



Contextualization & Design Check In

Computer Science 309 Dashboard

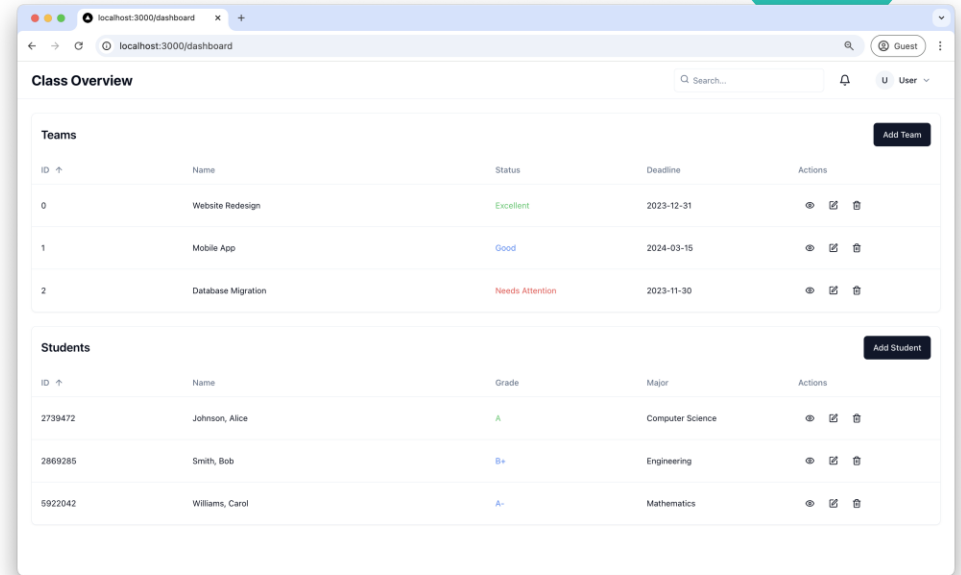
Team 14: Bradley Gaines, Breckin Bartels, Kat
Christofferson, Ria Patel, Thomas Payton & Varun Jain



Project Overview

Project Overview

- Project: Computer Science 309 Dashboard
- Advisor: Dr. Simanta Mitra
- Client: Dr. Simanta Mitra
- Goal: Create a platform that gathers, analyzes, and portrays data from numerous applications used in the course including, Canvas, CATme, Gitlab, etc.
- Special Features: Once the application is in motion, we will add attendance, ABET, and other features!

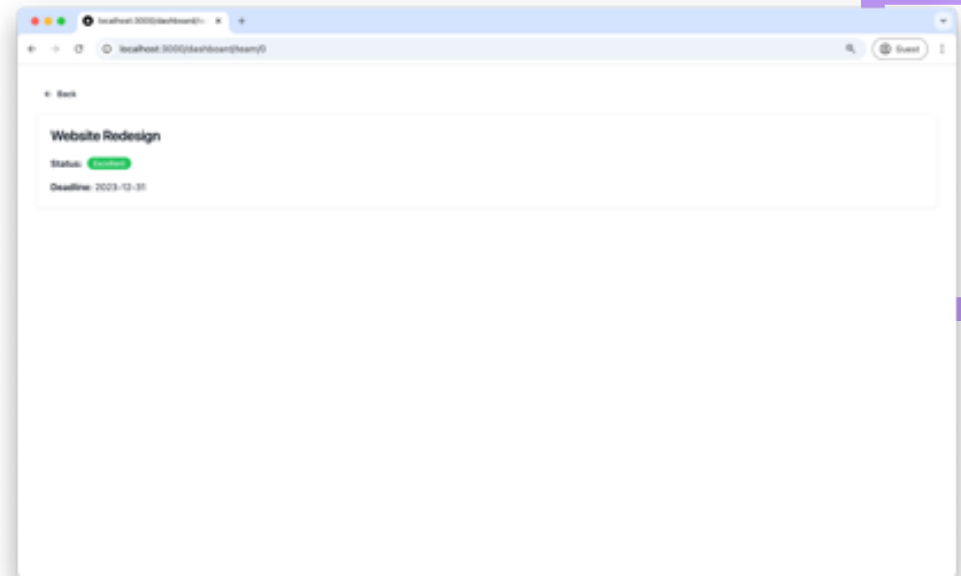


The screenshot shows a web application interface titled "Class Overview". It features a search bar, a user profile dropdown, and two main data tables. The "Teams" table lists three teams with their IDs, names, statuses, deadlines, and action icons. The "Students" table lists three students with their IDs, names, grades, majors, and action icons.

Teams				
ID ↑	Name	Status	Deadline	Actions
0	Website Redesign	Excellent	2023-12-31	👁️ 📄 🗑️
1	Mobile App	Good	2024-03-15	👁️ 📄 🗑️
2	Database Migration	Needs Attention	2023-11-30	👁️ 📄 🗑️

Students				
ID ↑	Name	Grade	Major	Actions
2739472	Johnson, Alice	A	Computer Science	👁️ 📄 🗑️
2869285	Smith, Bob	B+	Engineering	👁️ 📄 🗑️
5922042	Williams, Carol	A-	Mathematics	👁️ 📄 🗑️

Individual Team Page



The screenshot shows a web application interface titled "Individual Team Page". It displays a "Back" button and a card for "Website Redesign" with a status of "Excellent" and a deadline of "2023-12-31".

Website Redesign	
Status:	Excellent
Deadline:	2023-12-31

Home Page



Artifacts

Journey Map - Professor Perspective

Scope I want a central location for monitoring the teams' progress for COM S 309 (In perspective of the Professor Dr. Mitra)

Key Experiences
Describe 5 key experiences that the user goes through.

Actions
What does the user do?

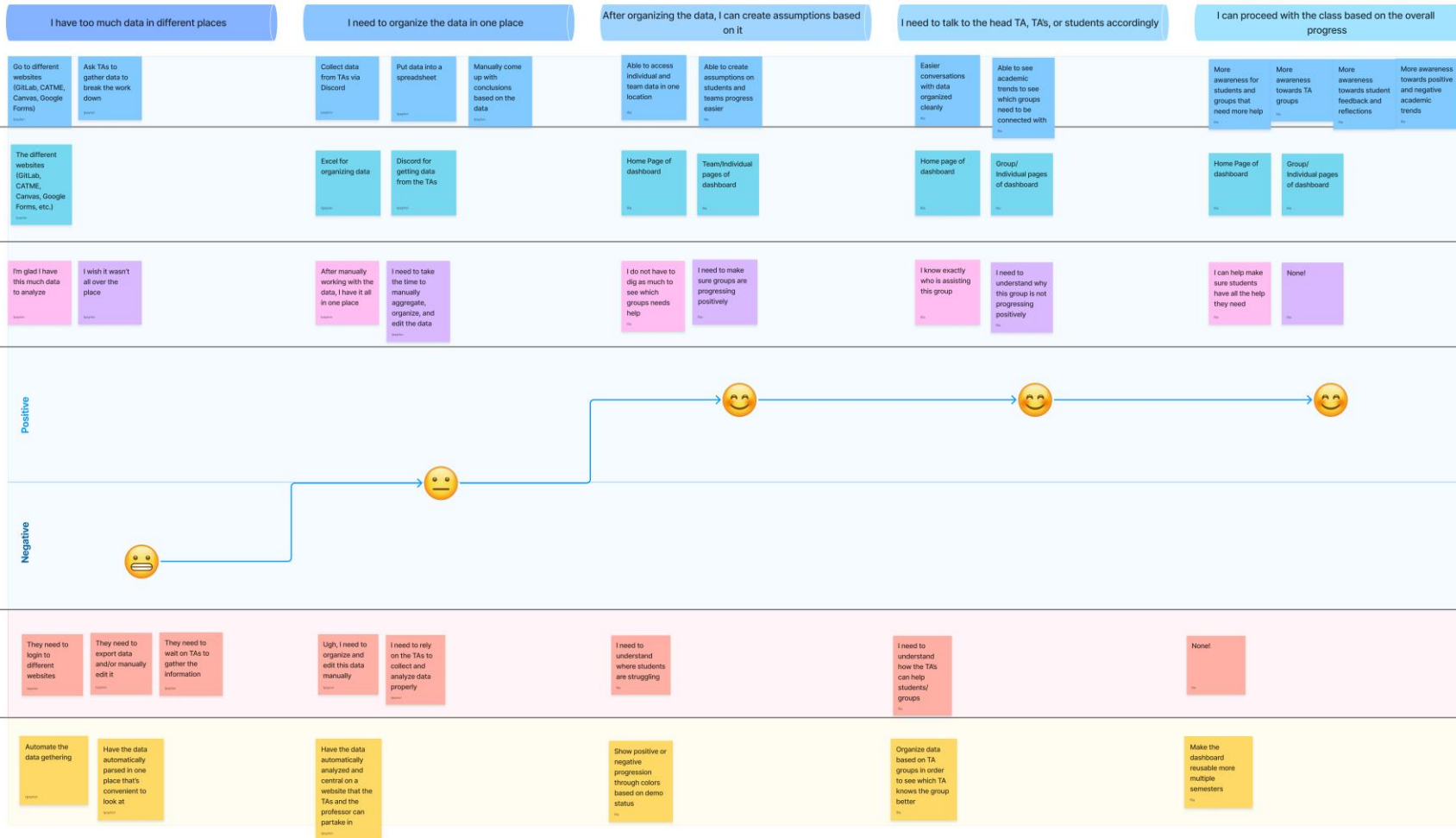
Touchpoints
What part of the product/service the user interacts with?

Thoughts
What is the user thinking?
● Gain ● Pain

Feelings
How is the user feeling?

Pain points
What problems does the user encounter?

Opportunities
How can we improve the user's experience?



Pros & Cons Table – Canvas vs Our Dashboard

	<i>Alternative #1 Canvas</i>	<i>Alternative #2 Our 309 Dashboard</i>
<i>Pros</i>	<ul style="list-style-type: none">• Easy to use.• Available to everyone.• Protects privacy.• Assignment distribution/submissions.• Grade displays.• Multiple integrated applications.	<ul style="list-style-type: none">• Easy to use.• Available to everyone.• Protects privacy.• Assignment status.• Grade displays.• File uploader.• Demo status updates.• Integration with CATme and GitLab.
<i>Cons</i>	<ul style="list-style-type: none">• No file uploader.• No demo status.• No integration with CATme and GitLab.	<ul style="list-style-type: none">• Website application only.• Submissions not automatically updated.• Requires Canvas grading.



Technical Complexity Analysis - Human

Human

- Our design addresses the basic needs of our client and users
- Primarily focusing on creating a dashboard for the professor's benefit
- Our design incorporates base features based on data desired by our client
- We will be adding more features as requested during the second semester
- No specific changes can be made at the moment to improve functionality
- Functionality changes will be made during the second phase of our project



Technical Complexity
Analysis - Economic

Economic

- Our solution improves existing solutions by allowing data from other applications to also be represented
 - Canvas is the closest application to what we are designing
 - Canvas has no connections to CatMe or Gitlab
- We are creating a dashboard that will include data from all applications that Dr. Mitra uses throughout ComS 309
- The biggest drawback of our solution is gaining access to the data of said applications
 - We are working through accessibility keys, FERPA requirements, and login capabilities to help us grab data from different applications
- We are hopeful that we will be able to gather the necessary data and represent it clearly in our dashboard
 - If the data is not available for our use, we will change the scope of the dashboard to function more as a feedback and reflections tool to be used alongside Canvas



Technical Complexity Analysis - Technical

Technical

- Complexity of frontend and backend is high but necessary
- Backend is complex in splitting data into tables especially because data is planned to be accessible in multiple tables.
- Frontend is complex as well due to the amount of data but we are prioritizing representing the data in a clear way that still provides privacy for everyone using the dashboard.
- This dashboard accurately showcases the experience that we have accumulated throughout our undergraduate careers.
 - Our team has a wide range of majors, and each one of us are able to apply a key skill we have acquired from our courses
 - We are learning from each other and making sure that our project is as organized as possible

Conclusions

- Users include Professors, Teaching Assistants, and students.
- All information will be available in one location.
 - Students will be able to access all assignment information in one platform for review after submission.
 - Students will have easier access to class and project resources.
 - Professors and TA's will be able to track students that are problematic in submitting assignments or attending class.
- Professor will be able to analyze class data in coordination with ABET requirements.
 - Other professors could potentially use this part of the program for their course.
- Stronger organization of course materials for storage.
- Engineering standards IEEE 830-1988 & 101-2016 are applicable.