

MICHIGAN STATE

UNIVERSITY

Project Plan

Refer A Friend Website and Mobile App

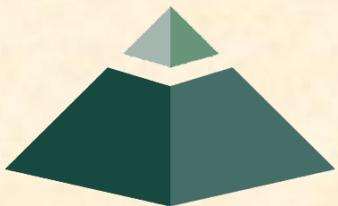
The Capstone Experience

Team MSUFCU

Yaxing Li
Sahil Tandon
Chris Benoit
Josh Shadik

Department of Computer Science and Engineering
Michigan State University

Fall 2014



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

Project Overview

- Website that allows current members to refer new members
- Works well for both desktop and mobile browsers
- Give incentive to both members after account creation
- Integrate with Facebook and Twitter



Functional Specifications

- Incentivize current users to encourage creation of new accounts
- Give new users clear instructions to create their new account
- Provide easy methods for sharing the incentive
- Adaptive layout for both web and mobile



Design Specifications

- Referrer's POV
 - Login & profile page
 - Facebook, Twitter, email sharing options
- Recipient's POV
 - Promotional code redemption
 - Creating new account



Screen Mockup: Referrer POV



MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

You earn \$50. Your friend earns \$50.

Refer a friend to create an account at MSUFCU. For any friend that creates an account after being referred, both you and your friend earn \$50.



MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

You earn \$50. Your friend earns \$50.

Refer a friend to create an account at MSUFCU. For any friend that creates an account after being referred, both you and your friend earn \$50.



Screen Mockup: Referrer's POV



MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

[Sign Out](#)

You earn \$50. Your friend earns \$50.

Refer a friend to create an account at MSUFCU. For any friend that creates an account after being referred, both you and your friend earn \$50.

| <u>Referrals Completed</u> | <u>Amount Earned</u> |
|----------------------------|----------------------|
| 3 | \$150 |

Share with one of these options:





MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

You earn \$50. Your friend earns \$50.

Refer a friend to create an account at MSUFCU. For any friend that creates an account after being referred, both you and your friend earn \$50.

| <u>Referrals Completed</u> |
|----------------------------|
| 3 |

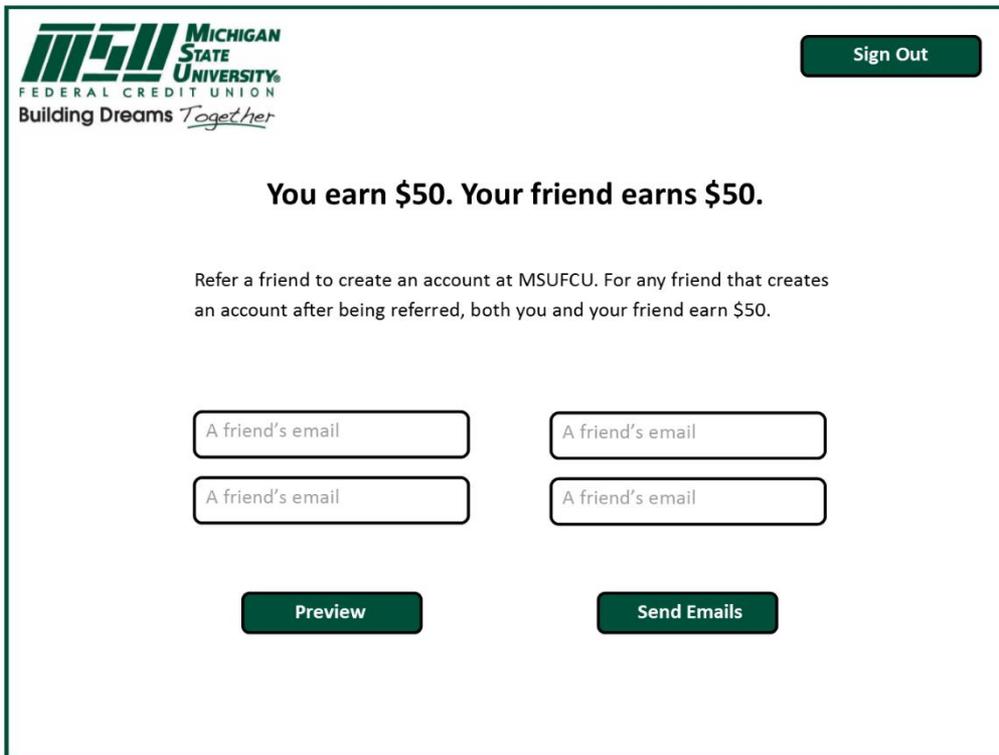
| <u>Amount Earned</u> |
|----------------------|
| \$150 |

Share with one of these options:





Screen Mockup: Referrer's POV



MSU MICHIGAN STATE UNIVERSITY FEDERAL CREDIT UNION Building Dreams Together

Sign Out

You earn \$50. Your friend earns \$50.

Refer a friend to create an account at MSUFCU. For any friend that creates an account after being referred, both you and your friend earn \$50.

A friend's email

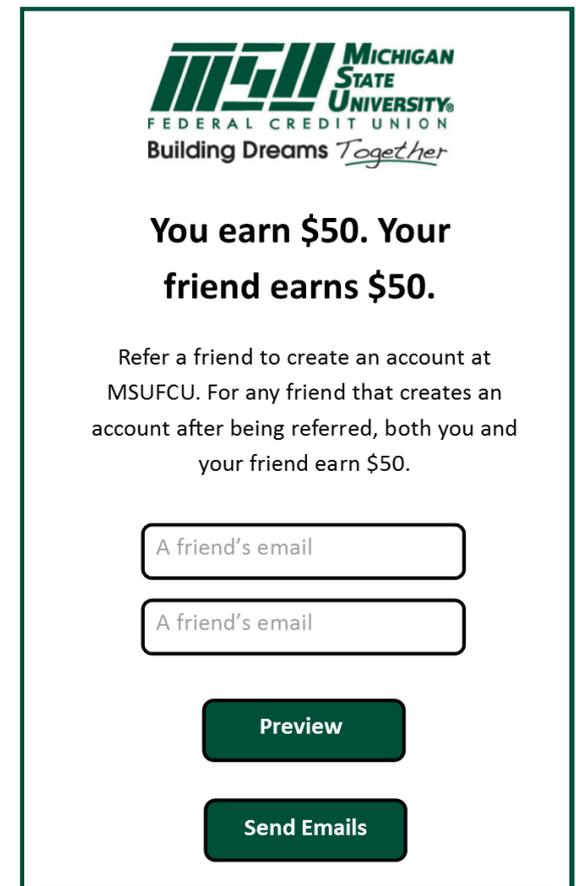
A friend's email

A friend's email

A friend's email

Preview

Send Emails



MSU MICHIGAN STATE UNIVERSITY FEDERAL CREDIT UNION Building Dreams Together

You earn \$50. Your friend earns \$50.

Refer a friend to create an account at MSUFCU. For any friend that creates an account after being referred, both you and your friend earn \$50.

A friend's email

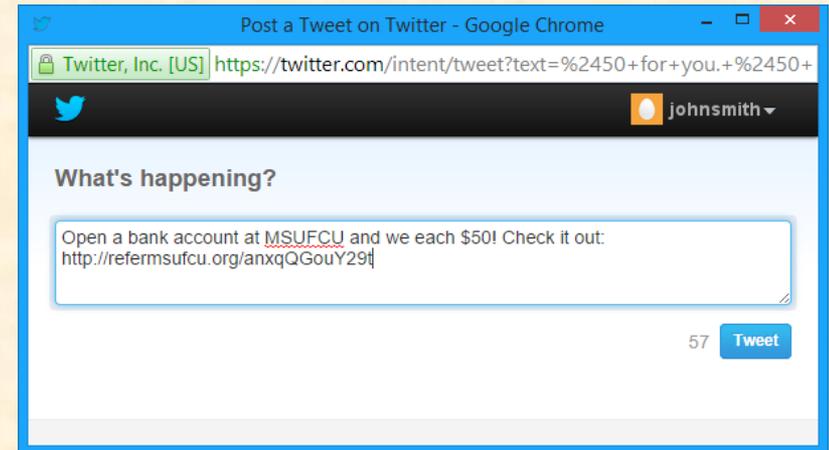
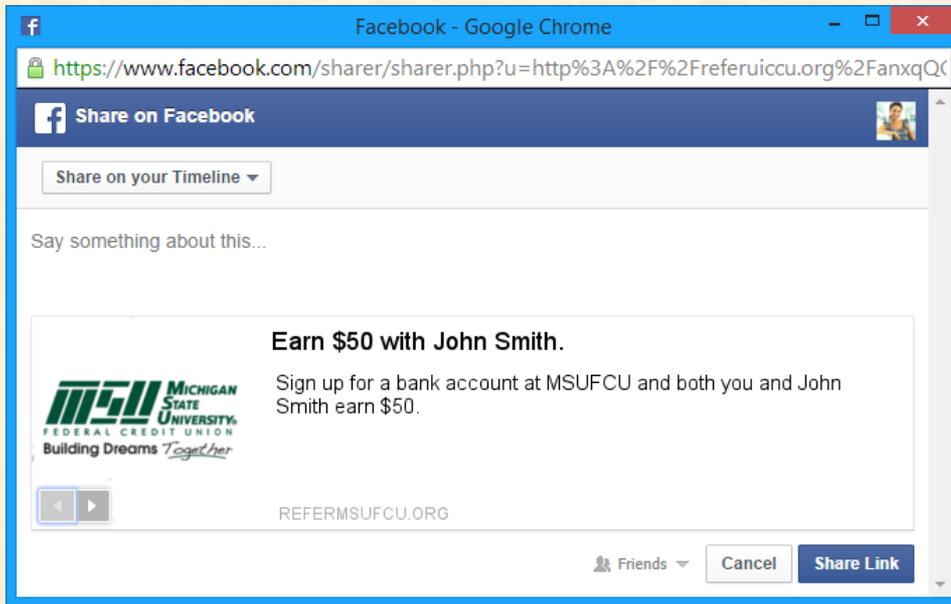
A friend's email

Preview

Send Emails



Screen Mockup: Referrer's POV



Screen Mockup: Referrer's POV



MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

[Sign Out](#)

Thanks for referring your friends to MSUFCU.

When they follow your link they will receive your promo code below. If they use this promo code when signing up for an account, both of you will receive the \$50 bonus.

ref530393



MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

Thanks for referring your friends to MSUFCU.

When they follow your link they will receive your promo code below. If they use this promo code when signing up for an account, both of you will receive the \$50 bonus.

ref530393



Screen Mockup: Recipient's POV



MSUFCU MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

John Smith has referred you to create an account at MSUFCU

When you go to sign up for a bank account at MSUFCU, use the promo code bellow so you can earn a \$50 bonus.

ref530393

[Print Code](#) [Create Account](#)



MSUFCU MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

John Smith has referred you to create an account

When you go to sign up for a bank account at MSUFCU, use the promo code bellow so you can earn a \$50 bonus.

ref530393

[Sign Up Now](#)

[Print](#)



Screen Mockup: Recipient's POV



MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

John Smith has referred you to create an account at MSUFCU

When you go to sign up for a bank account at MSUFCU, use the promo code bellow so you can earn a \$50 bonus.

Your email address

Choose a password

Confirm your password

Sign up Now



MICHIGAN STATE UNIVERSITY
FEDERAL CREDIT UNION
Building Dreams Together

John Smith has referred you to create an account

When you go to sign up for a bank account at MSUFCU, use the promo code bellow so you can earn a \$50 bonus.

Your email address

Choose a password

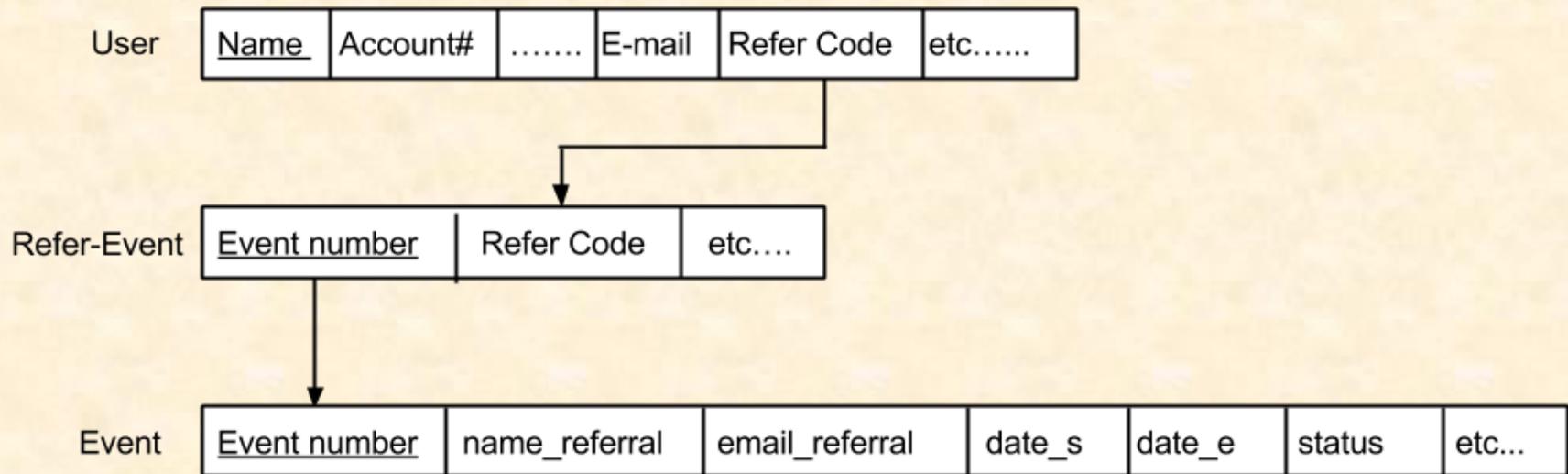
Confirm your password

Create Account



Technical Specifications

- User Referral Database (MySQL 5.5)

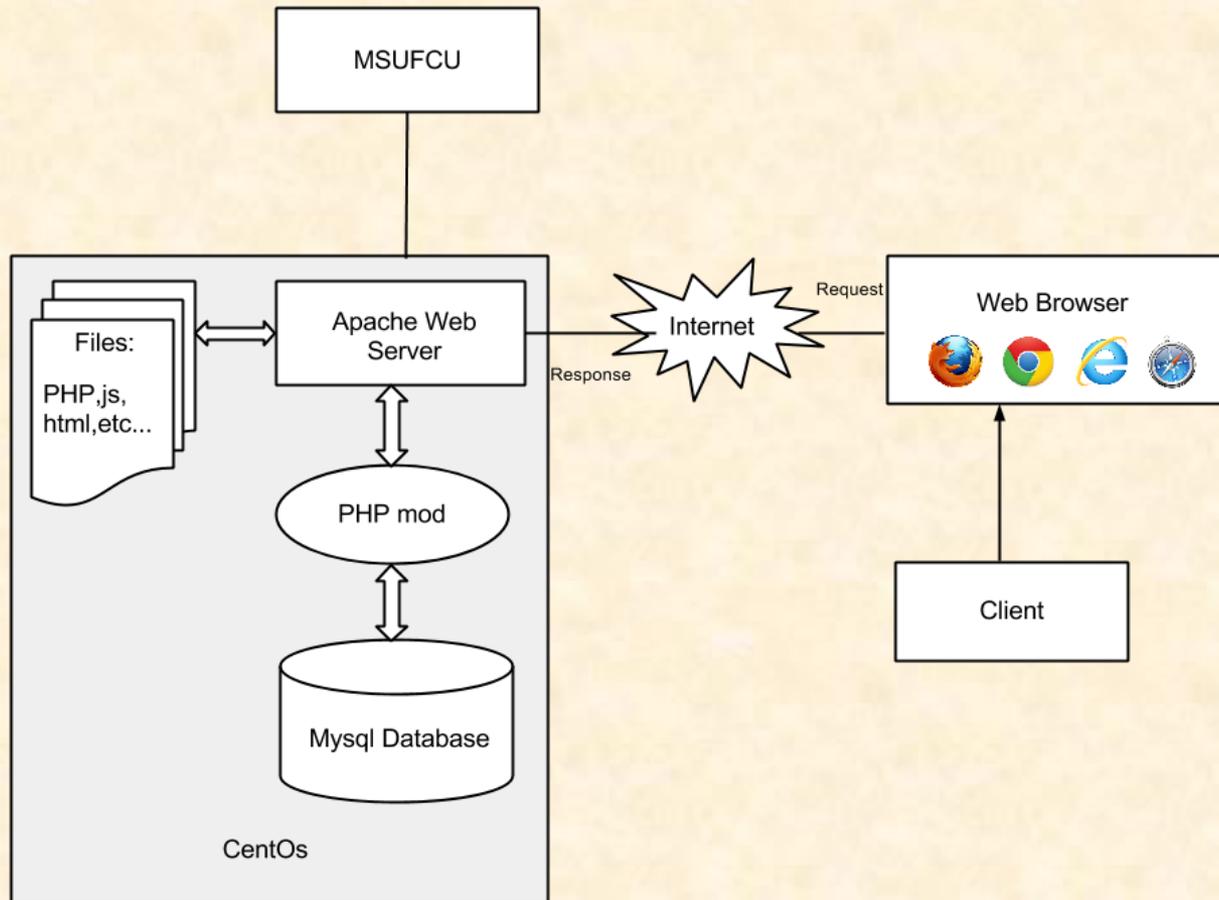


Technical Specifications

- Referral Website
 - Apache web server
 - CentOS
 - PHP 5.3
- Facebook & Twitter
 - Facebook's SDK for Javascript
 - Twitter Javascript/PHP library



System Architecture



System Components

- Hardware Platforms
 - Desktop computers
 - Android devices
 - iPhone devices
- Software Platforms / Technologies
 - CentOS 6.5
 - Apache Server
 - MySQL 5.5
 - PHP 5.3



Testing

- Make sure site runs correctly on all web browsers
- Test on as many different devices as possible
- Use PHPUnit for unit testing
- Ensure it is secure from malicious input



Risks

- Generating and managing unique IDs
 - Need to manage unique ID's for each member.
 - Mitigation: Research and integrate early so it doesn't present problems later.
- Social Media sharing
 - Unfamiliar with Facebook/Twitter integration
 - Mitigation: Explore and study available information
- Web Development
 - Most of the team has little experience with we development
 - Mitigation: Rapid prototyping and frequent testing, incremental building

