

# Responsive Redesign

## Overview

As a student in many large lecture classes, digital forms of communication are frequently important to getting the help I need from teaching assistants and professors. One tool many of my classes use is Piazza, an online platform where students can ask questions which other students and professors can answer, and professors can post course announcements.

Piazza is not a particularly well designed site, and its weaknesses are especially clear when viewing on mobile or a different non-standard screen size. In this redesign, I will attempt to identify the problems with Piazza's interface, and address them in wireframes, a high fidelity mockup, and a responsive webpage.

## Design analysis

Piazza is usually available only via login, but for demonstration purposes I will be using screenshots from a publicly available test class. You can view this class here: [https://piazza.com/demo\\_login?nid=gw9jakygzvs616&auth=50e021f&close=fancy](https://piazza.com/demo_login?nid=gw9jakygzvs616&auth=50e021f&close=fancy).

While Piazza is usable, its design is not friendly for users on mobile; the site simply is not responsive, making it virtually impossible to use on anything but desktop. It's also more difficult than it has to be to switch between classes, one of the functions I find myself using most often in the class, and all buttons that seem like they should lead to a home screen actually lead to Piazza careers, a fairly unrelated service.

There's some questionable and confusing features, such as question history, which shows how a question has been edited over time, and the Actions tab for each question, which has one action - follow. Useful features are also not immediately obvious (it took me until looking critically at each feature for this redesign to figure out how to collapse the question feed).

# Interface Screenshots

The screenshot displays the Piazza class interface. The top navigation bar includes the Piazza logo, the course identifier 'CSCI 0330', and tabs for 'Q & A', 'Resources', 'Statistics', and 'Manage Class'. A search bar and the user's name 'Grace Bramley-Simmons' are also present. Below the navigation bar, a horizontal list of course topics is shown, each with a count of items. The main content area is divided into two sections: 'Class at a Glance' and 'Network at a Glance'.

**Class at a Glance** (Updated 39 seconds ago. [Reload](#))

- 277 unread posts
- 1 unanswered questions
- 8 unresolved followups

Student Enrollment: 7 enrolled (out of estimated)

Download us in the app store: [Download on the App Store](#) [GET IT ON Google play](#)

**Network at a Glance**

- 1201 total connections
- 84% profile completed
- 1 company viewed

2020 Job Status: Seeking Internship

Worked at: [edit](#)

Visa requirement: Not set [edit](#)

Companies recently added: Uber, Ford, C3, NUTANIX

\*Companies will never, ever see your questions or answers on Piazza, and we do not expose any personal information unless you allow it.

**Sidebar (Pinned Posts):**

- Instr Lab Partner Form for Lab 6 ...** (10/15/19)  
Hey everyone, We hope you all had a great weekend! The lab partner form has been reopened so you can indicate your part
- Instr Stringsperf FAQ** (10/11/19)  
Stringsperf FAQ# Strings-----Q: How does strtok work? Can delimiter be a set of characters? How do I handle that c  
• An instructor thinks this is a good note
- Instr Stringsperf Stencil Bug** (10/10/19)  
If you pulled the stencil before 6:30pm on Thursday, October 10th, you need to reinstall the stencil - This is not a pro
- Instr Working Locally (without rel...** (10/9/19)  
I've noticed a lot of students using FastX or the department machines for their projects - these methods can be slow  
• An instructor thinks this is a good note
- Instr Lab hours signup** (9/27/19)  
We have had many lab partners sign up separately at hours which could create a disadvantage to students that have not be  
• An instructor thinks this is a good note
- Instr CS33 Piazza Rules** (9/4/19)  
Hi everyone! When posting on Piazza, we expect you to follow the rules below: Please be careful about what you post  
• An instructor thinks this is a good note
- Search for Teammates!** (8/25/19)

**Sidebar (Today's Posts):**

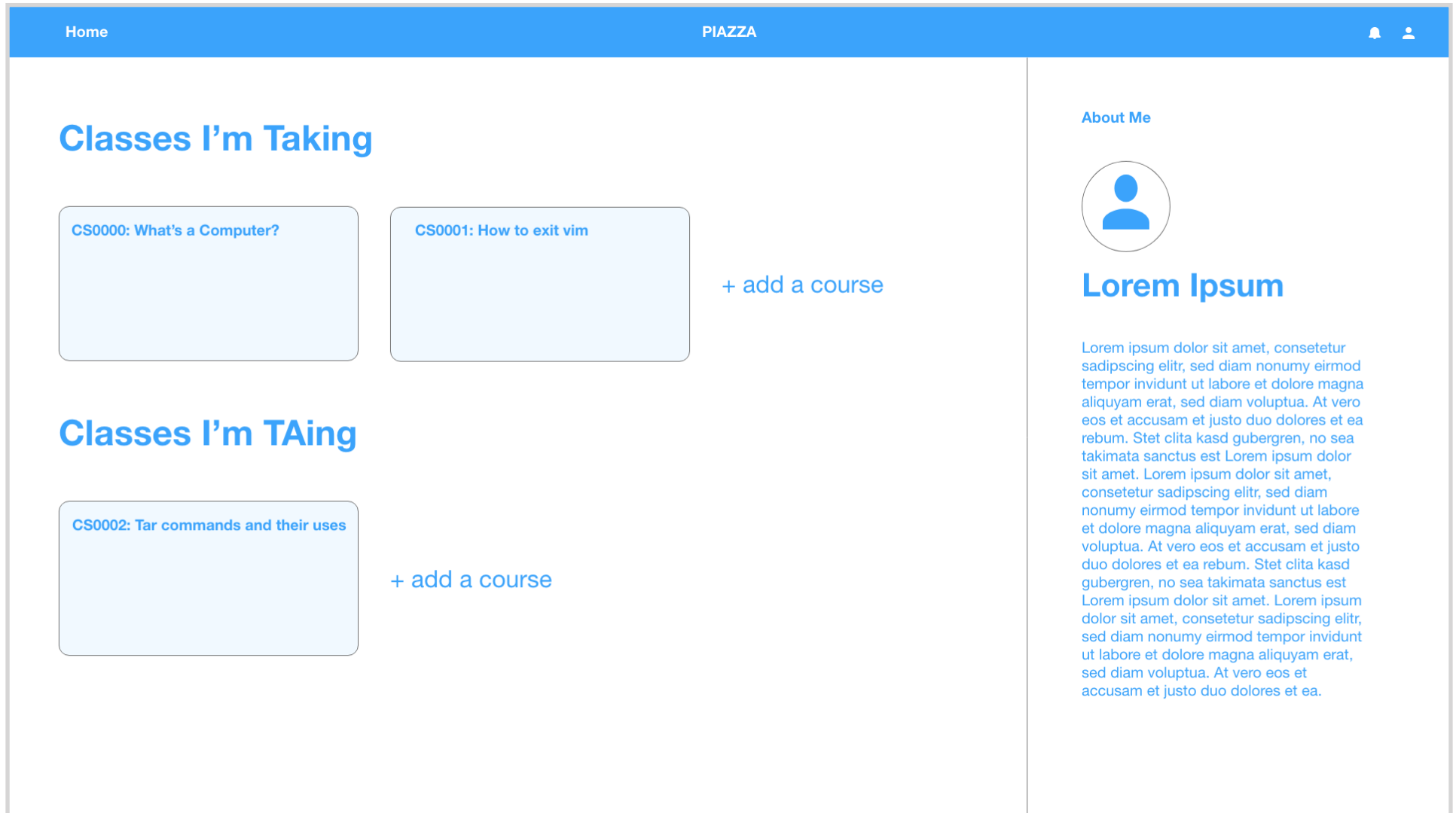
- Private strstr case in which needle i...** (9:45AM)  
Hi, my strstr is passing all tests except when needle is not in haystack. I'm unsure as to what this could be due to
- Private Keep getting outlier results** (9:43AM)  
I'm not sure what is wrong with my casting, or if it's my code, but I keep getting weird output once in a while.
- Private limit on k-th accumulator for...** (1:37AM)  
Since it said in the slides that we can (asymptotically) improve runtime by reassociation with more accumulators, is the
- Private Answer off by 0.00488 for s** (12:57AM)

Class Home







# Mockups



User Home

Home

PIAZZA




CS 1300

▼

User Interfaces and User Experience

Ask a question



Filter Questions

Course Announcements

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Top Questions

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# Ask a question...



Enter your question

Formatting

Tagged as:

Interface

Design

+ Add tag

Post to Class

Post to Instructors

Suggested: [user input typeface](#)

Ask View



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Like Follow

A:



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## Comments:

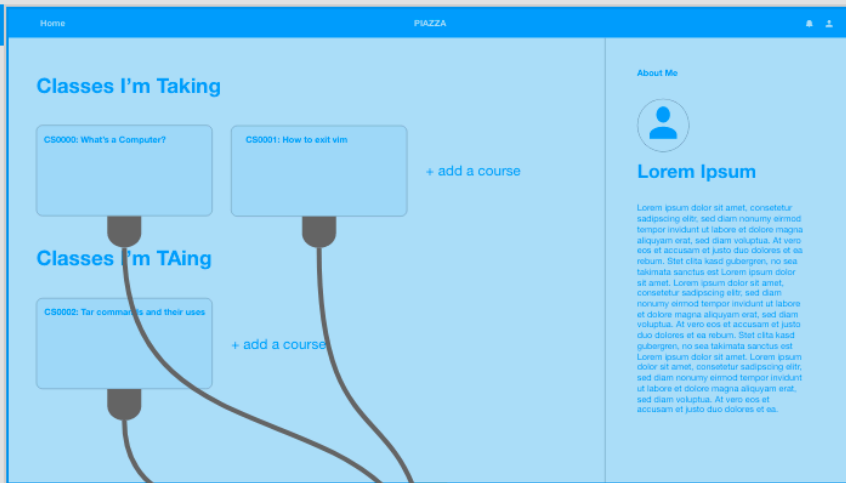


# Usability Analysis

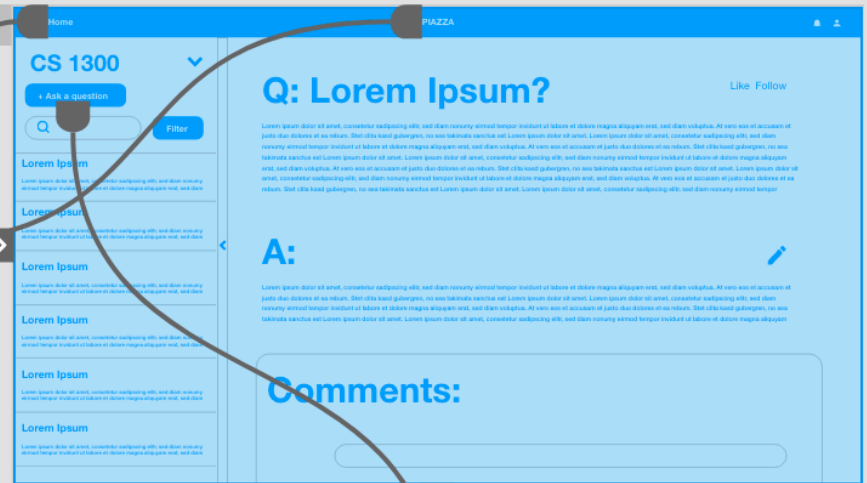
Criteria	Original Interface	Redesigned Interface
<b>Intuitive Design</b>	<ul style="list-style-type: none"><li>- The question sidebar layout is fairly intuitive</li><li>- It's not immediately clear how to switch classes, or which class you're currently on</li><li>- Filtering questions</li></ul>	<ul style="list-style-type: none"><li>- Keep the question/sidebar layout</li><li>- Add a more intuitive home screen to make navigation easier.</li><li>- Makes the flow between pages easier to understand.</li></ul>
<b>Ease of Learning</b>	<ul style="list-style-type: none"><li>- There are a lot of hidden menu items that are necessary (post links, follow question), which are hard to learn where they are</li><li>- There's often not text to accompany icons or color codes</li></ul>	<ul style="list-style-type: none"><li>- Uses familiar icons and clear text to make it obvious what a user can do on each screen</li></ul>
<b>Efficiency of Use</b>	<ul style="list-style-type: none"><li>- There's a lot of fields to fill out when you ask a question</li><li>- It's sometimes hard to find the question you're looking for.</li><li>- A relatively small font size for question titles makes them not immediately obvious</li></ul>	<ul style="list-style-type: none"><li>- Trims options for user to the most frequently used</li><li>- Larger text allows users to find what they're looking for on the page more easily</li><li>- Clearer buttons on the sidebar allow for faster filtering of questions</li></ul>
<b>Memorability</b>	<ul style="list-style-type: none"><li>- It's hard to remember where certain menu items are (hide sidebar, follow a question)</li><li>- It's hard to remember how to navigate between pages</li></ul>	<ul style="list-style-type: none"><li>- Use of text and intuitive icons together creates stronger mental associations</li><li>-</li></ul>

# User Flow

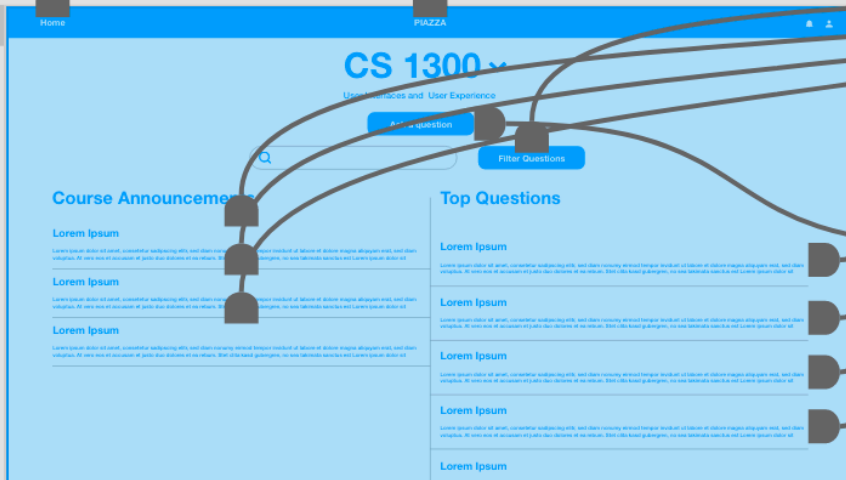
## Home



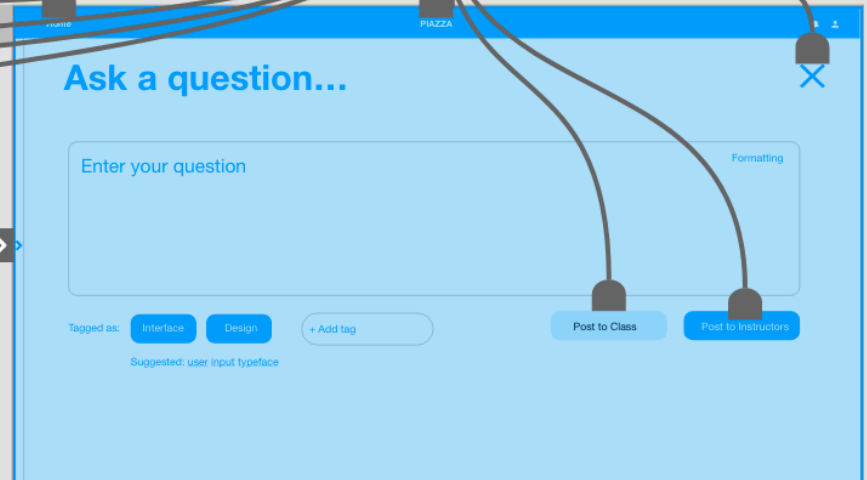
## Question



## Class Home

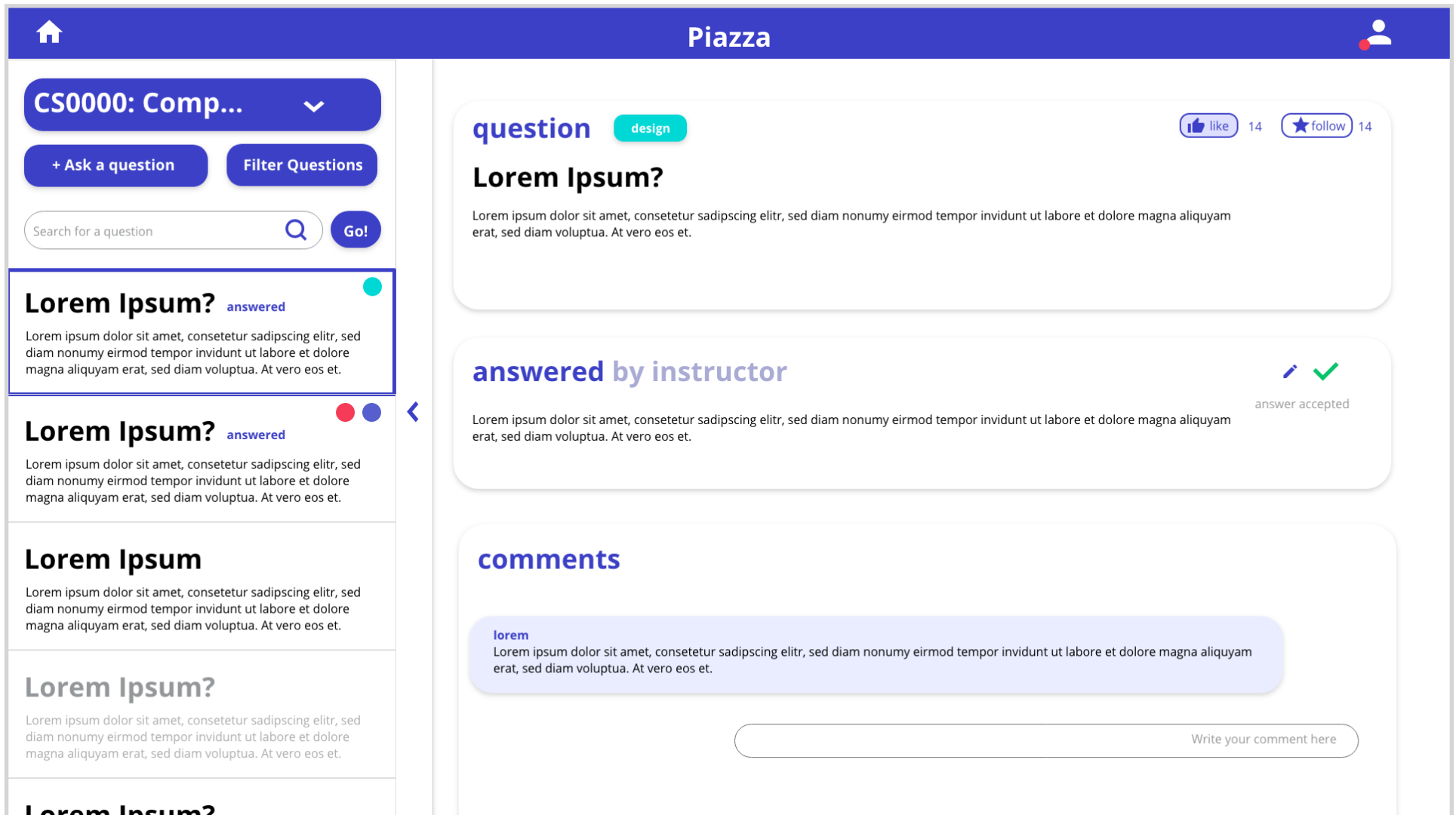


## Question ask



## High Fidelity Mockup

In this mockup, I tried to make visual cues, such as font size, icons, coloring of text much clearer, though a similar structure to current piazza is maintained. To improve memorability, this design intends for each class to have its own color (two theme colors for two different classes are included). Color and bolded fonts are used throughout to draw user's attention, while familiar icons are used to allow users to apply their existing mental models to this interface. I have assumed that some hover text would be added in various places to allow for better learnability. .



Theme Color 1

Piazza

CS0001: Comp...

+ Ask a question

Filter Questions

Search for a question

Go!

Lorem Ipsum?

answered

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answered by instructor

answer accepted

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Write your comment here

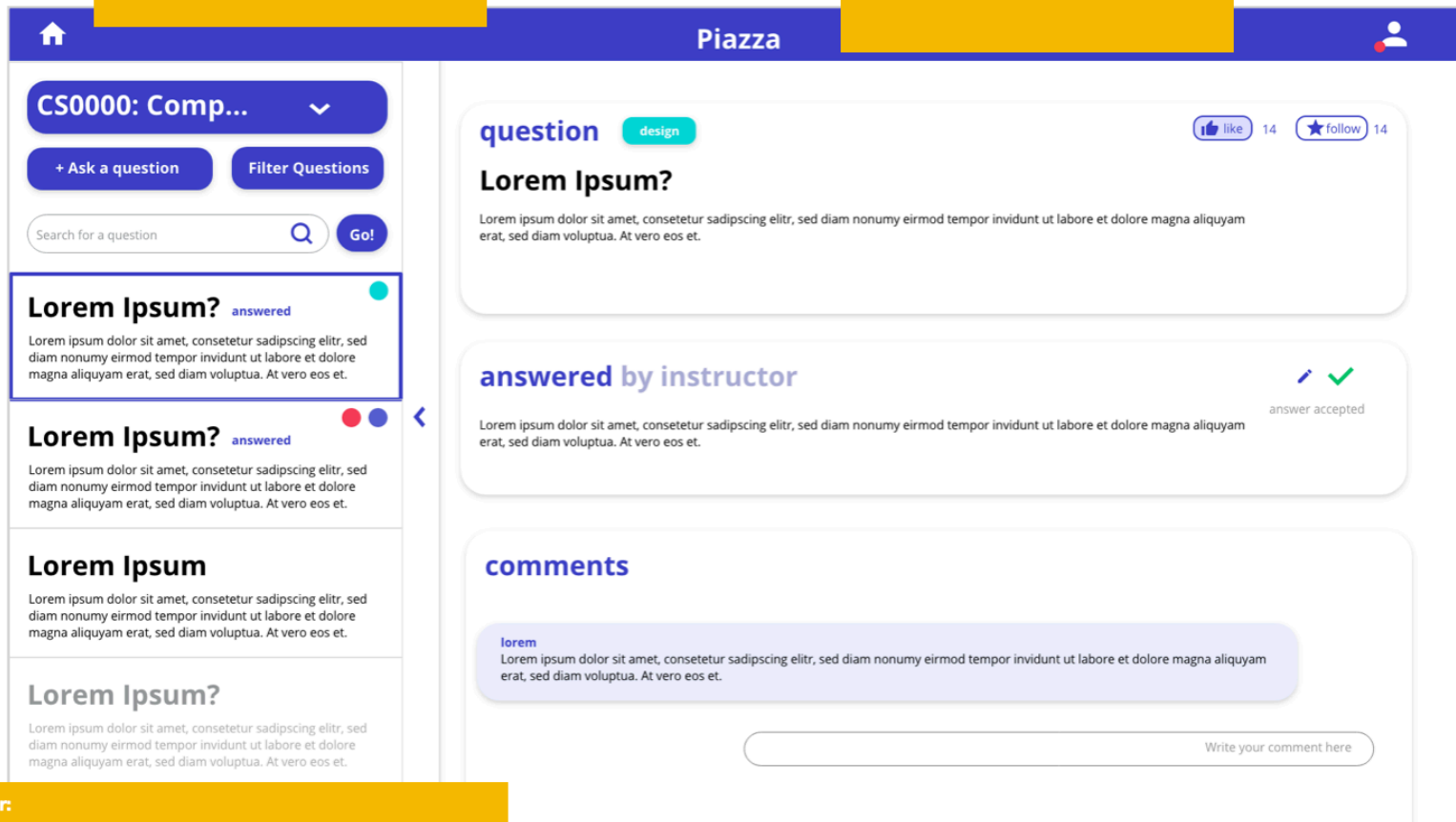
Theme Color 2

# Annotated Mockup

At 600px, the class picker jumps to the navbar, and the piazza logo disappears.

**Nav Bar:**

Icons maintain relative font size (rems). This is a flex-box, so the icons simply become closer together as the screen gets smaller.



**Sidebar:**

Can be toggled on-off to fill whole screen on mobile using the collapse bar. Either fills whole screen or none of screen

On a tablet, can be expanded to cover left side of question screen or hidden (but covers question when expanded).

On desktop and 4k, can be hidden, question screen shrinks or expands when toggled

**Question Boxes:**

Defined as a percentage of parent-div width.

Font size defined in rem, shrink and grow depending on body font size to deal with both 4k monitors and mobile devices

## **Responsive Redesign**

As I was working alone and my hi-fi mockup was fairly complex, I didn't have time to fully implement all aspects. However, I hope the included implementation can offer some insight into how the actual webpage would respond.