CSE 403 Project Proposal -- ClassTracker

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ClassTracker is an online, web-based application that attempts to keep track of class/school related events. Events may include study sessions, parties, keggers, office hours, office parties and maybe homework.

Basically, a socially-networked calendar targetted towards college students/teachers.

Operational Concepts

Our product is a socially-networked calendar targetting college students. It's primary goal is to relieve the amount of redundancy and time spent keeping track of class related events, specifically due dates and exam dates. In addition, it will allow users to post other class related events, such as office hours, study sessions, etc.

People signing up for this application would enter in the classes that they are taking. The user would then be shown a list of relavent events for the classes they are taking. Events would then be selected and added to his/her calendar. As events increase in popularity, they become more "relevant" for the class (this is particularly important in preventing malicious due dates/assignments).

Software Architecture

The target languages for this application would be python and javascript. The planned frameworks would be Django and jQuery. Due to the database abstraction included with Django, the database backend is unimportant but most likely either MySQL or PostgreSQL.
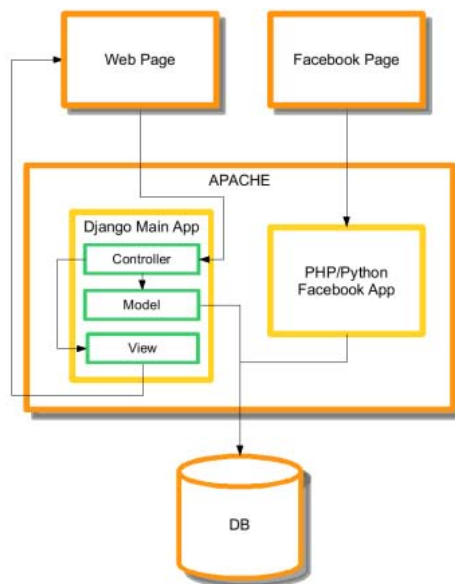
The components would be the standard web application LAMP stack. We would have the standard web interface which would talk to the web server (apache). The application would deal with the webserver and the generation of the views. We would be using the Django version of the MVC design pattern. Facebook integration may need to go through it's own glue layer, depending on the maturity of the python interface to Facebook. In addition, users can export their calendars in RSS, XML, and iCAL formats for use in other applications.

Buzzwords utilized: SOA, ORM, AJAX, XML, RSS, LAMP, WEB2.0, Social Networking, Beta.

Facebook integration, run for the hills!

Challenges and Risks

Risks involve possible limitations of Django's ORM, specifically in the area of table inheritance and one-to-one relationships. Facilities for search may be limited as well due to Django's use of inner joins as part of its ORM.

It is also possible that not enough people would use the application (e.g. classmates don't use it). This can be remedied by making it useful, even without the social aspect, or spamming your classmates until they start using it.

A third risk is that people may associate school as being too lame of a subject to centralize on. This would result in no one funding our project. However, the application is in no way restrained to schools (technically), and can easily be expanded into a general social calendar.