TeamBandit: Teams Management Portal

NORTHERN ARIZONA UNIVERSITY

School of Informatics, Computing, and Cyber Systems

Team: Quinn Melssen, Max Mosier, Liam Scholl, Dakota Battle

Client/Mentor: Dr. Eck Doerry, Professor of Computer Science at Northern Arizona University, Flagstaff, AZ

What is the Problem?

As the tech industry continues to grow more companies are changing their design methodology to Agile programming. Agile software development is a programming practice centered around small teams. This has lead some people to ask, why does the college experience not involve more team-based classes? The reason for this is clear, these classes are difficult to manage and execute.

Difficulty in Managing Teams

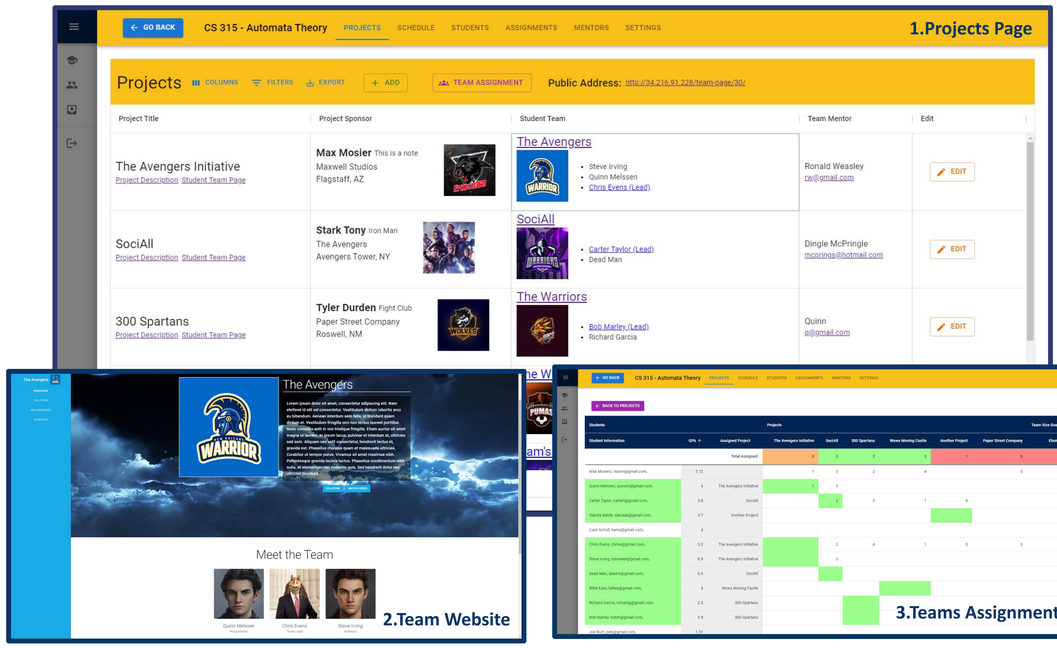
- Team based courses are difficult to organize due to how many moving parts they entail
- Keeping up with submissions and ongoing processes can be tedious
- Menial tasks take up a lot of time
- Communication between different parties is difficult to track

Our client, Dr. Eck Doerry, has struggled with many of these inefficiencies over the course of his 15+ years teaching Capstone. He is looking for a software tool that will provide the features listed below.

Key Features:

- Digitize information related to courses for easier use
- Have a digital list of clients to keep track of emails regarding the course
- Students can submit deliverables to store information automatically
- Tool for manually/algorithmically sorting students into teams

TeamBandit: Web Application



1. Projects Page

Project page will be dynamically generated and displayed using information gathered from clients, students, and organizers.

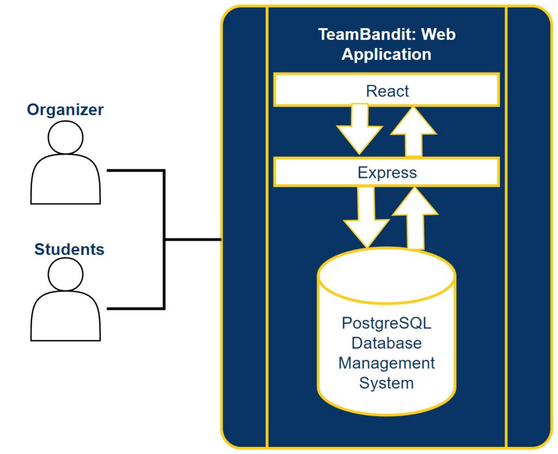
2. Teams Assignment

Easy and intuitive team assignment tool, complete with color-coded priorities.

3. Pre-Generated Team Website

Student websites will be generated using data provided by the students in the application and Team Leads will be able to customize various aspects.

Architecture



Technologies

FRONT END

React

Material UI

BACK END

Node

Express

WEB HOSTING

Amazon Web Services

aws

DATABASE SYSTEM

PostgreSQL

Future Work

Our main priority with TeamBandit was to solve our client's primary needs. However, TeamBandit can offer a solution to any team based course or activity. The future plan is to make TeamBandit a more dynamic application so that it can fit the needs of various course organizing scenarios.

Solution Overview

Out team seeks to create TeamBandit, a web application that will accomplish the key features designated in the problem statement.

Digital Information

After easily adding data to TeamBandit, our web app uses the data to automatically create pages which are displayed in the TeamBandit: Web Application section.

Client List

TeamBandit offers the ability to add clients to a list where you can view what projects they have sponsored as well as emails associated with each client.

Student Submissions

It was important for students to be able to submit assignments through TeamBandit so that the information could be used throughout the application.

Together, these features will help provide a solution to our client's needs.

Acknowledgements

We'd like to thank our client and mentor, Dr. Eck Doerry, for not only being an invaluable advisor throughout the course, but also for giving us thoughtful feedback on our project as a client.