

Team Badgers

Skills/Knowledge Badging System



Design Review 3

Team Badgers Members



- **Sponsors (State Farm Insurance):** Glenn Austin, Dave Hopfensperger, Hans Yeazel
- **Mentor:** Sambashiva Kethireddy



Logan Ritter

- Team Lead
- Project Communicator
- Documentor



Tristan Marcus

- Development Architect
- Quality Assurance
- Lead Front-end Coder



Robel Tegegne

- 1st Release Manager
- Lead Back-end Coder



Yuanbo Xu

- Front-end Coder



Abdulrahman Alamoudi

- Front-end Coder

The Problem



State Farm Insurance - Enterprise Technology in Tempe, AZ

- Work with all things tech
- 6,000 employees
- Majority are currently working virtually

Current Problems

- Lack of social interaction, motivation, and recognition that existed in the office.
- There is no current online rewards/recognition system
- Unable to view what other teams/coworkers are learning, achieving, or accomplishing without direct contact.

The Solution



Gamified Web based Social Media - Skills/Knowledge Badging System

- Single Page Application (SPA)
 - Interesting and responsive GUI
 - Secure login / User Authentication
 - Badge delivery system (send/receive/remove)
 - Badge printing
 - Internal social currency (Kudos)
 - Email signature integration (Via custom generator)

The product that we envision will be similar to a video game achievement system

Requirements Overview



Non-Functional Requirements Overview

- Performance requirements
 - GUI - easy to navigate and readable
 - Accounts - creating and logging into an account will be sufficiently quick
 - Badges - Simple way of viewing and sending badges with high resolution badge images.
 - Social Currency - Simple way of sending and redeeming kudos
 - Security - using a token instead of sending sensitive info over http request
- Environmental requirements
 - Application must be a single page
 - Must be easy to transfer over to State Farm

Requirements Overview Continued



Functional Requirements Overview

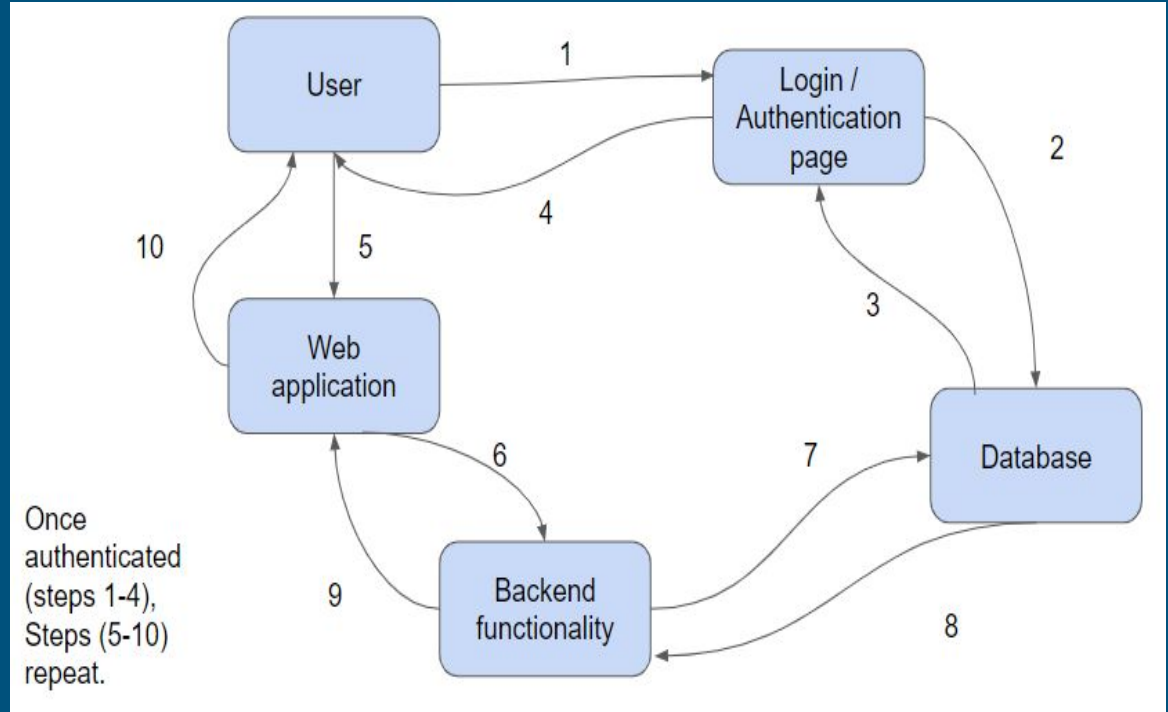
- Interesting and responsive GUI (Single Page Application)
 - Waterfall feed style
 - User Badge Library
 - Tools panel
- Account system with access restrictions
 - Username and password login system
 - New User registration
- Social currency (Kudos)
 - Sending and receiving Kudos
 - Spending Kudos on rewards in the Kudos store
- Badge Delivery System
 - Sending and Receiving Badges with a personalized message
 - Provide information on badges received (When? Why? From who?)
- Badge printing
 - Printing badges received in certificate form
- Email signature integration
 - Generate a customized email signature displaying selected information and badges

Architecture Overview




Technologies







- Front-end - ReactJS & Redux
- Back-end - (express) NodeJS
- Database - MongoDB
- Graphic Design - Gimp




Implementation Overview




STATE FARM 

Reward Feed

 Badge Name: 5yr
Badge Description: Congrats on your 5th year with State Farm!
Date Received: 2021-03-29T13:27:34.349Z

 Badge Name: 10yr
Badge Description: Congrats on your 10th year with State Farm!
Date Received: 2021-03-29T13:27:34.349Z

Kudos: 10000

[Log Out](#)

Prototype Review

Robel Video



Challenges and Resolutions



- Real time content updates - The application performs many functionalities that require a real time update to happen in order to provide the most updated information to every user.
 - Calling back-end functions before updating the users information.
- State management - Single page applications with user restrictions must enforce state management in order to keep the application displaying updated/accurate information.
 - Use context, reducer in react hooks and creating appropriate actions to handle back end communication.
- General bug fixing - With development, there are bound to be bugs that come up with new implementations.
 - Fix any errors we receive and be proactive with trying to prevent code smells.

Schedule



Team Badgers Implementation Plan

	Week 1 (1/11-1/16)	Week 2 (1/17-1/23)	Week 3 (1/24-1/30)	Week 4 (1/31-2/6)	Week 5 (2/7-2/13)	Week 6 (2/14-2/20)	Week 7 (2/21-2/27)	Week 8 (2/28-3/6)	Week 9 (3/7-3/13)	Week 10 (3/14-3/20)	Week 11 (3/21-3/27)	Week 12 (3/28-4/3)	Week 13 (4/4-4/10)	Week 14 (4/11-4/17)	Week 15 (4/18-4/24)	Week 16 (4/25-4/30)	
<i>Foundation and Setup</i>	Completed	Completed															
<i>Connecting Components</i>		Completed	Completed														
<i>Security and User Authentication</i>			Completed	Completed													
<i>Badge Delivery System</i>			Completed	Completed	Completed	Completed	Completed										
<i>Kudos System</i>				Completed	Completed	Completed	Completed	In Progress									
<i>Email Signature Generator</i>						Completed	Completed	Completed	In Progress								
<i>Badge Printing</i>									Completed	Completed	In Progress						
<i>Enhancement and Extra Features</i>												In Progress	In Progress	Backlog	Backlog	Backlog	
<i>Testing</i>		Tested Foundation and Setup	Tested Connecting Components	Tested Security and User Auth				Test Badge Delivery	Test Kudos System		Test Email Signature Generator		Test Badge Printing		Test new enhancements and features	Test new enhancements and features	Test new enhancements and features

Legend:

- Backlog
- In Progress
- Completed

Testing Plan



- Unit Testing - The goal is to ensure that each individual component of our product works as intended.
 - User Login Authentication
 - Badge Delivery System
 - Kudos System
 - Badge Printing
 - Email Signature Generator
 - Waterfall Feed and User Badge Library
- Integration Testing - The goal is to ensure that our components are communicating between one another properly.
 - Badges
 - Kudos
 - Waterfall feed
- Usability Testing - The goal is to ensure that our product is user friendly and easy to learn. (2 phases)
 - Phase one: team testing
 - Phase two: client testing (target audience)

When problems appear we will fix them and re-perform the test to ensure the problem is fixed.

Closing



- Client: State Farm Insurance - Enterprise Technology, Tempe, AZ
- Problem: Lack of a system to acknowledge and reward employees for their work to help boost morale and productivity
- Solution: A gamified web based social media application that can award badges and social currency to employees
 - Components - Secure login/User Authentication, Badge delivery system, Badge printing, Kudos social currency, and Email signature generator.
 - Technologies - ReactJs, NodeJS, and MongoDB
- Challenges: Real time content updates, State management, and general bug fixing
- Testing: Unit testing, Integration testing, Usability testing.