

MICHIGAN STATE
UNIVERSITY

Project Plan

GameChang3rs Learning Management System

The Capstone Experience

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

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

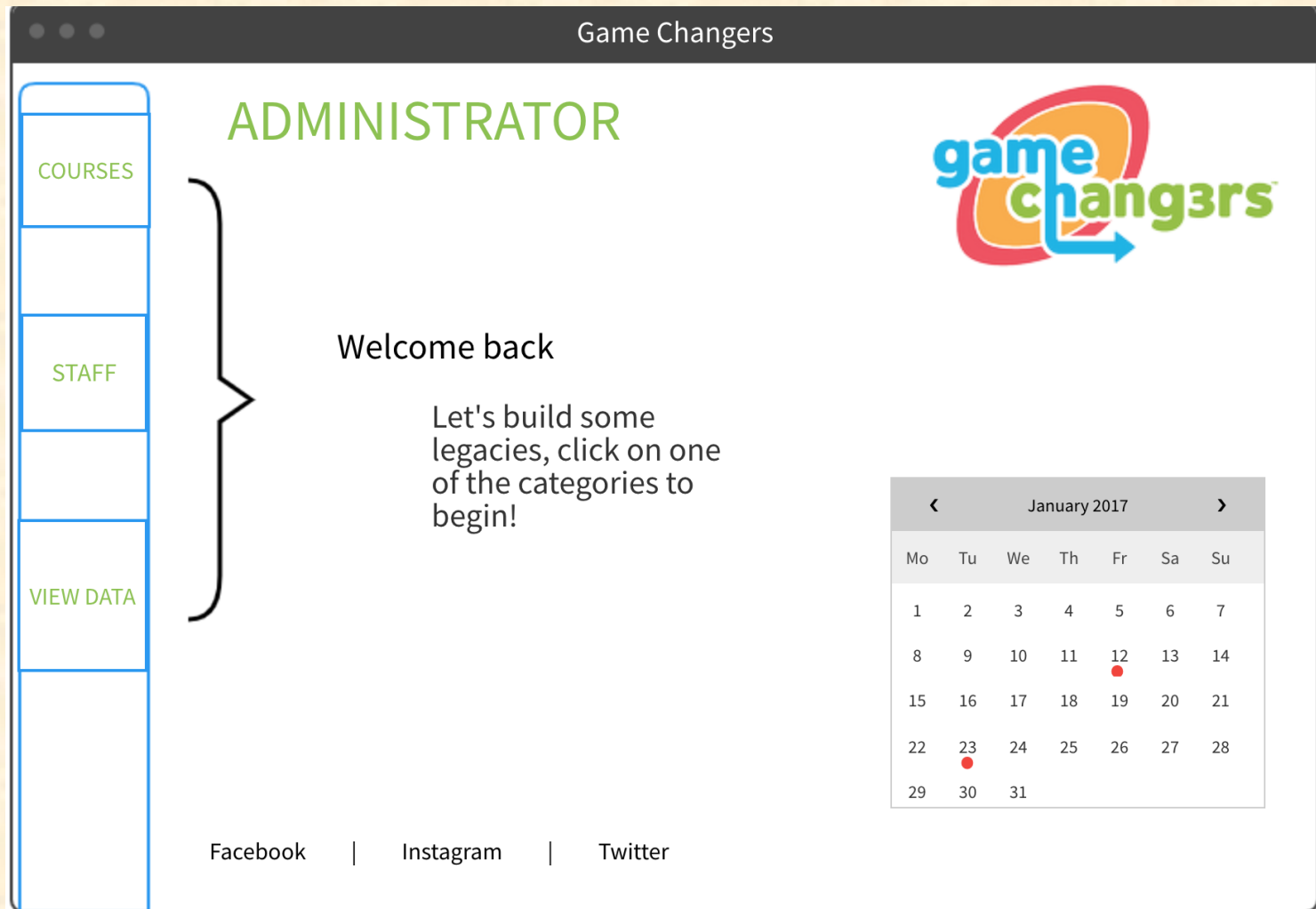


Design Specifications

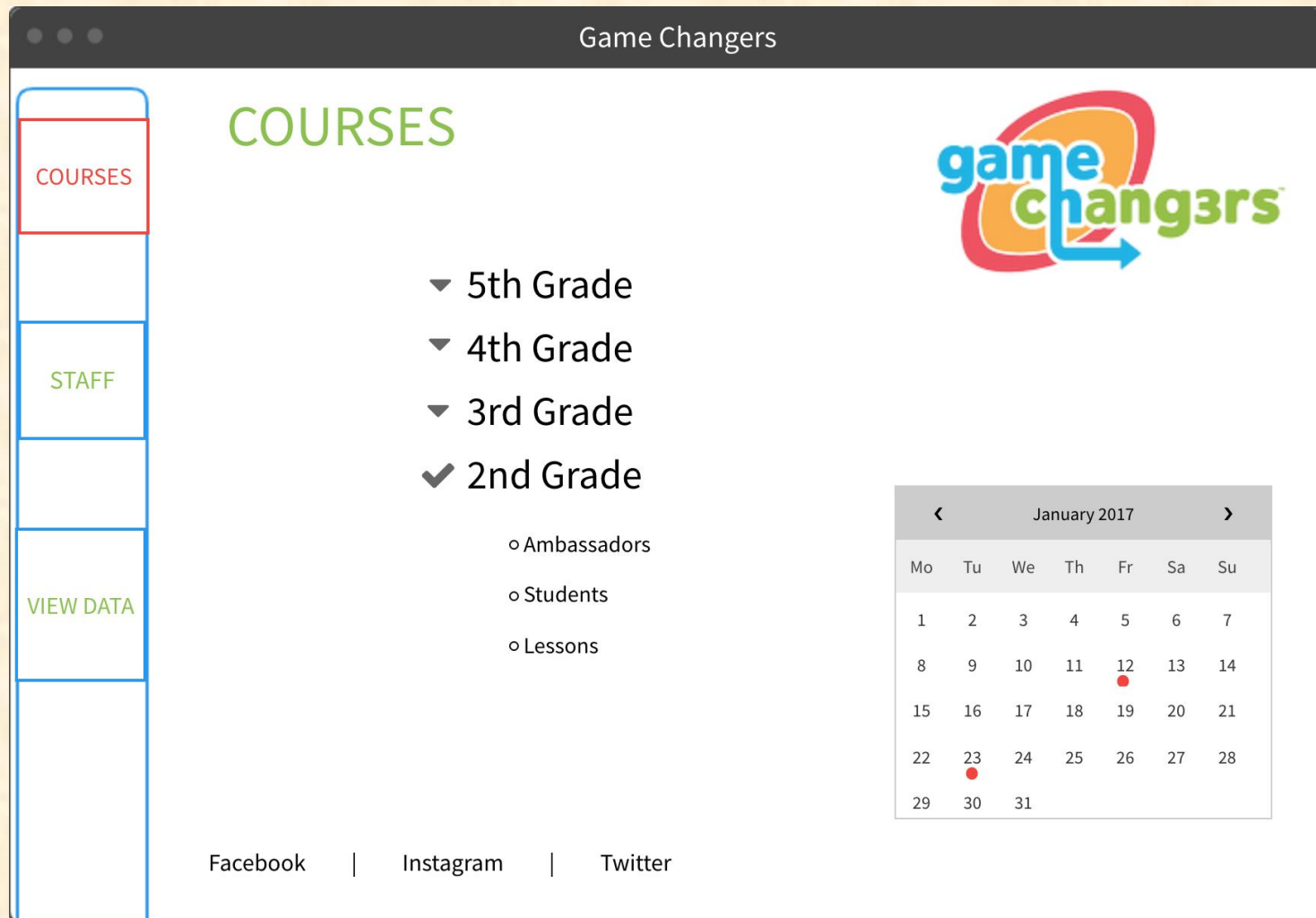
- Authentication system
- Three Permissions
 - Admin/Super Admin
 - Student
 - Sponsor/Foundation Head
- Data collected and auto-tabulated
 - Per student, per assignment
 - Pre- and post-quizzes optional
 - Datetime viewed, completed
 - Data can be organized in convenient ways



Screen Mockup: Admin Home




Screen Mockup: Courses Page



Screen Mockup: Add Users Page

Game Changers

STAFF



ADD USER

Role:

Administrator

Ambassador

View Only

Email:

Password:

Facebook | Instagram | Twitter

January 2017


Mo	Tu	We	Th	Fr	Sa	Su
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				



Screen Mockup: Data Collection Page

Game Changers

DATA COLLECTION



<input type="checkbox"/>	Hannah	5th Grade
<input checked="" type="checkbox"/>	Cody	4th Grade
<input type="checkbox"/>	Sam	3rd Grade
<input type="checkbox"/>	Ahmad	2nd Grade

Lesson 1

Completed: Yes
Viewed: 4 times
Time spent: 2 hours
Quiz score: 3/5

Lesson 2

Lesson 3

Lesson 4

Facebook | Instagram | Twitter

COURSES

STAFF

VIEW DATA

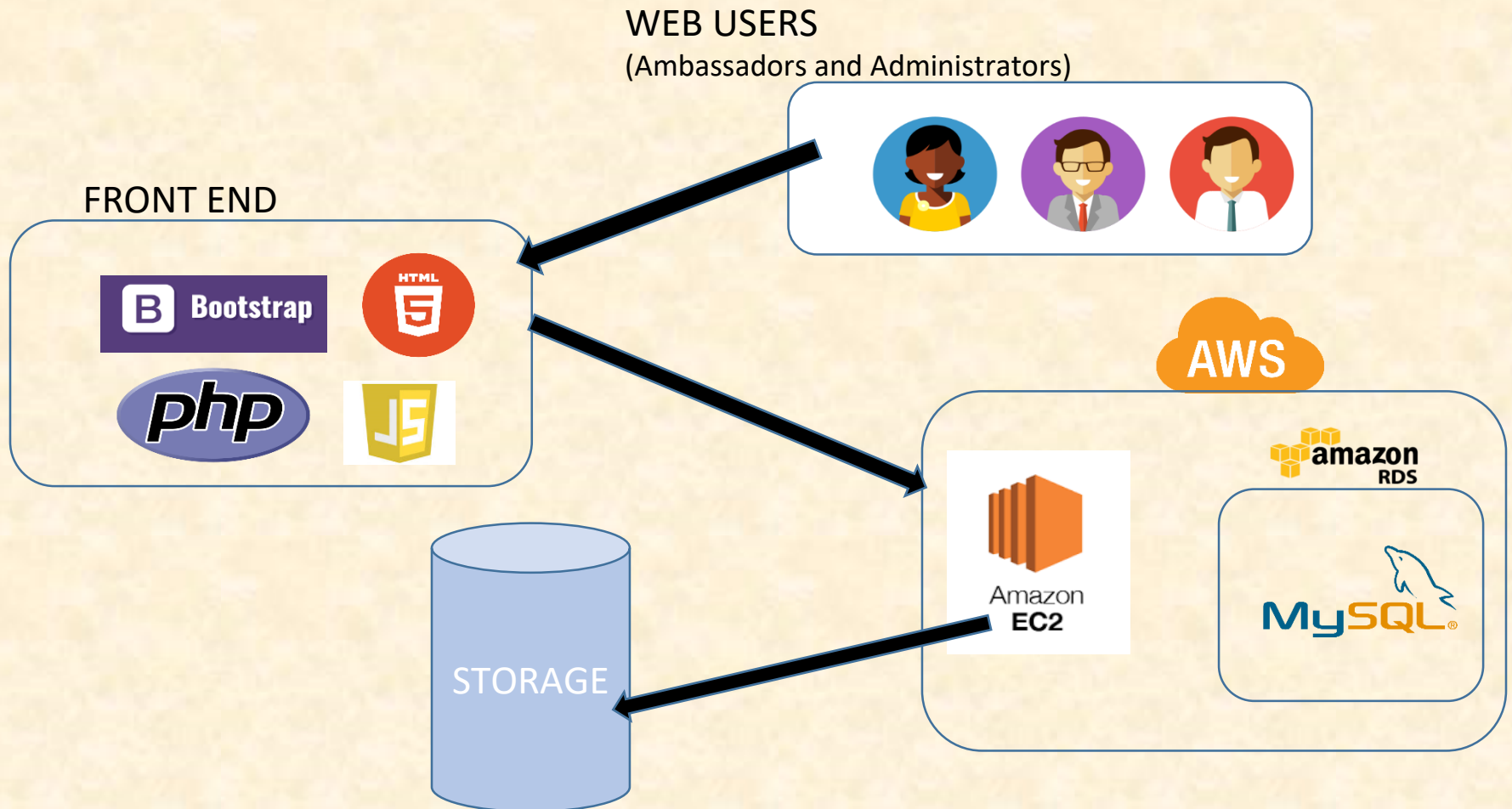


Technical Specifications

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



System Architecture



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?

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