
# **CHEDDAR BOWL** EXECUTIVE SUMMARY

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*7 / 13 / 2011*

## Current System

Cheddar Bowl is a financial literacy game aimed at students. Iterations of the system have operated as Excel Macros and as a self-contained website.

Players assume a character who has likes, dislikes, aspirations, financial circumstances, resource limits, and a variety of happiness metrics. Each of these variables affect the options a player is given within the Cheddar Bowl.

The game was originally controlled and moderated by a human "game master." In his place there is now automated logic that controls the repercussions and rewards attributed a given player.

## Project Overview

The Cheddar Bowl project includes the following deliverables:

- Game branding ~ *logo, color scheme, etc.*
- Visual front-end design ~ *for end-users*
- Database reconstruction ~ *based on George Fu's current database and logic work*
- Custom Content Management System (CMS) ~ *for game administrators*

## Our Thoughts

The Cheddar Bowl is a complex financial teaching tool. It's purpose is to expose players to the world of money, give them the tools of real-life finance, afford them the flexibility to fail, and ultimately educate. But at the end of the day, it is a game. With that in mind, we considered some of our favorites.

*Call of Duty: Modern Warfare. The game was the single best selling game ever created before it was outdone 2 years later by its big brother, Call of Duty: Modern Warfare 2. The reason behind its remarkable success was its re-playability. Gamers were required to gather experience points (XP) to unlock weapons or tools, which they could then leverage with ever increasing efficacy to unlock more weapons or tools and so on ad infinitum.*

*Then, at the end of the game, when all the tools had been unlocked, gamers were given the opportunity to go into "Prestige Mode," which was a fancy way of saying: "reset the weapons" in return for a digital badge of honor for fellow gamers to see. They bought right into the cycle. The game, now 4 years old, is still being played online today by tens of thousands of players.*

*The point is, the experience was the same, but being rewarded with badges, experience points and most importantly, more efficient "tools" made the game an endless cycle of fun. It was an addiction.*

After some conversation, we thought the World of Cheddar might make use of this anecdote. We think players could benefit from a system in which: experience points (XP) = a reward.

In our attached wireframe please find a draft of a player's weekly Cheddar financials. In this early depiction, opportunities are displayed in a news-like feed. A player is given a synopsis of an opportunity, a handful of actions, the consequences or rewards of those actions, and any additional information that might help a player make the best decision. A player's actions would increase or decrease XP, affect other opportunities, alter overall happiness, and / or stress and leisure.

We see this design accomplishing three goals:

1. The player is given all the information he might need to play out a scenario for good or for ill.
2. The player sees the consequences and irreversibility of her actions in real time.
3. The "feed" allows the game to offer a player something unexpected. (see: the $500 birthday gift)

Experience points are then the determinant for two primary outcomes:

1. User's must reach a certain experience level before they can "unlock" additional tools, or financial weapons (see: Roth IRA). *This allows a game admin to limit a high-school student's exposure to complex terminology until she has reached an acceptable level of financial fluency. Conversely, the game admin (potentially a professor) could start users at a higher experience level if they were in a college course.*
2. XP might also serve as a measure of success relative to other players when competing as part of a class assignment.

These are just some of our preliminary thoughts and sketches. We see tremendous value in the system and are delighted to be considered for the project. Below you will find the technologies we intend to use should we be the team to implement the project.

**Technologies**

Database- MongoDB

- Non-relational database
- Document based system
- Less hassle and easier on the developer
- Young system but high potential

Backend- Ruby on Rails

- User authentication and security
- Database communication and storage
- Implementation of game mechanics and logic
- Calculations of user actions
- Ability to change game based values (example: leisure rating of a job)

Frontend- JavaScript & AJAX

- User interaction
- Implementation of notification systems
- Implementation of basic animations & interactive effects
- Integration of backend data with application structure/design

Technical Production- HTML & CSS

- Application structure & styling
- Integrates graphics & content
- Delivers application content to user's browser

**Schedule**

*Start Date* - Immediate
*End Date* - October 1 (suggested)

**Cost**

- Graphic Design: 70 hours
- Wireframing & Front-end Design (Rails Views): 80 hours
- Database Design & Creation (Rails Models): 40 hours
- Back-end Integration (Rails Controllers): 70 hours
- Front-end Interaction (JavaScript): 80 hours

Total Time: 320 hours
Hourly: $75

**Total Cost: $24,000**
**Total Cost (without CMS): $19,500**