



Project Executive Summary

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Application Overview and Purpose

The Bay Area Chess app would greatly enhance convenience and keep the chess community updated and informed. The majority of the target audience are iOS users, however, the current website does not have a mobile friendly state. This standalone app would share most of the features of the site, but enable easy, user-friendly access for thousands of users. On top of that, the app will boast additional features not available on the website. The main feature will be push notifications which will increase interactivity with the chess community. For example, it will remind users of upcoming tournaments and help them avoid late registration fees. It can also inform them of tournament result releases. Ultimately, the mobile application will allow the community to be more informed about chess events in the area, allowing them to fully take advantage of the chess opportunities around them.

Application Functionality

The app will feature a main landing screen that displays icons to different parts of the website (see GUI sketch below). Each of these icons will lead to a specific page that displays the appropriate information. Presently we have prioritized four features to be implemented, namely tournaments, clubs, enrichment and results. The tournaments feature would display the list of tournaments and the advanced entries list for each, as well as allow for mobile registration. Furthermore, if time permits we would include an additional information page for each tournament. The clubs and enrichment pages would display relevant information similar to that on the website. Finally, the results page would have pop up notifications on top of just displaying the results. Once this is done, we will proceed to other non crucial categories such as calendar, news and FAQ, where information would be dynamically displayed to allow users access to the appropriate up-to-date information.

Technical Considerations

Platform

We have decided to develop the application for iOS platforms since end-user data showed that it is used by 73% of the user base. Furthermore we've decided to primarily develop for iPhone, as iPhone apps are usable on iPad/iPad Mini platforms (though, with resolution and layouts catered to the iPhone), whereas the reverse is not true. It should also be noted that if an iPad specific app were to be requested, the views would have to be ported to iPad, but the rest of the code base would still be used to drive the core functionality of the app.

Expenses

Apple requires App publishers to have a developer account, which costs \$99/year to maintain, thus the Bay Area Chess Organization will have to pay to maintain this account every year. This has been approved by our client. Because this app will rely on existing database and server infrastructure for the Bay Area Chess Organization's website, we project that there will be no additional fees for retaining user login information, event information, etc.

Specific Technologies

Within the iOS development environment there are two programming languages used to natively develop applications. Before 2014 Objective-C was the language used to develop iOS apps, however Apple has released another language, Swift, which they are pushing developers to use for future applications. Our team has decided to use Swift for several reasons. The first reason is future-proofing the application. Because Apple is pushing developers to use Swift to develop apps from iOS 8 onward, it is likely that most app developers will switch to using Swift to develop their apps. This trend results in more information (in the future) available online for reference if this app needs to be updated, and more developers available to maintain it if necessary. The second is the advantage that Swift has in development speed. That is, Swift is, in general, less verbose, easier to read and write, and quicker to learn than Objective-C. This means that we, as developers can focus more on developing the product, rather than spending time worrying about specific code semantics. The third is performance, Apple boasts that Swift is 40% faster than Objective-C. This is a very significant speed increase, and, seeing as Swift is still in early stages of development, it is extremely likely that the performance increase will actually be much greater than this.

Much of the information for this app will be accessed via the pre-existing MySQL database that is used for the normal website, this way no new database infrastructure is needed to power this app, and the data will be consistent across platforms.

