



Detailed Design

Computer Science 309 Dashboard

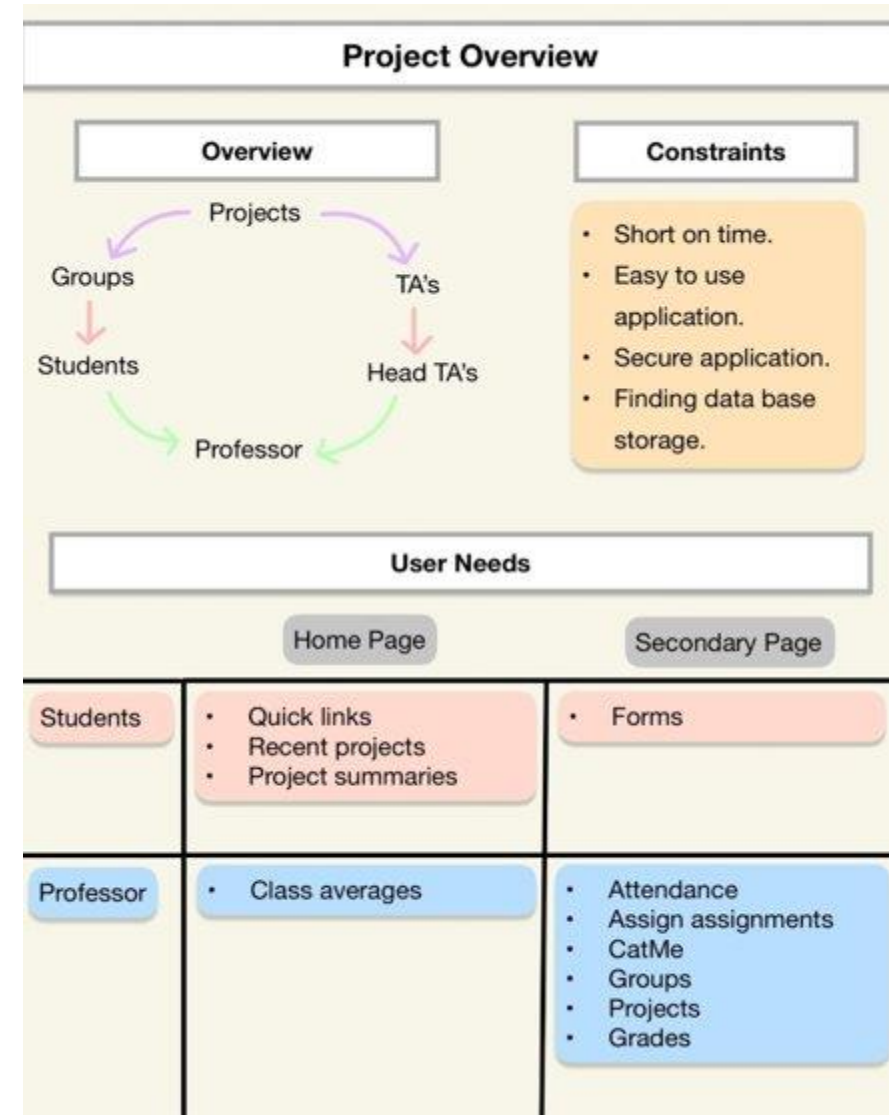
Team 14: Bradley Gaines, Breckin Bartels, Kat
Christofferson, Ria Patel, Thomas Payton & Varun Jain



Project Overview

Project Overview

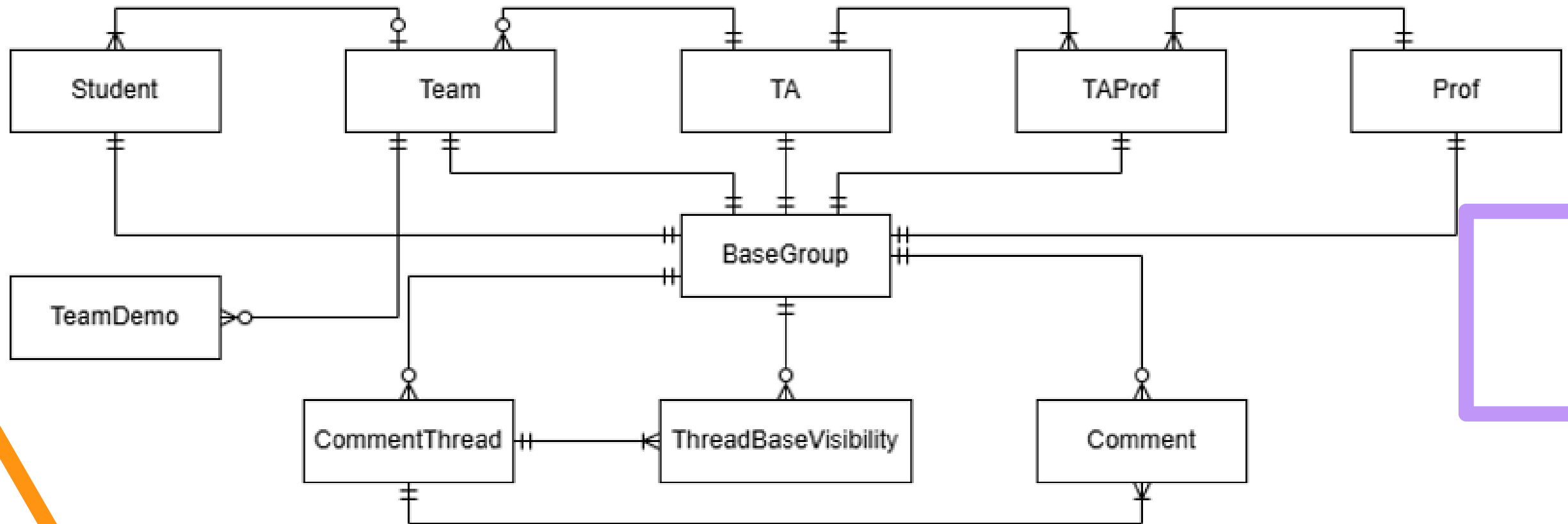
- Project: Computer Science 309 Dashboard
- Advisor: Dr. Simanta Mitra
- Client: Dr. Simanta Mitra
- Goal: Create a platform that gathers, analyzes, and portrays data from numerous applications used in the course including, Canvas, CATme, Gitlab, etc.
- Special Features: Once the application is in motion,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



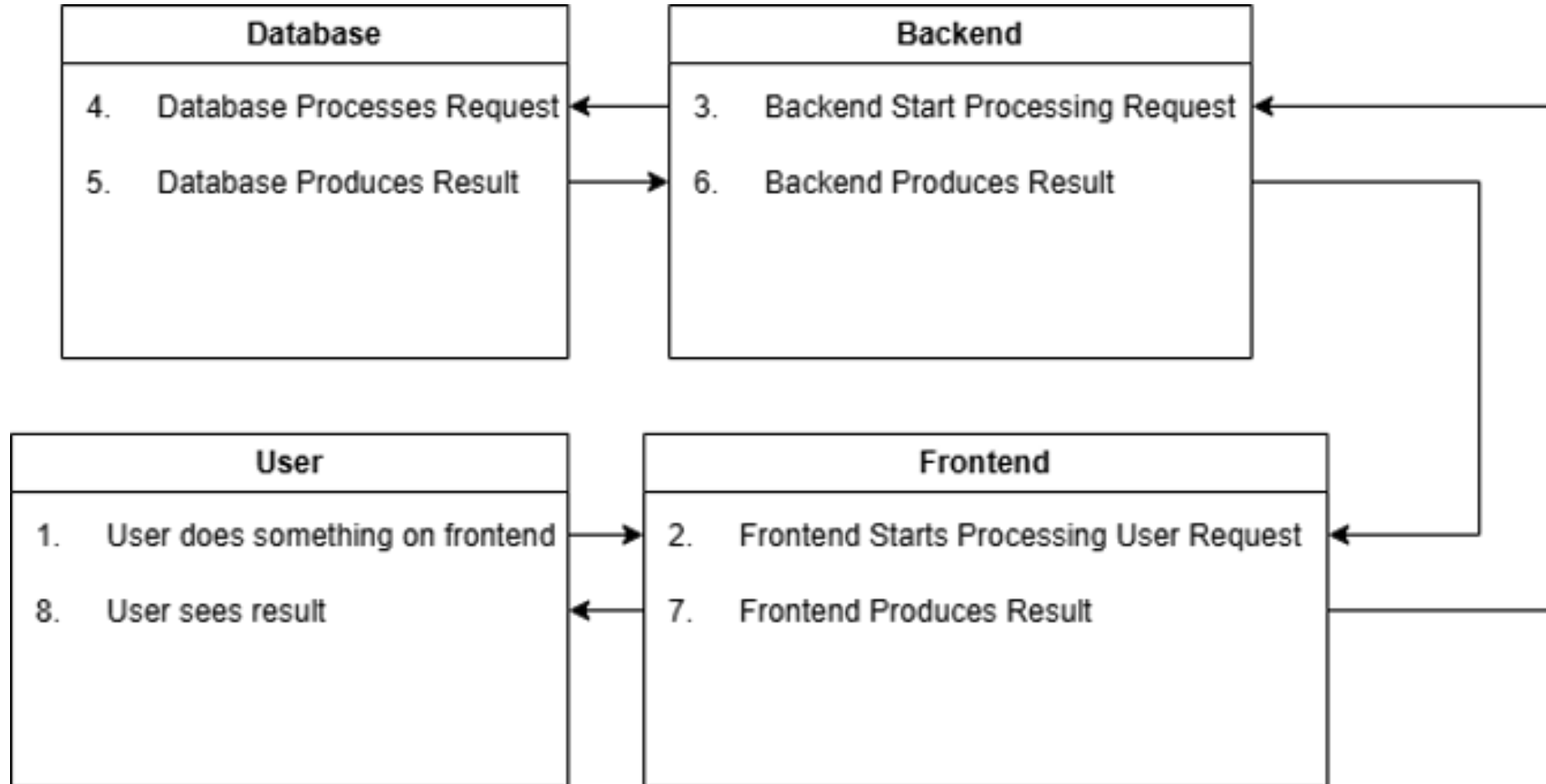


Detailed Design

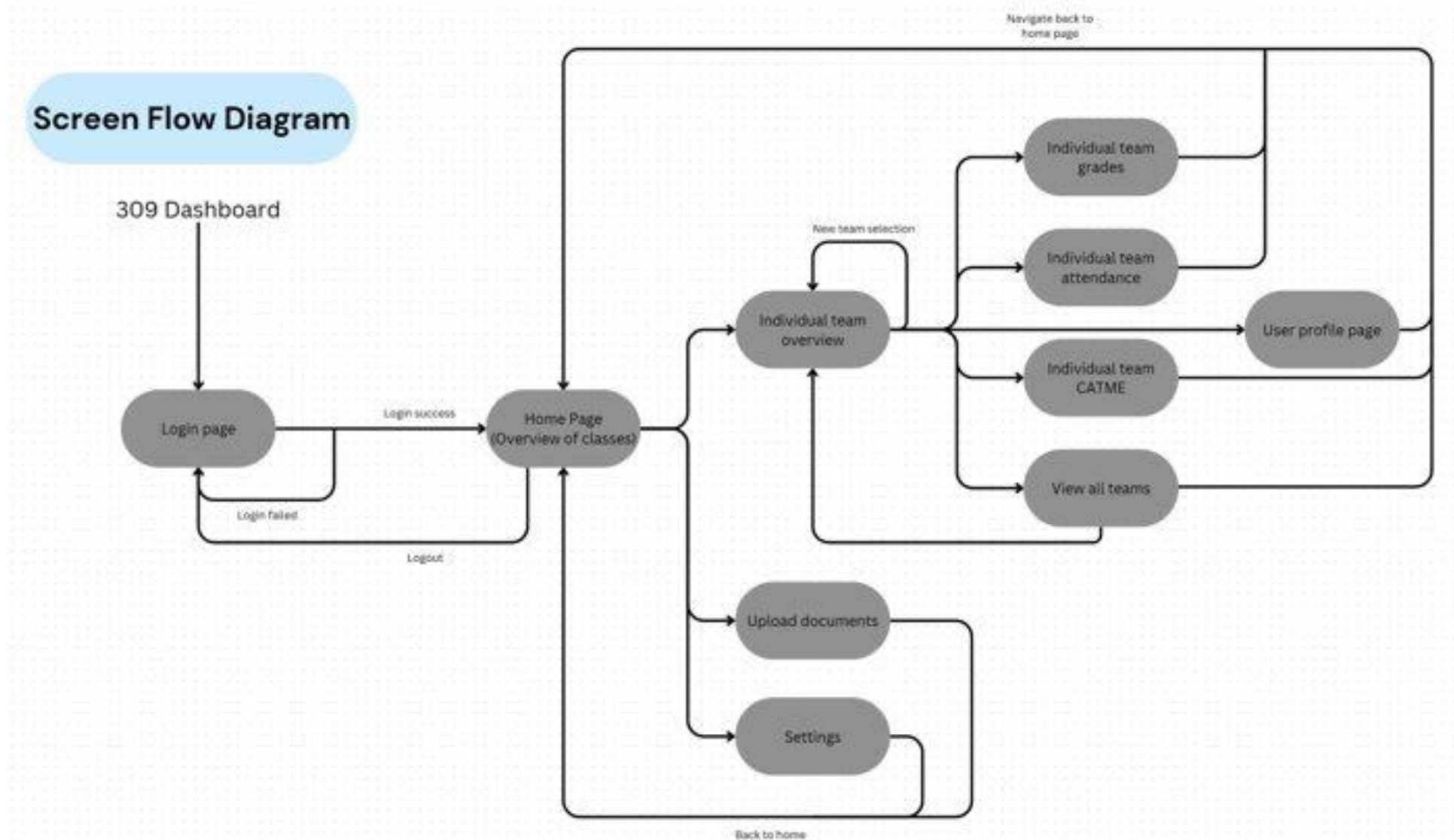
ER Diagram



Application Connectivity Diagram



Screen Flow Diagram





Functionality

Home Page

Figma Mockups

Select a team

Welcome Dr. Mitra!

Here's an overview of the class!

Projects

ID	Project Name	Status	Actions
0	Example Project 1	Excellent	View
1	Example Project 2	Good	View
2	Example Project 3	Needs Attention	View

Students

ID	Last Name	First Name	Grade	Actions
0	Bartels	Breckin	A+	View
1	Patel	Ria	B+	View
2	Payton	Thomas	D-	View

Basic Implementation

localhost:3000/dashboard

localhost:3000/dashboard

Guest

Class Overview

Search...

U User

Teams

Add Team

ID	Name	Status	Deadline	Actions
0	Website Redesign	Excellent	2023-12-31	View Edit Delete
1	Mobile App	Good	2024-03-15	View Edit Delete
2	Database Migration	Needs Attention	2023-11-30	View Edit Delete

Students

Add Student

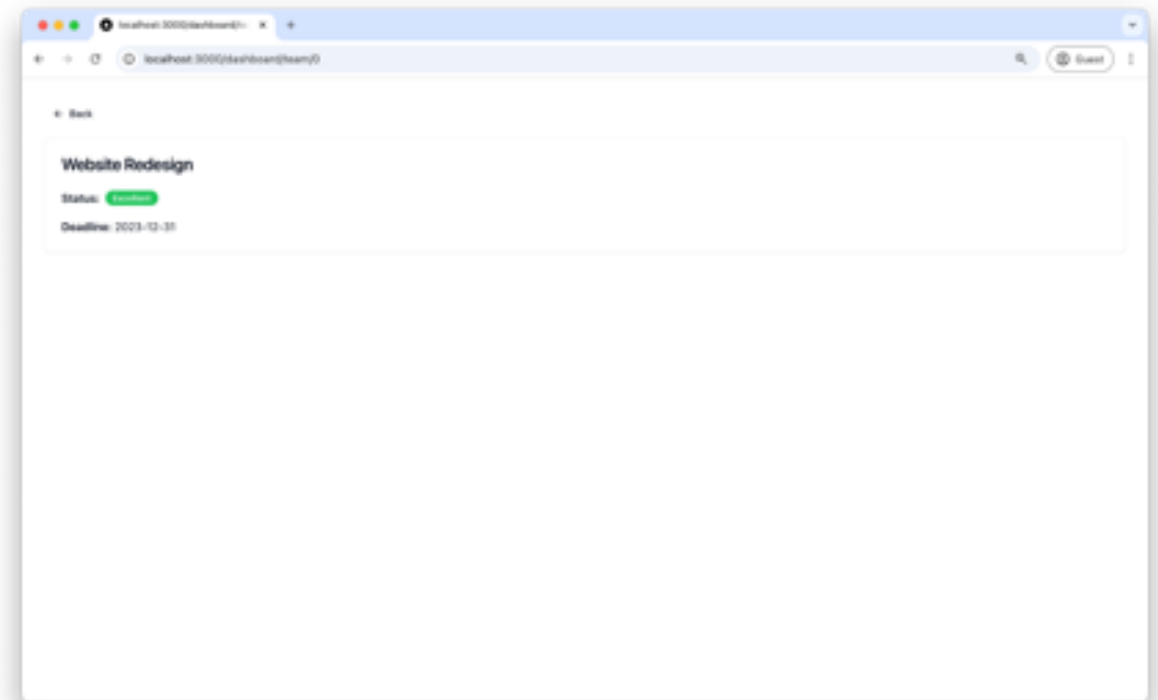
ID	Name	Grade	Major	Actions
2739472	Johnson, Alice	A	Computer Science	View Edit Delete
2869285	Smith, Bob	B+	Engineering	View Edit Delete
5922042	Williams, Carol	A-	Mathematics	View Edit Delete

Individual Team Page

Figma Mockups



Basic Implementation





Technology Considerations

Requirements

Topic	Considerations
AWS	<ul style="list-style-type: none">• Scalable, reliable, and robust.• Cost-effective.
Canvas, GitLab, CATME, Google Forms	<ul style="list-style-type: none">• API changes could break functionality.• Some platforms might not have a public API.



Areas of Concern

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Concern Level	Concerns
Primary	<ul style="list-style-type: none">• ISU integrated login• External API's• FERPA
Secondary	<ul style="list-style-type: none">• File analysis and creation• Printing functionality



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.