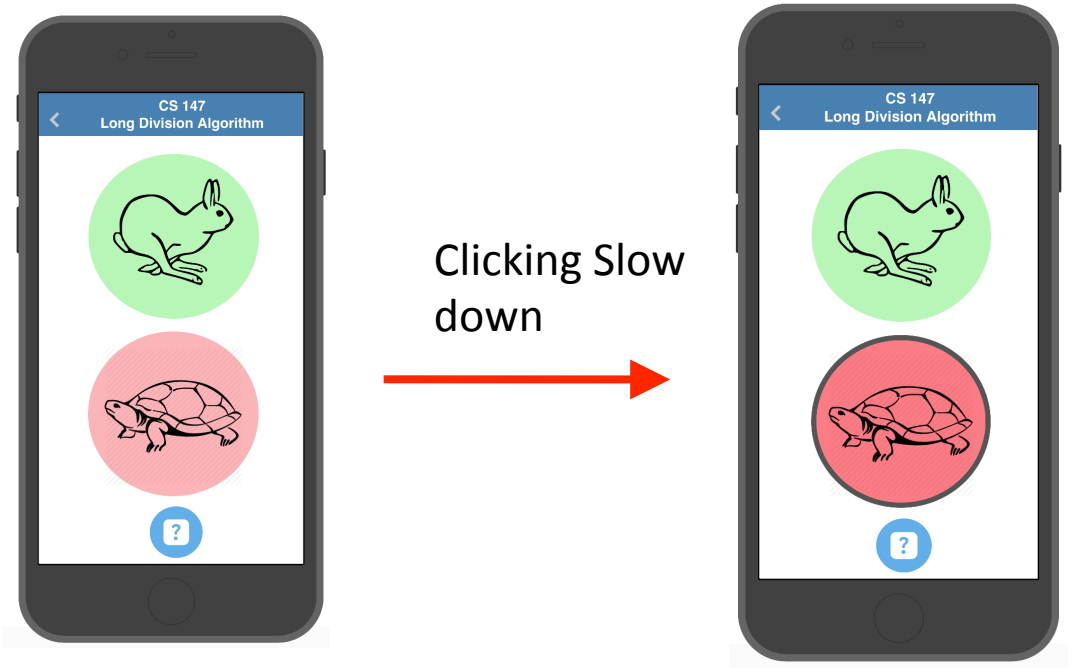
H2-1 Visibility of system status - Severity :3

Student Task 1 of Tortoise and Hare, if multiple clicks count, no way for student to know how many times he/she has clicked on it



Solution

Since only a single click counts, we show the topic currently being taught on this screen with highlighting of selected answer



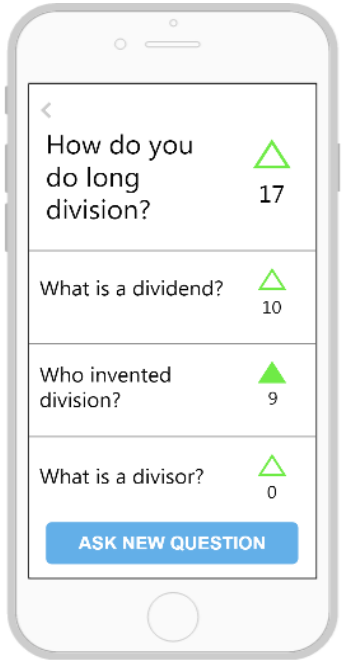
Key changes - Student

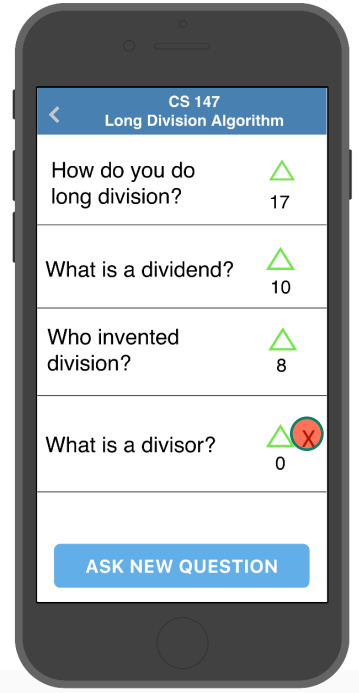
[H2-7 Flexibility and efficiency of use]- Severity 3
In case of large lectures with a lot of questions, the organization of question will be difficult

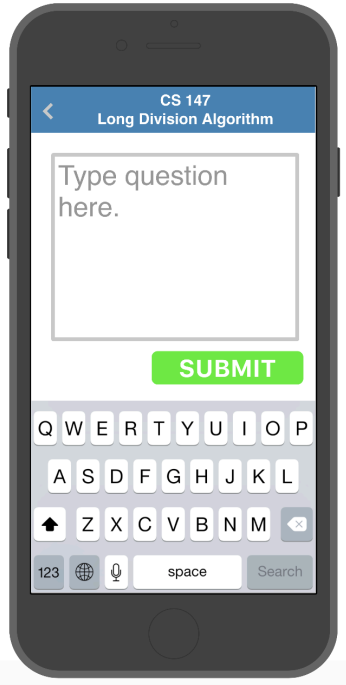
Solution
To show only relevant question on the topic screen. Past topics not shown to avoid distraction but student can see it after the of class the entire set of questions

[H2-9: Help users recognize, & recover from errors] Severity 3
The lack of button to retract a question from the user if they find that its already asked or answered

Solution
To allow the individual to retract his question from the common question screen with an X symbol







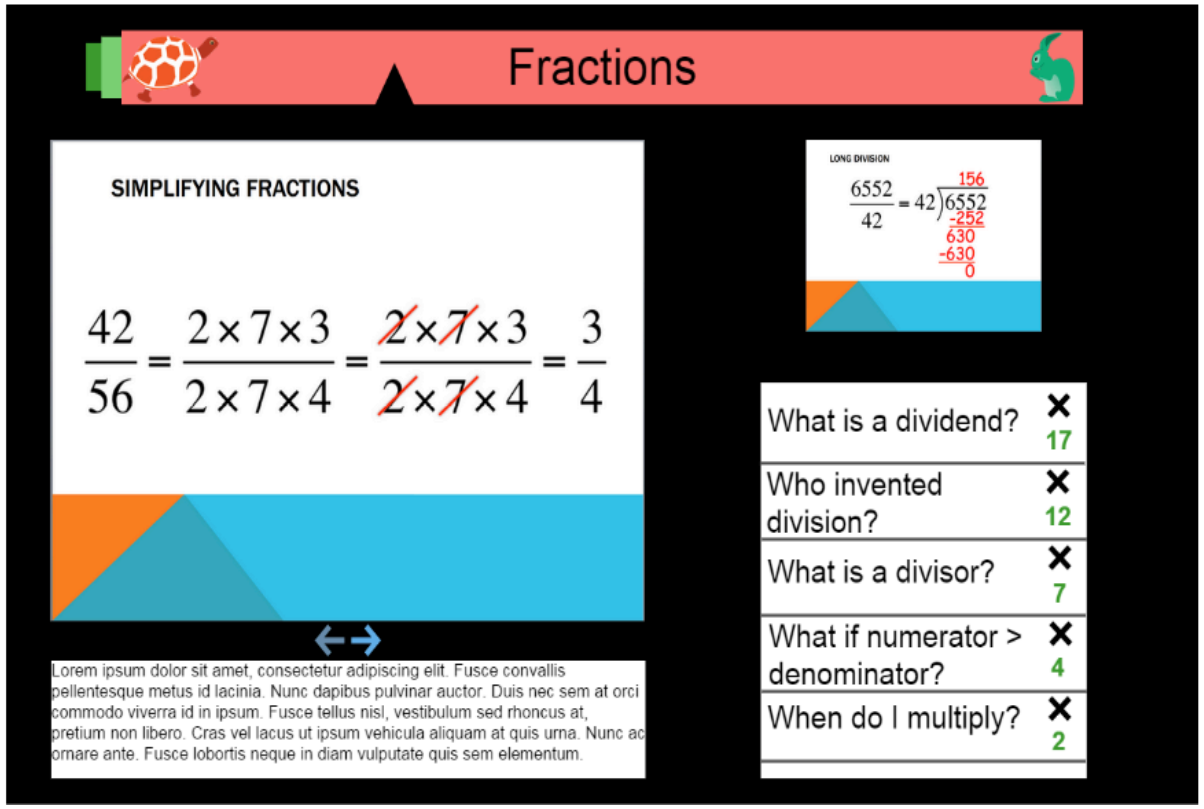
Key changes – Professor Interface

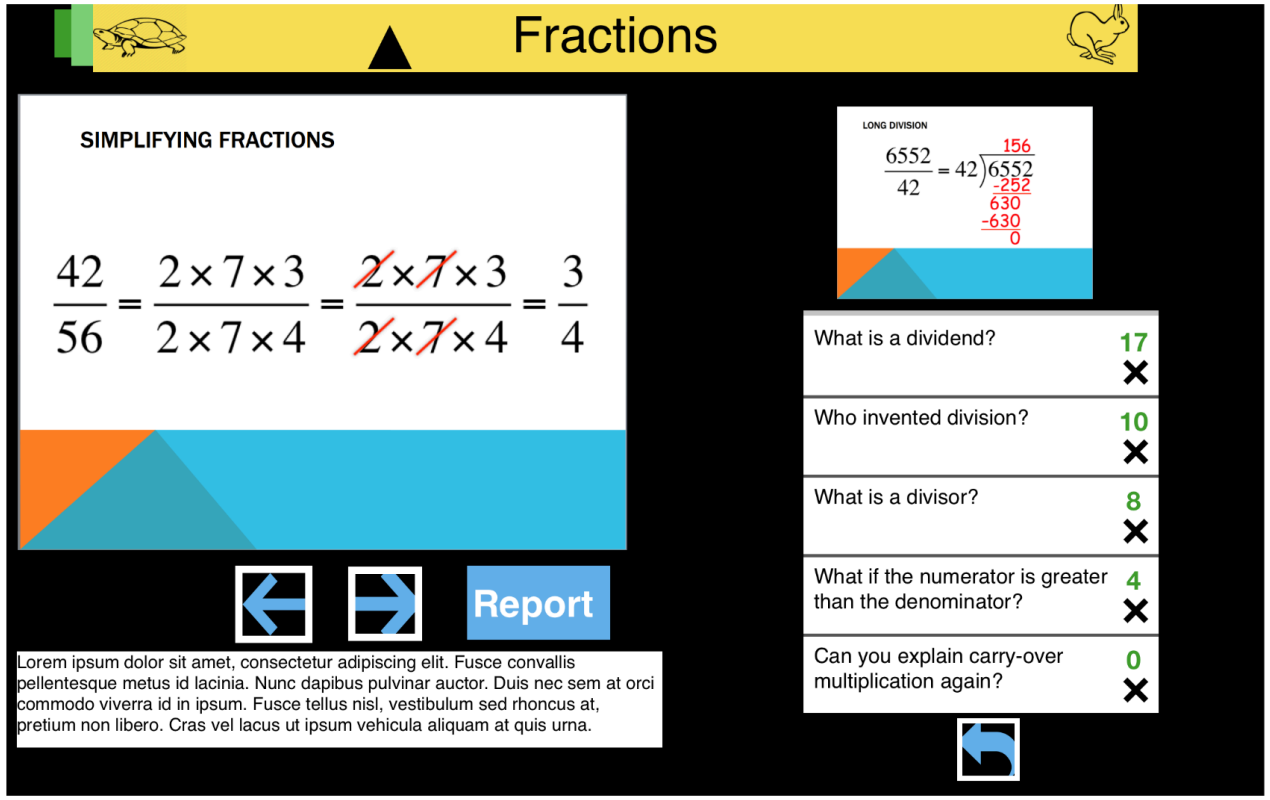
H2-3 User control and freedom- Severity 3

No way to undo a question professsor wants back

Solution

To allow Ctrl + Z button and have a undo button below the question





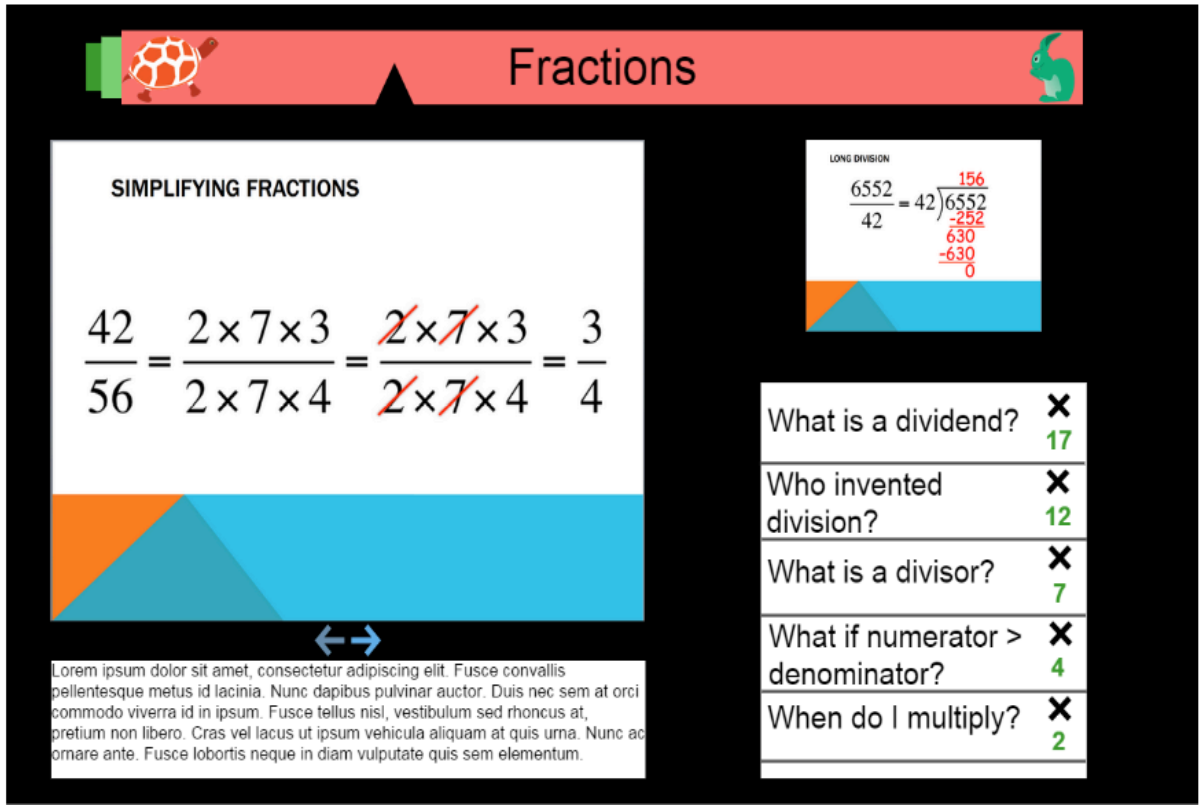
Key changes – Professor Interface

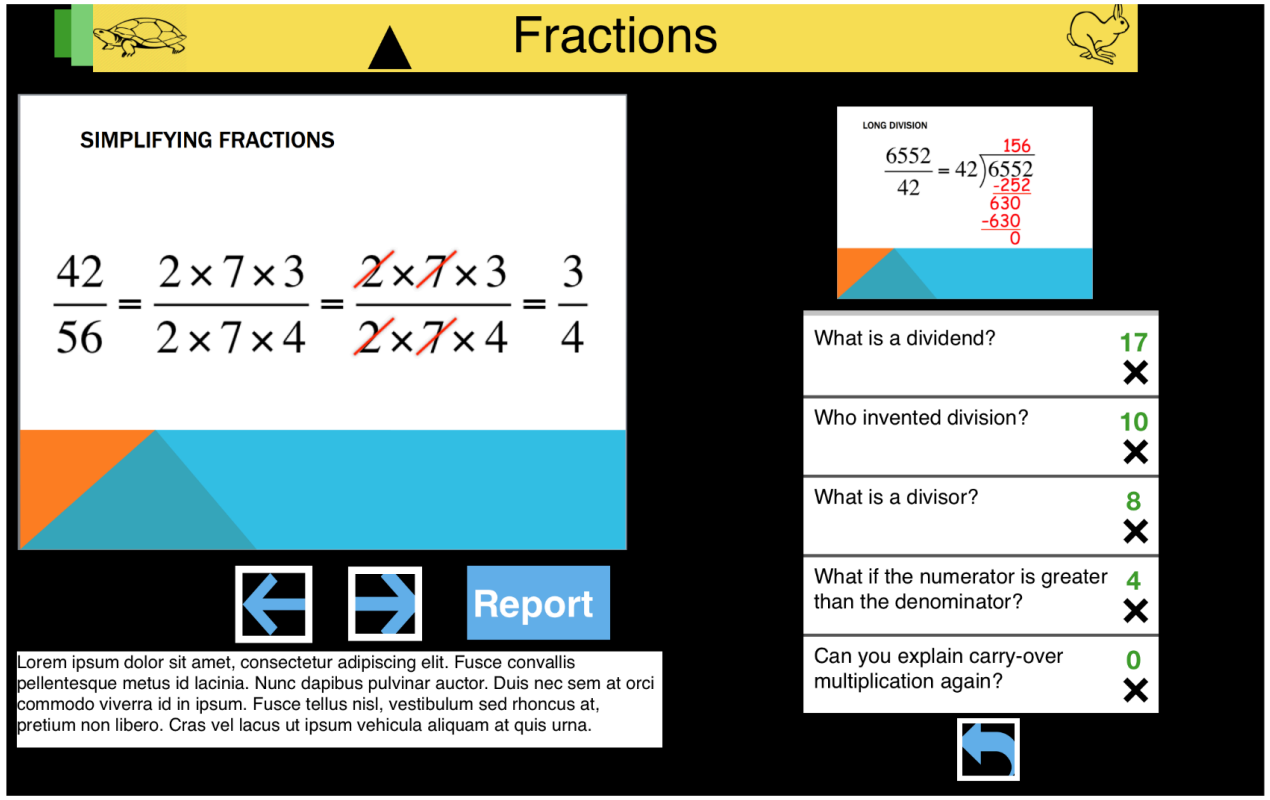
H2-4 Consistency and standards – Severity 3

The left right button is also used for navigation of slides and after last slide leads to report

Solution

To have a separate button for Report so the professor can also go there whenever needed





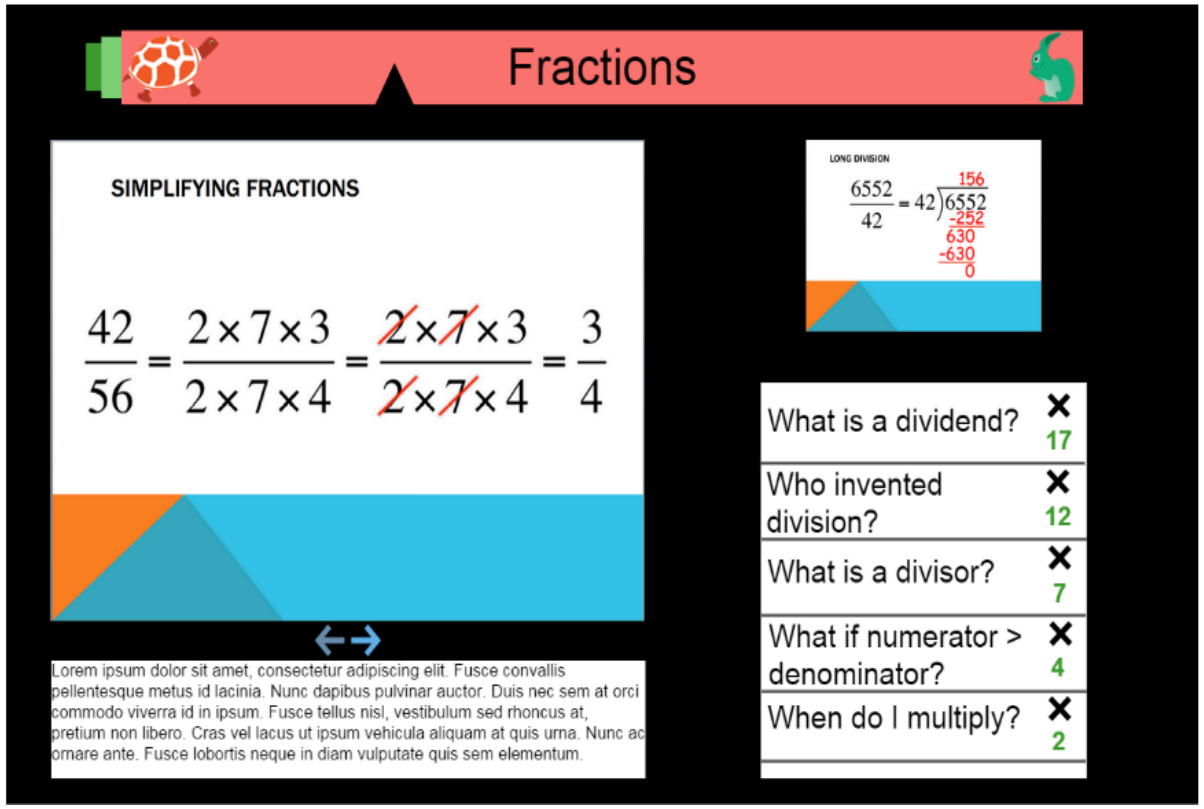
Key changes – Professor Interface

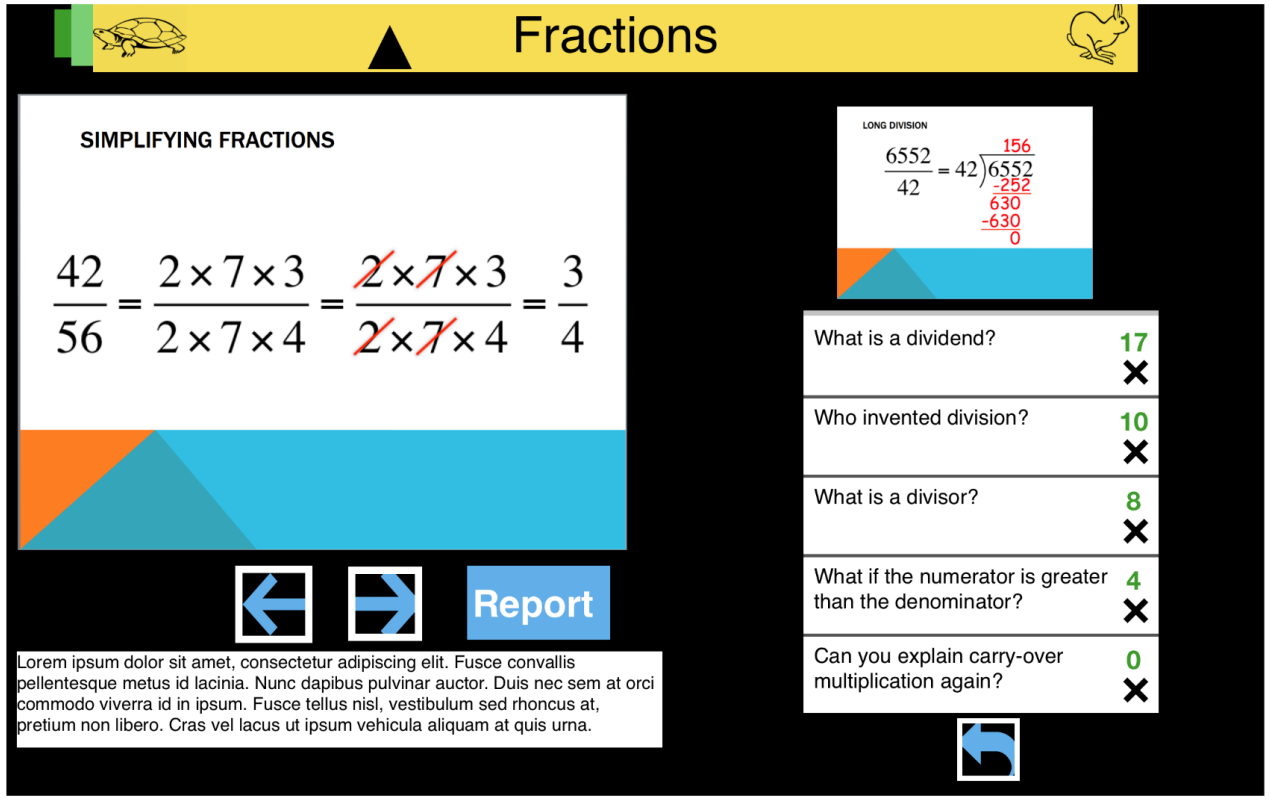
H2-1 Visibility of system status– Severity 3

The color on the top is either red or green based on where it is

Solution

The color is the gradient between red to green and there is indicator bar also if professor wants to know it more precisely

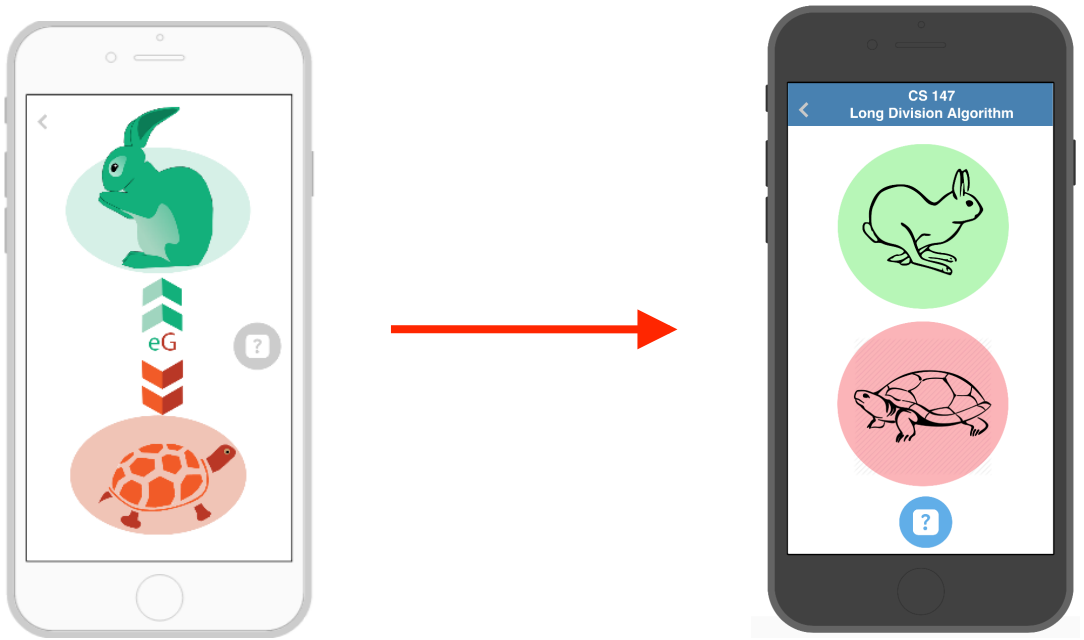




Some other Violations considered

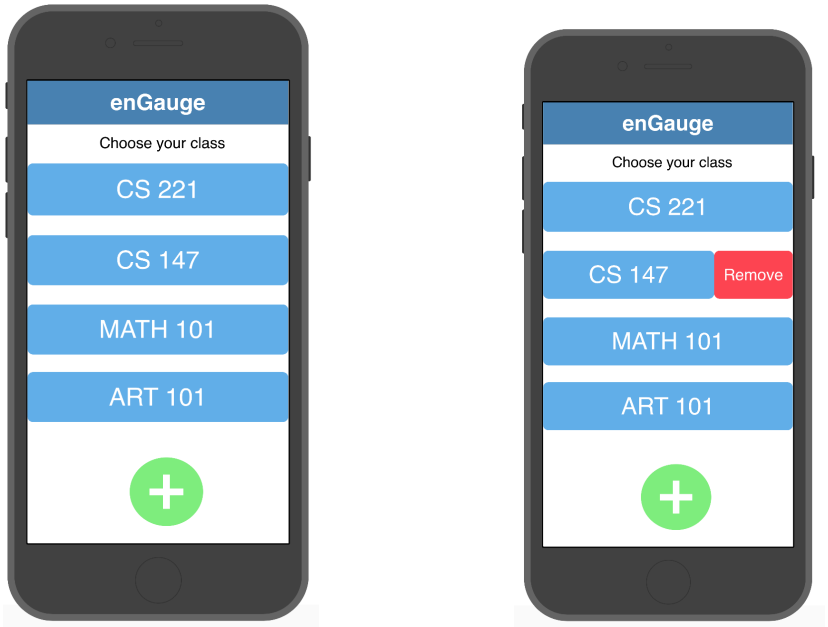
Student Interface :

- Aesthetics- Removal of Arrow and eG in the middle (2 violations)
- Question button is centered and made blue from (2 violations)
- Hare and tortoise pics with reduced detail and direction indicating forward and backward

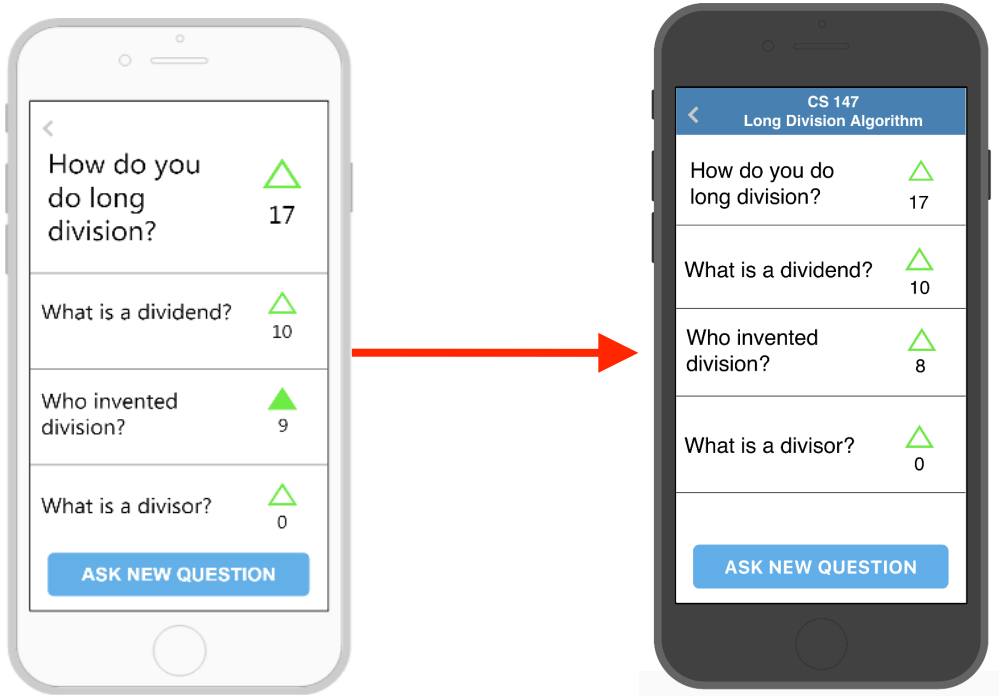


Some other Violations considered

Allow Adding and removing classes

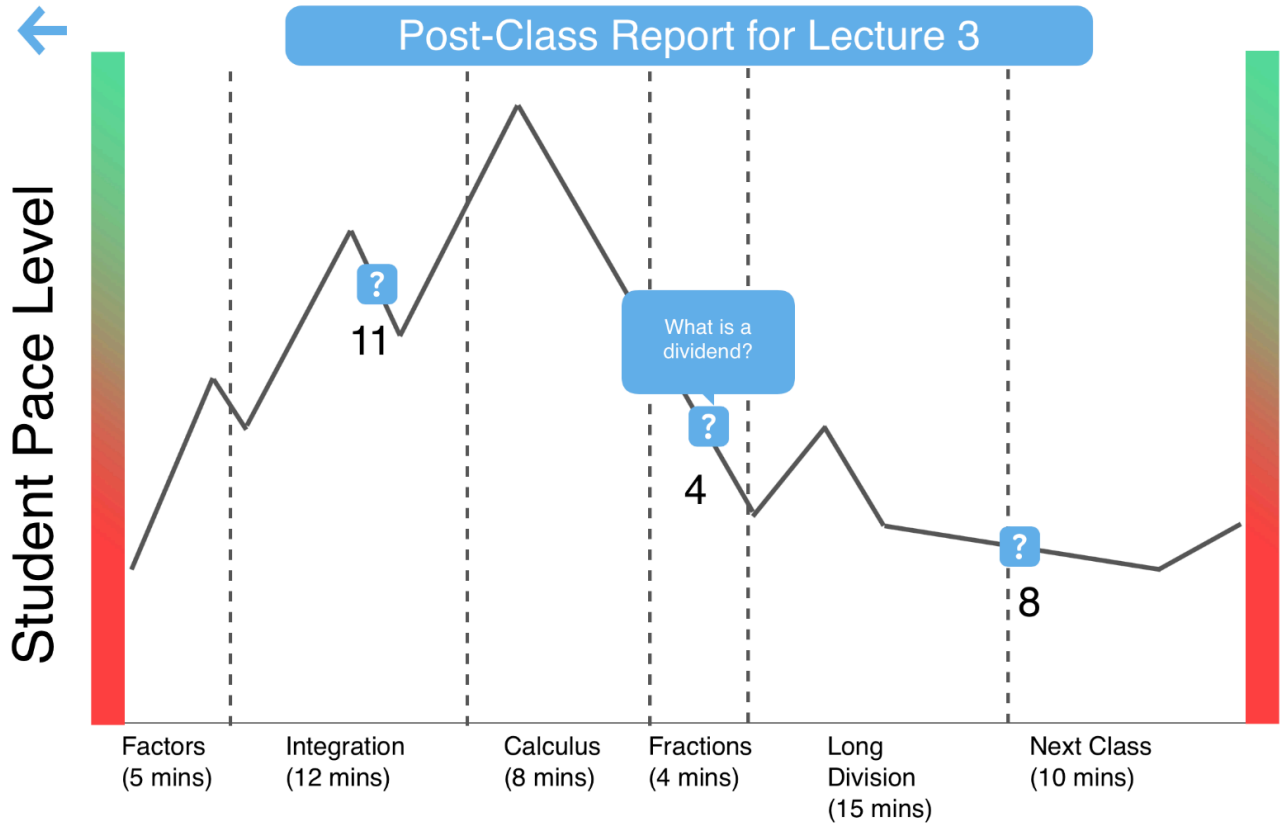


First question size made similar to remove bias



Violation Considered – Professor Report

- Report shows no of asking the questions
- Graph y-axis shows the level of Student level
- Topics in Graph match the same topics in presentation

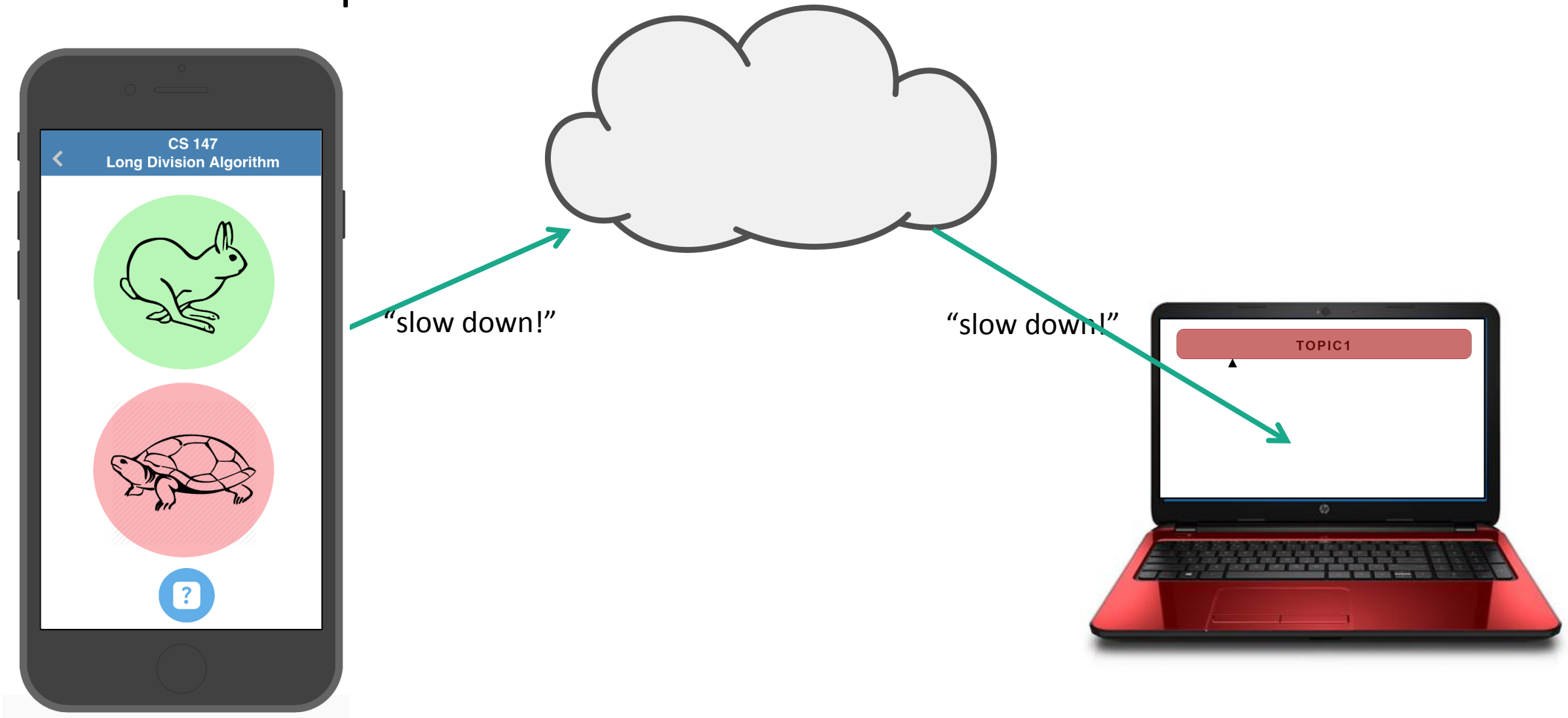


Thanks for all the great feedback!

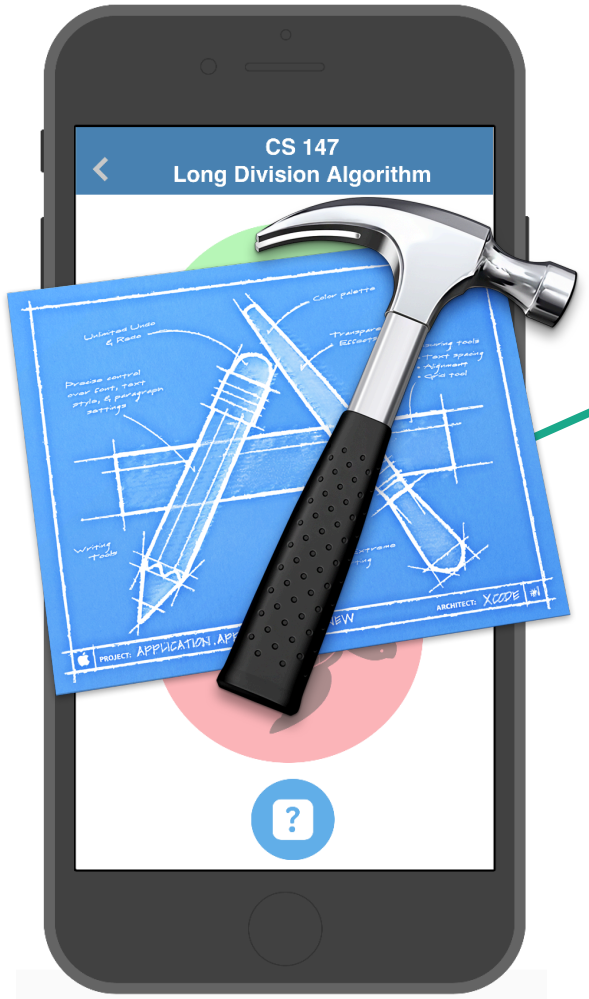
<3 @ 1.30 section

Prototype Implementation Status

Current Implementation



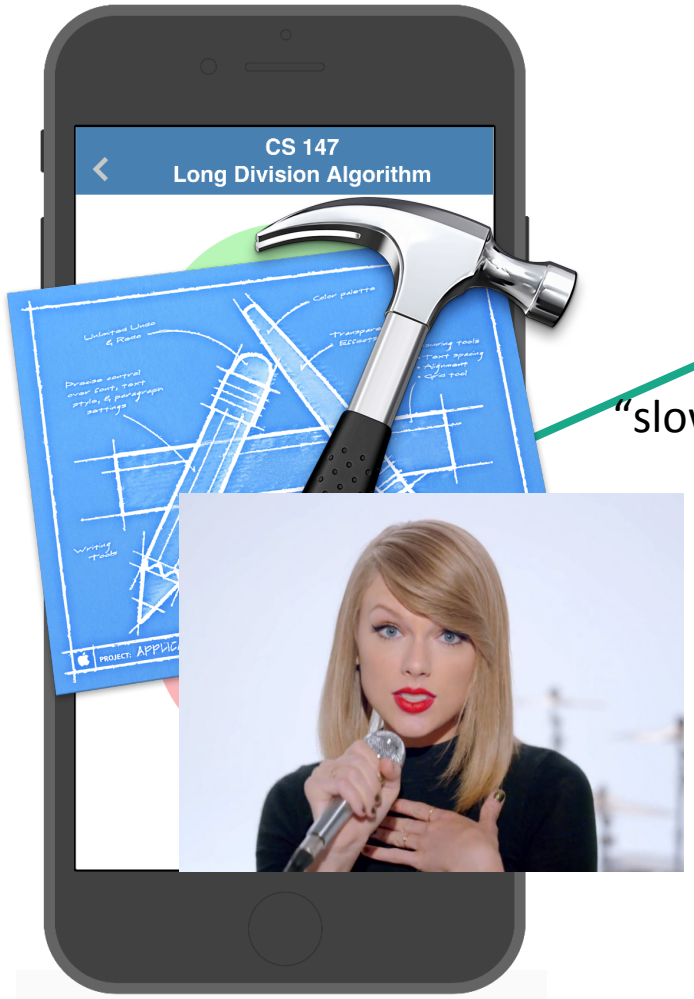
Current Implementation



"slow down!"

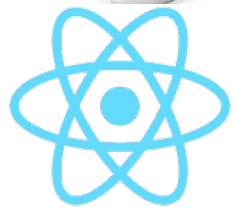
low dc

Current Implementation



"slow down!"

low dc

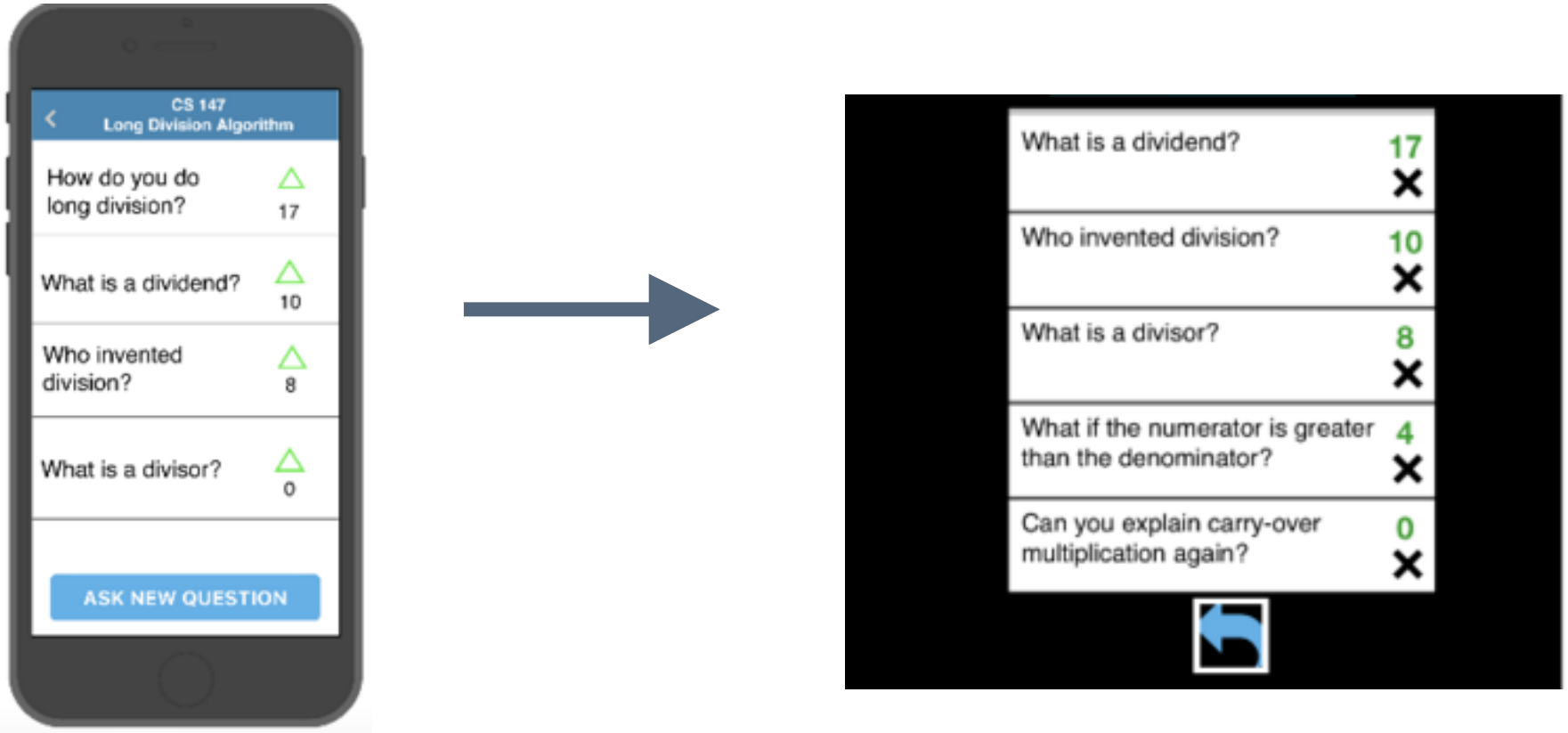


React

Unimplemented Features and Plan

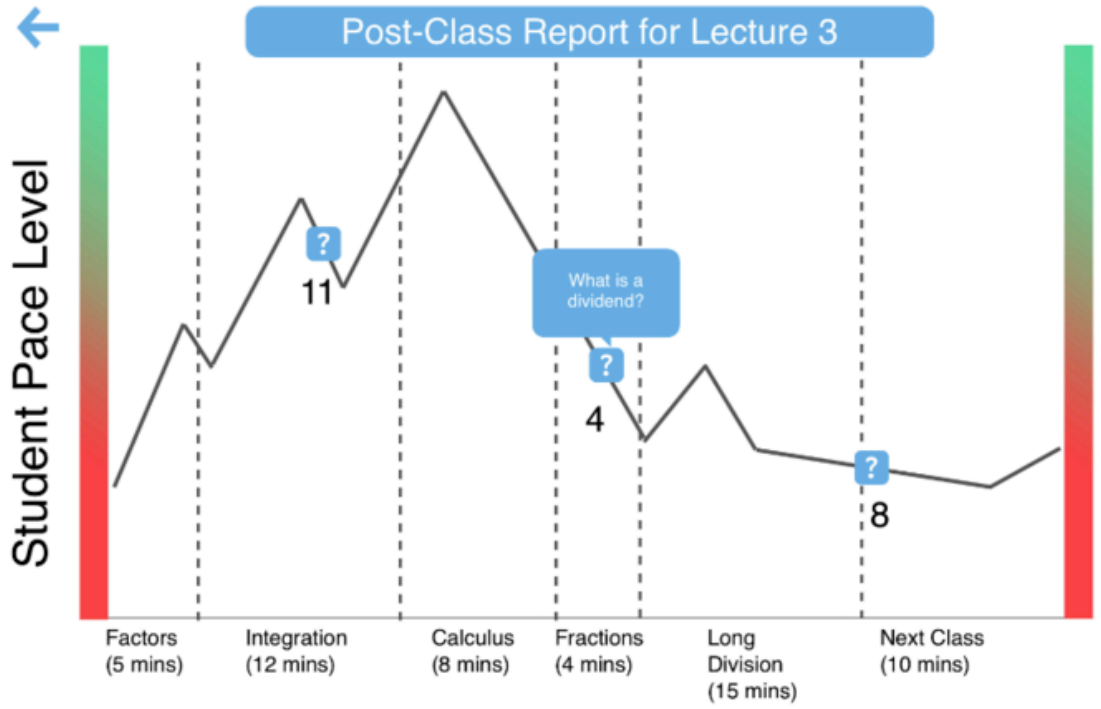
Task 2: Questions

Again plan to use Parse to send questions from student prototype to professor.



Task 3: Post-class Report

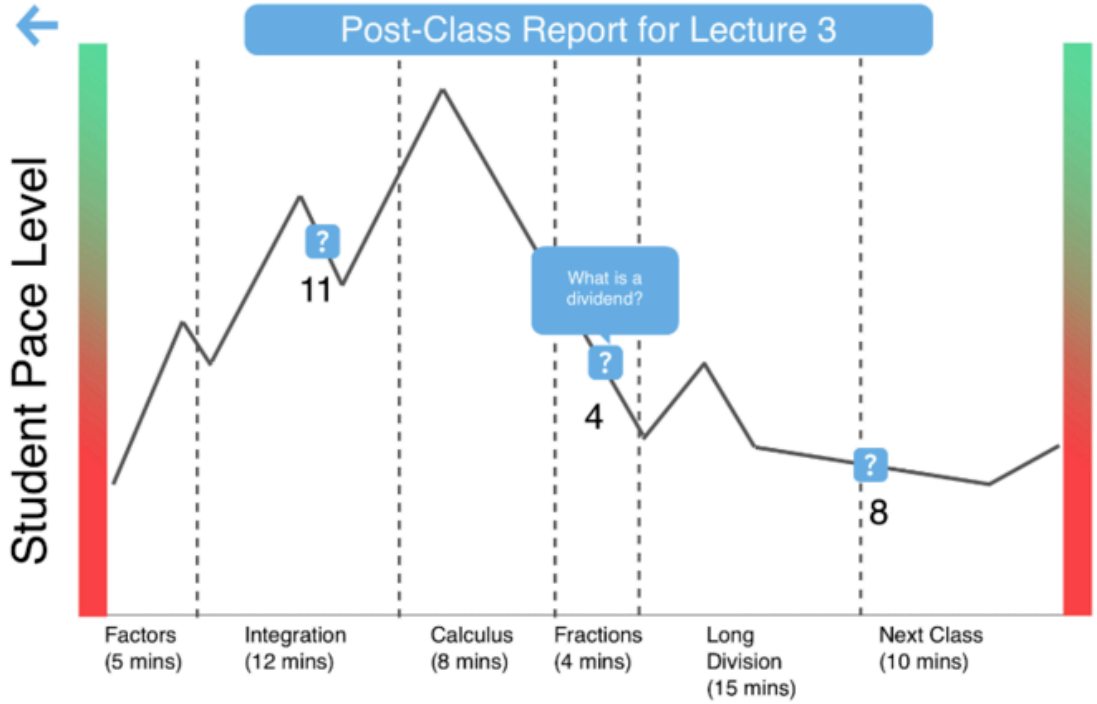
Plan to use our stored data from the student prototype



Task 3: Post-class Report

Plan to use our stored data from the student prototype

Each vote is labeled with “slower” or “faster” and the topic it is associated with

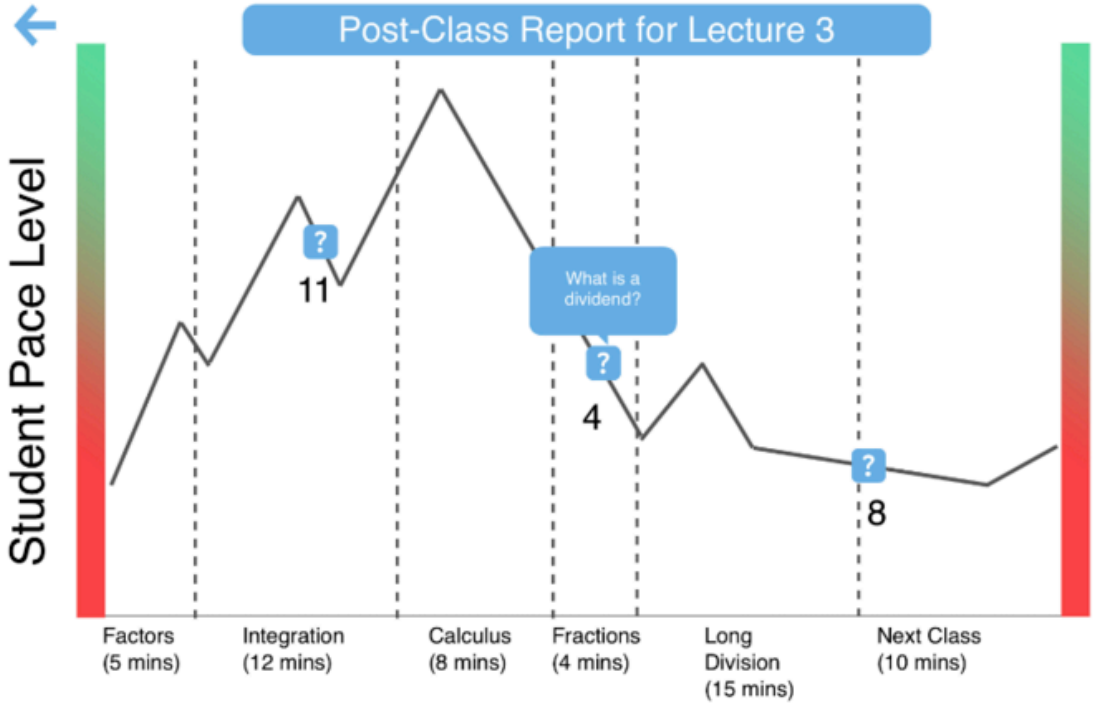


Task 3: Post-class Report

Plan to use our stored data from the student prototype

Each vote is labeled with “slower” or “faster” and the topic it is associated with

Will also store question data.



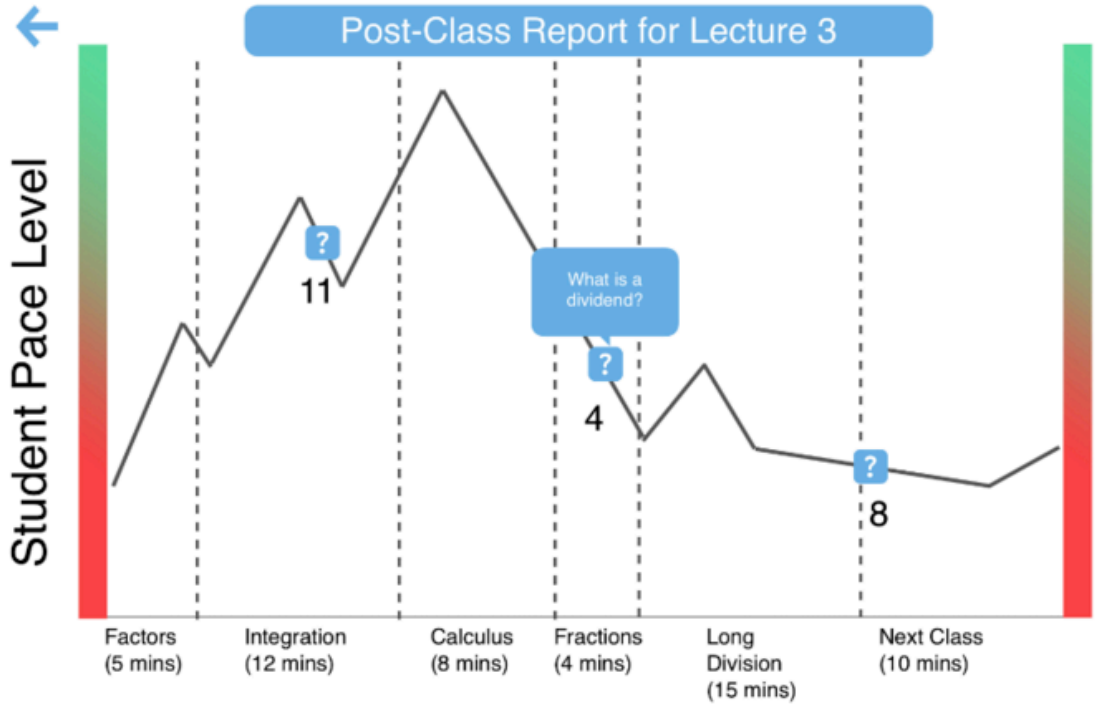
Task 3: Post-class Report

Plan to use our stored data from the student prototype

Each vote is labeled with “slower” or “faster” and the topic it is associated with

Will also store question data.

Plan to create line graph.

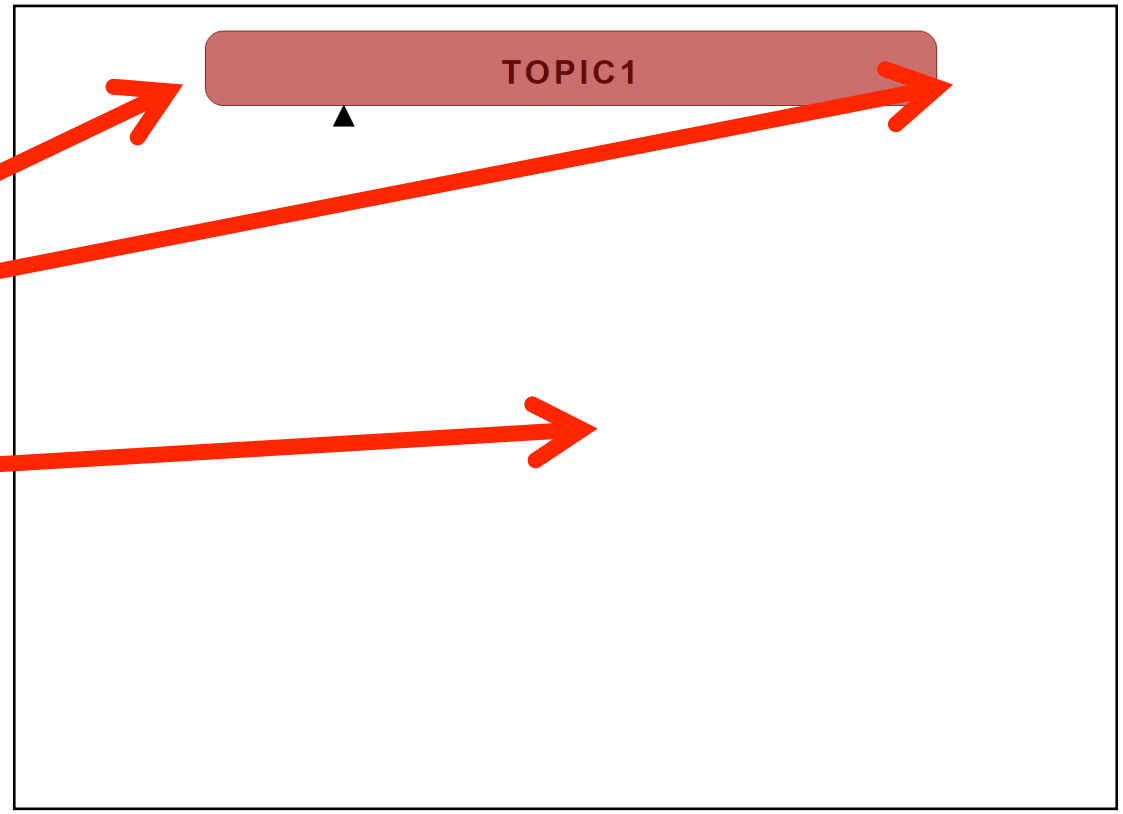


Polishing Prototype

Add a slide deck with specific topics (rather than “topic 1”).

Add rabbit and hare to meter.

Fill in all this space!



Wizard of Oz and Magic

We do not plan to have “wizard of oz” but…

Wizard of Oz and Magic

We do not plan to have any “Wizard of Oz” but…

Sloane Karna Marie Tina

Wizard of Oz and Magic

We do not plan to have any “Wizard of Oz” but…

The prototype is best tested in a lecture style environment. How do we simulate this?

Sloane Karna Marie Tina

Wizard of Oz and Magic

We do not plan to have any “Wizard of Oz” but…

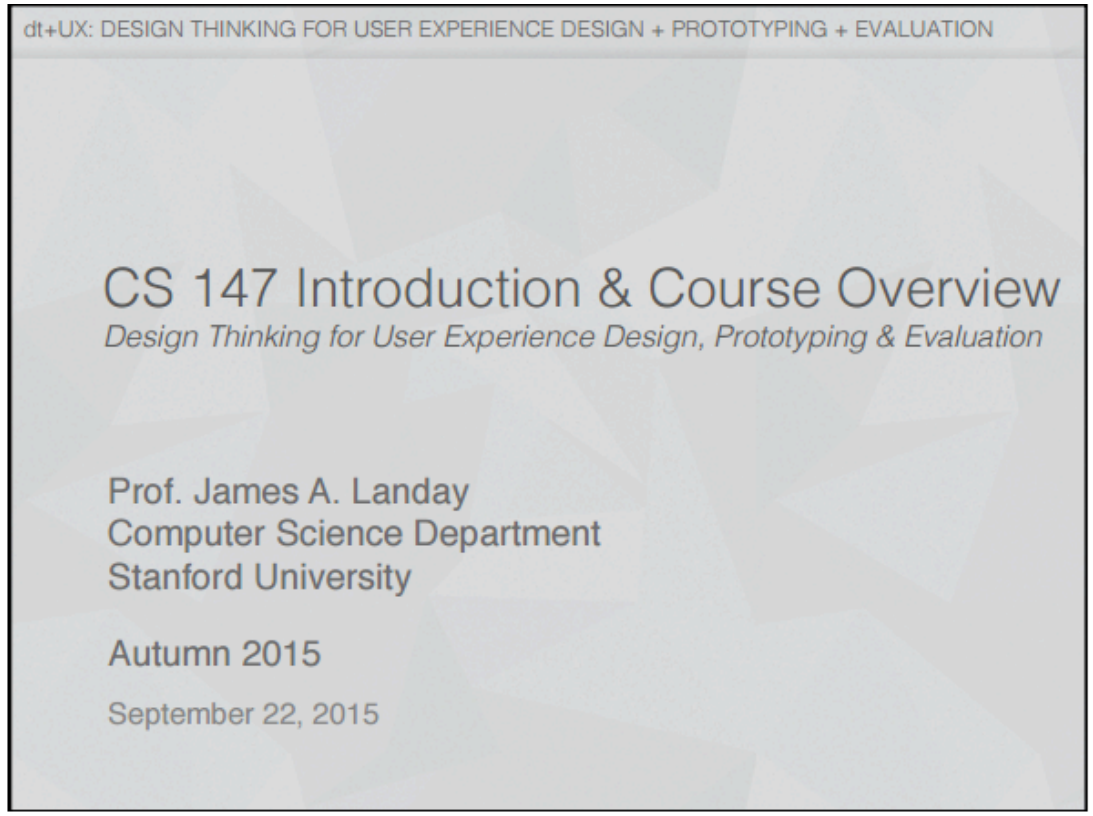
The prototype is best tested in a lecture style environment. How do we simulate this?

We may have to play roles as students or a professor.

Sloane Karna Marie Tina

Hard Coded Data

Professor slides/topics: Plan to use a specific slide deck. Topics will correspond to this slide deck.



DEMO

Summary

Design changes based on our heuristic evaluation

Summary

Design changes based on our heuristic evaluation
  Changed icons, delay pressing again

Summary

Design changes based on our heuristic evaluation
  Changed icons, delay pressing again
Task 1 and how we built it

Summary

Design changes based on our heuristic evaluation
  Changed icons, delay pressing again
Task 1 and how we built it
  Swift, React, and Parse

Summary

Design changes based on our heuristic evaluation
  Changed icons, delay pressing again
Task 1 and how we built it
  Swift, React, and Parse
What is to be done

Summary

Design changes based on our heuristic evaluation
  Changed icons, delay pressing again
Task 1 and how we built it
  Swift, React, and Parse
What is to be done
  Use Parse to communicate question/vote data for questions and report
  Wizard of Oz: slide deck