GrinNet

Anthony Sherrell, Deven Platt, Jeronimo Camargo, Pranav Bhandari, Shibam Mukhopadhyay

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Overview

GrinNet is a virtual bulletin board designed to make it easier to find activities and make connections at Grinnell College. It is a mobile app that allows users to make posts promoting on-campus events, and then to view a feed of posts that others have made recently. It has a simple user interface to avoid clutter and is only accessible to Grinnell College students, staff, and faculty.

Motivation

Grinnell College has a vibrant community with lots of student organizations and events. Currently, the way that these events are advertised is primarily through email chains and physical bulletin boards. However, bulletin boards are very cluttered and often filled with flyers for events that have long passed. Inboxes are filled with junk and do not feature easy ways for students to filter out events that they are less interested in. GrinNet aims to circumvent these problems through a dedicated mobile app that will provide a one-stop-shop for Grinnell students looking for events on campus.

Product

GrinNet is a mobile application supported on both Android and iOS that allows users to make and view posts that describe events on campus. The app has several key features that address the problems with other forms of promoting events. Each post represents a singular event, and the poster is required to enter the date and time of the event, so there is no confusion as to when the event is happening. Posts on the app are then deleted 24 hours after
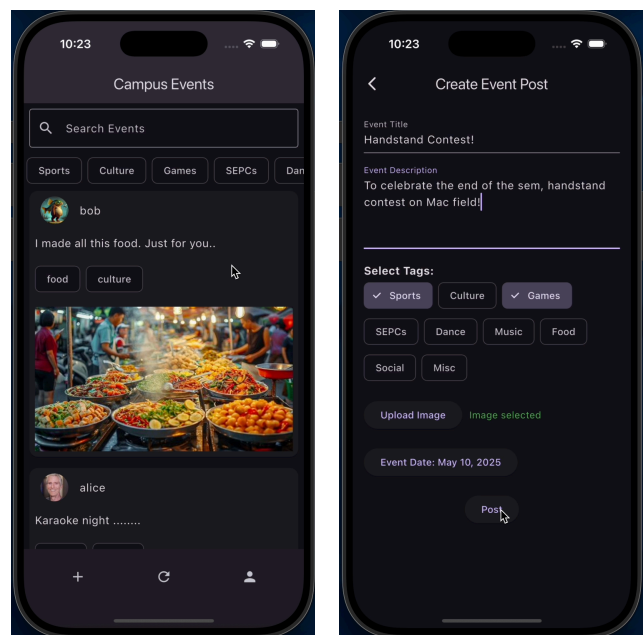
the event, so users do not have to sift through a feed full of past events in order to find what they are looking for.

In addition, each post must be given at least one tag from a preset list, such as "Sports," "Gaming," "Culture," and so on. This allows users to search for specific tags when looking for events, and even filter their homepage based on the tags on each post. GrinNet even features full image support with posts, so students can post flyers directly to the app.

GrinNet is also equipped to protect against spam. Every new user must authenticate their grinnell.edu email by clicking on a verification link sent to them directly. In addition, users can report posts they feel are inappropriate.

Process

Our team worked through five two-week sprints, using the methodology of Agile development. In our first sprint, we created a paper prototype for our project and had several peers act as shareholders to test the prototype and give us feedback. This allowed us to have a really solid idea of what we wanted our frontend to look like before we even started coding. In the next sprint, we fleshed out the backend of our project, creating diagrams for the architecture and design of our software. At this point, we also started to familiarize ourselves with the basic tools that we were going to be using. For each of the final three sprints, we implemented the project, wrote tests, and reinforced good habits such as documentation, testing, and code review. We also reconnected with our shareholders from earlier in the semester to get feedback on the actual app once it was deep into development.

One of the major challenges we ran into was merging all of our individual progress into one cohesive product. None of our team members had much experience using version control like GitHub going into the project, so especially in the beginning we really struggled to manage the complicated code that we were all working on simultaneously. But as the semester went on, we all naturally developed intuition regarding Git and found a more efficient workflow. Each
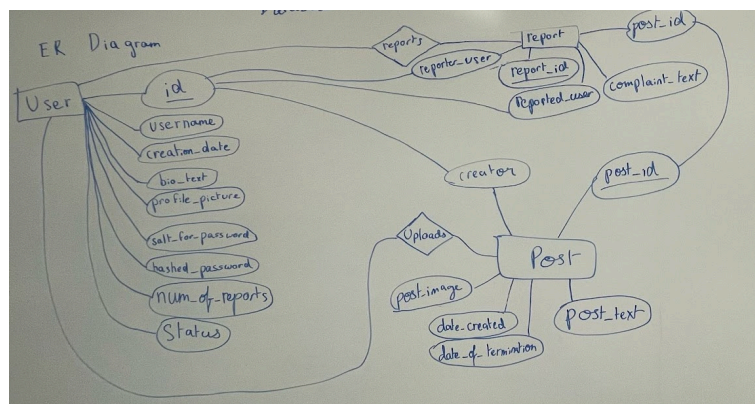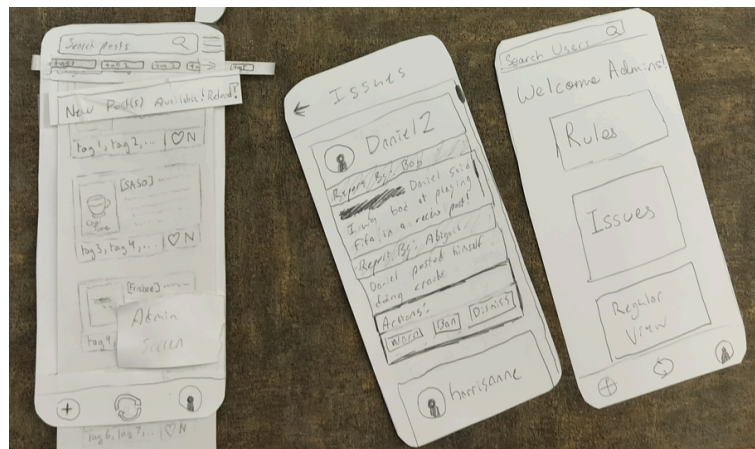
sprint, we assigned tasks to each group member to work on individually, and then came together a few times mid-sprint to check in and combine progress. Especially in the first two sprints, this merging was a painful progress because we were still building out the core of the app, so a lot of what we were working on individually was happening in the same files. Later, we were able to specialize a little more in what we were working on, and merging became a little easier.

A major highlight of our process was our internal team dynamic. We very quickly developed a rapport as a group, and grew closer as friends despite most of us not knowing each other before this semester. This made collaboration and communication much easier, and we had a lot of fun together working on the project!

Advice

One piece of advice that we would offer to future CSC-324 students is to give yourself time and space to learn. When faced with the task of developing a massive project, it is really easy to get wrapped up in the end goal and discount the process of getting there. You might sit down with the goal of implementing a very specific feature and realize that in order to actually get there, there are a million little things you need to learn first. Getting bogged down in those little details can be very discouraging, especially because getting your new features to work is the fun part! But remember that by nailing down the process, it will make future development much easier, and you will develop a really solid base of knowledge that will help you tackle so many future challenges.

Acknowledgements

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Repository

The GitHub repository for our project can be found here.