Project Plan
Facebook Study Group Application

Team TechSmith
CSE 498, Collaborative Design

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Project Overview

- Facebook study group application that allows users to find other students in their classes with whom to study.
- Facilitate the quick and elegant sharing of content, including text, videos, and presentations.
- Create an environment conducive to learning, where students in a class can spread and obtain knowledge.
Functional Specifications

• Discussions
  – Users will be able to discuss class material in a forum like environment with real-time response. Ideally, the virtual environment mimics an in person study group.

• Calendar
  – Users will have the option to create events and view important dates and deadlines. Also, it should be possible to create Facebook events from the app.
Functional Specifications

• User Profiles
  – Profiles display the member’s study group points and achievements. Additionally, it shows negative tracking to some degree and karma scores which are tabulated from user or post ratings, as well as quizzes and achievements.

• Quizzes
  – Will be compiled in the application randomly by user submitted questions and answers. By correctly answering quizzes, users can acquire karma.
Functional Specifications

• Sharing Content
  – Users will have the option to share content about studying material such as: lecture videos, helpful websites, quiz questions and answers, and presentation slides. The incorporation of TechSmith’s screen capture and recording applications provides a mechanism for users to teach others around the world as if they were in the same room.
Design Specifications

- **Discussions**
  - Close to real-time chat using JavaScript/AJAX.
  - Shared content will be embedded directly into the chat discussion.

- **Content sharing**
  - Support for content websites like YouTube.
  - Point at specific segments of text or video (e.g. 30 minutes into a 6 hour video).
  - Highlight relevant portions of text documents (similar to Google's search term highlighting).
Design Specifications

• Calendar of important class dates
  – use Google Calendar API

• User profiles
  – Karma scores
  – Positive / negative accomplishments

• Quizzes
  – Multiple choice (graded by machine)
  – Short answer (graded by user)
Screen Mockups

Search By Class
Department:
Course Number:
Section:
Professor:
Search by Class

Search By Name
Name:
Search by Name

or create a new group
Screen Mockups

**Groups**

**Discussions**
- One
- Two

**Calendars**
- Exams
- Homework

**Profiles**
- Alice
- Bob
- Charlie
- Dave

**MTH 232**

**IAH 206**

**ISS 220**

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**Alice wrote** on January 1, 2010 at 1:00pm

Hey everybody, check out this video!

Any suggestions how I can make it better?

**Bob wrote** on January 1, 2010 at 1:01pm

You could try using different music?

**Dave wrote** on January 1, 2010 at 1:03pm

I agree!

**Charlie wrote** on January 1, 2010 at 1:02pm

Wow, that is really cool!

**Alice wrote** on January 1, 2010 at 1:04pm

Thanks everybody!
Screen Mockups

[Calendar mockup showing February 2010]
Screen Mockups

Alice Smith
Karma: ★★★★☆
Achievements: 100 5-Rated Posts
Technical Specifications

• As this is a Facebook application, the use of their API is required.

• The Facebook API is best supported in PHP, making it the team’s language of choice.

• Each content type will require a specialized plug-in.
Architecture Illustrated

- HTML 5 / Javascript 2.0 web standard
- Facebook Study Groups Application
  - Google Calendar API
  - XFBML
  - Content Plugins
- Initial Web Request
- AJAX Requests
- Facebook Connect API
- PHP 5
- MySQL Database Access
System Components

• Hardware Platforms
  – Server to host application and required services
  – Client computers

• Software Platforms / Technologies
  – Apache 2.2
  – PHP 5.2
  – MySQL 5.1
  – JavaScript
  – XFBML
  – Facebook API
  – Google Calendar API
Testing

• Unit
  – All features will initially be checked to ensure expected input produces expected output.

• Integration
  – Features requiring unit collaboration will be tested once their respective units are complete.

• System & Interoperability
  – “Finished” app will be tested with all major browsers.

• Performance/Stress
Risks

- Sufficient mastery of the various languages
- Learning the Facebook API
- Learning the Google Calendar API
- Developer and/or customer driven feature creep