CS307 - Software Engineering - Sprint 1 Plan

Team 2 - Educational Programming through Interactive Media
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Overview

Goals

For Sprint 1, our focus is to complete most if not all the forward-facing user functionality, mainly for account and class management. We want users to be able to perform the basic operations: creating and managing their account, instructors creating and editing classes, and students joining classes. We will begin laying the foundation for the grading server, both by developing the initial skeleton of the server, and creating foundational code for the game mechanics. Initial work on the actual game engine will begin in earnest through the adaptation of the Phaser game engine into the project. We do not aim to complete any type of game functionality in this Sprint given the limited resources available, although significant progress will be made.

Project Management and Meeting Schedule

Jason Rahman will serve as Scrum Master for the team, working to arrange meetings and steer discussion on project topics. Prior to Sprint 1, meetings were typically held for 1 hour following lecture, and occasionally on weekends. For the remainder of the semester we will have "daily" standup meetings every Tuesday, Thursday, and Sunday at 5:00PM in Lawson. Additional meetings for problem solving and issue resolution will be set up on an ad-hoc basis.

Risks

There are no overwhelming risks associated with the first sprint. One thing team members will need to watch for is making proper use of the three branches on the repository: Dev, QA, and Master. The greatest challenges will be configuring the various frameworks and libraries used in this project.

Story	Task	Owner	Estimated Time (hours)
As a site administrator I want the site written in Ruby, HAML, SASS, and jQuery for ease of development and maintainence	Learn Ruby	Anant	10
	Learn CSS/SASS/HAML	Anant	10
	Learn Ruby	Josh	10
	Learn advanced jQuery	Josh	5
	Learn Ruby	Don	8
	Learn HAML	Don	7
As a developer, I want the game to be created with Phaser to accelerate development	Learn Phaser - Josh	Josh	10
	Learn Phaser - Jon	Jon	8
	Create Phaser "hello world" game instance on game page	Josh	2
As a user, I want the site to be visually appealing and persist information in a database	Set up site-wide stylesheets	Jon	1
	Import Twitter Bootstrap stylesheets	Jon	1
	Initialize Rails application	Jon	1
	Initialize database schema	Jon	2
As a student, I want to manage my account.	Set up MVC view for the page	Anant	4
As a student, I want to enroll in classes	Enable class searching	Jon	2
	Create enrollment request action	Anant	2
	Add enrollment request route logic	Anant	2
As a student, I want to register for the site	Set up MVC view for the page	Anant	2
As a student, I want to manage my information	Set up MVC view for the page	Don	4
As a student, I want to reset my password if I forget it	Set up MVC view for the page	Don	4
	Enable password resets with Devise	Jon	2
	Enable email confirmations to users	Jon	1
As a student, I want to view a class page	Set up MVC view for the page	Don	4
As a student, I want to search for classes	Set up MVC view for the page	Jon	1
	Enable class searching	Jon	1
As an instructor, I want to create classes	Set up MVC view for the page	Josh	2
As an instructor, I want to manage classes	Set up MVC view for the page	Josh	2
As an instructor, I want to edit class preferences	Set up MVC view for the page	Josh	1

As an instructor, I want to approve students' enrollments in my classes	Create enrollment approval action	Anant	2
	Add enrollment approval route logic	Anant	2
	Set up MVC view for the page	Don	3
As an instructor, I want to drop students' from my classes	Set up MVC view for the page	Jon	1
	Create enrollment withdrawal action	Jon	1
	Add enrollment withdrawal route logic	Jon	1
As an instructor, I want to view a class page	Set up MVC view for the page	Anant	2
As an instructor, I want to set a class' language	Set up MVC view for the page	Don	3
As an administrator, I want to create users	Set up MVC view for the page	Jon	1
As an administrator, I want to delete users	Set up MVC view for the page	Jon	1
As an administrator, I want to reset a user's password.	Set up MVC view for the page	Don	3
	Enable email confirmations to users	Jon	2
As a student, I want to see a tile-based world as the game level	Define tilemap format	Josh	1
	Enable tilemap layouts in Phaser	Jon	2
	Create basic level template	Jon	1
	Define level style guidelines	Jason	4
As a student, I want to see high-quality graphics in the game	Determine a consistent graphic style for the game	Josh	2
	Explore opengameart.org for existing components	Levi	2
	Define a list of assets we need (pixel art shopping list)	Josh	1
	Find editing tools for tilemap and pixelart	Levi	2
	Create/gather the needed assets (With Josh's help)	Levi	8
As a student, I want levels to be run within a session	Implement session management in client	Jon	4
	Define level session protocol/API	Jason	3
	Implement level session protcol/API in server	Jason	6
As a student, I want game logic to run inside a contained environment	Initialize stripped down Docker Image	Jason	6
	Compile stripped down Python executable	Levi	6
	Install Fedora on KVM for development and QA	Jason	4
	Create API to control and manage container pool	Jason	5

As a student, I want to be able to send submissions to the server	Develop basic web service server to accept requests	Jason	4
	Authenticate login sessions	Jon	2
	Investigate Asynchronous hosting for grading server	Jason	2
As a student, I want feedback about my submissions	Learn clojure connections with other languages	Levi	6
	Write exception parsing logic	Levi	6
	Handle datapath from parsing to response	Levi	6

Project Backlog

As an administrator, I want
  to manage users
  to create users
  to delete users
  to reset a user's password
  to reset a user's progress
As an administrator, I want
  to manage users
  to create users
  to delete users
  to reset a user's password
  to reset a user's progress
As an instructor, I want
  to manage classes
  to create classes
  to edit class preferences
  to approve students' enrollments in my classes
  to drop students from classes
  to set a class's language (time permitting)
As an instructor, I want
  to view my students' progress
  to view my students' achievements
  to view my students' submissions
As a student, I want
  to manage my account
  to register for the site
  to manage my information (name, email, etc.)
  to reset my password if I forget it
  to enroll in classes
As a student, I want
  to interact with the game
  to choose and name my character
  to move my character around the map
  my progress to be saved and restored when I return to the game
As a student, I want
  to play a level
  to read tutorials to help me with the gameplay
  to have hints available for tough problems
  feedback about my syntax and coding mistakes
  to see a demo of my executed code before I submit it as a move (time permitting)
  to choose my programming language (time permitting)
As a student, I want to play a challenge
As a student, I want to view my progress