Team Icarus Project Proposal

Team Name:

Icarus

Members:

Ben Zaeske, Tianfang Wang, Xuejuan Feng, Michael Wegner, Aidan Duggan, Quinlan Mcnatt

Description:

Our project will be a chat room-esque interface available on desktop (and possibly mobile) for students to post questions during lecture. Professors, TA's, and students will log in and be able to see questions that others have. The professor and TA's in charge of giving the lecture will be able to easily see questions posted and answer them without having to call on students and potentially miss hear certain questions. A product like this will also help students who are shy or unsure about asking questions get the answers they need in a large lecture hall.

Our product is not just a basic chat room, and will have a variety of features that will make student-teacher communications very streamlined. It will allow students to vote on other questions that they like or want to know the answer to. Higher voted questions will appear with a higher priority on the teacher's queue of things to answer or address. Our product will also allow teachers to post multiple choice questions to the entire class that students can respond to, exactly like clickers work now. This will be beneficial to students who won't have to buy clickers as well as teachers who will now have one place to take attendance, answer questions, and conduct clicker surveys and quizzes. Our product will also give the option to have all the questions sent to you in email at the end of a class for later review. Additionally, if your question wasn't answered in class, our product will give students an option to post their question to moodle or piazza with a simple click of a button. As we develop our product further, we will undoubtedly think of more innovative ways to further streamline teacher-student communication in lecture, which is the main goal of our project.

Vision Statement:

For both students and teachers in a large lecture environment, the Icarus Project is a clean and accessible forum that will promote and streamline dialogue real time during large lectures.

Motivation:

Piazza and moodle have good interfaces for posting questions online, but none of them have a real-time interactive option that would allow for easy discussion in a classroom setting with large numbers of students. Our product's main motivation is to make sure that questions in large

lectures and classes can easily get answered or addressed.

Risks:

1. Team lack of experience with web development.
2. Team lack of experience with server management.

Risk Mitigation Plan:

1. Proper time management will allow for our group to gain the necessary skills to tackle these risks. By giving ourselves plenty of time, and helping each other through the roadblocks created due to our lack of knowledge, we will be able to develop a clean and working product despite our lack of experience at the beginning.
2. Same as 1 (above)

Version Control:

We will be using github as our method of version control. The link to our repository is below*

Development Method:

We will be using the agile method described to us in lab 3. The agile method seems to us to be the most effective way to develop a product because of its flexibility. We will be able to see what is working well and what we might want to change as we develop our project as opposed to seeing issues arise further down the line. We will plan and implement smaller parts of the project at a time in order to arrive at a finalized product in an efficient and clean manner.

Collaboration Tool:

Slack will be used as the main collaboration tool. The slack webpage for our group is below**

Proposed Architecture:

The front end of our product will be a Web Page/app developed with HTML, CSS, and Javascript. The back end programming will be done in python and server management will be done with MYSQL. The Frontend and Backend will communicate by a single page, AJAX-powered application.

*Github link:
https://github.com/MichaelWegnerCU/Icarus_Project.git

**Slack link:
https://icarusprojectgroup.slack.com

Slack Signup Link:
https://join.slack.com/t/icarusprojectgroup/shared_invite/enQtMzE2NTYwNDg2OTMxLWYyZjE0ZmM3YTY1YmY4MzYxZjQ3MmUxMDI1OTViMDNjMDA2ODQzZWVhOWMwY2YyOThlNTZkYWZkODQ0NjgyNDE