University of Regina | FACULTY OF ENGINEERING & APPLIED SCIENCE

FALL 2022
ENSE 374 - TIM MACIAG

sENSE

STUDY SENSE

TEAM WORF:

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Business Need and Opportunity

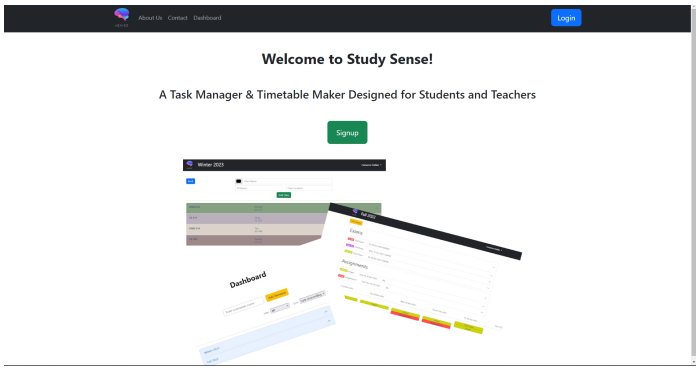
Many students are struggling with organizing their time scheduling, submitting assignments, and preparing for exams. Organizing a schedule is a skill that requires time management and more than some information on a table. Students need something to remind them of upcoming tasks. Also, adding a visual experience supports memorizing information for a longer time. There are many other solutions out there that attempt to solve students' problems with organizing their time and tasks, however, we are the students, and we are designing the solution that suits our needs to be more successful in our studies and academics.

Students have a lot on their plate. With 4, 5, or even 6 concurrent classes it can be easy to forget upcoming assignments and exams. What we want is a way for students to keep track of their busy schedules and remind them of upcoming due dates and exams. With our solution students could manage their time more effectively and be aware of upcoming due dates and important events such as midterms and final exams.

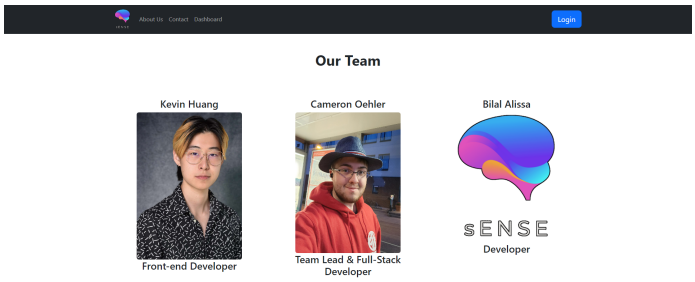
What did we create?

We present to you Study Sense - A Task Manager & Timetable Maker Designed for Students and Teachers. Lets walk through all the pages and its functionality!

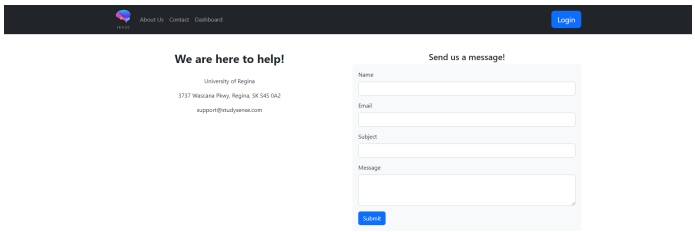
Front end



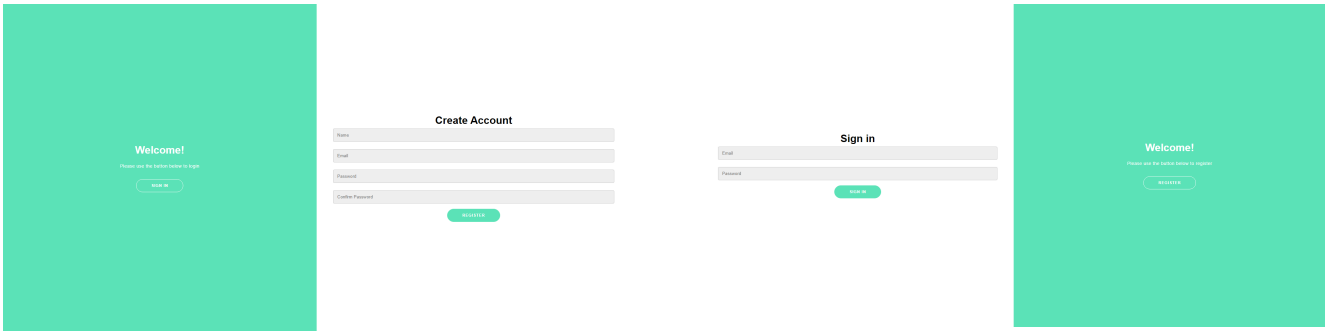
This is the landing page! Users will get a brief description of the page with the option to Login/Signup. They can also learn more about the developers behind the project by clicking the “About us” or contact us using the “Contact”. Clicking on the logo will bring the user back to the landing page.



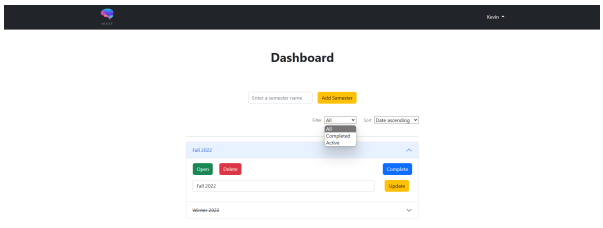
This is the About us page, here the user can learn more about the developers behind the project.



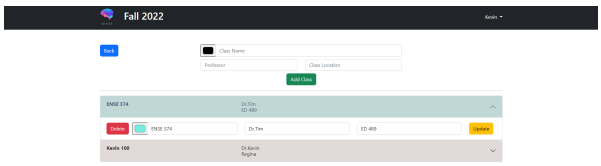
This is the Contact page, the user can make contact with us through the form on the right if they would like.



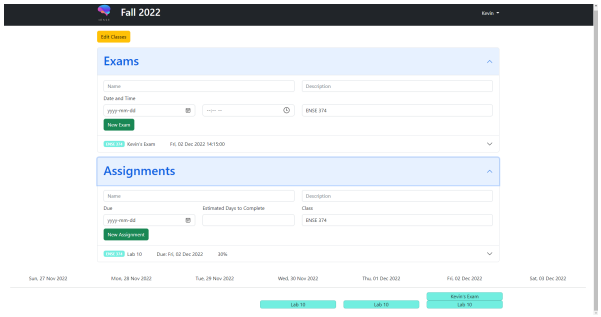
This is the Login/Signup page, the user can switch between the two forms to either login or signup.



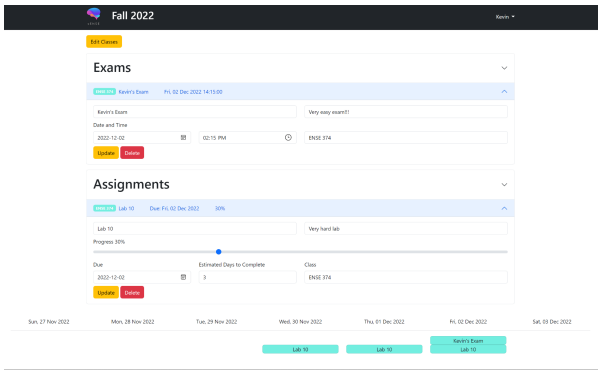
After the user has successfully logged in, they will be greeted by the Dashboard page. Here they can add new semesters, open or delete the semester, mark as complete or update the name. They can also view only completed or active semesters by using the filter and arrange them by dates. The logo will take the user back to Dashboard. Lastly they can log out by clicking on their username.



This is the edit class page, here the user can add a new class into the semester with custom color and the professor name with the classroom location. They will have the options to delete or modify the classes. The semester name will be shown on top left.



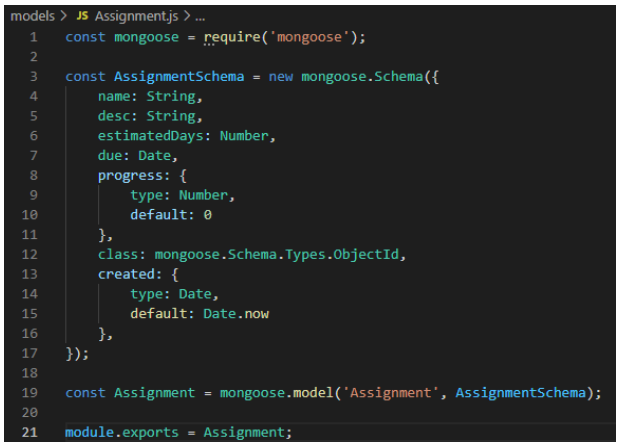
This is the timetable page, Users can create new exams and assignments with detailed description and add date/time. The class select will have the user-created classes as available options. The added exam/assignment will be shown as a tab and as a Gnatt chart.



Users will be able to edit the saved Exam and assignment after creation and assign progress to assignments.

Back end

From a backend perspective the application is created with Nodejs, Express, EJS, and MongoDB. Nodejs and express are the controller of the application. EJS creates the html, css, and javascript which are the view of the application. And MongoDB is the model of the application. The application has 6 objects which it stores in the database. Users, Semesters, Classes, Assignments, Exams, and Messages.



Whenever another object is referenced within an object, the id of the object is stored as this is a straightforward way to link the 2. The application also relies on various pieces of middleware to complete various tasks such as checking if a user is allowed to access certain pieces of data and loading said data if the user is authorized. In order to track if a user is logged in we used passport.js as this greatly abstracted the work required to deal with sessions and cookies. We are not here to reinvent the wheel.

What were the goals of the project?

The goal of this project is to create a solution for students that helps them to track their classes schedule, assignments, exams, and other tasks. It will help students manage their time more effectively and be aware of upcoming due dates and important events such as midterms and final exams. While reducing stress of worrying about forgetting an assignment or missing an important exam.

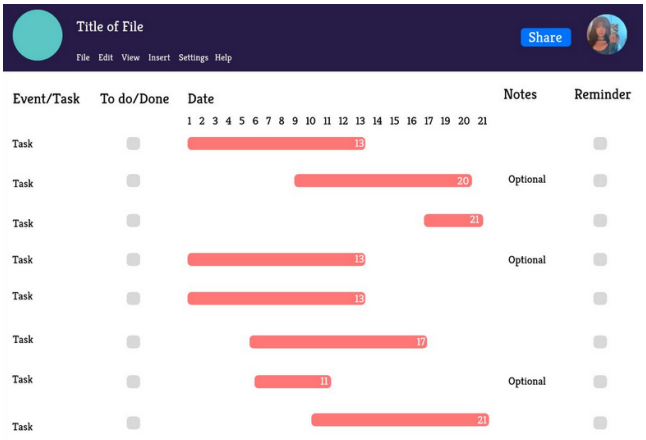
Were the goals achieved?

Our goal is achieved with the Study Sense web solution, it gives the students/user a clear image of what needs to be done and all the upcoming events/due dates. In the future, we would like to add the rest of the MVP's such as a reminder function and a share function. Due to the time constraint we could not cover those topics in our MVP 1. It could be implemented in a later update.

Feedback and How it Affected the Project

We received a variety of feedback, both from Tim and our fellow students. One of the things Tim mentioned was that he would find it very useful to be able to view the schedules of his students. This would make it easier to plan around the schedules of others. Because of this feedback we decided to add the sharing of schedules into the scope of the project, however it was less of a priority for us so it was moved to a later MVP.

Another piece of feedback we received was people seemed to enjoy the Gantt Chart style of displaying a schedule. This was first included in our lofi prototype and continued to persist through to the final product. It is possible that with different feedback we may have chosen to explore other ways of displaying the schedule to the users.



Some of the students we got feedback from had also requested the ability to link the application up to URCourses. While this would be great and would save a lot of the manual data entry required by students to set up a semester, unfortunately we are not in a position to integrate the application with URCourses (moodle), and doing so would take the project out of scope. This feedback, ultimately, had no effect on the direction of the project.

Final reflection and Obstacles

This is the first time any of us worked together to create such a big project. We faced countless obstacles from github implementation to time management. However we managed to overcome all the problems and present something that we are truly proud to bring on stage.

We had subpar time management and communication during the beginning of the project, no one was keeping track of the time nor the task assigned, ironically we are creating a solution to help with that issue. Luckily, as time went on, we learned how to collaborate with each other and how to manage our time more efficiently.

We were also too ambitious when planning our MVPs. Promising too many things for such a short amount of time was a mistake. In the end we had to cut some functionality in order to present something before the deadline. It is a valuable lesson to never promise more than what you are capable of. In a real world environment, the users would not be happy to see a solution with missing bits and pieces.

One thing we were proud of is the fact that we combined our strength together and made up for other's weakness. Kevin is good at the frontend developing and video making/editing. However, he lacks experience when it comes to the backend. Cameron was able to cover that weakness as his strength is the backend. The team is able to focus on doing things they were familiar with/good at. This made our team work smoothly together with zero weaknesses.

Overall we are happy to have the opportunity to be able to work and learn in a team environment. The experience gained will be crucial in the industry and for upcoming projects like the capstone.