Project Plan

GameChang3rs Learning Management System

The Capstone Experience

Team Michael Sadler Foundation

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Fall 2019
Functional Specifications

- Centralized website for GameChang3rs LMS
- Ease of use for all involved
- Ease of expansion
- All data in one secure place
- Foundation adds content/users, enrolls student
- Student ambassadors use content
- Sponsors view data
- Elementary students complete quizzes
Design Specifications

• Authentication system

• Three Permissions
  ▪ Admin/Super Admin
  ▪ Student
  ▪ Sponsor/Foundation Head

• Data collected and auto-tabulated
  ▪ Per student, per assignment
  ▪ Pre- and post-quizzes optional
  ▪ Datetime viewed, completed
  ▪ Data can be organized in convenient ways
Screen Mockup: Admin Home

Welcome back

Let's build some legacies, click on one of the categories to begin!

Facebook | Instagram | Twitter
Screen Mockup: Courses Page

COURSES

- 5th Grade
- 4th Grade
- 3rd Grade
- 2nd Grade

○ Ambassadors
○ Students
○ Lessons

January 2017

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Screen Mockup: Add Users Page

- **Role:**
  - Administrator
  - Ambassador
  - View Only

- **Email:**
  - woodhann@msu.edu

- **Password:**
  - **********
## Screen Mockup: Data Collection Page

### DATA COLLECTION

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**Lesson 1**
- Completed: Yes
- Viewed: 4 times
- Time spent: 2 hours
- Quiz score: 3/5

**Lesson 2**

**Lesson 3**

**Lesson 4**

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Social Media:
- Facebook
- Instagram
- Twitter
Technical Specifications

• Website in PHP/Javascript
• MySQL database
• AWS Server
• OSX/Windows 10/Linux
• Mobile browsing support
System Architecture

WEB USERS
(Ambassadors and Administrators)

FRONT END

BOOTSTRAP

HTML

PHP

JS

STORAGE

AWS

Amazon EC2

MySQL

The Capstone Experience

Team Michael Sadler Foundation Project Plan Presentation
System Components

• Hardware Platforms
  ▪ iMac x 2, MacBook x 3
  ▪ Cody's Dell laptop
  ▪ AWS

• Software Platforms / Technologies
  ▪ OSX
  ▪ Windows 10
  ▪ PHPStorm
  ▪ PHPMyAdmin
  ▪ Elastic Beanstalk (EC2)
  ▪ Google APIs
Risks

• New technologies
  ▪ No one on the team has experience in web hosting, particularly AWS
  ▪ Follow AWS tutorials and read relevant documentation

• Scalability
  ▪ Client wants project to be scalable to other districts and even non-profits
  ▪ Thoroughly plan out system architecture with scalability in mind, regularly check that status

• Security
  ▪ Ensure the security of information, especially data of minors
  ▪ Review Internet security information from CSE477, and have a clear and definite grasp of the security protocols of PHPMyAdmin and AWS

• Accessibility
  ▪ Need project-wide mobile support
  ▪ Carefully test all pages with wide variety of devices, browsers, aspect ratios
Questions?