

MICHIGAN STATE

UNIVERSITY

Project Plan

Financial 4.0 Interactive Budgeting Tool

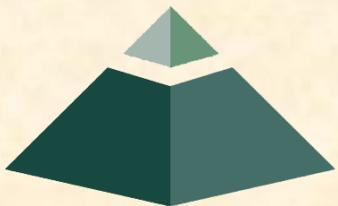
The Capstone Experience

Team MSUFCU

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

Functional Specifications

- Allows users to create goals and categorize transactions for their budget
- Gives savings and expense analysis based on budget goals
- Creates projections based on the users current financial status
- Will have a set of challenges all users may compete in
- Provides daily financial tips
- Utilizes API that MSUFCU will integrate with their existing Content Management System



Design Specifications

- During a users initial login they will be taken to the Budget Tracker Setup Screen
- Budget Tracker Main Screen will show the status of current budget goals
- The Accounts Screen will aggregate the current balances of all of the users accounts
- Ledger Screen will display all of transactions
- Add Entry Screen allows you to create and categorize a new transaction
- The Challenge screen will show your status in the challenges you are participating in



Screen Mockup: Login

☰ **Financial 4.0**

Login

Login

Username

●●●●●● |

Create Account Login

Oakland University 800-766-OUCU • 248-364-4708
Michigan State 800-678-4968 • 517-333-2424
Mon-Fri 7:00 a.m. - 9:00 p.m. ET
Sat 9:00 a.m. - 3:00 p.m. ET



Screen Mockup: Budget Setup

Financial 4.0

Budget
Edit

-

Food
40%

Coffee
20%

Shopping
20%

Auto
20%

Savings
\$50.00 Saved

MSUFCU Budget Tracker
Welcome, Gamefrenzy!

Home
Transactions
Challenges
Setup

Budget Setup

Accounts

Name	Type	Owner	Date Made	Balance
Checking	Checking	Joshua	1/20/12	\$1000
Savings	Savings	Joshua	1/20/12	\$1000

Add
Remove
Edit

General Categories

- Aid
- Sales
- Gifts
- Groceries
- Outings

Add
Remove
Edit

ExpenseLimits

Food	\$100	\$50 Under Limit	Splurging	\$20	\$50 Under Limit
Gas	\$150	\$50 Under Limit	Gifts	\$50	\$50 Under Limit
Electricity	\$200	\$50 Under Limit	Coffee	\$80	\$50 Under Limit

Add
Remove
Edit

Screen Mockup: Accounts

The mockup shows a mobile application interface. At the top, there is a header with a hamburger menu icon on the left and the text 'Financial 4.0' in green. Below this is a green bar with the text 'Accounts' and an 'Edit' button. The main content area contains a list of accounts:

Savings	\$5.00
Checking	\$50,000,000.00

At the bottom of the screen is a navigation bar with five icons: a house, a medal, a dollar sign, a grey square, and a plus sign.

Screen Mockup: Home

Financial 4.0

Overview

Food	\$10,000.00 left to spend
Coffee	\$10,000.00 over budget
Shopping	\$10,000.00 left to spend
Savings	\$5.76 left to save
Checking	\$20.27 left to spend

Home | Medals | Dollar Sign | Plus

MSUFCU Budget Tracker

Welcome, Gamefrenzy!

Home | Transactions | Challenges | Setup

You Have 200 Challenge Points!
Your rank is: Raven
Next Rank: 300 Points

Go to Challenges

Expenses

- Rent
- Utilities
- Insurance
- Gas
- Groceries

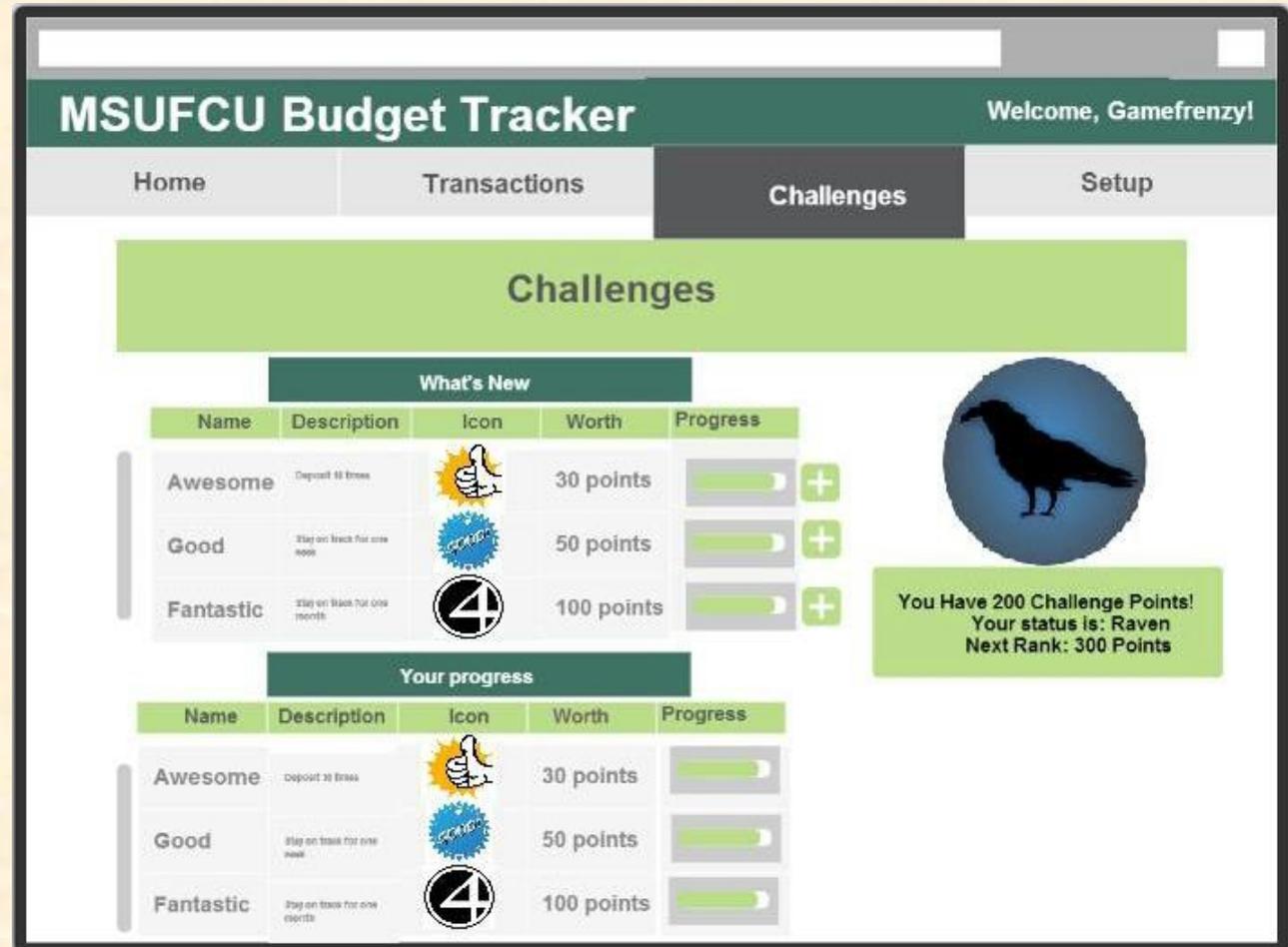
Expense:

Deposits

- Job
- Financial Aid
- Sales
- Bonuses
- Gifts

Deposits:

Screen Mockup: Challenges



Screen Mockup: Add An Entry

The mockup shows a mobile application interface for 'Financial 4.0'. At the top left is a hamburger menu icon. The title 'Financial 4.0' is in green. Below it is a green bar with the word 'Add' in white. The form contains several input fields: 'Description', 'Amount', 'Account', and 'Category'. There is a checked checkbox for 'Recurring' and a 'How often?' field. The 'Date' field has a 'Today' button. Below that are two buttons: 'Expense' (highlighted in green) and 'Deposit'. At the bottom is a 'Finish' button. The bottom navigation bar contains icons for home, a trophy, a dollar sign, a grey square, and a plus sign.

Screen Mockup: Ledger

Financial 4.0

Expenses

Expense Deposit

Starbucks	Coffee	1/2/2015	\$6.24
Taco Bell	Food	1/2/2015	\$7.39
Target	Shopping	1/2/2015	\$29.57
Amazon.com	Shopping	1/2/2015	\$26.94
Best Buy	Shopping	1/2/2015	\$52.87
	Housing		

Home Medal \$ +

MSUFCU Budget Tracker Welcome, Gamefrenzy!

Home Transactions Challenges Setup

Transactions

Expenses Deposits

Name	Amount	Account	Date	Category
Meijer	\$100	Checking	1/1/15	Groceries
Meijer	\$50	Checking	1/10/15	Groceries
QD	\$10	Checking	1/20/15	Groceries
Sunoco	\$25	Checking	1/21/15	Gas
Blue Cross	\$100	Checking	1/24/15	Insurance

Add Remove Edit

Category Select

- Groceries
- Gas
- Insurance
- Outings
- Splurging

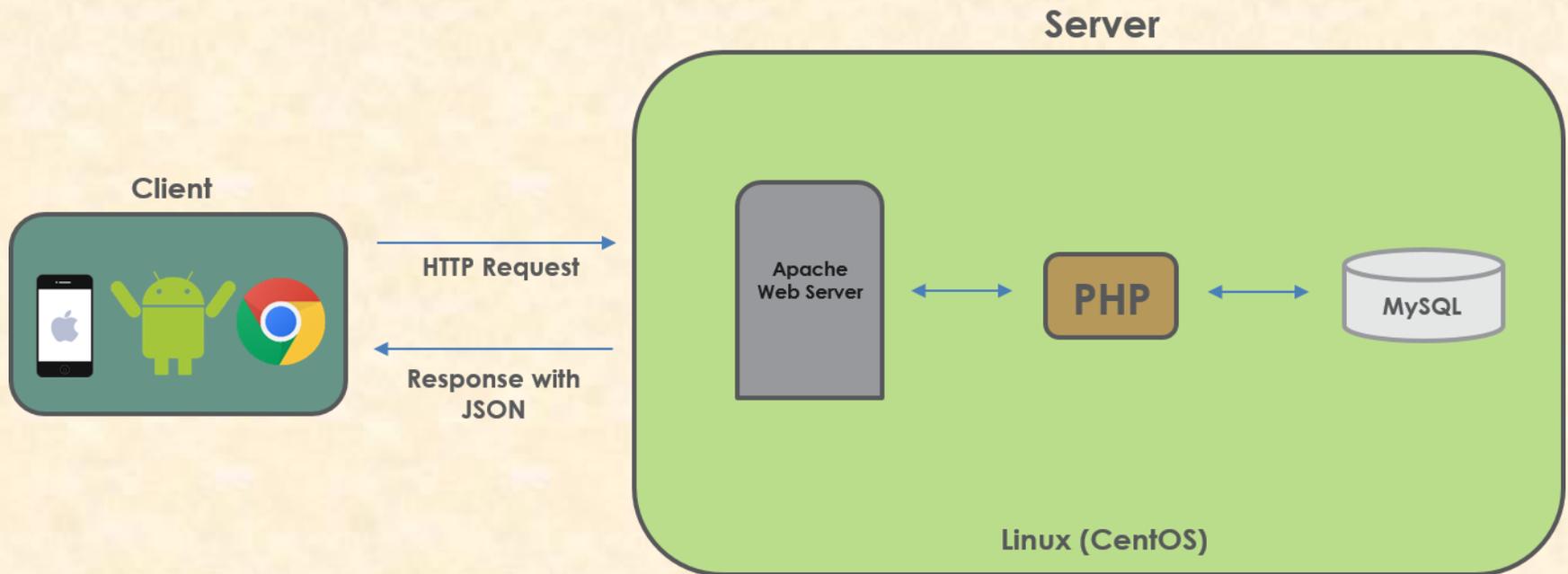
Add Remove Edit

Technical Specifications

- LAMP stack
 - Linux OS (CentOS)
 - Apache web server
 - MySQL Database
 - PHP server-side programming language
- HTTP requests sent from each platform will be received by our server (for now)
 - OkHttp (Android)
 - AFNetworking (iOS)
- Data will be sent back to our application in JSON format
 - Jackson Library (Android)
 - NSJSONSerialization (iOS)



System Architecture



System Components

- Hardware Platforms
 - LAMP stack
 - DB = MySQL
 - Middleware (Communicates with Database on our Server):
 - PHP ← MySQL
- Software Platforms / Technologies
 - Mobile
 - ❖ Android – Java, Android Studio
 - ❖ iOS Objective-C, Xcode
 - Desktop
 - ❖ HTML, jQuery, CSS, Javascript



Testing

- Unit Testing
 - Create testing algorithms for the design and structure of the application
- Focus Group Testing
 - Identify groups of students to test functionality and ease of use of the application
- MSUFCU Employee Testing
 - Deliver prototypes to MSUFCU contacts and other employees to ensure all required features are included



Risks

Risks

- Modularity
 - The app must fit into MSUFCU's Application
 - Be sure features and design fit well; converse with client
- Features
 - Creating popups and connecting to social media
 - Research these features as soon as possible
- Aesthetics
 - Modern and clean, but not boring
 - Work with MSUFCU Designer

