

PharmGenius - Project Proposal

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Team: Sunder Applications

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Customer: University of Pittsburgh Department of Pharmacy

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User Stories	Rank
As a developer, I want to have active users early in development, so that we have meaningful feedback during the planning stages.	1
As a pharmacy student, I want to be able to choose categories within a class, so that I can study only the material that is important to me.	2
As a competitive/social person, I want to be able to compare my scores with my friends, so that I can prove that I'm the better pharmacist.	3
As a normal human being, I want positive reinforcement for my accomplishments, so that I have a better time learning.	4
As someone who is indecisive, I want to be able to undo my up-votes/down-votes, so that clicking the button isn't a commitment.	5
As someone who is new to [a quiz topic], I want to be able to take the quiz without being timed, so that I can go at my own pace.	6
As someone who is new to [a quiz topic], I want to see the correct answer to the problems I got wrong on the results page, so that I can learn from my mistakes.	7
As a user, I want a uniform, intuitive, and easy-to-navigate interface, so that I enjoy my experience more.	8
As a mobile user, I want the app to work on my smart phone, so that I can quiz myself on the go.	9
As a Pitt student, I want to be able to log in with Pitt Passport, so that I don't have to make <i>another</i> username / password.	10

Overview

PharmGenius is a quiz application, similar to Quizlet or Trivia Crack, but it's for the students of the School of Pharmacy at the University of Pittsburgh (and potentially other universities in the future). The first team built it from the ground up, and it is our job to fine-tune it and improve functionality as much as possible.

Communication

Our team will keep in constant communication through Slack, which we have integrated with GitHub so that we're up to date on everything. For non-pressing matters and general discussion with the customer, we will send an email. Meetings with the customer will take place every one to two weeks; they will usually be in person, although he travels frequently, so we will need to meet over Google Hangouts when that happens. The customer and any beta testers will be able to access the most recent version of the application at <http://quiz.sunderapps.com> or at its Google Cloud URL (to be determined, but probably: <http://pharm-genius.appspot.com>).

Languages / Frameworks / API

Seeing as we are the second team to work on this project, we don't really have a choice as to what languages, frameworks, etc. to use. The previous team wanted the quiz to be a fully-responsive Web application. This removed any platform dependency, and allowed them to focus on a single project. Since it is a Web app, we are naturally going to use HTML and CSS for the user interface. The previous team made use of Twitter's CSS templates, known as Bootstrap 3, which will allow us to focus less on the small details. Furthermore, starting with

version 3, it was designed mobile-first (the UI starts in the mobile layout, and expands if the screen is larger), which allegedly improves design time in responsive Web apps. We will be using JavaScript to make the UI more interactive, and jQuery with it to simplify the writing of said JavaScript. The language of the back-end is Python, with webapp2 as the Web framework (a variation on Google's webapp), which uses Jinja2 as the template engine so that we can create dynamic Web pages. It also uses Google's App Engine API for databases, email, keeping track of users, and more. Because of this, we will be hosting PharmGenius on Google's Cloud Platform as well.

Testing

Our game already has a live website, on which we can log in and play whenever we please. In addition to this, our client requested that we prepare a user-functional version of the application within two weeks, so that we can have live users on the site and playing the game. This will allow us to have other testers and actual users who can provide both functionality feedback as well as bug reports. We will also set up local setups of the site via XAMPP on all of our machines. On our local machines, we will be able to develop and test new features and content as well as change the layout and style of the site when necessary. This will allow us to be able to push updates to the live site and have the current users of the site see and interact with the changes and provide more feedback.

Division of Labor Plan

Given that we already have a “working” site, we will be grouping the project into subsystems which contribute to pieces of overall functionality. There are several features that the previous group had brainstormed and noted; our client dictated that he would like us to use those ideas and implement them into the site if possible. That being said, Sam has experience in UI so we are going to have him spearhead that part of the project and contribute elsewhere if necessary. After adding our own ideas to the list of improvements and prioritizing them, we will split them among the remaining members so we can efficiently upgrade the site. We will be sure to isolate and focus on the work that needs to be done before October so that we are ready for beta testers to give us feedback early in the development process.

Everybody on the team will be contributing to documentation. We will have a Google Docs document so that we can contribute concurrently, and the README.md file on GitHub will be kept up to date. The previous team left us with minimal documentation, so we are going to have to interpret the code ourselves. We will not do the same to the next team.

LEADERBOARD

Category:

Time Period:

Rank	Name	Points
1	Tyler	343916
2	BMURR	11589
3	josh_hochuli	8393
4	Sunder	6051
5	map259	2161
6	bogdanbg24	1500
7	PharmCurious	1500
8	PittInovation	1200
9	Ra_veen	667
10	test2	0

The current iteration of the leaderboard for the Web app quiz is on the previous page. Mark wants to revamp the statistics portion of the game, both by changing the way points are accumulated and by adding more features and statistics to the leaderboards page and profile page. In addition to the restructuring of the points system, Mark was looking into adding badges or achievements to the game. For example: adding an achievement to correctly answer 100 questions could add more points to your profile as well as an emblem to your profile page. Doing so makes the game more meaningful and allows the users to be more engaged. It will provide motivation to learn by presenting goals, encouraging competition, and providing positive reinforcement.

While Mark works on the statistical aspect of the game, Ben is going to focus on the experience of the quiz itself. He is going to add subcategories to the questions so that users can study specific subjects. Ben wants to add a wider variety of options, such as a non-timed mode, more quiz sizes, and the option to take a quiz on more than one subject. He will also be adding improvements to the results page, such as a “Play Again!” button, the correct answer (only your answer is displayed currently), and explanations for each of the answers.

Sam is going to make some user interface prototypes to share with the customer. Until then, he is going to make sure everything is aligned well for the October release. After we have created a good user experience, we are going to make the application more social. We are still discussing it, but we want to add a feature such as having groups that the users could join to compare scores or simply adding friends to see their scores (or both).

The application’s sound effects, in their current state, are proprietary (from Super Mario World). Since none of us are skilled in audio production, we are outsourcing for that. Sam’s roommate will be providing us with original sound effects for free.

Potential Issues

A possible issue in the foreseeable future is the concurrent use of the site as we upgrade it. Taking it down to perform major updates may produce disturbance for the client and the students he wants to use the site. Also, we will be using a free hosting site, so traffic may be limited, depending on how many beta testers we actually have. Our most immediate issue is that we weren't provided with much documentation - it was mostly plans / notes on how it should work. It doesn't say much about what they actually implemented or how they did it. We also need to get familiar with the Google Cloud Platform and the App Engine API.