Product Backlog
PurdueParty.io

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Problem Statement

Currently, Purdue students find themselves flipping between several different applications to meet their needs - an app for the Corec, websites for buying used goods, another for social media, and even sometimes plain word of mouth to figure out what the dining courts are serving. Our solution, PurdueParty.io, will be an all-in-one website where students can view and post all information related to clubs, events, dining halls, the CoRec, transit, used goods, class group chats, and much more. The site will even include an area where students can be a part of social media as well as find and post useful information related to campus. Unlike other projects in this space that are limited in their feature set, our app will be a one-stop-shop for all of a Purdue student's needs.

Background Information

For many Purdue students, life can be - and often is - extremely hectic. In order to manage time between coursework, extracurriculars, and life outside of school, many find themselves turning to a variety of applications that will allow them to streamline their daily activities. From laundry, gym usage, bus transport, club pages, peer-to-peer sales, and social media sites, BoilerMakers find themselves entangled in a plethora of applications. However, having to use so many different services can be challenging and time-consuming in and of itself. PurdueParty.io solves this problem by consolidating all of these tools in one easy-to-use location for Purdue students to use. While there are a variety of apps in this space, many of them are targeted towards other universities, unlike PurdueParty.io's target demographic. Additionally, the solutions that are designed for Boilermakers are all limited by a lack of a certain subset of features, whether that be club information to dining hall usage to events boards or anything in between. For example, Purdue App - Student Companion focuses on information about the gym, laundry, and dining. The app is also only available on iOS. Next, the Purdue Menus app only focuses on residential dining places. PurdueParty.io will distinguish itself from these competing applications with an all-in-one comprehensive list of features that Purdue students can utilize on a daily basis.

Requirements

Functional
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Profile

1. As a user, I would like to create a new account with my own email address.
2. As a user, I would like to edit my profile.
3. As a user, I would like to delete my account.
4. As a user, I would like to have a unique username.
5. As a user, I would like to have a profile with a brief bio and image.
6. As a user, I would like to be able to change my password for my account.
7. As a user, I would like to be able to log in.
8. As a user, I would like my password to be obscured when I type it to log in.
9. As a user, I would like to be able to log out.
10. As a user, I would like to reset my password if I forget it.
11. As a user, I would like to check other user profiles.
12. As a user, I would like to choose between light and dark mode (if time allows).
13. As a user, I would like to hide my profile from users (if time allows).
14. As a user, I would like to choose specific features from the site as part of my homepage (if time allows).

Events Board

15. As a user, I would like to be able to add events to my Purdue club.
16. As a user, I would like to be able to create public personal events.
17. As a user, I would like to be able to edit an event I created.
18. As a user, I would like to be able to delete an event I created.
19. As a user, I would like to be able to view a list of Purdue events.
20. As a user, I would like to be able to view public personal events (if time allows).
21. As a user, I would like each event to have an information page.
22. As a user, I would like to be able to filter some events based on some criterias.
23. As a user, I would like to be able to RSVP to club events (if time allows).
24. As a user, I would like to see past events be hidden from my feed (if time allows).
25. As a user, I would like to edit club events if I have permission.
26. As a user, I would like to see the events posted on the boiler links website to be listed on this application as well (if time allows).

Club Pages

27. As a user, I would like to be able to create a new club.
28. As a user, I would like to be able to manage user permissions of the club if I am a creator.
29. As a user, I would like to be able to view a list of clubs available at Purdue.
30. As a user, I would like to be able to search the list of Purdue clubs.
31. As a user, I would like to be able to navigate to a club info page.
32. As a user, I would like to be able to edit a club's information if I have necessary permission.

33. As a user, I would like to have access to delete the events that automatically added into the events board.
34. As a user, I would like to see a list of events that a club is holding on their page.
35. As a user, I would like to see the clubs created in the boiler links official website to be listed on this application as well (if time allows).

Living
36. As a user, I would like to be able to view a labeled map with bus stops and routes that run through the Purdue campus.
37. As a user, I would like to be able to view a bus route's next stop.
38. As a user, I would like to be able to view a list of all Purdue dining halls.
39. As a user, I would like to be able to view daily menus for each dining hall.
40. As a user, I would like to be able to check how crowded each dining hall is.
41. As a user, I would like to be able to check how crowded different sections of the Purdue CoRec are.
42. As a user, I would like to be able to see which washing machines are currently in use in each dormitory.
43. As a user, I would like to be able to see which dryers are currently in use in each dormitory.

Marketplace
44. As a user, I would like to be able to create sell listings on the marketplace.
45. As a user, I would like to be able to see a list of sell listings on the marketplace.
46. As a user, I would like to edit my sell listing on the marketplace.
47. As a user, I would like to delete my sell listing on the market place.
48. As a user, I would like to be able to set a sell price and item description for my sell listings.
49. As a user, I would like to be able to list my contact information to potential buyers.
50. As a user, I would like to be able to include an image of the item I am selling in my sell listings (if time allows).
51. As a user, I would like to be able to message other students on the marketplace about their listings (if time allows).

Class Forum
52. As a user, I would like to be able to view class forums.
53. As a user, I would like to post on class forums.
54. As a user, I would like to edit my post.
55. As a user, I would like to delete my post.
56. As a user, I would like to comment on posts.
57. As a user, I would like to comment on comments.
58. As a user, I would like to edit my comment.
59. As a user, I would like to delete my comment.
60. As a user, I would like to filter posts by popularity or recency (if time allows).
61. As a user, I would like to join class forums (if time allows).

62. As a user, I would like to leave class forums (if time allows).

Other
63. As a user, I would like to install this web application on my desktop and mobile devices as a progressive web app (if time allows).
64. As a user, I would like to be able to navigate to various pages on this website from a landing page.
65. As a user, I would like to be able to view a class forum post and all of its comments in a dedicated page.
66. As a user, I would like to see a tutorial on all the features that the site has.

Non-Functional

- Our application will work across different browsers.
- Our application will have an intuitive UI for users to easily navigate the site.
- Our application will be visually appealing.
- Our application will have fast response and load times.
- Our application will be reasonably secure for storing user information.
- Our application will be developed in a way that code modification and testability is practical.

Performance

In order to give users a pleasant experience using PurdueParty.io, most of the web pages should be fully loaded in, at most, 3 seconds. Pages that end up embedded, such as the labeled map with bus stops, may take up to 5 seconds.

Scalability

We intend to use Firebase as both our hosting platform and database service. As a result, we have a variety of options in terms of scalability. During initial development, we will have access to a Gigabyte of storage, 100 simultaneous connections, and 360 MB of data transfer a day. This should be more than enough to meet our needs when testing with a small subset of Purdue's campus population. When it is time to deploy production code and expand our user base, Firebase provides scalable and affordable payment options that will be proportionate to our usage. Given that Firebase is a Google product intended for large-scale applications, it can be safely assumed their servers will be able to meet the demand for our product.

Security

PurdueParty.io primarily handles non-sensitive information. However, due to our planned implementation of account registration, privilege-level editing, and more, we still need to securely protect both user information and our database. To that end, we intend to use Firebase, our chosen backend infrastructure, to enforce strict security across the site. Notably, it uses a SSL certificate for our domain to ensure that data is transmitted securely. Additionally, we intend to utilize Firebase's database rules to allow users to only access and modify data which is pertinent

to them, such as club information if they created that specific club. We also hope to provide users the ability to hide their profile information from other users if they have privacy concerns.

Usability

We want to design the application in a way such that it will be easy for the user to be aware of the categories of features that we are providing and where to locate them. To ensure that users will be able to parse and read the information presented on our application well, we will choose suitable fonts and font sizes and a color scheme that provides good contrast for our texts according to WCAG guidelines.