

QuickQuestion Static UI Mockups

After a current user logs into QuickQuestion, they are directed to their general profile screen (Figure 1). The profile screen of a user displays information regarding their academic work on QuickQuestion. For instance, a “Course Participation” section is shown on the left of the screen that indicates which classes a user is enrolled in. Underneath that is a summary of a user’s academic history.

In the body of the page lies a progress bar, indicating the progress a user has made on a problem set they are working on. Displayed beneath the bar are statistics regarding the number of questions answered correctly, wrongly, or skipped in the problem set. Skills are displayed beneath that, with percentages and a progress bar displayed beside each skill. These skills are acquired and improved upon as the user takes more courses and solves more problems.

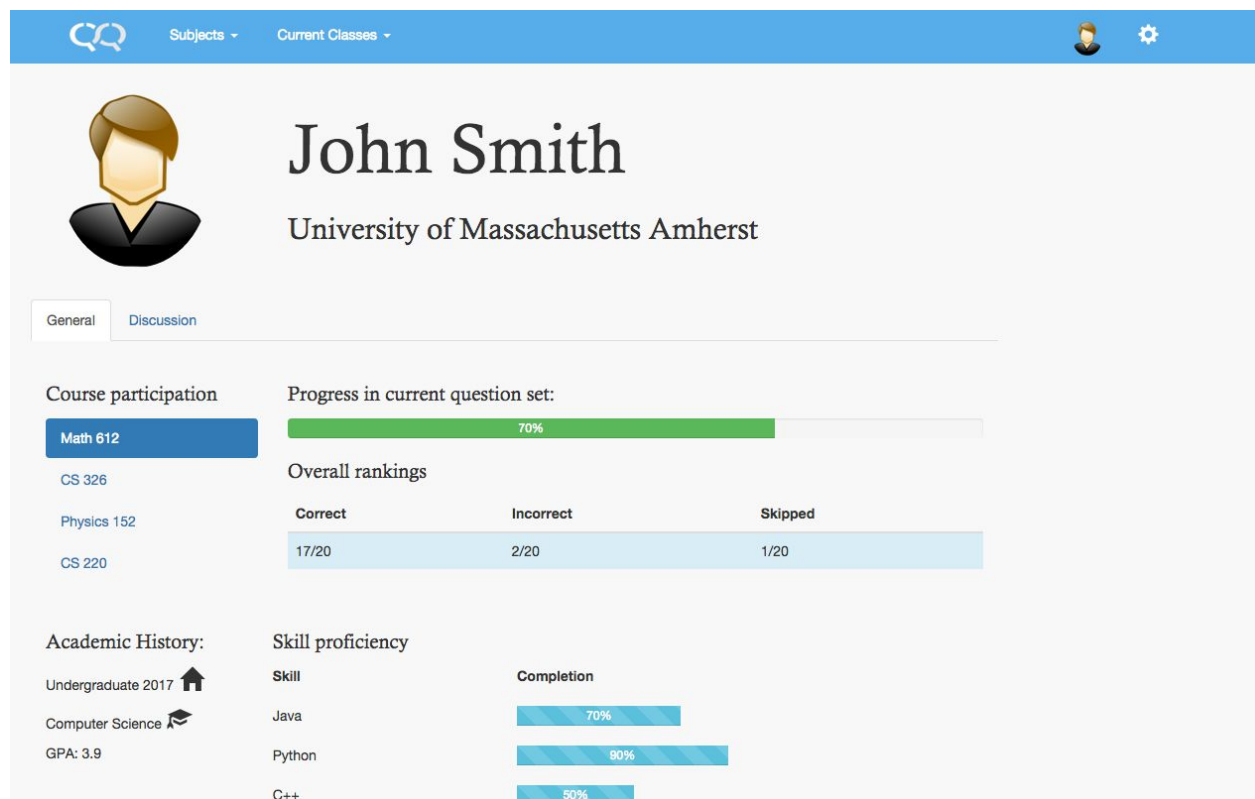


Figure 1 - General user profile screen.

We can click on the “Discussion” tab in Figure 1 to get more information on the discussions that a user is involved in. Once clicked, the user is transitioned to the discussion page (Figure 2).

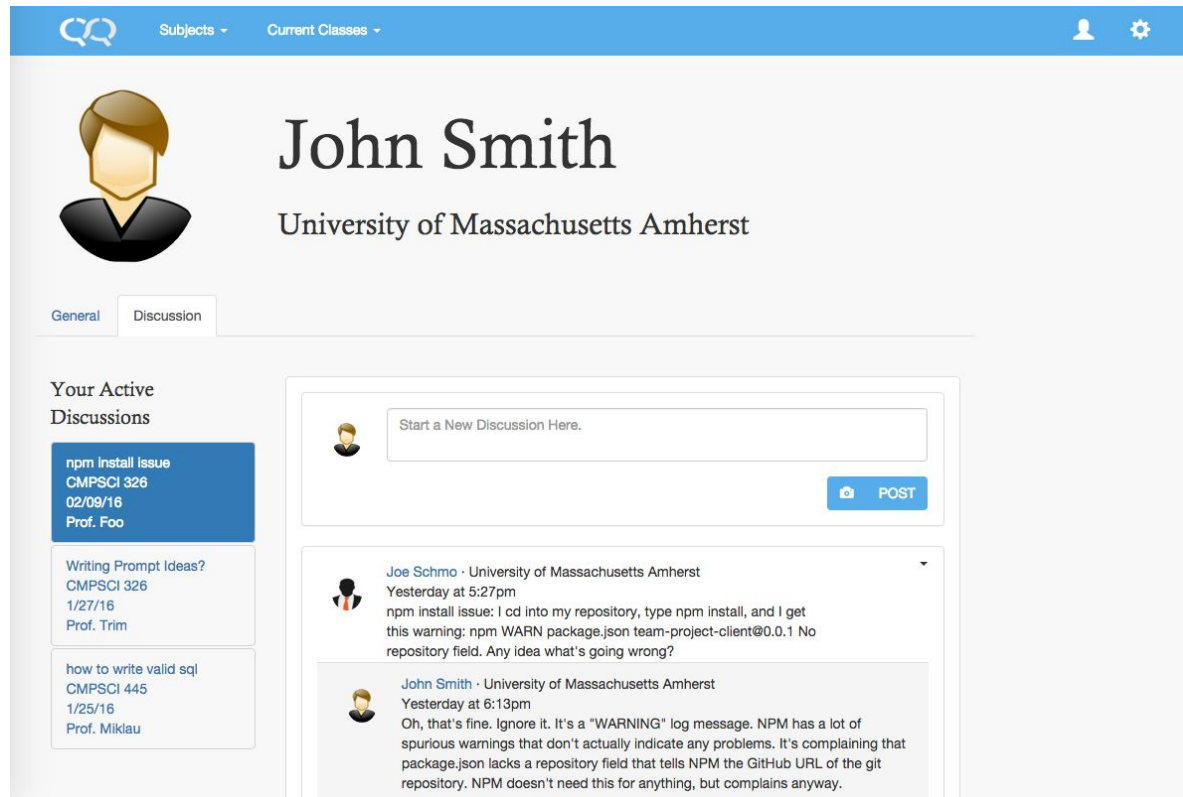


Figure 2 - Discussion user profile screen.

The discussion user profile screen (Figure 2) displays information on discussions that the user has participated in. For instance, our user John Smith has participated in three discussions. Because he has participated in three discussions, these discussions are shown under “Your Active Discussions” on the left sidebar.

When a discussion is clicked, such as the “npm install issue” discussion, that discussion is displayed in the main body of the page. A discussion is composed of posts and replies. Each post is shown in white and each reply is grey. Replies are shown underneath each post and displayed a little bit to the right, mainly for distinction between the two types. An active discussion feed is shown in Figure 3.

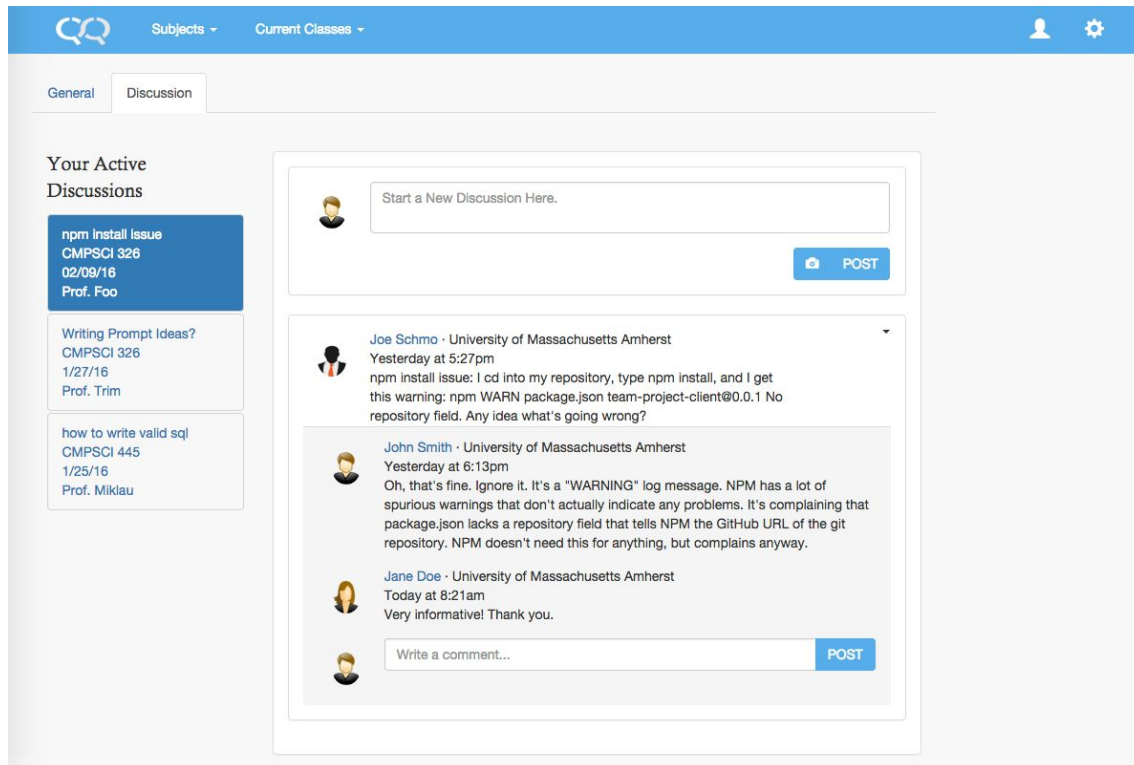


Figure 3 - An active discussion displayed in the body of the page.

We can navigate away from the user profile page by clicking on either “Subjects” (Figure 4) or “Current Classes” (Figure 5) in the navigation bar. We can then navigate to the subject or class of our choosing. Let’s pick our subject to be Algebra II.

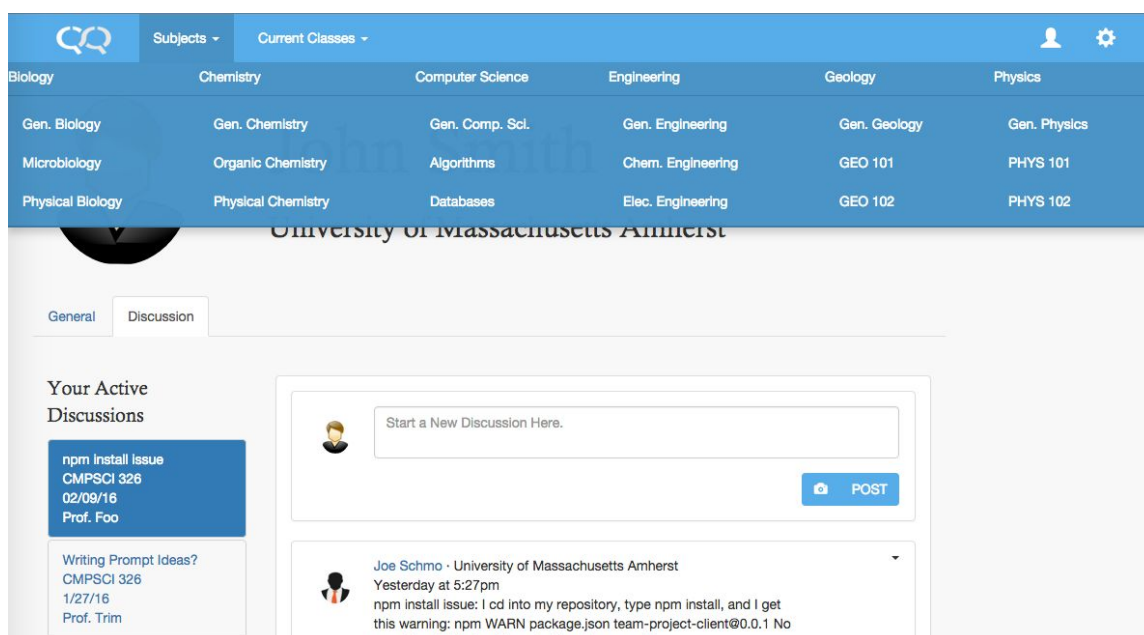


Figure 4 - Screen displaying the subjects a student can learn about.

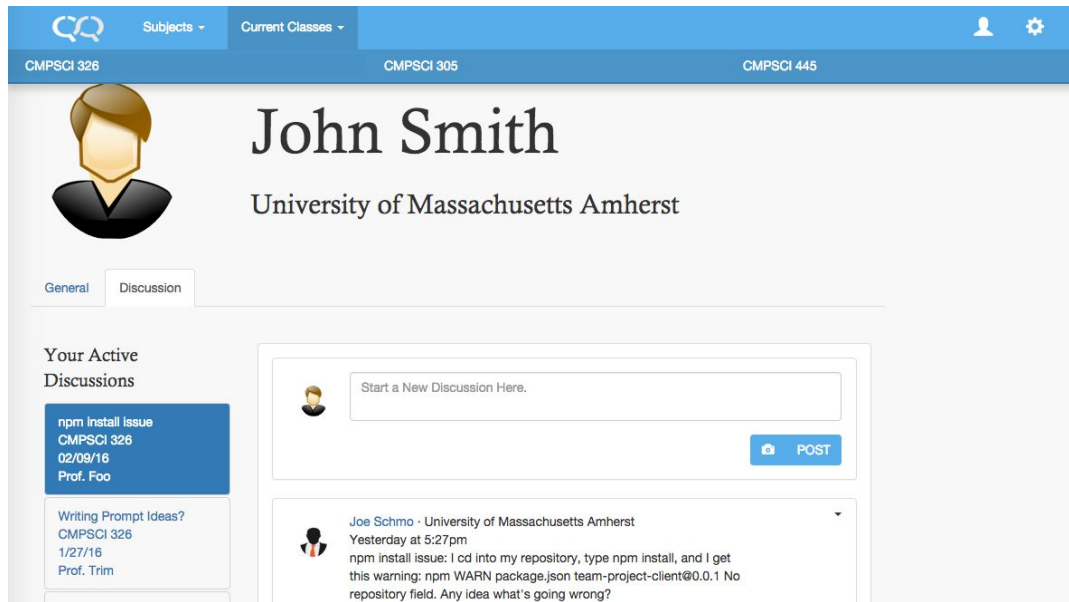


Figure 5 - Screen displaying the classes a student is enrolled in.

After navigating to Algebra II from the previous screen, we are displayed questions within a problem set (Figure 6). A user can choose to skip to other questions before answering the current one on the screen. They can do this by clicking “Next Question”.

For multiple-choice questions, a user is displayed choices A through D underneath the question. We can answer the question by choosing our answer and clicking “View Answer”. After clicking “View Answer” we are redirected to Figure 7.

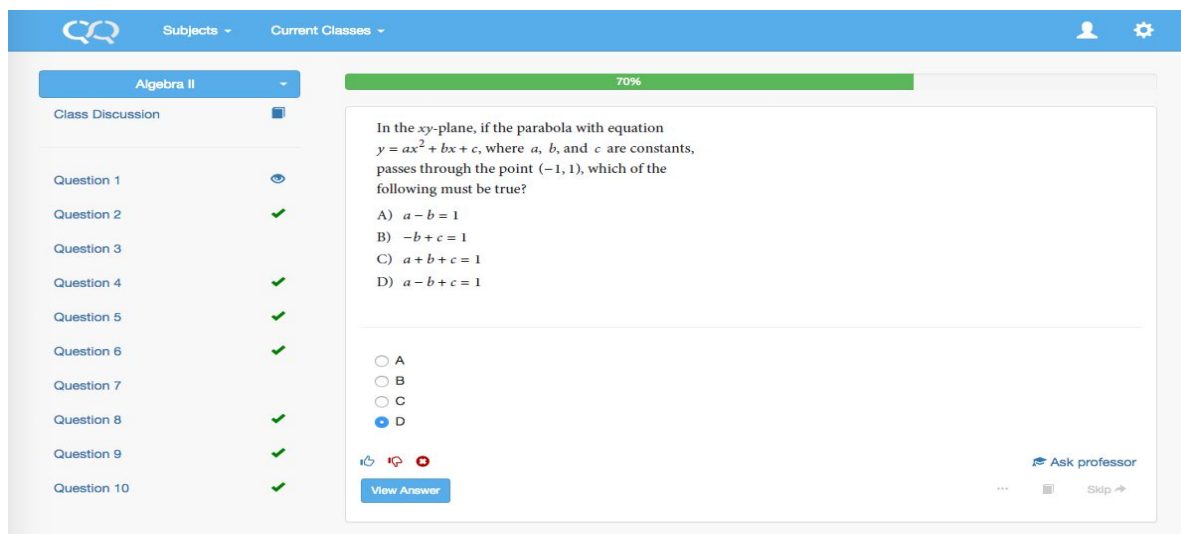


Figure 6 - Screen displaying a problem set for Algebra II.

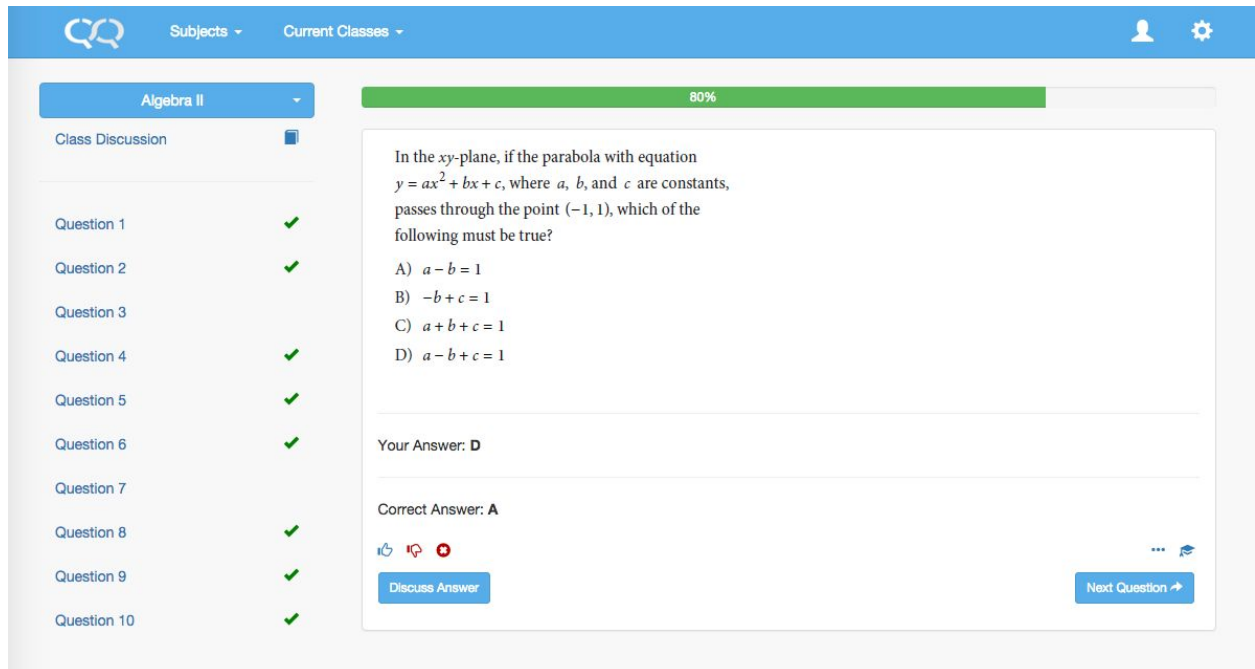


Figure 7 - Discuss Answer screen after answering a question.

Figure 7's view is generated after answering a question. A button labeled "Discuss Answer" is now shown. When clicked, this transitions us to Figure 8.

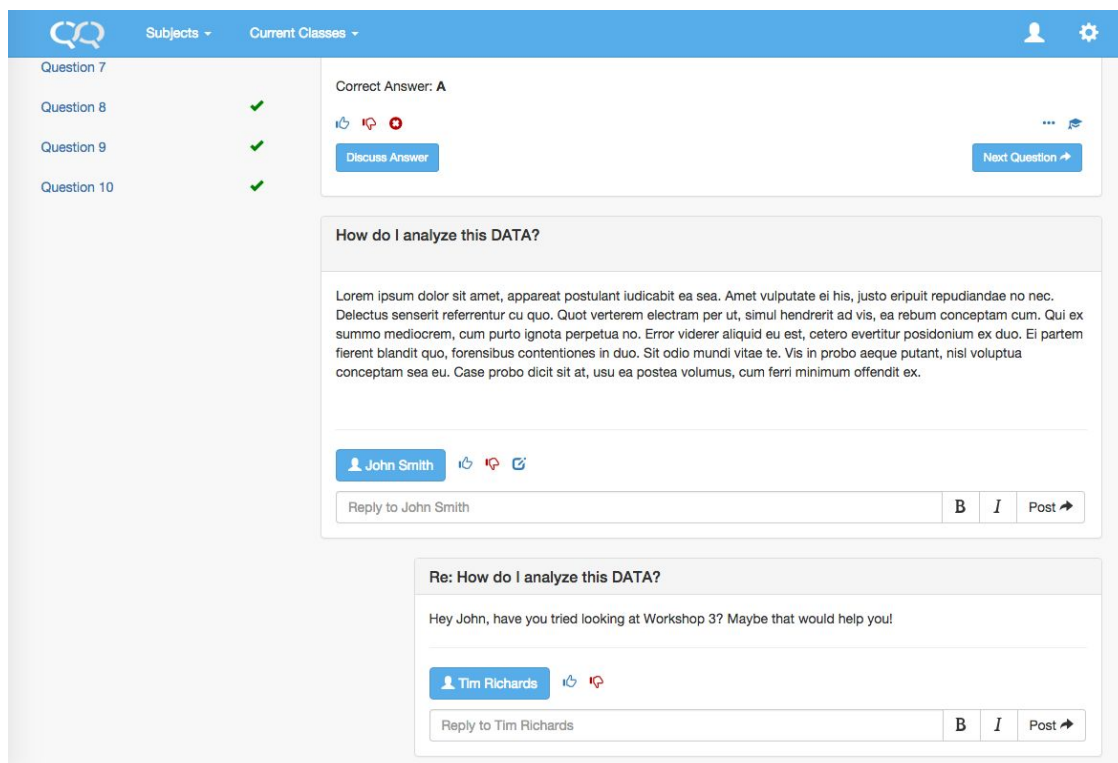


Figure 8 - A forum is displayed after a user clicks "Discuss Answer"

A discussion forum is displayed once this button is clicked that shows current posts and replies regarding the specific problem. Our user is able to engage with other students and instructors participating in this discussion, and ultimately this will help the students solve their own questions to the problem at hand.

In Figure 7, there is a button on the left sidebar called “Class Discussion”, which when clicked will transition the user to Figure 9.

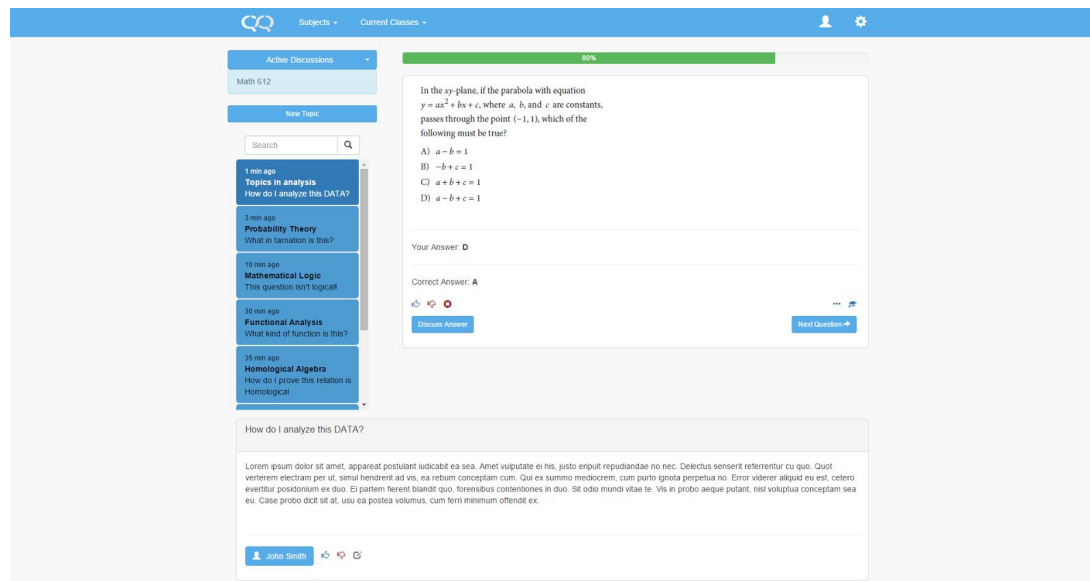


Figure 9 - This is the discussion page dedicated to showing all open discussion topics for a class

The class discussion page (Figures 9) is an example of what the user will see after clicking “Class Discussion”. Now the user is displayed a list of discussions that are happening for that specific class. If they click on one, they are displayed the posts and replies for that discussion on the current page. This section will be useful for students to navigate between discussions in specific classes.

A user can switch between classes by clicking the “Active Discussions” drop down menu, as shown in Figure 10.

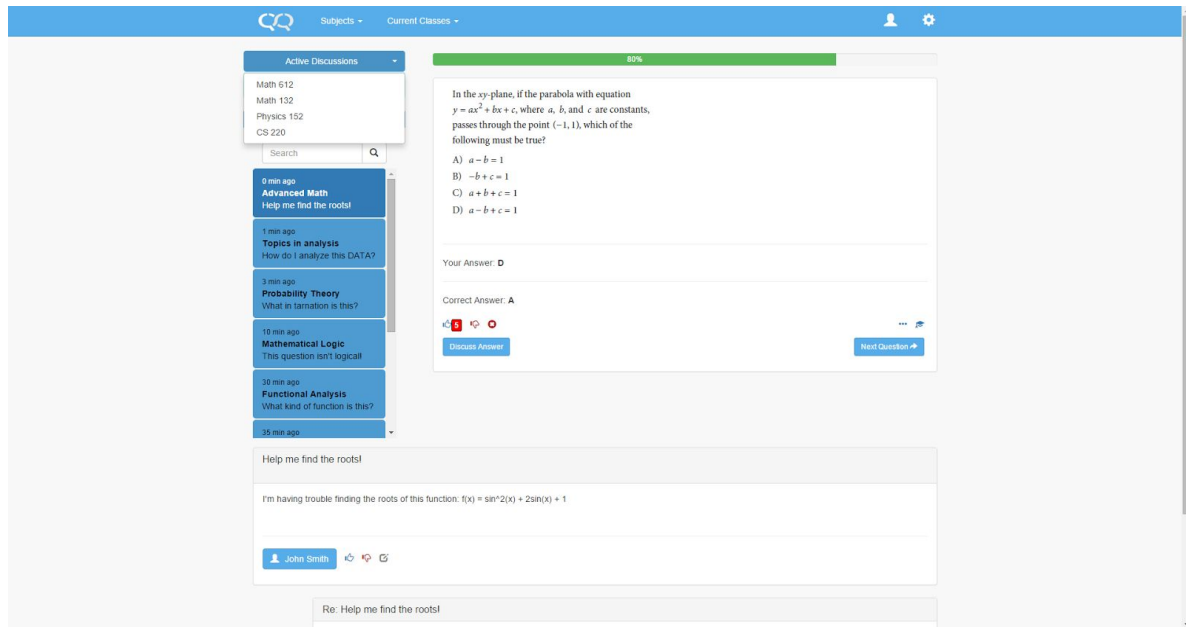


Figure 10 - The user can switch between classes.

An example of searching for a specific discussion/topic is given in Figure 11.

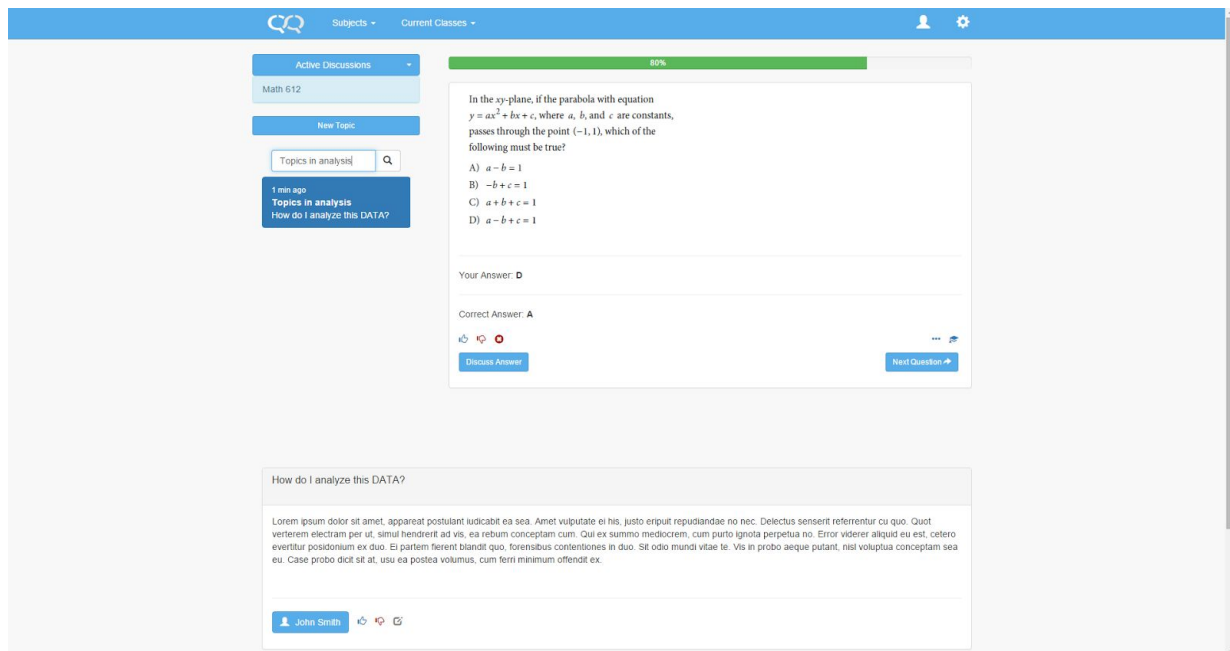


Figure 11 - The user searches a particular topic in the search bar

The search bar allows the user to easily find discussions on topics they wish to participate in. Users can query based on title, description, and messages within the discussion. By giving the user the capability to search, he/she does not have to

necessarily scroll through all of the active discussion topics. The results are displayed below the search bar.

Another feature that is worth mentioning on this page (and can be found on any question posted) is the ability to use the “Love it!”, “Too hard!”, and “Remove it!” buttons.

If a user wants to express their satisfaction towards a question they are able to do so using the “Love it!!” button (Figure 12). This button is used to show how many students like a certain question that an instructor has posted.

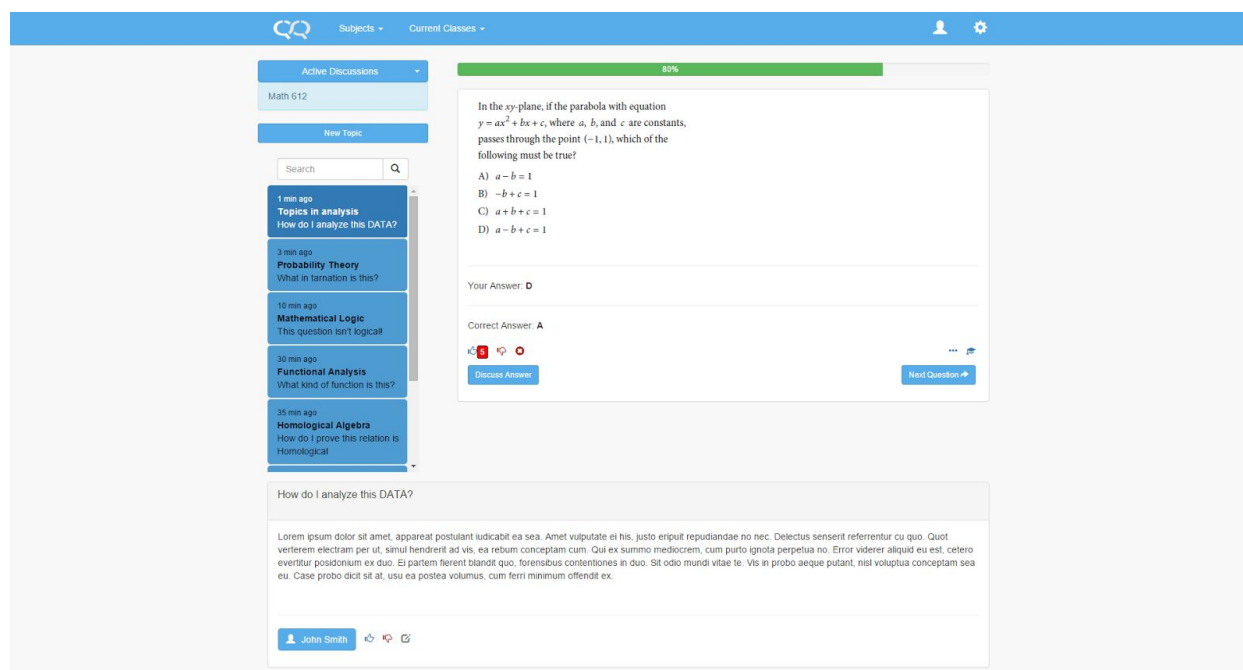


Figure 12 - Using the “Love it!” button along with five other users

The “Too hard!” button is used as a way to show the instructor the number of students that find the problem too difficult to solve (Figure 13). Like the “Like it!” button, this feature gives the instructor a gauge of the amount of students that are capable/incapable of solving a particular problem. If a user uses these features the instructor is informed that this particular user is capable/incapable of solving this problem. Other students are only able to see a number alongside these buttons, whereas the instructor will be able to see which students used which buttons on a question.

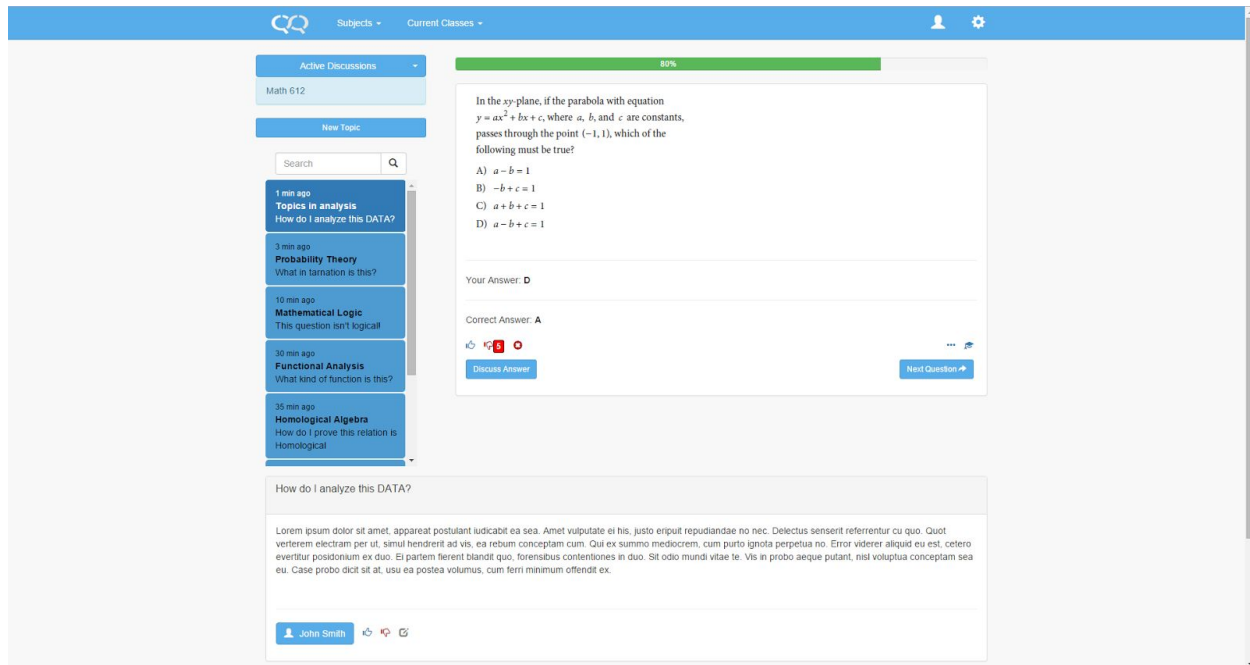


Figure 13 - Using the “Too hard!” button along with five other users

The “Remove it!” button (Figure 14) is used to express extreme dissatisfaction with a problem’s difficulty. If a lot of “Remove it!” clicks are generated, an instructor may opt to remove the question entirely. Votes to remove a question are completely confidential for a user.

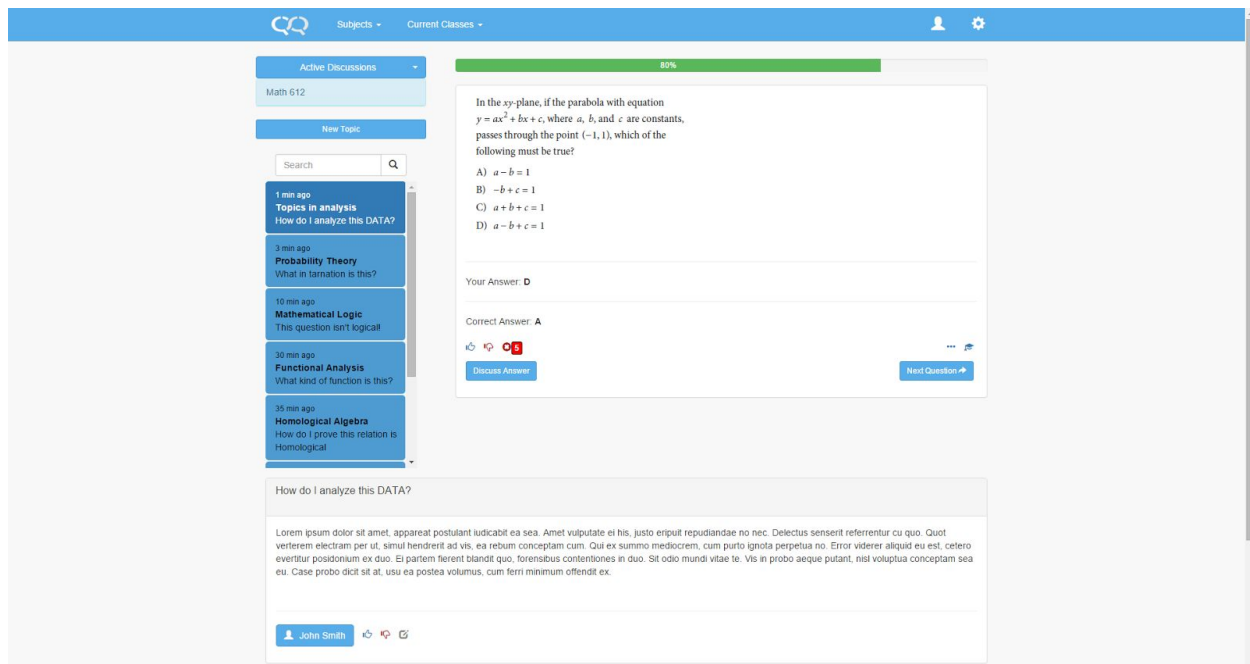


Figure 14 - Using the “Remove it!” button along with five other users

The discussion page allows the user to post a new topic under his/her class's active discussion (Figure 15). The user can also link his/her post to a particular question in the question's discussion page. This means that the post will show up underneath a question when users click “Discuss Answer” in Figure 8.

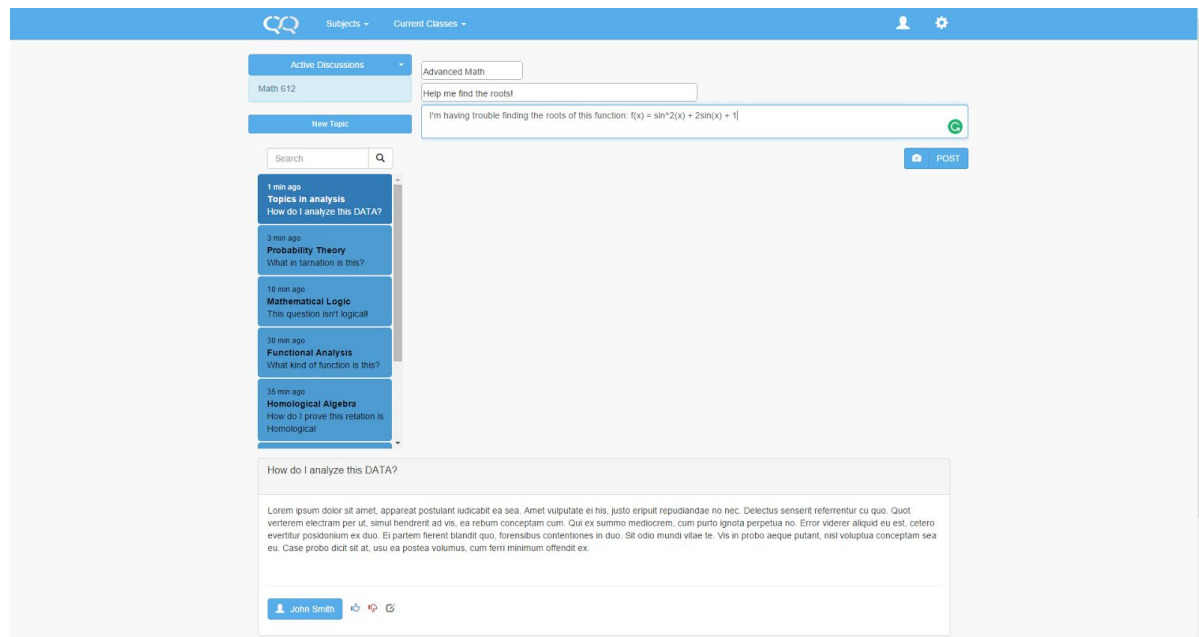


Figure 15 - “John Smith” creates a new topic to post it on the discussion page using the “New Topic” button

As expected, a user can receive replies to their posts, as shown in Figure 16.

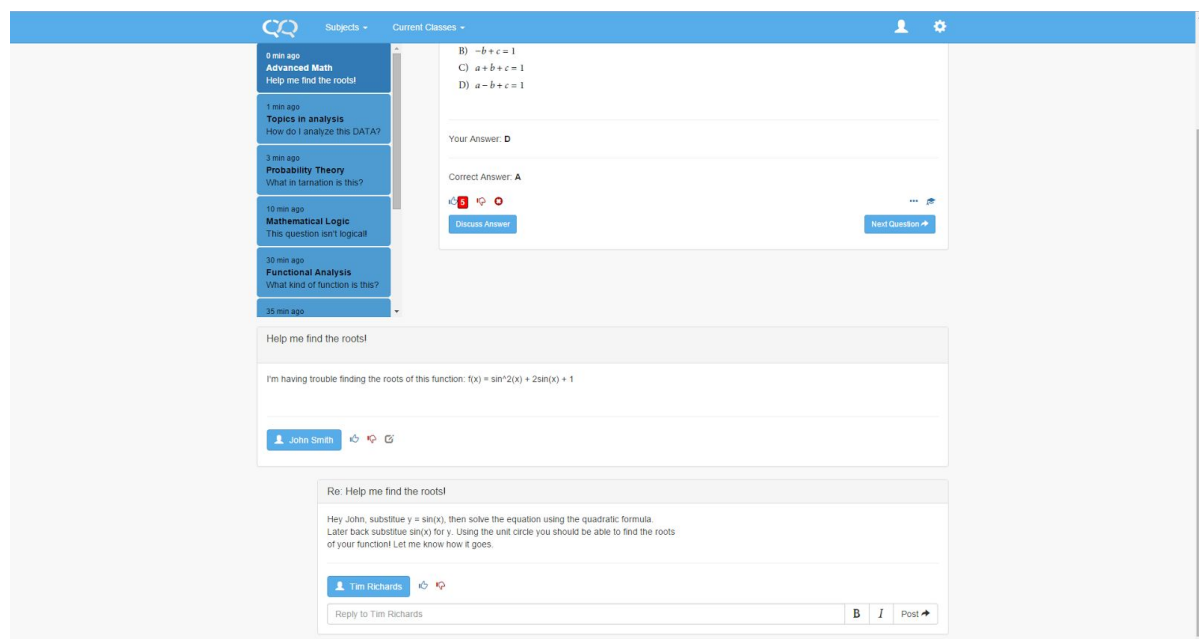


Figure 16 - “John Smith’s” new topic/post has received feedback from “Tim Richards” the instructor

In addition to users, instructors can also register with QuickQuestion. This view is from the perspective of the instructor being already logged in. Instructor profile pages also provide information for users to access. The general tab (Figure 17) contains information about the instructor's work, education, and skills.

The screenshot shows the QuickQuestion (QQ) interface. At the top, there is a blue header bar with the QQ logo, navigation links for "Subjects" and "Current Classes", and a user profile icon with a settings gear. Below the header, the profile of "Chelsea Foo" is displayed, associated with the "University of Massachusetts Amherst". The profile includes a placeholder for a profile picture and a settings gear icon. Three tabs are visible: "General" (selected), "Courses", and "Discussion". The "General" tab contains three sections: "Work Experience", "Education", and "Skills".

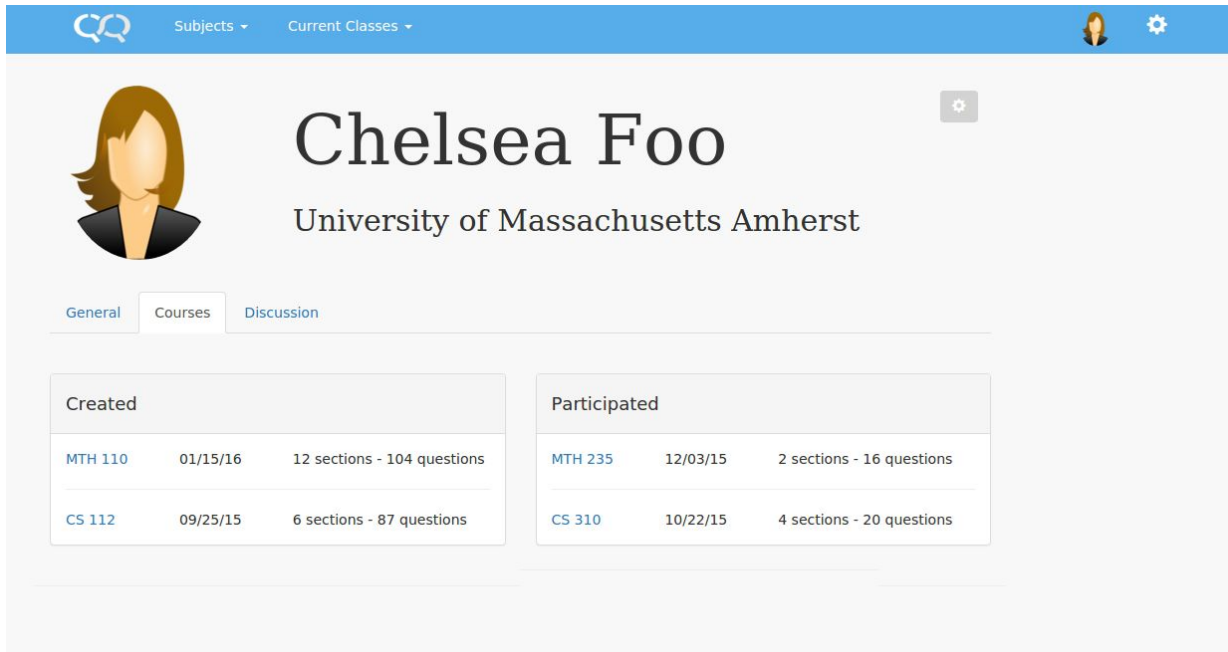
Work Experience	
2013-2016	Professor of Mathematics at UMass Amherst
2010-2012	T.A. in Computer Science at MIT

Education	
2010-2012	M.S. in Mathematics at MIT
2007-2011	B.S. in Computer Science at UMass Amherst


Skills	
Real good at Computers.	
Real good at Maths.	

Figure 17 - View of "Professor Chelsea Foo"s profile page on the "General" tab.

The courses tab (Figure 18) shows courses that the instructor has created or participated in. These are organized into the two aforementioned categories. These also serve as links to the class pages, providing easy access to all of the work a professor has contributed. The discussion tab is shared by users and instructors, and the layout is the same (Figure 19).



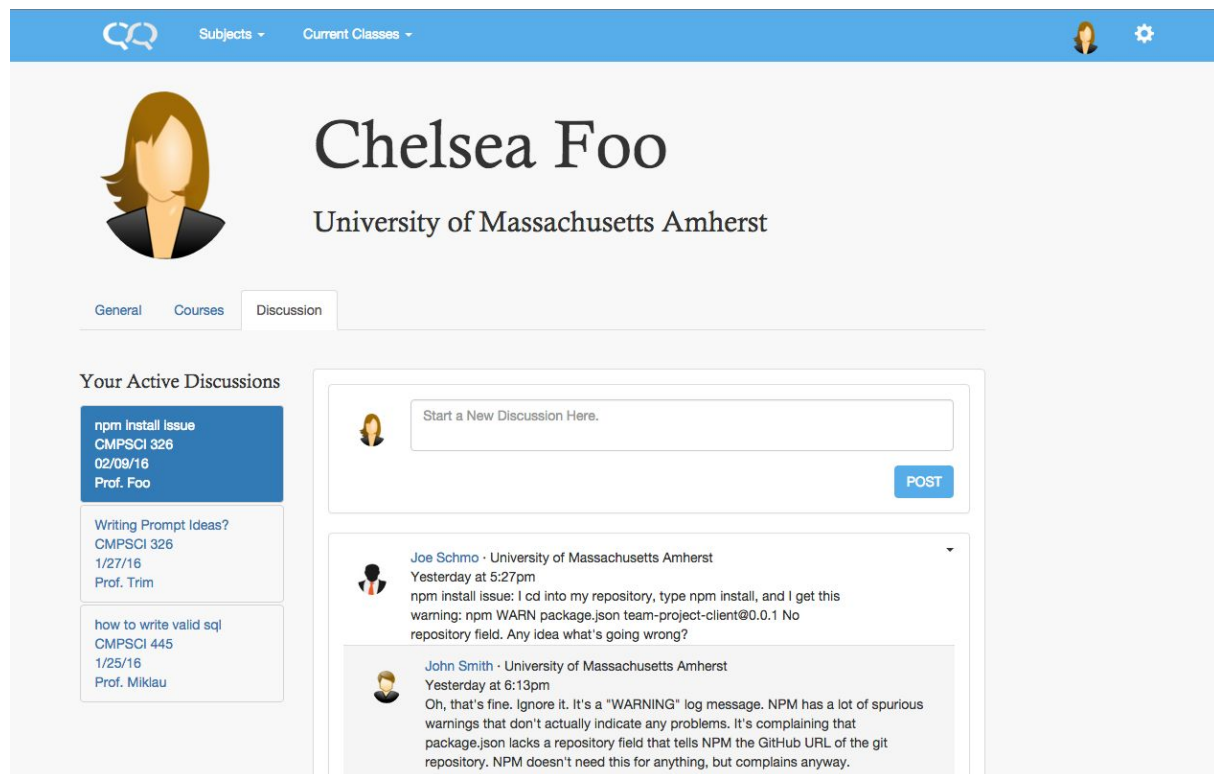
Subjects ▾ Current Classes ▾

 **Chelsea Foo**
University of Massachusetts Amherst


General Courses Discussion

Created			Participated		
MTH 110	01/15/16	12 sections - 104 questions	MTH 235	12/03/15	2 sections - 16 questions
CS 112	09/25/15	6 sections - 87 questions	CS 310	10/22/15	4 sections - 20 questions

Figure 18 - View of instructor “Chelsea Foo”’s profile page on the “Courses” tab.



Subjects ▾ Current Classes ▾


 **Chelsea Foo**
University of Massachusetts Amherst

General Courses Discussion

Your Active Discussions

- npm Install Issue**
CMPSCI 326
02/09/16
Prof. Foo
- Writing Prompt Ideas?
CMPSCI 326
1/27/16
Prof. Trim
- how to write valid sql
CMPSCI 445
1/25/16
Prof. Miklau

Start a New Discussion Here. **POST**

 **Joe Schmo** · University of Massachusetts Amherst
Yesterday at 5:27pm
npm install issue: I cd into my repository, type npm install, and I get this warning: npm WARN package.json team-project-client@0.0.1 No repository field. Any idea what's going wrong?


 **John Smith** · University of Massachusetts Amherst
Yesterday at 6:13pm
Oh, that's fine. Ignore it. It's a "WARNING" log message. NPM has a lot of spurious warnings that don't actually indicate any problems. It's complaining that package.json lacks a repository field that tells NPM the GitHub URL of the git repository. NPM doesn't need this for anything, but complains anyway.

Figure 19 - View of instructor “Chelsea Foo”’s profile page on the “Discussion” tab.

Honors Component - Eric Shabunin

The screenshot displays the QuickQuestion web application interface. At the top, there is a blue header bar with the QuickQuestion logo, navigation links for 'Subjects' and 'Current Classes', and user profile and settings icons. The main content area is divided into a left sidebar and a right main panel.

Problem Sets Sidebar:

- Math Trouble** (Selected): MTH 110, 02/01/16 - 02/09/16, Prof. Foo, 2 sections - 16 problems
- Completed Bio Lesson: BIO 212, 01/25/16 - 01/28/16, Prof. Bar, Prof. Qux, 1 section - 10 problems
- COMPSCICORE: CS 220, CS 230, ..., 10/05/15 - 12/27/15, Prof. Baz, 4 sections - 26 problems
- Quantum Mechanics: PHS 510, 09/01/15 - 09/01/15, Prof. Foo, 2 sections - 16 problems

Main Panel - Math Trouble:

Class: MTH 110
Date started: 02/01/2016
Shared with: Prof. Chelsea Foo
Sections: 2
Last Modified: 02/09/2016
Problems: 16

Section 1.1

Question 1

In the xy -plane, if the parabola with equation $y = ax^2 + bx + c$, where a , b , and c are constants, passes through the point $(-1, 1)$, which of the following must be true?

A) $a - b = 1$
B) $-b + c = 1$
C) $a + b + c = 1$
D) $a - b + c = 1$

Comments:

- John Smith** (User): Yesterday at 6:13pm
I don't understand this problem at all!
- Prof. Foo** (Instructor): Yesterday at 8:27pm
Try substituting -1 for x !
But you got it anyway???

My answer: D
Correct answer: D

Start a New Message Here.

Question 2

In the xy -plane, if the parabola with equation $y = ax^2 + bx + c$, where a , b , and c are constants,

No messages

This image shows the Contact Instructor page/feature of QuickQuestion. As a user is answering questions, they have the option of adding a question or a section to a new or existing problem set. Once a user has a problem set, they can link a contact to the set, allowing them to see the work done and offer comments. This could be a professor contributing to or leading a class or a professor outside of the webapp. Any number of contacts can be linked to a problem set, further expanding the help a user can receive through this feature. From the problem set, a user and instructor(s) can communicate on a question-by-question basis, resolving any specific issues the user may have. Additionally, the problem sets can be used to produce and submit assignments consisting of different sections and/or classes.

Individual Contributions

Ethan Smith

Created the `template.html` (and `template.css`) for the initial design. As well as the initial design, `template.html` is the home of the question view.

Created the navbar used across all pages.

Brought the `discussion.html` view more inline with the rest of the views

Rafal Bielech

Created the `profile.html` along with `profile.css` for the design of the profile page for each user.

Developed prototype for display of question page (previously as `questionprevv.html`)

Benjamin DiBona

Co-created the `discussion.html` and `discussion.css` with Ian Torres. I created `discussion.html` and worked on adding user posts and replies underneath a question.

Added the new navbar to the page.

Worked on `profile_discussion.html` and added a list of active discussions to the left sidebar.

Made changes to other pages such as `profile.html` (removed redundant cog icon) and other small changes to `discussion.html` and `profile_discussion.html`.

Ian Torres

Co-Created the `discussion.html` and `discussion.css` with Benjamin DiBona.

The features of `discussion.html` that I worked on were the discussion topic post feed, the discussion topic search bar, and the new topic button.

Eric Shabunin

Created `instructor_profile.html`, `instructor_discussion.html`, `instructor_courses.html` and associated css files. Also responsible for the honors component.

Joshua Brenner

Created and mocked up `profile_discussion.html`. I created everything under the discussion tab on the home page.