


CS486C – Senior Capstone Design in Computer Science

Project Description

Project Title: Interactive Editing Quiz App	
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Project Overview

The importance of interactive quizzes

We have all taken boring quizzes that waste our time: they ask about unimportant details or they offer only run-of-the-mill, easily guessable multiple choice items. They test your memory rather than your ability to perform on the job. Or worse, the quizzes are so complicated that they test not your understanding of material but rather your ability to figure out complicated instructions.

My goal is to create engaging, real-life-skill quizzes for my students--online Professional Writing graduate students and technical writing undergraduate students--that not only test their knowledge but also teach them something new. And, most importantly, these quizzes will help students to practice skills that real editors use every day.

I know that technology can help us create interactive quizzes that mimic the way that professional editors think. And I believe that you can help.

Who I Am

My name is Erika Konrad, and I am a teaching professor in the Department of English at NAU. I teach online courses in professional and technical writing, including a course called "Professional Editing." This class includes projects and quizzes on grammar, punctuation, and usage issues.

A few years ago, I started requiring my editing students to take free quizzes on the *New York Times* (NYT) website. These quizzes mimic the way editors think. My students love them, and they have asked me to convert all my quizzes and other activities into the NYT quiz format. However, I have run into issues complying with their request.

The Problems

The *NYT* editing quizzes are wonderful, but there are several problems I've encountered in using them.

- Students can max out their ability to take the quizzes: the *NYT* limits the content that non-subscribers can access.
- The *NYT* quizzes cover issues common in their newspaper rather than issues common to what my students will be doing when they graduate.

My biggest problem is that I can't find a ready-made platform for hosting or creating such quizzes.

- I can't create this type of interactive quiz in Canvas, the NAU learning management system. Canvas offers multiple choice, True/False, and other standard types of non-interactive quizzes.
- Google Forms, Qualtrics, and Survey Monkey also do not offer this type of quiz.

The Solution

I would like your help to build a web app that is similar to the *New York Times* "Copyedit This" quizzes.

You can see examples of the *NYT* editing quizzes here on the "[copy edit this](#)" website.

Below is a screenshot of a correct answer in one of the *NYT* quizzes. The screenshot shows what happens when I clicked on "were," a word in the text that needs to be edited: the app turns it red and pops up an explanation of how that word needs to be edited:

You don't have to explain the error or fix it; just click on the part you think is wrong. If I agree, you'll see my explanation. If you're off base, try again.

And remember, we're on deadline here!



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Each of the candidates' names **were**was written on pieces of paper, folded in half, and placed in the appropriate box.

Correct!

In a construction like this, "each" is singular and needs a singular verb; make it "was written on a piece of paper."

That took you 1 try (along with 71 percent of other Times readers). You did better than 27 percent of readers. The median score was 2.

Below is what an incorrect answer looks like in the app. In this instance, I clicked on the word “little.” The app greyed out that word, showing me that “little” doesn’t need to be edited.



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“We’re planning on owning this team for a long time, so I might have a little longer-term view than that, to be honest,” Lacob said of he and his main ownership partner, Peter Guber.

1 try

Previous

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Solution overview

Key features of the app include the following:

1. I will need an administrator’s panel so that I can create and edit the quizzes. I will feed the app with the quiz items, correct solutions, and editing advice.
2. I will need access to the students’ quiz results so I can record whether they completed the quiz and how many attempts they made.
3. I would like to be able to tag the quiz items so that I can search them for editing topic so I can research trends in student performance. This research will help me to create teaching interventions.
4. Students will need to register in a class or “group” so I can assign quizzes to that group. This might involve the students creating an account with a password.
5. Students will need to be able to see their results immediately and to have access to their results during the semester.

Stretch goals

1. The ability for students to track their progress (to see their number of attempts for each topic).
2. Embed the quizzes in the Canvas interface for automatic grading.
3. A mobile app

Impact of a successful product

Your expertise will help NAU students to become better editors in the workplace and it will help them to enjoy their learning experience more.

Knowledge, skills, and expertise required for this project

- Web page development with quality UI/UX presentation that creates a friendly and easy to use interface
- Web deployment
- Database management and interaction, possibly with a cloud/server component

Equipment Requirements

There should be no equipment or software required other than a development platform and software/tools freely available online.

Software and other Deliverables

- The software application, as described above, deployed and tested successfully.
- A complete and clear user manual for operating the app, both for students and for the administrator.
- A strong as-built report detailing the design and implementation of the product in a complete, clear, and professional manner. This document should provide a strong basis for future development of the product.
- Complete professionally-documented codebase, delivered both as a repository in GitHub, BitBucket, or some other version control repository; and as a physical archive on a USB drive.