

## **CS132 Capstone Project – Bloom/iLeaf**

For my capstone project, my group and I worked on a web app for Professor Monica Linden in which both her and other professors could use it to measure how students in their classes performed on exams based off of categorical frameworks such as Bloom's Taxonomy. Students can also use it to see areas in which they need improvement on (e.g. if an exam used Bloom's Taxonomy to categorize its questions, a student may find that they did not perform well on questions that required applying the material to new situations). This web app allows professors to enter data about exam questions and see aggregate data about how the class did as a whole. For the students, it allows them to input their scores in for exams, and see their report on how well they did in each of the categories.

For this project, I worked mostly on the back-end of the project, in particular, the server to database communications. We used MongoDB as our database, so I helped develop schemas to store the necessary data that we needed for our web app and functions that the server could call to query the MongoDB database to either return the info that we need (e.g. returning an array of students that have not entered their scores for a particular exam) or make changes to the database (e.g. inserting a course document with data about the students also inserts the course within their documents). I also helped work on some minor front-end bugfixes involving HTML/CSS, such as web content getting cut off by the scroll bar.

We have a live site up at the moment (<http://ec2-52-201-225-242.compute-1.amazonaws.com/>), but we are also planning on continuing to work on this project over the summer with Professor Linden and CIS, so this link may change in the future.