# Project Plan
# Mobile Financial Education App

## The Capstone Experience

### Michigan State University Federal Credit Union

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# Project Overview

- Aims to provide Oakland University Credit Union members with a tool in order to make informed financial decisions

- To create a communication channel which engages students in financial education

- Improve upon the existing baseline application money.edu functionality and design
  - Interactive elements in application to be emphasized
  - Information channeled to provide user with information relevant to their questions

- Application to be developed for iOS and Android platforms

# Functional Specifications

- Access to Financial Reference Materials
  - Glossary
  - Facilitate understanding of general financial knowledge
- Financial Calculators
  - Calculating outcomes of different financial situations such as loan interest and car payments.
- Easy Access to Expert Advice
- Budgeting and Savings Tools
  - Provide tools for tracking budgets and savings goals.
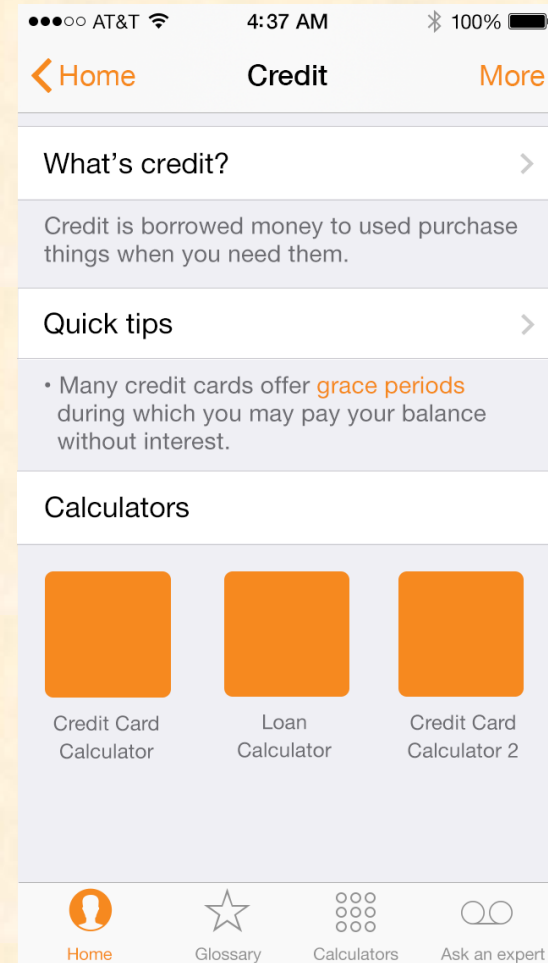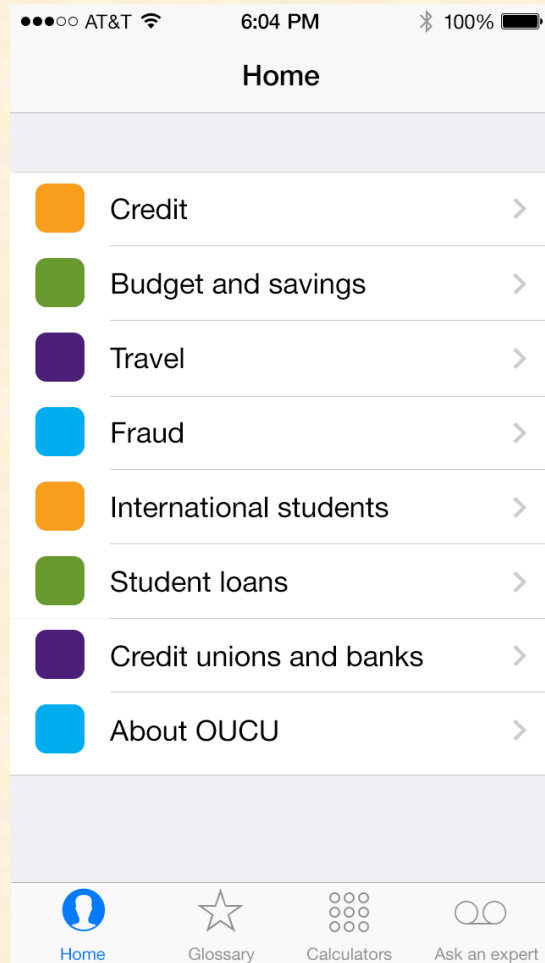
# Design Specifications

- Page Overview
  - Pages divided into categories based on type of content
    - Text will be oriented towards the top and tools towards the bottom

- General Navigation
  - Displays non-category specific application features
  - This feature is accessible from any page.

- Category Navigation
  - Data within the application is broken into a hierarchical system
  - Each category is represented by a corresponding color.

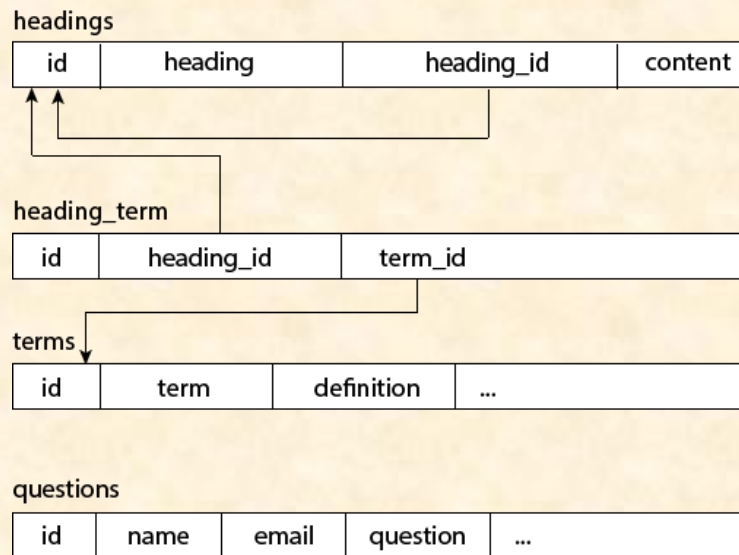# Screen Mockup: Android Interface
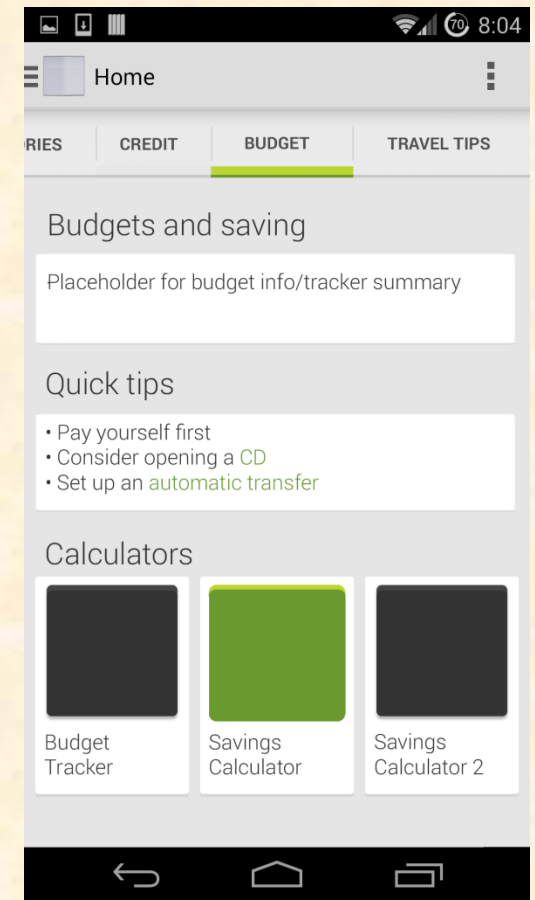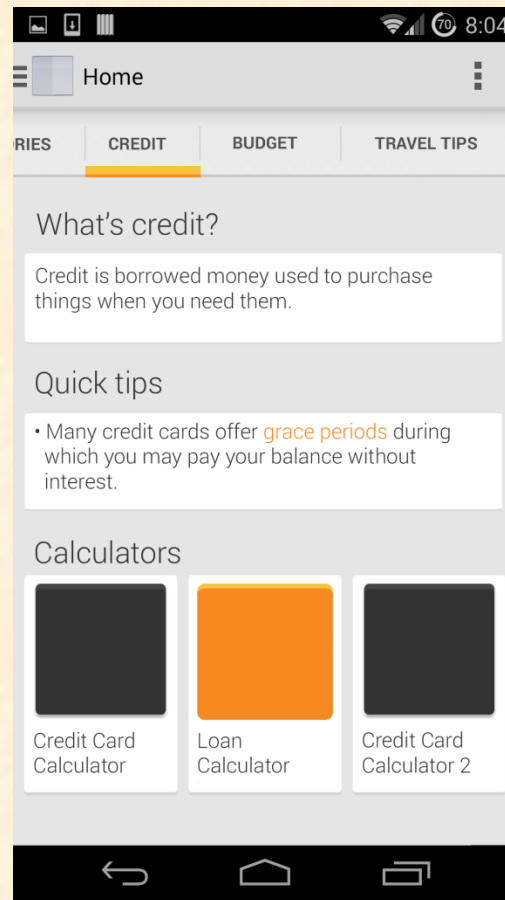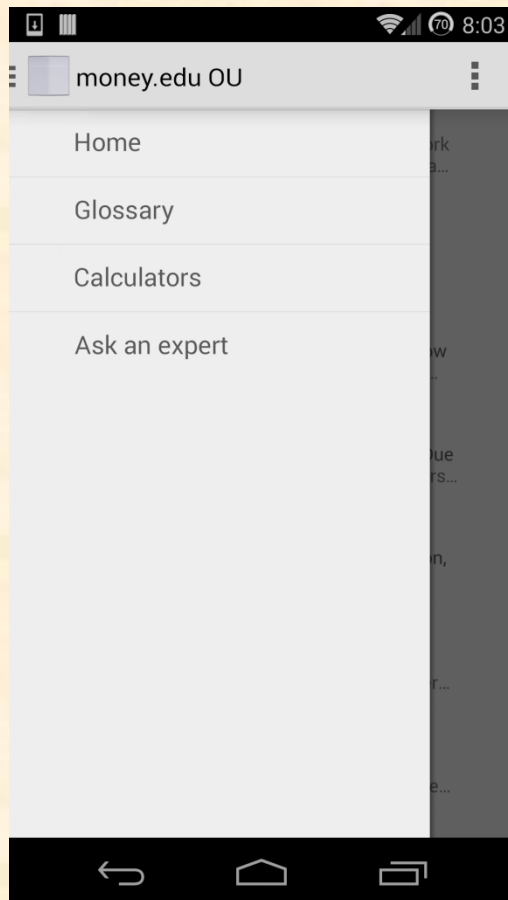
# Screen Mockup: iPhone Interface

# Technical Specifications

- Microsoft SQL Database

**headings**

| id | heading | heading_id | content |
|----|---------|------------|---------|

**heading_term**

| id | heading_id | term_id |
|----|------------|---------|

**terms**

| id | term | definition | ... |
|----|------|-----------|-----|

**questions**

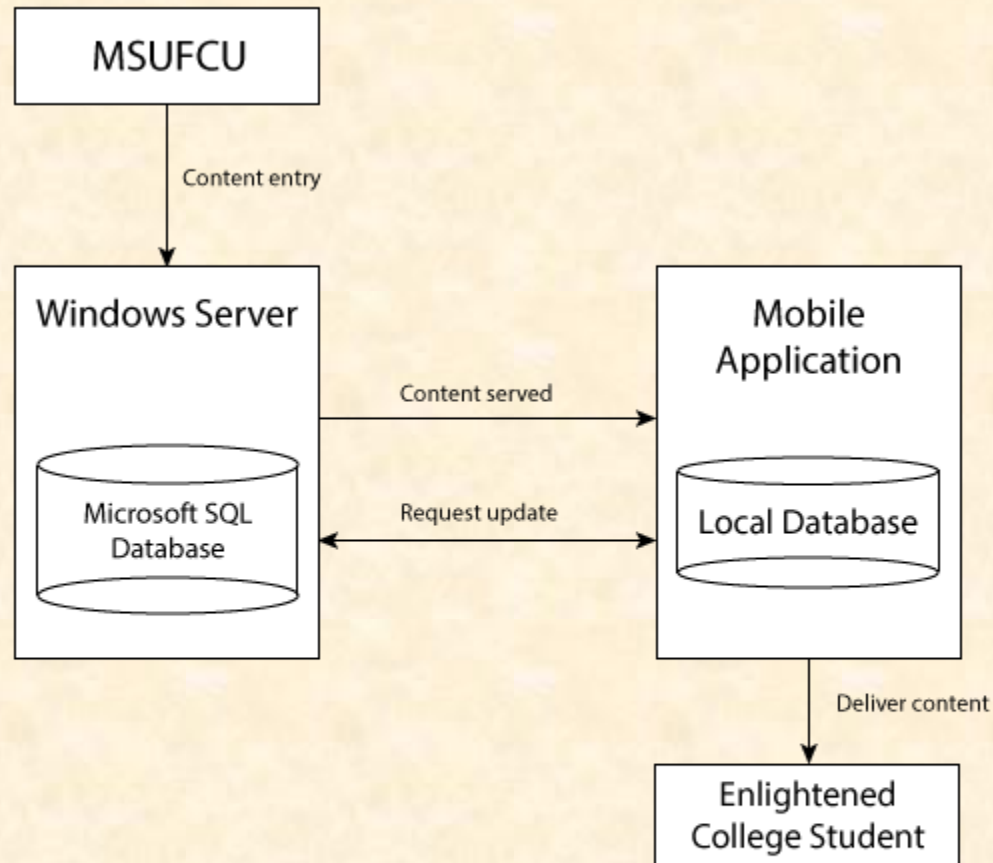| id | name | email | question | ... |
|----|------|-------|----------|-----|

- System Architecture
  - Database cached on device

# System Architecture

# System Components

- Hardware Platforms
  - Smart phones
  - Tablets
- Software Platforms / Technologies
  - Android (2.3 Gingerbread and above)
  - iOS 7
  - Microsoft Windows Server
  - Microsoft SQL

# Testing

- Unit tests
  - Android JUnit
  - Xcode/XCTest framework
- Limited user testing

# Risks

- Unfamiliarity developing for native iOS
  - Team members have no programming experience with Objective C or the respective iOS IDE Xcode.
    - Learn the primary differences between developing for Android and iOS
    - Develop the Android application first in order to assess risk accurately
    - Code the back end to not favor any particular platform
      - ❖ Modifications will come only in the form of the UI
- Interaction between database and application
  - Unfamiliarity with script that allows the database to talk with the end host.
    - Each team member has experience in different areas of database management and communication.
      - ❖ Collective use of these skills can easily mitigate this risk and help to alleviate any learning gaps.
- Very little experience with Unit Testing
  - Learn JUnit and XCTest