

MICHIGAN STATE
UNIVERSITY

Project Plan

Survey And Voting Web Apps

The Capstone Experience

Team Quicken Loans

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*From Students...
...to Professionals*

Project Overview

- In house survey and voting application
- Live voting
- Replace the use of survey monkey and poll buddy.
- Provide readable data collected from surveys and votes.

Functional Specifications

- Survey and Voting Application
- Live Voting Capabilities
- Geo-Location / Geo-Fencing
- Analytics and Reporting
- Mobile Access

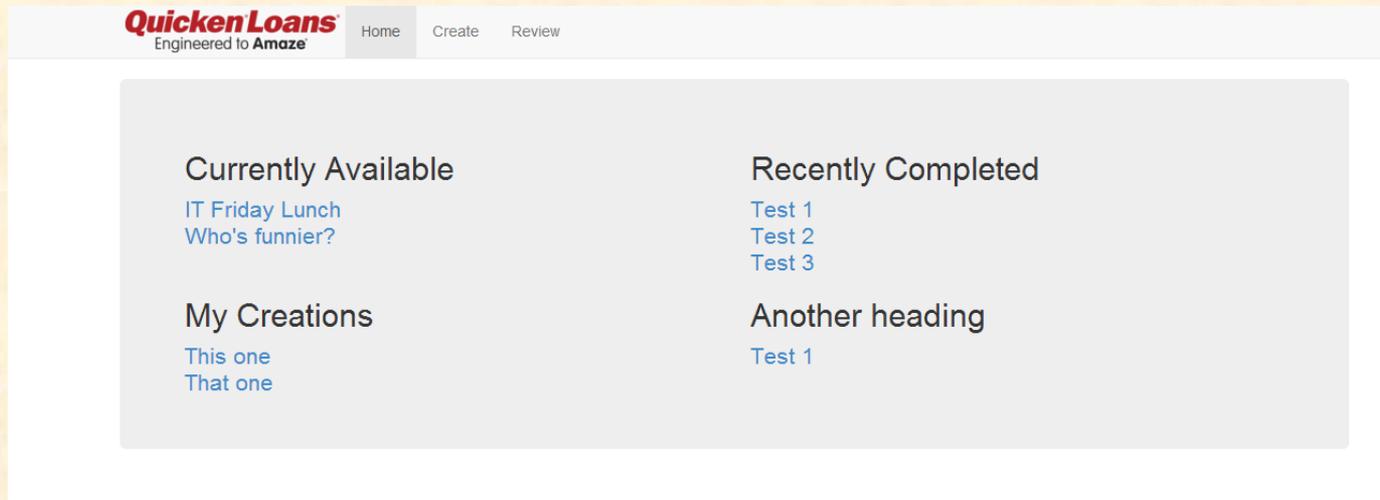


Design Specifications

- Provide a way to access created, completed, and available surveys and votes.
- An easy to use drag and drop interface to create votes and surveys.
- Show the results and analytics of surveys the user has permission to see.
- Mockups



Screen Mockup: Home page



Screen Mockup: Create Survey/Vote

Quicken Loans
Engineered to Amaze

Home Create Review

Enter Survey Title

Enter question

Enter option

Remove

+ Add new control

one (drag me)

two

three

four

five

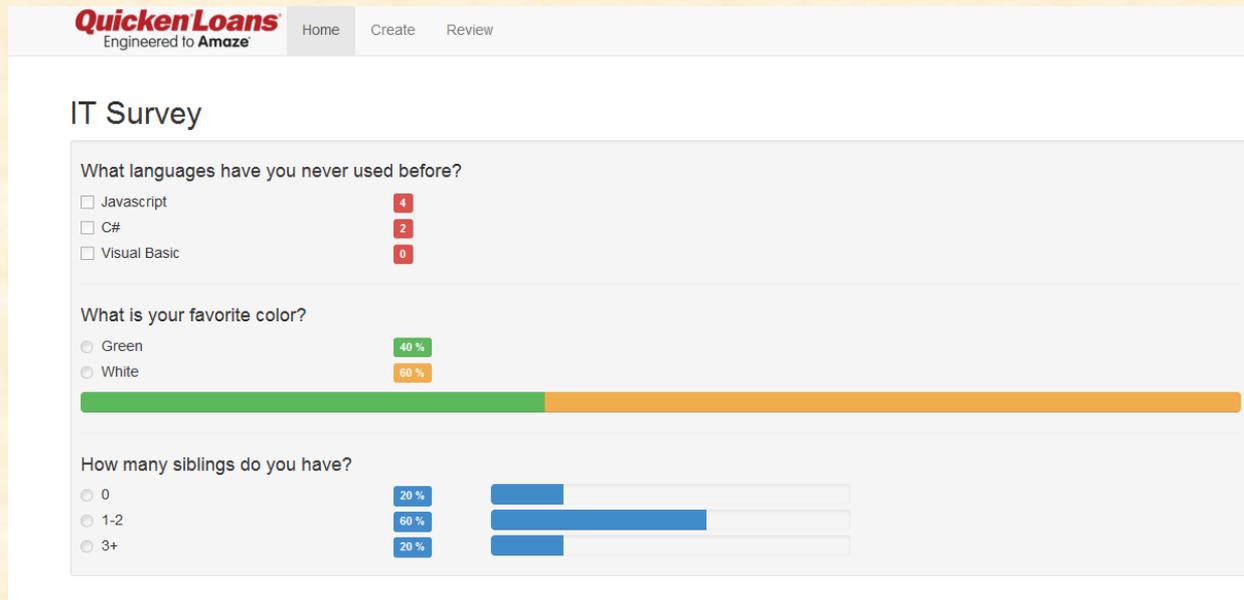


Screen Mockup: Completed Surveys

Name	Created By	Date Submitted
Christmas Party	John Smith	12/12/13
What is your favorite color?	Jane Doe	09/25/13



Screen Mockup: Review Survey Results

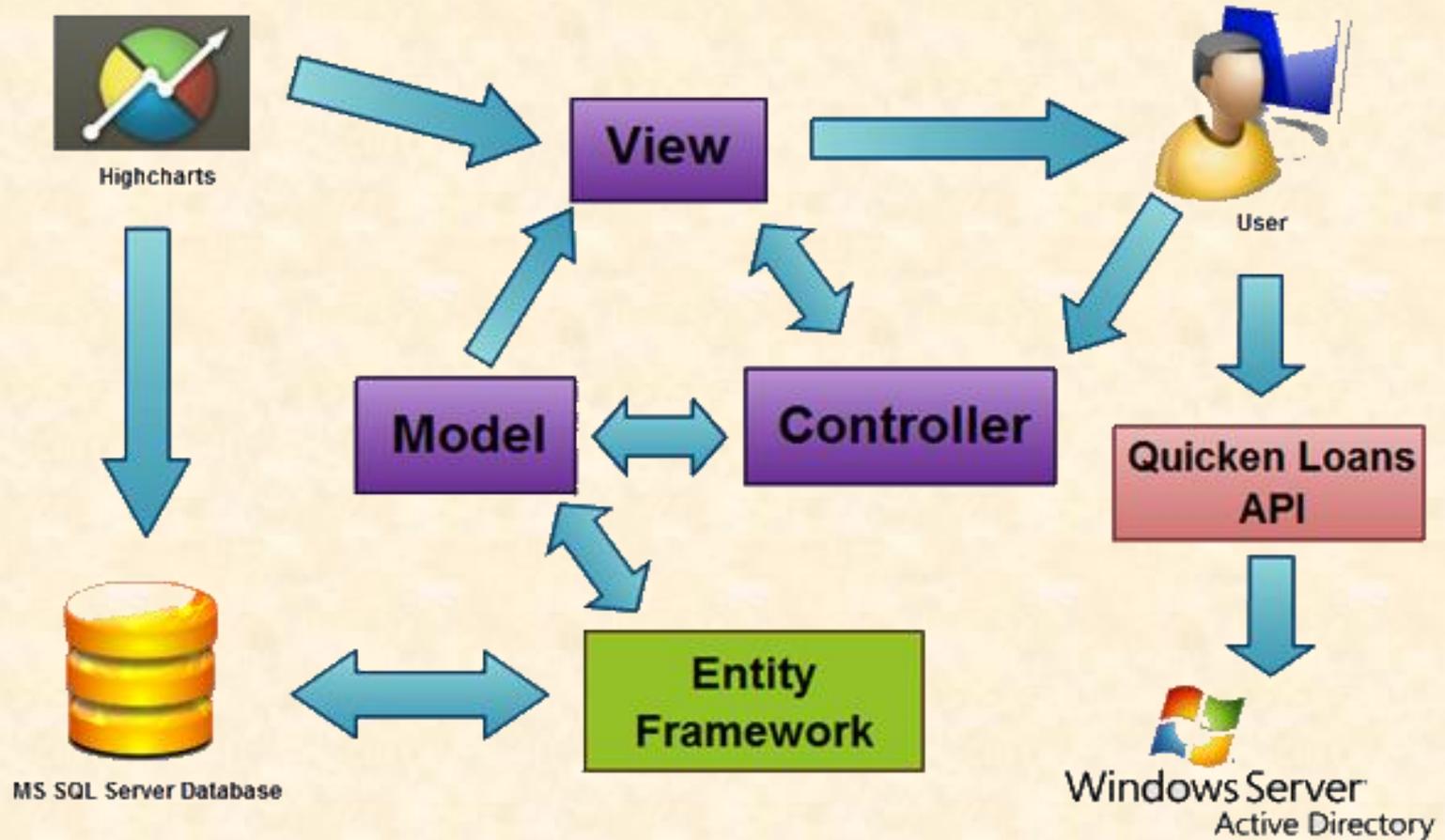


Technical Specifications

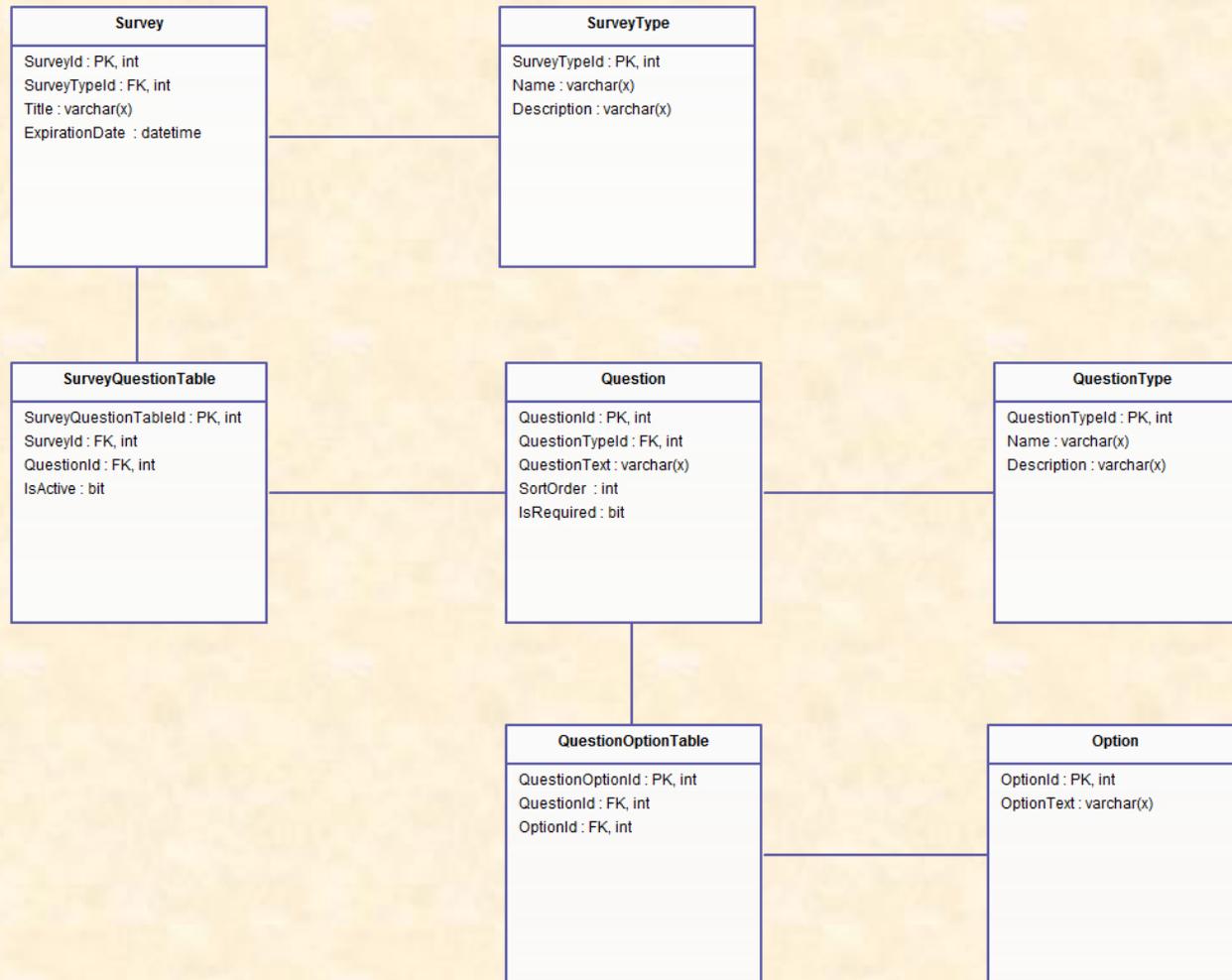
- Main components:
 - Windows Server Active Directory
 - Quicken Loans API
 - .NET MVC Framework
 - Microsoft SQL Server database
 - Highcharts HTML5/Javascript library



System Architecture



Database Schema



System Components

- Hardware Platforms
 - iMac, Macbook Pro - Win 7
 - Dell R210 rack mount server – Win Server 2008
 - Android Devices for mobile testing
- Software Platforms / Technologies
 - Microsoft SQL Server 2008
 - Active Directory/ Ninject Directory Injection
 - Microsoft MVC 4.5
 - HTML5, Javascript, JQuery, JQuery Mobile



Testing

- Ability to run the web app on multiple browsers
 - Test on ie8/ie9/ie10, Mozilla Firefox, Chrome, and Safari.
- Working with Quicken Loans security qualifications
- Make sure results and analytics are accurate.
- Ensure that live voting updates automatically.



Risks

- Active Directory
 - Problem: Getting set up properly to mock QL network
 - Mitigation: Start immediately researching installation process.
 - Status: Can connect to server domain
- Authentication
 - Problem: Need to have access to QL network
 - Mitigation: Need to learn Ninject to bypass Active Directory
 - Status: Talked to client about problem they recommend Ninject.
- Data Storage
 - Problem: Determine appropriate storage schema for required data.
 - Mitigation: Get client requirements and design around technology limitations.
 - Status: Had a video call with the client discussing the issue.



Risks

- Geo-Fencing
 - Problem: The ability to integrate client location into surveys and voting.
 - Mitigation: We need to determine client expectations and research technologies.
 - Status: Talked with client about issue. Turned from Geo-Location to Geo-Fencing. Still need to research technologies.
- Website Usability
 - Problem: The website needs to be usable between both desktop and mobile devices.
 - Mitigation: We plan on leveraging bootstrap and jQuery mobile technologies.
 - Status: Confirmed with client that could use technology. Also determined with client that only voting functionality, not creating surveys, will need to be mobile functional.

