

# Social Lottery Web App

Aaron King, Noah Fradin, Alexander Meade, Cody Fitzgerald

May 14, 2014

## 1 Purpose

GTECH is the company responsible for many lottery backend systems around the world, and also directly markets its own lottery products. We were contracted by GTECH to build a social lottery web app prototype targeted at users under the age of 40. Our solution, Pool Play, leverages the social aspects of lottery (such as group play) and a rewards system to make the lottery more rewarding for a younger generation.

## 2 Technical Challenges

Pool Play requires a dynamic web server to handle the creation and purchase of tickets. We implemented a Node.JS backend to perform this function. The server is responsible for serving pages, handling user submissions, querying the database, and retrieving information from Facebook. We employed different modules for these functions, simplifying server logic into a few short verification and search routines. Of notable complexity were the email confirmation function and the OAuth authentication with Facebook.

The app also required a database to store information about users, pools, tickets, and other information. For this we used a Node.JS package, AnyDB, to allow most common database backends. We started with a SQLite implementation but coded in such a way as to allow scaling up to a full MySQL installation. Schema design required careful thought to prevent data duplication and allow fast searching of relevant lottery data.

To display dynamic pages, Pool Play uses the Mustache package for templating, client-side Javascript for interactive features, and CSS for clean, consistent appearance. We intentionally designed the site with a friendly, modern, and functional look to integrate well with social media and distance itself from the cumbersome and technical lottery sites of previous generations.

### 3 Final Product

We completed the project and presented it to our GTECH representative on May 5th 2014. Here are some screenshots of the final design:

