UNIVERSITY OF CALGARY
HASKAYNE SCHOOL OF BUSINESS

UNIVERSITY OF CALGARY
FACULTY OF SCIENCE

ENTI 381 Introduction to Entrepreneurship
CPSC 405 Software Entrepreneurship
Fall 2018

Project Milestone Two

Nov 5, 2018

Team Name:
InSiight

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1. Business Plan

Business Model (Lean Canvas)

InSiight's opportunity for market dominance is seen through our validations completed with both students and professors. With over 51 responses from students and two professors, we have an influx of data suggesting a market for InSiight. Two professors surveyed having 11-15 years of teaching experience, give students feedback through self-created Desire2Learn (D2L) surveys and assignment completions. These are very time-consuming processes for professors as well as Teaching Assistants (TAs). 63% of responses said there are inadequate opportunities for providing feedback to professors. Stating "I don't want to be confrontational and create a target on my back" and "there is not an open space to give professors feedback during the semester, only at the end of the course" students are struggling to find a solution to their feedback problems. 47% of students would like to provide course progress updates after every milestone, many also suggesting after every week of lectures and monthly updates. These metrics have assisted InSiight in validating our core customers to make learning better. Selling to institutions shows commitment across the institution to improve courses in every aspect. This keeps professors accountable; administration sees how the professor is doing as well as the students within classes. With institutions covering overhead costs for our platform, professors can keep money in their pockets while gaining critical metrics about their classrooms.

InSiight provides a unique solution to an increasing problem across educational institutions. Combining our student experiences with giving feedback, our team can tackle the process and develop a solution for everyone. Currently, no products are solving this issue, although many substitutes that are time-consuming and difficult to use are on the market. The qualities of our analytics from our platform are essential to professors and the administration of institutions as it explores a new realm of insight.

The following page shows our lean model canvas breakdown. The lean canvas is a modern adaptation to the traditional business model canvas. It is used for newer, smaller startup firms as the categories are more problem/solution focused. As a very small firm, we believe choosing the lean model canvas for our particular product is more appropriate than the business model canvas. Since our product will be very problem/solution/customer-centric, our chosen prototype ties in nicely as we tried to make the UX solve the issue with the lack of student-teacher communication.

<table>
<tr>
<td>Problem / Need

- No method of discreetly giving feedback to your instructor
- Students feel isolated when problems arise during learning
- Instructors want detailed metrics of how students are truly performing
- Reporting issues with the class in-person can come across as daunting and confrontational
- Students can be apart of a community leading to a better learning environment for everyone</td>
<td>Solution

- InSiight is a platform made to increase the student-teacher feedback experience as well as display key analytics to the instructor for your course. It is composed of three key features:
• Regular feedback for courses during the year
• Analytics from students for the professor so that they may modify teaching as needed
• Comfortable environment with other students to share problems

Key Metrics

- Data is one of the advantages to our platform as it can be used to see student engagement in the course also on our platform.
- An easy-to-use platform to help students learn better.
- We created survey's to gain analytics from students and professors helping shape the solution we are offering.</td>
<td>Unique Value Proposition

- Our platform bridges the gap between student and instructor feedback and helps students and instructors who want to make a better learning environment. Our platform is unique as it builds a community of students aimed at providing quality feedback throughout their course, unlike competitors who only offer feedback after the class is taught or not at all.</td>
<td>Competitive Advantage

- Our competitive advantage lies within our teams' skills. We have the opportunity to develop our platform in-house as well as experience the problem from our student perspectives. We can use our connections and our student status to gather key features needed on our platform.
Unfair Advantage
- Our platform can't be easily copied or bought
- Our experience helps us design a better platform

Channels (Marketing and Communication)

- Student media (university newspaper, bulk emails)
- Direct selling to institutions
- Student ambassadors/influencers
- Word-of-mouth
- Our website with SEO (www.insiight.ca)
- Classroom announcements</td>
<td>Customer Segments

During our entry stage, it is important to focus most efforts on the primary target audience (PTA). As such, our PTA for the product are university students and university professors. According to the opportunity checklist, this customer segment is clearly defined, and the market size is growing which is another benefit.
- University students
- University professors

Innovators/Early Adopters
- Students eager to better their learning
- Instructors looking to improve their class</td>
</tr>
<tr>
<td colspan="2">Cost Structure

- Development of platform (CPSC students)
- Programs needed to develop our platform
- Costs associated with selling to institutions
- Upkeep of platform (servers, bug fixing)
- Marketing of platform (flyers, education about our platform)</td>
<td colspan="3">Revenue Streams

- We plan on selling direct to institutions such as the University of Calgary to accelerate our growth rather than direct to professors or students. Plans for institutions will be customized to include analytics for professors to check on how their students are doing.
- The optional premium add-on would unlock greater functionality within the website, such as in-depth analytics for professors to improve their teaching styles. We could also offer students additional functionality like writing more than one-course comment (the free model would purposely be limited to one per day for example).
- We will have a freemium-premium model where students can use the platform for free, while institutional contracts make up the majority of revenue
- In the early stages, we do not want to employ an advertising model as that can be off-putting to users. Advertisements on our platform can supplement income in the future, but only with a large user base.</td>
</tr>
</table>

Business Strategy

Entry Strategy

The initial part of our entry strategy focuses on competitor research. Benchmarking competitors and learning their best practices can help us launch a more successful product. We began by looking into competitors that offer the most similar product, which happened to be Top Hat Monacle. While we initially planned to pitch our product at the institutional level as a top-down approach, we found that Top Hat tried a similar strategy and failed. This was due to the increased levels of bureaucracy involved for the approval of a product. As such, we aim to employ a stronger top-down strategy in our approach. Approaching and marketing to every professor would be very costly and time-consuming. As a startup, we do not have the resources to deploy a bottom-up strategy. Institutional selling would provide us with larger contracts worth more money per sale.

Another part of our entry strategy is to have a clear, well-defined customer segment. We identified that our primary target audiences are post-secondary professors and students. With this in mind, we can create an experience that best fits their needs. Having a core user group allows us to target specific demographics such as age, limitations, and goals. We know the unique dynamics of our target market allowing us to help them solve a problem they are experienced in and frustrated with. We have many connections to designers, developers, sales, and marketing contacts to assist us with making our platform a success. Using the 80/20 rule, we could use the same tools, metrics, processes and strategy to get 80% of the market and wait a year to localize the business model and marketing strategy to get the other 20%. Focusing on the small fish is good to start, although we can generalize our strategy for the most part to gain influential innovator universities.

Growth Strategy

While at this stage in our venture our primary concern is the entry strategy, it can also be worthwhile to have some idea for the growth strategy. We plan to pilot our project in a select few classrooms at the University of Calgary (U of C), though we want to design our product to be scalable and replicable. If we can manage to find success in increasing numbers of classrooms throughout the U of C, we may consider local expansion into other educational institutions, such as Mount Royal University. This will, in turn, require greater advertising efforts and spreading the popularity of the app through word of mouth. Luckily, as a piece of software rather than a tangible product, it is a lot easier to distribute. Upon finding success locally, it would only make sense to expand nationally and then internationally. If and when we do expand internationally, we would have to pay careful attention to each country's specific regulations (if any) when it comes to academia.

As a longer-term growth strategy, it can be worth investing in a diverse range of products

so that we have multiple revenue streams. Creating paid add-on products that extend the scope of the website can be valuable. Inevitably we would want to consider translating our website to an iOS and Android app as more and more people access the internet through mobile devices. Very long-term growth may include looking into our secondary target audience (STA) which may be teachers and students in the high school environment.

Marketing Strategy

Customer Segmentation

InSiight's segmentation strategy is to group customers based on the benefits sought. This type of segmentation allows us to have two product levels (basic and advanced), as per our freemium business model. The first benefit our product offers is the ability to complete the feedback process online, removing human error and labour from the process. The second benefit is that the data is safely stored online, and can be retrieved later in time, without needing to browse paper copies. The third advantage to using our software is to allow for trending and sophisticated reporting to be displayed using the data. The last advantage is based on the ability to customize feedback questions and frequency. Based on these benefits, there are two groups of primary customers, the ones who want to move to a secure online system (basic) and the ones who wish to have the ability to customize the feedback process to their needs and to analyze the data in depth (advanced). The primary customers are 96 Canadian (https://www.univcan.ca/universities/facts-and-stats/enrolment-by-university/), with a student population size of 1.8 million as of 2016. Our secondary customers are high school level public and private schools in the major Canadian cities.
Our business will focus on implementing small, iterative launches, starting with our local Calgary geographical area, namely the University of Calgary and later Mount Royal University.

Target Market

As stated above we will first focus on a very niche market, namely the University of Calgary. This will enable us to work out bugs in the software and better understand our primary customer, namely Canadian universities. We believe focusing in on this niche market will enable is to grow business one step at a time, while ensuring we have the in-house expertise and resource to succeed.

InSiight's Position Map

Our business' position is illustrated through the map below. We believe that our product fills in a gap in the market which other software is not able to. There are a variety of

employee-employer onboarding, course administration and feedback software, however none of them fit the particular classroom feedback need. Our product, InSiight is strategically placed to provide the highest value to our target customer, at a cheaper price than products that can provide similar features such as D2L and Top Hat. On the other hand, softwares such as Google Forms, Survey Money and Culture Amp, are significantly cheaper to purchase than D2L, however they do not address the need and full-time employees would need to be employed to carry out the function of the software.

Below is a description of some of our competition:

Culture Amp is priced at $10,500/year for a number of users between 200 and 2000. Also, it is aimed towards employers, so it would need some tweaking to make it effective for the classroom direct learning. More information can be found at: https://www.cultureamp.com/

Socrative is a platform that allows professors do quickly administer quizzes, one-time questions, as well as feedback surveys. The price ten classes with a maximum of 150 students per class is $99.99/year. This platform would not be feasible for large university classroom where more than 200 students are enrolled. Furthermore, the focus of this software is to administer tests and increase student participation in lectures, similar to Top Hat, and focused feedback is an added feature. More information can be found at: https://www.socrative.com

Zonka is software that is focused on employee and customer feedback, and it is priced at $4188/year with 20 device licences. The purpose of this software is not exactly what is needed, although it can be described as a substitute for our product. To implement this

software given the current structure, administrators would be required to administer the software, which does not address the gap in the market our product is trying to fill. More information is available at: https://www.zonkafeedback.com/

Top Hat is priced at $38/year/student with over 30,00 students studying at Universty of Calgary (https://www.ucalgary.ca/about/our-story/facts-and-figures), the price for this subscription surpasses $1 million per year for the university. It is not feasible for the university to implement this system at this cost.

Survey Monkey, the premium version for $1188/year and it can be used to administer surveys, however, given the limited number of admins, employees would need to be hired on the university side to administer this survey. This once again does not fill the gap in the market.

Google Forms is free to use; however, it is not feasible to store and analyze the data over time.

D2L is believed to cost in the range of $0.50 to $10 per user per course (https://blog.capterra.com/learning-management-software-costs/), where an accurate number was not able to be nailed down as it depends on the number of students, instructors and TAs that have access to the course in addition to the admin staff. A rough calculation based on 26,000 undergraduate students taking an average of 4 classes/ semester at $5/class would add up to a value of $520,000 per year, without any cost incurred for the admin and professor use. This number is just an estimation, as an accurate price for D2L was not found.

InSiight Marketing Mix

The marketing mix of InSiight is a unique, optimal blend of product, pricing, place and promotion designed to produce mutually satisfying exchanges with the target market. We recognize that this mix may change, as we develop our business. We expect to continually update our marketing mix in response to new information that becomes available as we are working on developing the software and business.

Product Strategy

Our company is focused on implementing an online, anonymous platform geared toward improving student-learning experiences through the use of live feedback. Our software product will be web-based in the early stages and then expanded to Android and iOS. Students can submit feedback in a discussion thread of a class session, on topics not understood or technical issue that they notice with the classroom environment. Students who relate to the submitted feedback may “upvote,” and the professor will see the issues in decreasing order based on the number of votes. Weekly micro-surveys which are built into the platform will allow the educator to have an overview of how the students are feeling in their course on a regular basis. The educator can choose to address the results

of the micro-surveys in the next class session.

Pricing Strategy

At this stage in our software development, our pricing strategy is to have a paid subscription for the full, advanced version of the software and to allow users to use the basic version for free to gain more customers. We are approaching our pricing strategy on a quality basis because we recognize that it is not feasible for us to implement a cost-plus based approach (where the price is set based on the direct and indirect cost of the product) due to the amount of sweat equity we are putting forward. Our strategy is to price our product competitively when compared to other similar softwares such as D2L and TopHat, in order to instill in our customer's mind a notion of quality. We will price out premium software version at roughly $2-$3 per user per month or equivalently $24-$36 per user per year.

Place (Distribution) Strategy

In software, there is not an extensive need for raw material manufacturing, storing and then distributing to the customers, hence our distribution channel is quite short. Currently, and in the short term, our founding team resides in Calgary, Alberta and will be able to facilitate the demos and implementation for clients in the surrounding region. As the business grows, we will explore the option of training new employees to cover other geographical areas with supervision from our core team. In the future, we will also explore the possibility of having a sales team that will be primarily tasked with conduction demos and turning potential clients into current ones.

Promotion Strategy

Our current promotion strategy is to demo the software to post-secondary professors in the Calgary area, in addition, to post-secondary administration staff. We are aware that currently, the University of Calgary is looking at updating the USRI process and we believe we are in a great position to host this new process. We will also welcome any educator who finds out about us via reference or online to use our free web-based application.

Once we are looking into expanding we will use advertising mediums such as educational conferences, Google AdSense and Google AdWords, articles in educational magazines and cold calling to other educational institutions which fit our primary or secondary target customers.

Business Branding Information

InSiight is the brand name of our company, and the picture below is the logo. One key feature of our logo is the dots of the i's leaning together in collaboration, as we believe that learning is a joint effort between the student and the educator. Furthermore, our intersecting squares further signifies the joint effort between two verticals, an educator with knowledge and a student wanting to gain knowledge. We hope to highlight these aspects through our solution.

Font

The logo font is Helvetica Neue.

Color scheme

Our logo uses the following turquoise shades

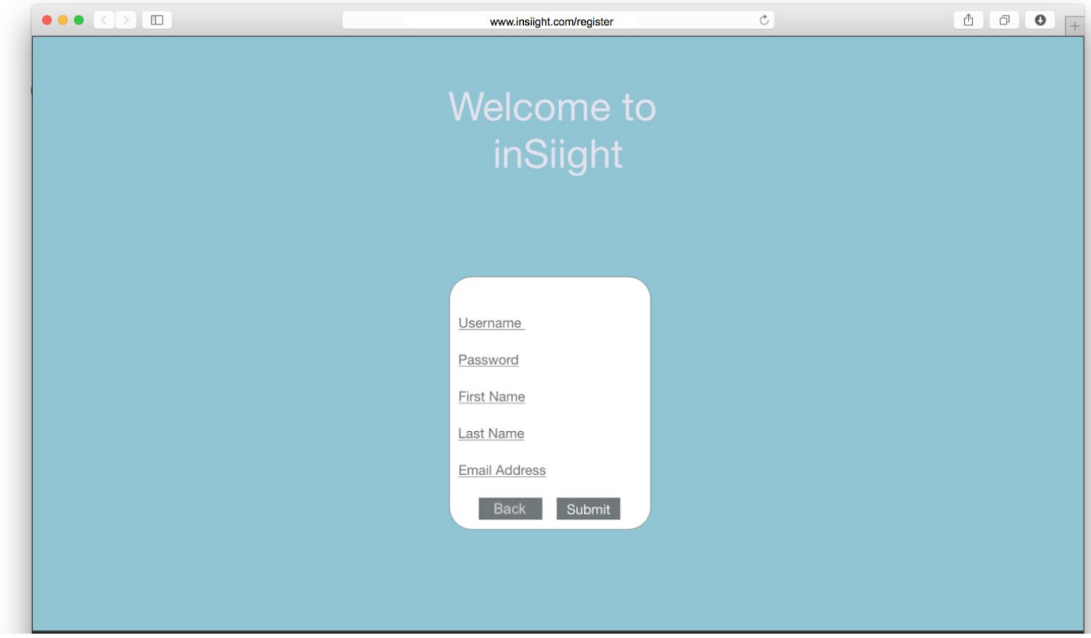
#3ED2CC - dark turquoise

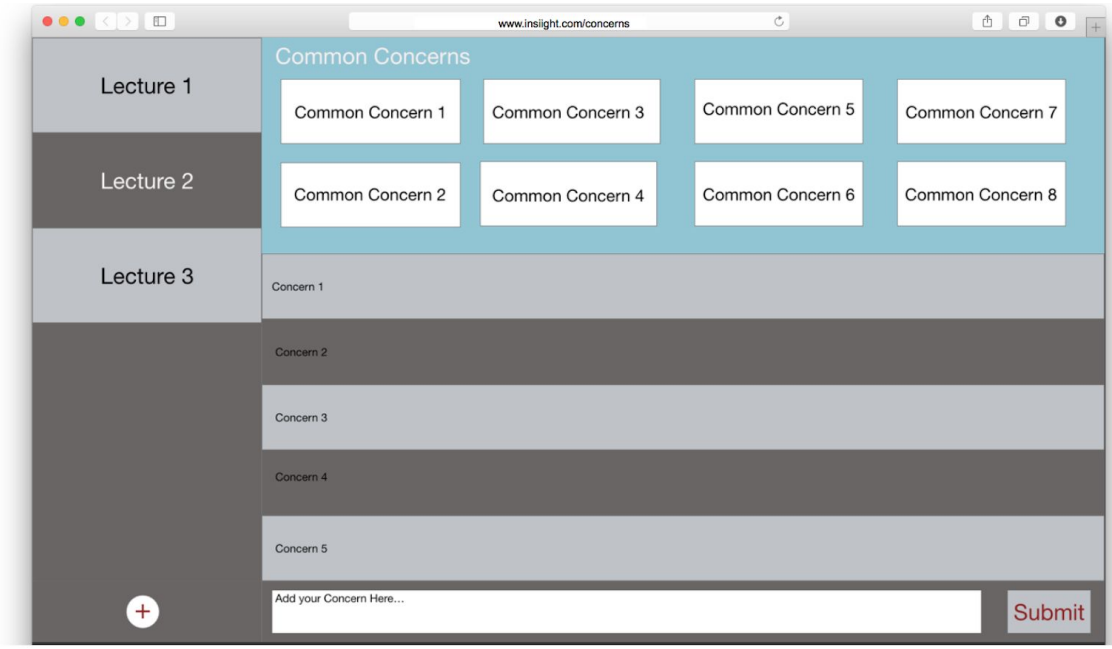
#83DFDB - lighter turquoise

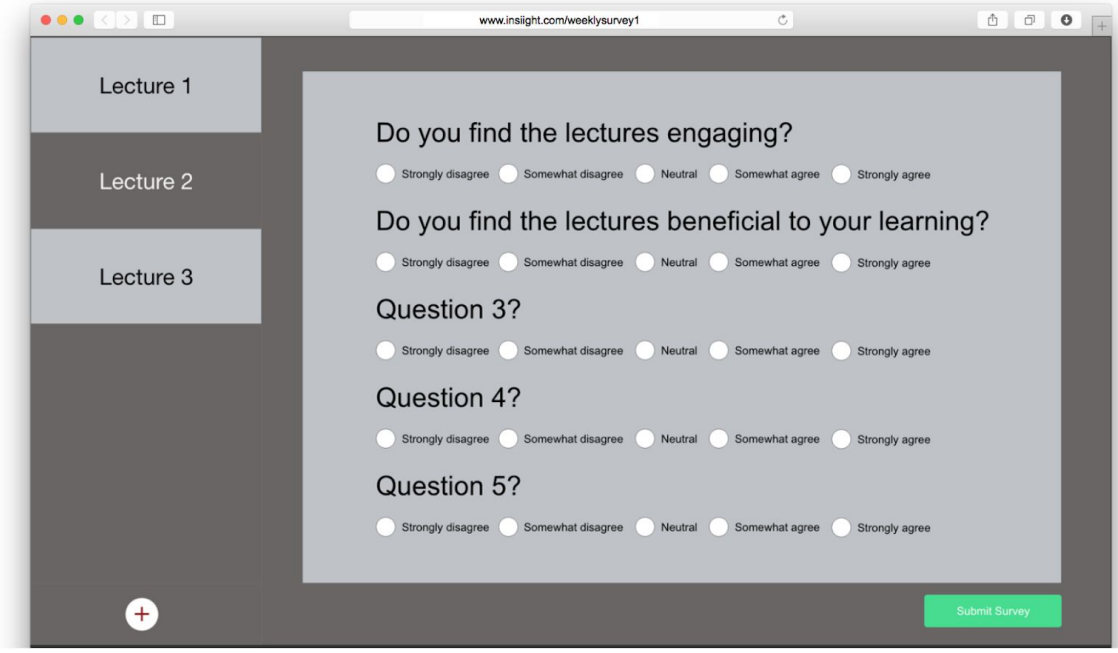
2. Technical Report

Paper Prototype

The following prototypes are the previous iterations of the website. Based on user feedback, we improved on the design which can be viewed further below and we also included a short demo video of a user interacting with the website.

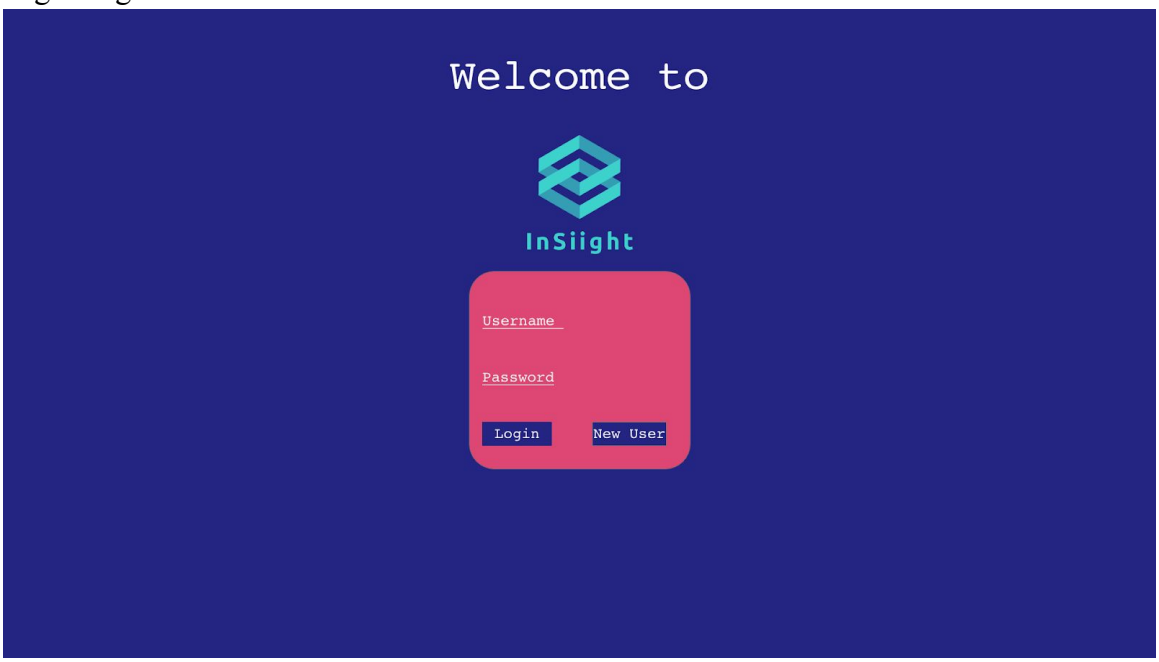



www.insiight.com/concerns
Lecture 1
Lecture 2
Lecture 3
Common Concerns
Common Concern 1
Common Concern 3
Common Concern 5
Common Concern 7
Common Concern 2
Common Concern 4
Common Concern 6
Common Concern 8
Concern 1
Concern 2
Concern 3
Concern 4
Concern 5
Add your Concern Here...
Submit

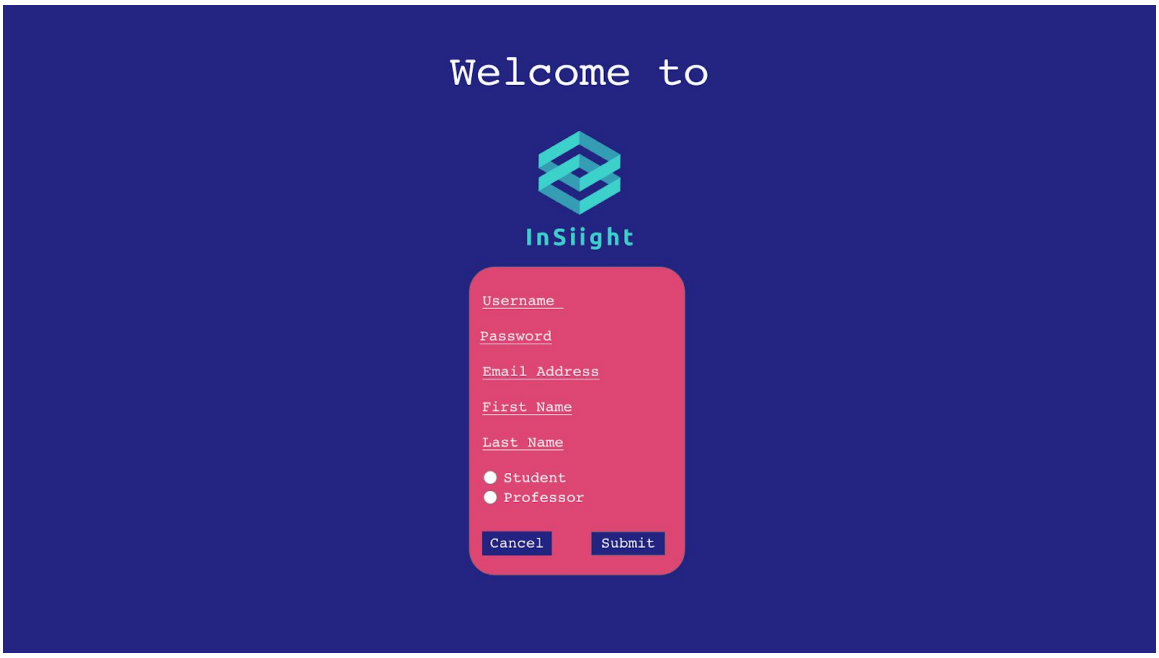

www.insiight.com/weeklysurvey1
Lecture 1
Lecture 2
Lecture 3
Do you find the lectures engaging?
Strongly disagree
Somewhat disagree
Neutral
Somewhat agree
Strongly agree
Do you find the lectures beneficial to your learning?
Question 3?
Question 4?
Question 5?
Submit Survey

Updated Prototype

Login Page

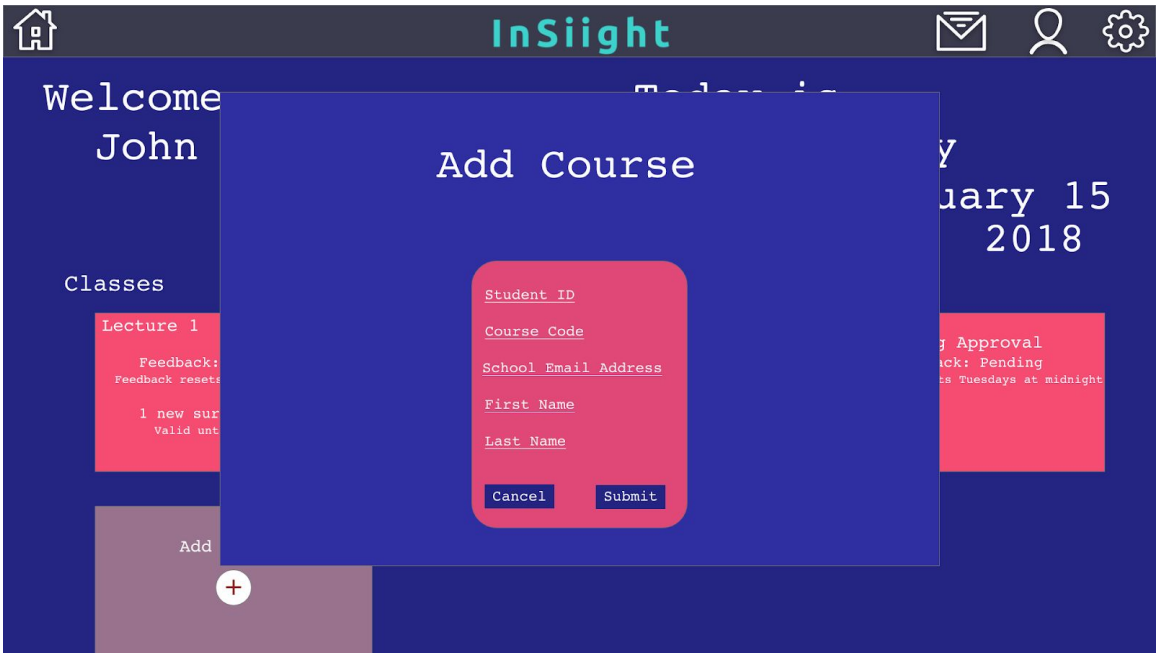


Registration Page

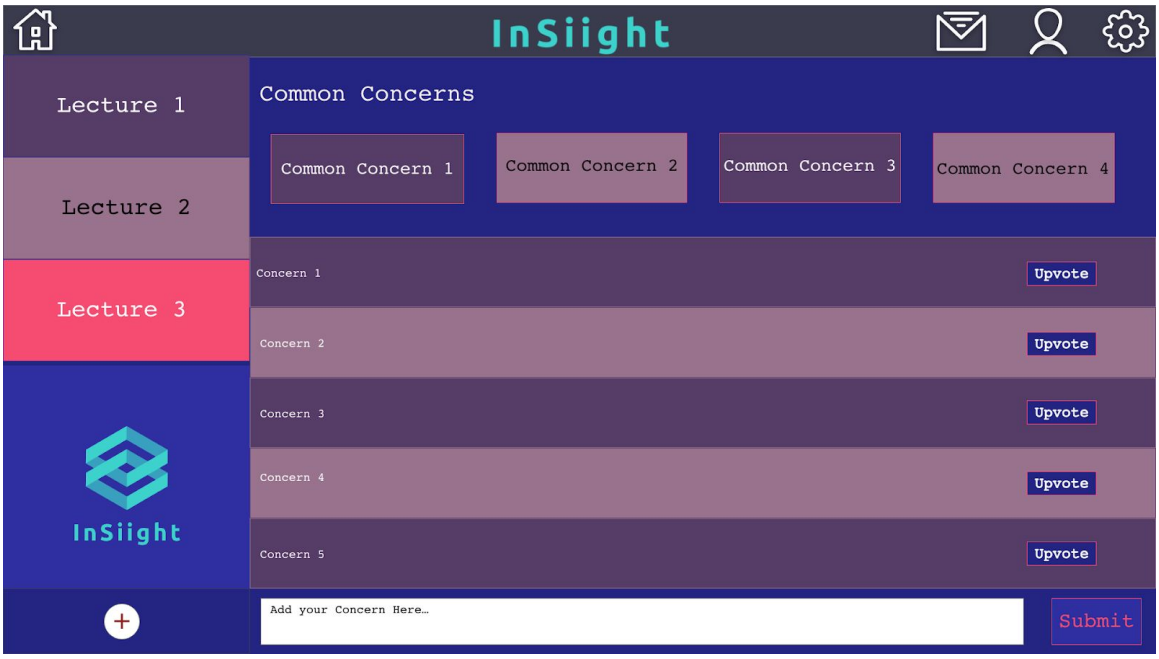


Student Homepage

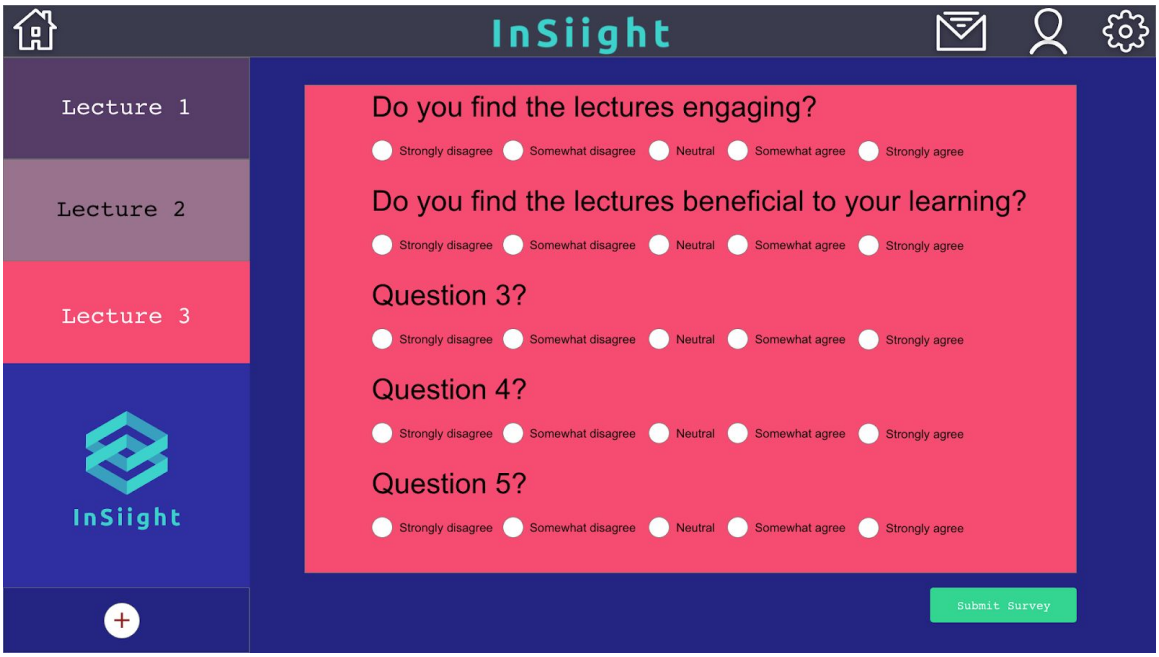
Add Course-Student



Lecture FeedBack\Concerns-Student View



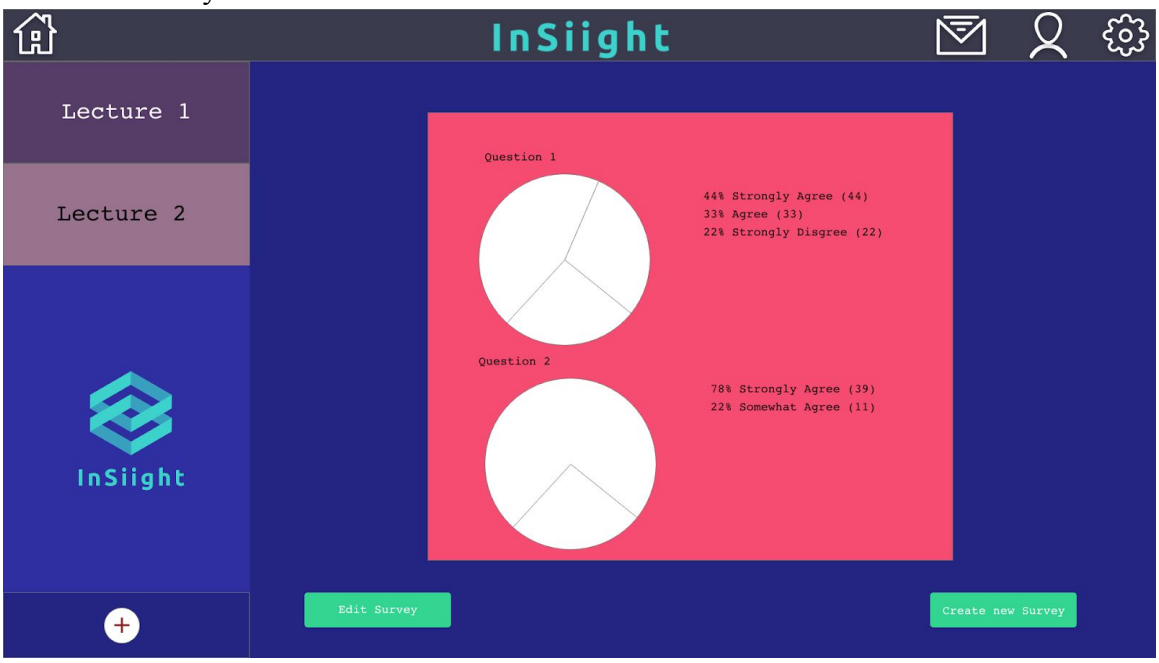
Survey - Student View



Professor Home Page

Professor Classlist

Professor Survey Results



Lecture Feedback-Professor View

The new prototype can be viewed here via a demo video:

https://streamable.com/g99ho

It can also be interacted with at the following link (password is Milestone2):

https://xd.adobe.com/view/219be219-1c75-4ccf-65e6-6b481f5c6949-57aa/?fullscreen

Feature List

Feature Name	Description
Registration	User (professor or student) should be able to register on website.
Course addition	A professor can generate a unique code for a specific course on the website which they can share with students so that they can join that specific course.
Biweekly survey	Every 2 weeks, a survey is posted on the website for the student to partake in. This includes questions like “could a certain concept be better explained?” “Is the delivery of the content accessible?” “Are you overall satisfied overall with the course so far?” etc.
Notify professor once upvoted comment exceeds threshold	Once a certain comment is voted enough, the professor is notified of it via email automatically.
Upvoting course comment	Giving the ability for students to rate one another's comments so that they could get prioritized based on ranking.
Notify professor of survey results	Results of the bi-weekly survey are presented via a pie chart format for example to the professor via email automatically.
Add course comment	After a lecture, the student are presented with 'threads' (if there are any) by other students which they can then 'upvote. If their concern is not from the threads, they can choose to create their own thread. Depending on the upvote percentage, the concern is sent to the professor automatically.

Plan for Developing Prototype

Please view our timeline and task distribution among the Computer Science team members (Jackie Luc, Logan Pearce, and Omar Qureshi) on GitHub: https://github.com/jackieluc/insiight/milestones

Software and Tools

Software / Tool	Benefits	Cost
Netlify.com	1. Free website hosting 2. Content Delivery Network 3. Identity (registration / logins) 4. Serverless functions (Back-end) 5. Forms 6. A / B Testing 7. Continuous deployment (integration with GitHub)	$0, free up to respective thresholds
www.insiight.ca	Domain for 1 year, increased Search Engine Optimization (SEO) and branding	$1.04
mlab	1. Free database hosting 2. Daily unlimited database backups 3. Database support	$0, free up to 500mb of data
Visual Studio Code	Integrated Development Environment (IDE)	$0, free
GitHub	1. Version control 2. Increased collaboration 3. Project management	$0, free
Node.js	With npm: 1. Utilize free and open-source libraries to speed up development 2. Consistent development environment	$0, free
jQuery	Speed up front-end JavaScript development	$0, free
Bootstrap 4	Toolkit that helps build responsive websites quickly	$0, free
SurveyJS	Open-source library with fully featured and tested survey solutions - don't need to reinvent the	$0, free

	wheel	
webpack-starter-basic	Open-source static site starter kit, reducing overhead in starting the initial project	$0, free

Technologies

For our prototype, it would be ideal to use a web framework like React. React is ideal for prototyping because the development we commit to the minimum viable product (MVP) can be reused for further development for the web, as well as, mobile platforms using React Native. React Native enables developers to develop native mobile applications for both iOS and Android platforms using React. This reduces overhead in learning or hiring talent for iOS (Swift) and Android (Java) development and developing on three separate platforms. React is open-source (free) and was created and currently supported by Facebook. It is now the largest web framework in the community. If we require more engineers, it would be less costly to hire React engineers compared to specialized mobile application developers. The community also has deep interests in React and is deeply invested in keeping the framework up to date with new features and improvements.

Jackie has operational experience with developing web applications using React. However, due to time constraints from the course and lack of web development expertise from the rest of the team, it would be extremely challenging to teach and learn new web technologies without learning the basics. Pivoting from this limitation, we will develop the front-end of the MVP using HTML, CSS, and JavaScript. We will use several open-source libraries like SurveyJS and webpack-starter-basic to kickstart the project without reinventing the wheel or waste time with project setup and configuration. This enables us to focus on developing the core function set for the MVP. The reason why we are pursuing web technologies instead of developing specifically for mobile is because of the fact that the web is growing rapidly and is starting to overlap and will potentially consume other technologies like mobile apps. An example of this is Progressive Web Apps (PWA), which is a technology that enables websites to be app-like and enable offline usage, among several other great benefits. We aim to take advantage of this technology, but development time will be focused and prioritized to launching the MVP first.

3. Team Reflection

For the most part, working in an interdisciplinary team has been a positive experience. Different thinking approaches can drive innovation, where team members are able to build off of each other's ideas, as mentioned in an article by Sophie Deering. We have more than one view on which direction to take and can discuss as a group about the pros and cons to arrive at the best conclusions.

With respect to the business plan, it is helpful having commerce students confirm whether or not a certain approach is valid or feasible. Specialized talents can make strong teams as outlined by the Talent Triangle and the commerce students help craft appropriate business plans. As for the paper prototype, this is where computer science students can offer their specific talents. Since they have prior experience creating projects involving end users, this allows them to design the general prototype interface for the website and provide insight on the feasibility of development.

An important aspect of having a diverse team is always to seek feedback and try to reach a consensus. While the computer science students may design the overall interface of the website, the commerce students can provide insight by taking the role of a non-tech savvy general user. They can help address bias and help iterate the design of the website.

Some of the inefficiencies we are running into is leaving work until the last minute. This may be attributed to the recent midterm season and not indicative of an overall trend, but it may be important to note. Another source of inefficiency lies with the decrease in our team meetings. While we had five person team meetings earlier on in the semester, these seem to happen less frequently now. This may be because we can now use the lecture time as meeting time, though it can still be beneficial to set aside time in addition to that for meetings.

To address these inefficiencies and problems, we need to communicate online to offset the lack of face-to-face meetings. With the development of the prototype, it is imperative that we continue to stay on top of the delegated tasks instead of leaving it to the last minute. Following the agile methodology and working in weekly sprints may help us stay on top of items and address issues regularly.