ENSE 374 – GROUP PROJECT REPORT

THE POST-ITS

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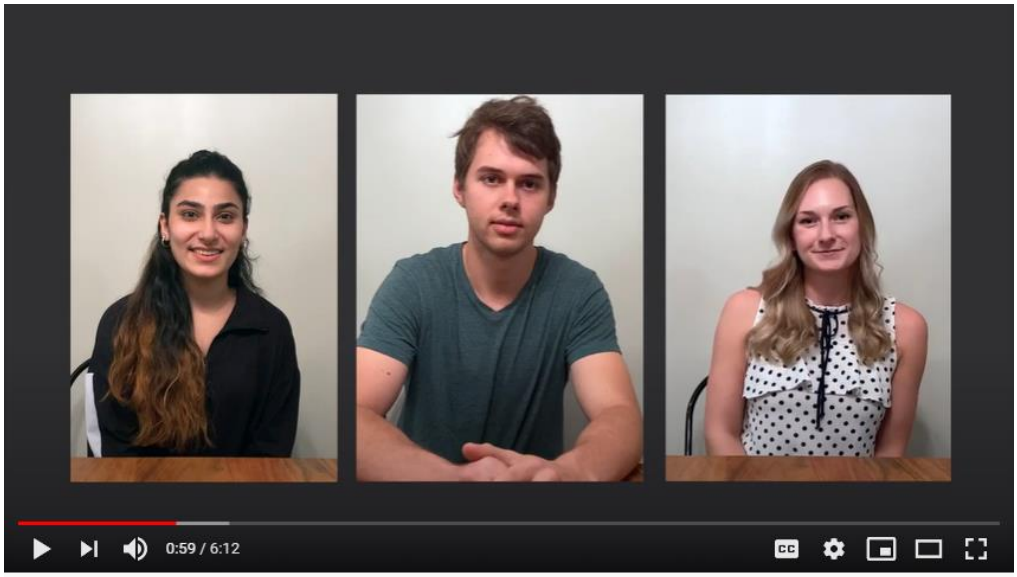
Activity 1

We were nervous after first hearing about the group project and expected that a tedious collaboration with classmates who half-cared was about to take off. After attending the first group call we were blown away by the motivation and eagerness emanating from our teammates. We openly discussed ideas and chose a project topic. Roxanne quickly fell into a role of leadership as we built upon one of her ideas and further developed a team vision for the application. Ria, although timid at first, gained momentum as the project went on and brought a unique perspective to many of our design discussions and documentation styles. Shane kept us grounded at times when it came to over-zealous MVPs.

The selected project, titled “Collaborative Quiz” was at the time of conception a platform where students from across the world can select their school and specific courses to share practice problems with their peers. Feedback we received about our initial idea was that it is important for us to differentiate ourselves from currently available services. The route we chose to make this differentiation was to focus on the social aspect of the concept (i.e. peer to peer learning and competition).



ENSE 374 PROJECT VLOG #1

Our vlogs were recorded together at one location (up until the last one) on an iPhone with Roxanne volunteering as editor. The entire group is very happy with the quality and care that went into each vlog.

Activity 2

We chose to distribute labour by assigning two or three documents to each group member to complete independently. We set a timeline by which to complete our documents. Once we reached our deadline we met via zoom to inform and consult each other about the contents of our documents and to make any appropriate changes to harmonize our work. A learning point was the fact that some of these documents required the entire group to collaborate synchronously to effectively reach a satisfactory product.

The project roles and responsibilities, stakeholder analysis, and project charter turned out to be less important documents to our project and completing them for the purposes of this class seemed to be about exposure to documentation we may see in the future. We adapted these documents to match the project's evolution rather than using these documents as guidance.

The business case and project scope statement were highly influential documents in guiding the direction of our project. They provided us with a general framework of goals (business case) and user stories we wanted to satisfy (scope statement). The business scope statement argues that there is no resource out there that targets the particular course a university offers. High specificity would be advantageous as it would help students prepare for what their institution expects of them and focus their efforts accordingly. Different options in terms of functionality are laid out in the business case, we chose option “B” as our goal from the chart below:

Options	A: Basic Functionality - Users are able to upload questions and answers related to specific University courses - Create randomly generated quizzes B: Moderate Functionality: - Basic Functionality + - User login functionality - Data tracking of previously taken quizzes C: Full Functionality: - Moderate Functionality + - Analytics for different courses and study progress - Competitive options for studying vs. other users - Option to share with other users or people outside the website

The selected level of functionality moulded the project scope statement and set us on the path for our project. We chose option “B” because it seemed to be an acceptable level of complexity while not being too difficult to deliver in a two week sprint. We generated user stories to lead our efforts rather than rigid definitions of what we would do with the website, this allowed for greater flexibility when it came time to create. These user stories can be seen in the project scope document:

PROJECT SCOPE STATEMENT	
Project Name	ENSE 374 Group Project - Collaborative Quiz
Project Deliverables	
User Login	User Story: As a user I want to be able to log in to my account to be able to track my specific course material and previous quizzes.
Question Submission	User Story: As a user I want to be able to upload my practice questions to share them with other users and study my own material.
Course Specific Access	User Story: As a user I want to be able to view my study material by course name so that I can review my questions for an individual course.
Quiz Generation	User Story: As a user I want to be able to generate a randomized quiz so I can study both my own questions and those uploaded by other users.
Result Generation	User Story: As a user I want to be able to take a quiz and see my results to get a better understanding of both the material and my personal progress.

We excluded some user stories related to quiz sharing and social aspects of the platform. This choice was made because it became apparent later on that we had too much basic functionality to implement before being able to add the social portion. If we had another week or two in the sprint the next stage of Collaborative Quiz would be to implement social features such as quiz sharing, leaderboards, forums, and a like/dislike system.

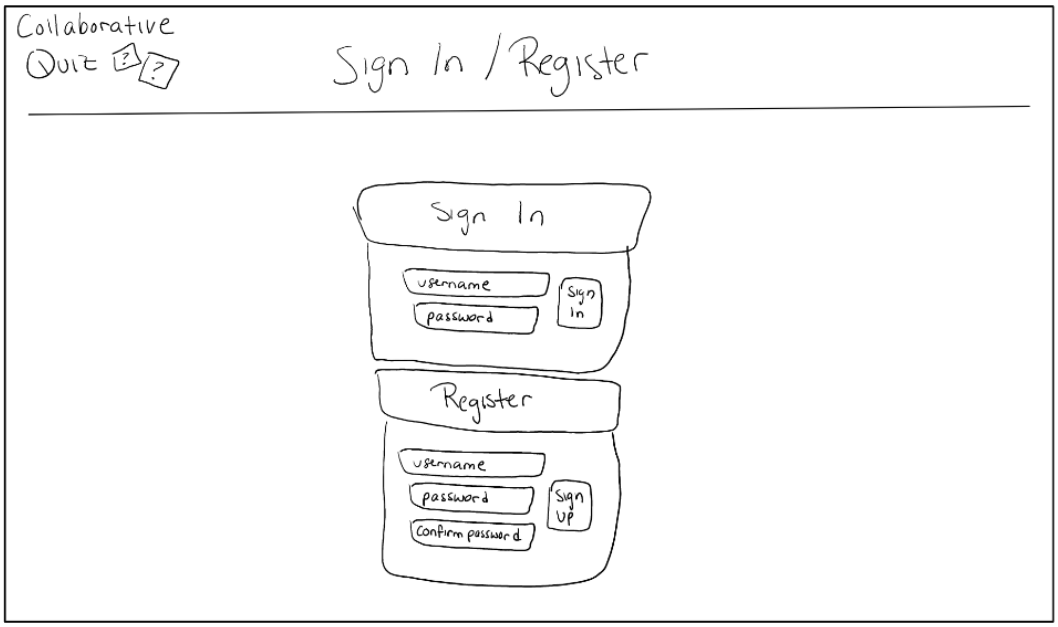
Feedback we received about our documentation included the fact that we should not yet limit ourselves to too specific a set of features, we took this to heart and ensured that we allowed ourselves flexibility in our development process. We also were told that we should maybe modify our roles and responsibilities to assign different tasks to each group member rather than assign ourselves all the same responsibilities, we did not actively act on this but it did happen organically with Ria and Shane focusing on the view and model alongside some documentation while Roxanne handled the controller along with view and model components. Lastly we were encouraged not to forget about our users in the stakeholder analysis which we promptly updated to reflect the users involvement.

Activity 3

At this point we had a good idea of where we wanted to go with the project and once more divided the work document by document. During this activity

however, being assigned a document simply meant taking the lead on it (or being responsible and accountable if we want to think RACI) with an emphasis on team collaboration. The whole group provided input for the visual documentation as we learned our lesson from the previous activity; for a piece of group work to be cohesive, communication is crucial. We tried making too pretty and professional of diagrams for some of the documents and ended up discarding them as the hand drawn whiteboard-style sketches were easier to understand and we realized we were being WET (writing everything twice)!

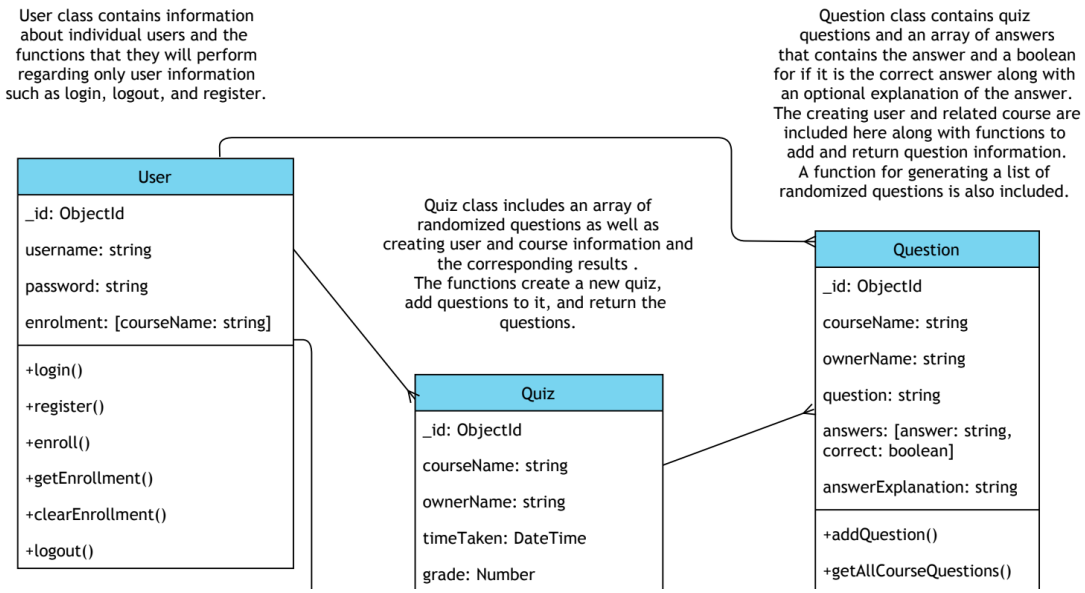
Visuals that provided little value to us were the UML-ish and MVC architecture diagrams. While they may be helpful in a more rigorously technical project, the simplicity of our work made them easy to picture in our minds with no additional documentation needed. Important diagrams we relied heavily on in development were lo-fi GUI sketches and the class diagram. The lo-fi sketches helped us wrap our heads around website navigation and page layout and provided a way to measure up our progress as we completed our web page's MVC in their entirety one page at a time. See the initial lo-fi sketch for the login page below:



The class diagrams kept our Model and Controller organized and on track. We did break away from the diagram a few times in the name of simplicity or finding a better solution but in general it was followed quite closely.

Feedback we received regarding the diagrams we created included adding a blurb describing document elements (particularly in the MVC diagram), it may be a good idea to add an "explanation" field when displaying quiz scores, and to ensure

we are breaking down the classes enough to maintain SOLID design. We reacted to all three of these points, we added an explanation field to the quiz review screen, simplified the classes, and added blurbs throughout to help an onlooker understand what is going on. See below a snapshot of our class diagram with improved class structures and explanations:



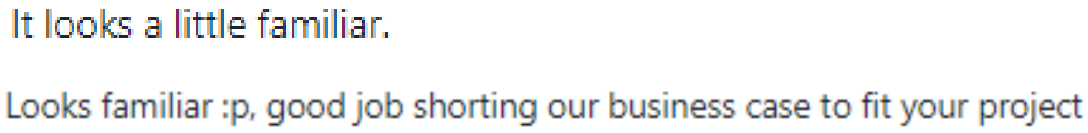
After this activity the team had a clear and unified vision in mind. Guided by our crude diagrams we were ready to tackle the only guarantee in software engineering, the coding.

Activity 4

Before we made it to the coding, we had to handle an individual activity regarding the group project. We had to peer review a group of peers and receive feedback from said group of peers.

This activity was truly an experience for the team. It was the first time we witnessed first hand our work being plagiarized which was quite a shock to us and had us in a zoom call discussing appropriate action. Initially we settled on leaving comments in the R2-D2's review mentioning that their behaviour was not

appreciated, unfortunately they chose to behave like cornered dogs and lash out at our group with an unclever “no u” approach in the reviews they left for us.



Our group - based on the immature comments received, made the decision that we should send an email to the instructor to ensure that our academic integrity would not be doubted, this email was never sent as we received our feedback for activity four with no negative comments regarding our integrity. As a consequence of this unfortunate (but valuable) experience our group received little usable feedback to improve on our project. They had little specific to say about our documentation, concept, or direction we were moving in. One member provided feedback that was relevant and valuable and gave us a good idea of questions and concerns an average user might have. Other than that, comments were generic and broad. Overall the fourth activity felt like a flop and left us tense and distrustful of the R2-D2’s. Little feedback from the R2-D2’s was considered moving forward with the project, maybe to some extent on account of saltiness.

Although the borrowing of work was relatively minor, this may have been the most valuable experience gained from this course. Our emotional intelligence was challenged and we experienced something we very well may see in our future careers. Despite this activity “feeling like a flop”, it was the most valuable outcome we could have hoped for.

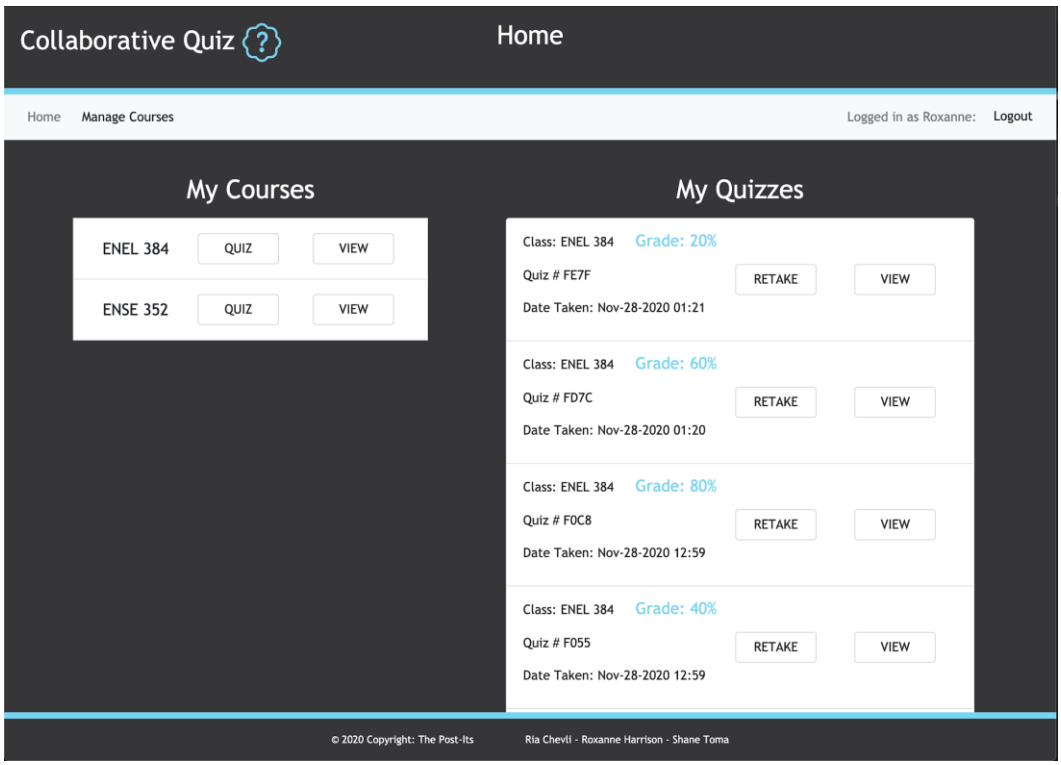
Activity 5

Lastly came the sprint; and was it ever a sprint! Not because of this class in particular, but because of every prof ever rushing to cram two months worth of content into two weeks. This unfortunate timing left multiple final projects to be executed during our implementation timeframe.

This was the point at which our appreciation for Roxanne stepping up became prominent. Roxanne took the lead in programming the controller, part of the view, and part of the model. Shane focused on the model and some of the view. Ria focused primarily on completing the view portion of the application. Since Roxanne

played such a strong role coding, Shane took on the lead on the project report while Ria took the lead on preparing the in class presentation.

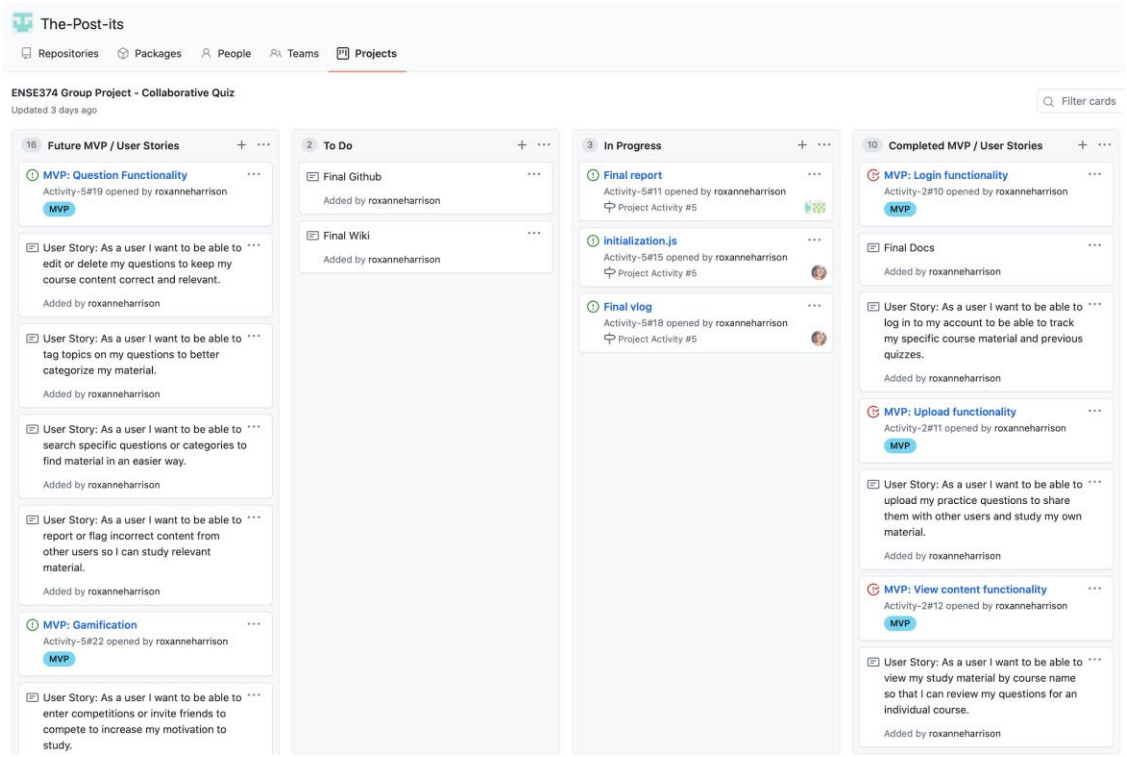
The final product worked well, looked great, and felt intuitive to use. We had met all stated user stories and MVPs we had set out to satisfy. See our app below:



As we look forward at the potential of our application we decided on four categories of future MVPs:

1. Improved question functionality
2. Gamification
3. User interaction
4. Profile improvements

We believe that improving functionality and adding more to the user experience will make for a platform that is not only fun and engaging, but overall very useful for the end user. These future MVPs will live on our KANBAN board seen below until someone is able to fulfill the app's full potential.



Strong organization and a motivated team made for a great experience. The team learned that to succeed we had to work together and collaborate actively. It is not enough to compare completed work once everyone has done their portion. The level of success we achieved in our web application went beyond our expectations.