mango

Team 10 - Sprint 1 Planning Document

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Sprint Overview

Our team is divided into two parts, frontend and backend. The backend team will work on setting up the Laravel application, creating the database design, and begin working on user related API routes (registration, authentication, and authenticated protected routes). Until the database is functioning properly, the backend team will set up routes which provide fake data to the frontend. The frontend team will focus on building some preliminary pages that will pull the sample data from the backend. We aim to have a login page that will, for now, direct a user to their profile page. We also want a user to be able to view the details of a course they are registered for, or manage a course they administrate. Finally, we will build a system for front end authentication.

Scrum Master: Kedar Vaidya

Meeting Plan: Tuesdays/Thursdays during CS 307 block (1:30 pm - 2:45 pm)

Risks and Challenges: The primary challenge for the frontend team this sprint will be familiarizing ourselves with the technologies we will be using. More specifically, this means learning to use AngularJS and practicing with frontend web design in general. The key risk is that if our team members fail to build their skills fast enough, we could fall behind on our sprint goals. The primary challenge for the backend team will correctly setting up our database schema. The database will be relatively complex and any mistakes would cause big problems down the line. We also intend to create a relatively complex granular permissions system, and it's important that we're careful not to make any mistakes. The key risk is that if we fail to set up the database schema or the authentication system, the entire project will be held up until we can get them working.

Current Sprint Detail

User Story #1
As a user, I would like to be able to register for a Mango account

#	Description	Time	Team	Owner
1	Environment Configuration	3 hours	Back	All
2	Configure server settings	4 hours	Back	Kedar
3	Set up database schema and relations	10 hours	Back	Kedar
4	Create database seeders	3 hours	Back	Jake
5	Create Eloquent model relations	5 hours	Back	Ankit
6	Set up JSON Web Token Library	2 hours	Back	Jake
7	Create roles and granular permissions system	20 hours	Back	Jake
8	Create and test authentication middleware	5 hours	Back	Kedar
9	Create API controller logic for registration	3 hours	Back	Kedar
10	Create registration page	6 hours	Front	Jay
11	Implement spam protection for registration	2 hours	Front	Shane

Acceptance Criteria:
- Given that the backend to register user accounts is created successfully, when a request to register an account is made, the user's account will be added to the database (as long as the user's email is not already taken).
- Given that the database seeders are working properly, then when the seeding command is run, the database should be filled with fake data.
- Given the authentication middleware is working, when an unauthorized API request is made, that request will be rejected by the server and an error will be sent to the client.

User Story #2
As a user, I would like to be able to login and manage my Mango account.

#	Description	Time	Team	Owner
1	Write API controller logic for login/logout	6 hours	Back	Ankit
2	Write HTTP Authorization header handling (success/error)	6 hours	Back	Kedar
3	Design and write login page with error handling	6 hours	Front	Shane
4	Design and write user profile page	6 hours	Front	Jay
5	Set up authentication controller and module	9 hours	Front	Matthew

| 6 | Create post request to retrieve and validate the authentication tokens | 5 hours | Front | Jay |
| 7 | Design system to store tokens persistently and securely | 4 hours | Front | Shane |

Acceptance Criteria:
- Given the login/logout system is working properly, when a login request is made that user will be logged in and receive a valid authentication token.
- Given the login page is created successfully, when the user tries to login they will either be taken to the next page or receive an error message explaining what went wrong.
- Given the user profile page is created successfully, when a user has logged in for the first time they should be taken to their profile page.

User Story #3
As a user, I would like my password to be reset if I forget it.

#	Description	Time	Team	Owner
1	Create password reset system	6 hours	Back	Ankit
2	Write API controller logic for password reset	6 hours	Back	Ankit
3	Create password reset page	4 hours	Front	Matthew

Acceptance Criteria:
- Given the password reset system is in place, when a reset request is received that user will be sent an email with a reset link
- Given the user that has requested a password reset, when a user clicks on the reset link they will be prompted to enter a new password
- Given the user that has entered a valid new password, when a user submits the reset form the database will be updated with the new password

User Story #4
As an instructor, I would like to be able to create and manage a course.

#	Description	Time	Team	Owner
2	Create API controller logic for course/section creation	1 hour	Back	Kedar
3	Create API controller logic to invite/kick students to/from section	1 hour	Back	Kedar
4	Create API controller logic to change user permission in section	1 hour	Back	Jake
5	Write controller logic for course management	15 hours	Back	Ankit
6	Create course management view for instructors	6 hours	Front	Matthew

Acceptance Criteria:
- Given the roles/permissions system is implemented, when a user is added to a section they will be automatically assigned the student role for that section
- Given the course management page is implemented, when an instructor opens the management page they can see all enrolled students.
- Given the controller logic to change permissions are implemented, when an instructor chooses to change a student's role that student will be sent an email and their role will be updated in the database
- Given the controller logic to invite/kick students is working properly, when an instructor chooses to kick a student from their course the database will be updated to reflect the change
- Given the controller logic to invite/kick students is working properly, when an instructor chooses to invite a student to their course, that student will be sent an email with a link to enroll
- Given the user has been invited to a course, when the user clicks on the enroll link they will be added taken to the course page and the database will be updated to reflect the change

User Story #5
As a student, I would like to be able to view my courses.

#	Description	Time	Team	Owner
1	Write API controller logic to get user's courses/sections	3 hours	Back	Kedar
2	Create user homepage view and include all of user's courses/sections	9 hours	Front	Shane

Acceptance Criteria:
- Given the controller logic to get a user's sections is implemented, when the server receives the request it will return JSON data listing all of a user's sections
- Given the mango homepage view is developed, when the user visits the page they will see a list of all of the classes they are enrolled in
- Given the user is viewing the homepage, when the user clicks on a course they will be taken to the home page specifically for that course.

User Story #6
As an instructor, I would like to be able to create announcements for my course.

#	Description	Time	Team	Owner
1	Write API controller logic to create announcements	3 hours	Back	Kedar
2	Write API controller logic to fetch all course/section announcements	3 hours	Back	Jake
3	Create announcements creation page	4 hours	Front	Jay
4	Integrate announcements into user homepage and into course homepage	4 hours	Front	Jay

#	Description	Time	Team	Owner
5	Create script to render live and persisting markdown	8 hours	Front	Matthew
6	Integrate script to display announcements for instructors	2 hours	Front	Shane
7	Integrate script to display announcements for students	2 hours	Front	Shane

Acceptance Criteria:
- Given the API routes to create an announcement are working, when the server receives a request to make an announcement, the supplied announcement will be added to the database.
- Given the announcements creation page is completed, when a user visits the page they will be prompted to enter an announcement.
- Given the user has entered an announcement, when the user clicks the preview button they will see a preview of the announcement.

User Story #7
As a student, I would like to be able to receive email notifications for course announcements.

#	Description	Time	Team	Owner
1	Integrate API logic with job queueing system	3 hours	Back	Jake
2	Configure announcements to send mail via job system	1 hour	Back	Jake
3	Allow users to toggle email preferences in account page	2 hours	Front	Jay

Acceptance Criteria:
- Given the queueing system is working properly, when the job queue is not empty the server should process those jobs until no more remain.
- Given the mail system is integrated with the job system, when an announcement is made all students in that section who have emails enabled should be sent an email containing the announcement. These emails will be queued and then processed by the server over time.
- Given the user preferences page supports email preferences, when the user visits their profile page they will be given the option to enable or disable emails.

Remaining Backlog

1. ~~As a user, I would like to be able to register for a Mango account.~~
2. ~~As a user, I would like to be able to login and manage my Mango account.~~
3. ~~As a user, I would like my password to be reset if I forget it.~~
4. As a user, I would like to be able to easily navigate to any course page.
5. As a user, I would like to be able to easily access Mango across all of my devices.
6. As a student, I would like to be able to view my grades.
7. As a student, I would like to be able to take quizzes.
8. As a student, I would like to be able to submit files for grading.
9. ~~As a student, I would like to be able to view my courses.~~
10. As a student, I would like to be able to easily view course content.
11. As a student, I would like to be able to ask questions and respond to others on a course messaging board.
12. As a student, I would like answer instant polls during class.
13. As a student, I would like to be able to easily view and analyze my instant poll results.
14. As a student, I would like to receive notifications for grades.
15. ~~As a student, I would like to be able to receive email notifications for course announcements.~~
16. As a student, I would like to be able to view and export my course calendar.
17. ~~As an instructor, I would like to be able to create and manage a course.~~
18. As an instructor, I would like to be able to assign grades.
19. As an instructor, I would like to be able to create weighted sections for grading.
20. As an instructor, I would like to be able to create quizzes.
21. As an instructor, I would like to be able to receive file submissions from students.
22. ~~As an instructor, I would like to be able to create announcements for my course.~~
23. As an instructor, I would like to be able to respond to student questions on a course messaging board.
24. As an instructor, I would like to be able to create instant polls for students to answer.
25. As an instructor, I would like to be able to easily view and analyze instant poll answers.
26. As an instructor, I would like to be able to post generic course content (plain text, embedded videos).
27. As an instructor, I would like to be able to add events to my course calendar.
28. As an instructor, I would like to be able to view and export my course calendar.