

MICHIGAN STATE
UNIVERSITY

Project Plan

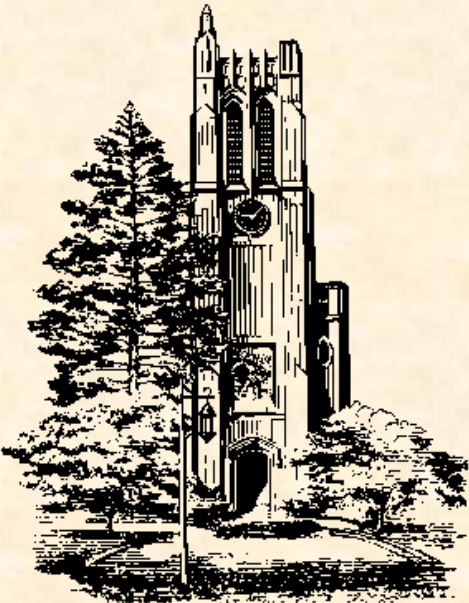
Facebook Study Group Application

Team TechSmith
CSE 498, Collaborative Design

Chanyoung Choi
Trevor Jelneck
Ryan Oswald
Douglas Sheffer

Department of Computer Science and Engineering
Michigan State University

Spring 2010





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).

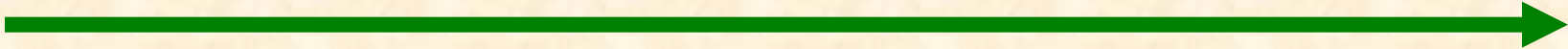


Design Specifications

- 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



Groups | Discussions | Calendars | Profiles

MTH 232
IAH 206
ISS 220

Search By Class

Department:

Course Number:

Section:

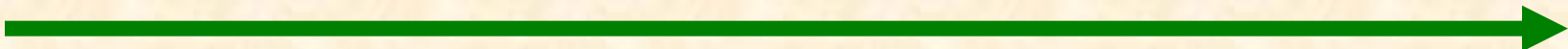
Professor:

Search By Name

Name:

or [create a new group](#)

Screen Mockups



Groups | Discussions | Calendars | Profiles

MTH 232

- Discussions
 - One
 - Two
- Calendars
 - Exams
 - Homework
- Profiles
 - Alice
 - Bob
 - Charlie
 - Dave

IAH 206

ISS 220

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

Groups | Discussions | Calendars | Profiles

MTH 232

- Discussions
 - Exam 2
 - Exam 1
- Calendars
 - Exams
 - Homework
- Profiles
 - Alice
 - Bob
 - Charlie
 - Dave

IAH 206

ISS 220

Today ◀ ▶ February 2010 Week Month Age

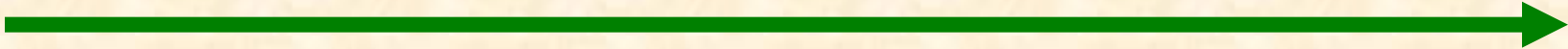
Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	Feb 1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	Mar 1	2	3	4	5	6

+ Google Calendar

[Add event...](#)



Screen Mockups



Team TechSmith

The screen mockup shows a user profile page with a navigation bar at the top containing 'Groups', 'Discussions', 'Calendars', and 'Profiles'. On the left is a sidebar with a list of items: 'MTH 232', 'IAH 206', and 'ISS 220'. The main content area displays the profile for 'Alice Smith', including a 'Karma' score of 4 stars and an achievement of '100 5-Rated Posts'.

Groups | Discussions | Calendars | Profiles

MTH 232
IAH 206
ISS 220

Alice Smith

Karma: ★★★★★

Achievements: **100 5-Rated Posts**



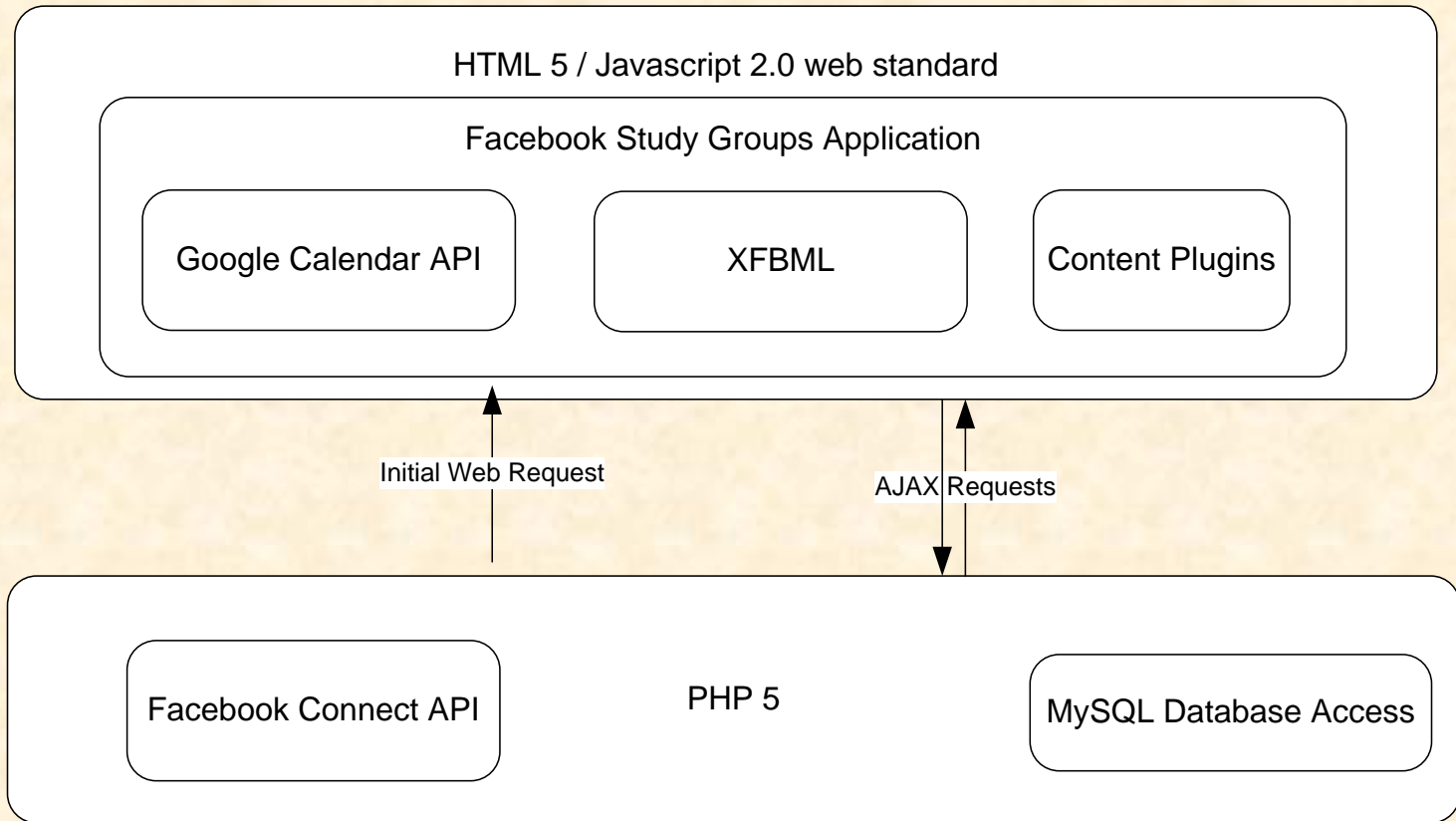
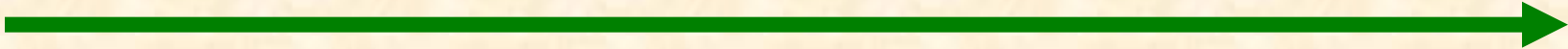
Technical Specifications



- 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.



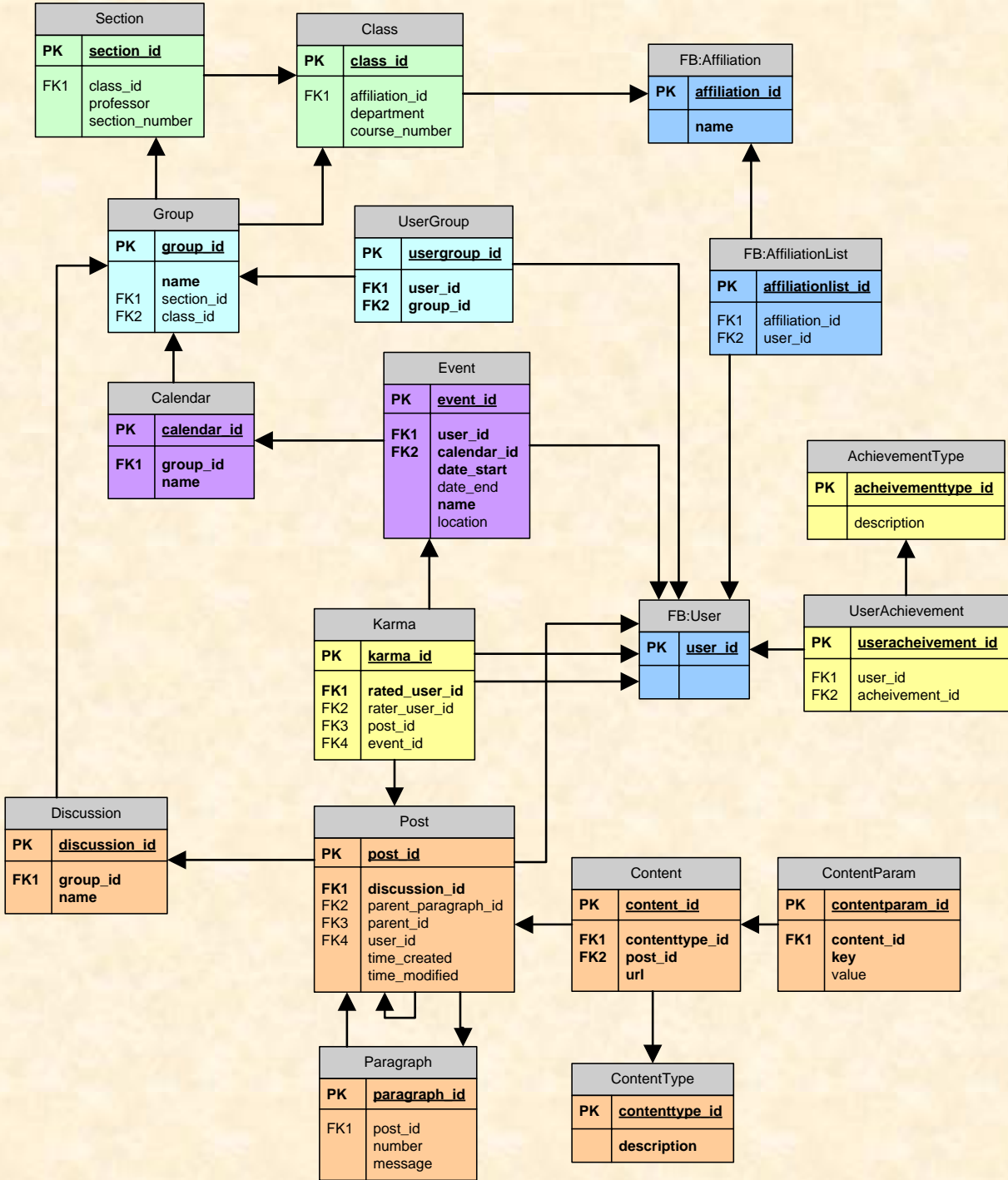
Architecture Illustrated





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