SPRINT 4 PLAN

PROJECT: TEAM FORMATION

PROJECT SUMMARY:

The primary objective of this application is to streamline student team formation by leveraging key attributes such as gender, ethnicity, and programming proficiency. This platform is designed to enable professors to create and manage a customizable form that gathers student data on these attributes, facilitating an organized approach to team assignments.

Through the application, professors can define specific attributes to collect, assign weightings to guide the team formation algorithm, and set a submission deadline. Professors will also have the flexibility to update the form, adjust attribute weightings, and modify submission deadlines as needed. Once the submission period closes, the system will automatically form student teams that align with goals of diversity, inclusion, and proficiency.

Students, as primary users, can access the form via a secure login to submit and update their responses prior to the deadline. After submissions are complete, the application will generate teams of four students, with provisions for smaller teams if required. The team formation algorithm will prioritize diversity, promoting balanced gender representation by ensuring that, when feasible, at least two females are present on mixed-gender teams. Additionally, the algorithm will seek to support inclusion by grouping at least two individuals from underrepresented ethnic backgrounds within the same team whenever possible.

By automating and optimizing team formation, this application meets the needs of both professors and students, fostering fair, inclusive, and balanced team assignments.

TEAM ROLES:

PRODUCT OWNER: Uday Kumar Reddy Mettukuru (urt23@tamu.edu)

SCRUM MASTER: Raja Karthik Vobugari (raju@tamu.edu)

TEAM MEMBERS: Hitha Magadi Vijayanand, Phani Jyothi Kurada, Raja Karthik Vobugari, Sahithi Duppati, Sai Jaideep Reddy Mure, Uday Kumar Reddy Mettukuru

CLIENT MEETING DETAILS:

Date: 07 November 2024 **Time:** 1:00 PM

Place: ZACH 424

In the meeting with the client to review the latest updates and gather feedback, the product owner demonstrated the updated deployed website. The client expressed satisfaction with the improvements made and noted that everything looks in place.

Discussion Points:

1. **Feature Demonstrations:**
    a. Presented and demonstrated the following functionalities:
        i. **Block Submissions After Deadline:** Automatically prevents submissions after the form deadline.
        ii. **Reopen Form:** Ability to reopen the form as needed.
        iii. **Unified Time Zone:** Standardization of time zones across submissions.
        iv. **Save Form Responses as Draft:** Users can save and return to partially completed forms.
        v. **Generate Teams:** Automated team formation.
    b. **Client Feedback:** The client expressed satisfaction with these features, noting that they align well with the project's goals.
2. **Backend Logic Explanation:**
    a. Provided an in-depth explanation of the backend logic supporting each feature, covering implementation details and functionality.
    b. **Client Approval:** The client approved the backend logic and was comfortable with the overall approach.
3. **Priority Stories and App Enhancements for Sprint 4:**
    a. Presented the prioritized stories and planned enhancements for Sprint 4, ensuring alignment with the project timeline and objectives.
    b. **Client Feedback:** The client appreciated the organization of the priority stories. We requested her review of the planned app enhancements, and she plans to provide feedback on their prioritization soon.

Next Steps:

1. Client Review: The client will review the suggested app enhancements and priority stories for Sprint 4 and provide feedback on prioritization.
2. Next Meeting: Scheduled for Monday at 4:15 PM in ZACH 424.
3. Meeting Link: https://meet.google.com/rue-uyno-swr

USER STORIES

```
Feature: View Submitted Responses
    As a professor,
    So that I can review only completed student submissions,
    I want the "View responses" option to display only responses that have been marked as "
        submitted."
```

```
Feature: Duplicate Form
    As a professor,
    So that I can easily create and edit copies of an existing form,
    I want to duplicate a form without opening new tabs, automatically navigate to the edit
        page of the new form, and ensure unique names for each copy.
```

```
Feature: Make Ethnicity Information Mandatory
    As a Professor,
    So that I can ensure ethnicity information is collected from students,
    I want the system to restrict me from publishing a form if the ethnicity attribute is
        not included.
```

```
Feature: Make Gender Information Mandatory
    As a Professor,
    So that I can ensure gender information is collected from students,
    I want the system to restrict me from publishing a form if the gender attribute is not
        included.
```

```
Feature: Improve error display on create form page
    As a professor,
    So that I can easily understand and address errors,
    I want to see improved error messages with better visibility and formatting on the
        create form page.
```

```
Feature: Enhance View Form page layout
    As a professor,
    So that I can better understand form attributes,
    I want to see form attributes displayed in a table format with columns for Name, Type,
        and Acceptable Inputs
```

```
Feature: Optimize action button placement
    As a professor,
    So that I can easily access form actions,
    I want action buttons to be flattened
```

```
Feature: Improve student home page
    As a student,
    So that I can easily view available forms,
    I want to see a table displaying form titles and their status on my home page.
```

```
Feature: Enhance preview form window
    As a professor,
    So that I can better visualize the form before submission,
    I want an improved preview form window with clearer visibility of all elements.
```

```
Feature: Address UI inconsistencies
    As a user,
    So that I have a consistent experience across the application,
    I want all pages to have a presentable and uniform UI, addressing issues such as
        inconsistent button styles and unclear labels.
```

```
Feature: Eliminate duplicate error messages
    As a user,
    So that I'm not confused by repetitive information,
    I want to see error messages displayed only once across all pages.
```

```gherkin
Feature: Adjust header size
    As a professor,
    So that I can have a cleaner interface,
    I want the header size to be reduced for improved readability.
```

```gherkin
Feature: Improve form field styling
    As a professor,
    So that I can interact with forms more easily,
    I want CSS styling added to the fields in the Create Form page for better visual appeal
```

```gherkin
Feature: Redesign user home page layout
    As a user,
    So that I can have a consistent experience,
    I want the layout of the user home page changed to align professor and student home
        pages, and add "Professor" before the user name.
```

```gherkin
Feature: Add View Responses button
    As a professor,
    So that I can easily access form responses,
    I want a "View Responses" button added to the View Form page.
```

```gherkin
Feature: Remove Update Deadline button
    As a Professor,
    So that I can simplify the user interface,
    I want the "Update Deadline" button removed from the user's home page.
```

```gherkin
Feature: Modify Delete button functionality
    As a Professor,
    So that I can improve the user flow,
    I want the "Delete" button on the user's home page to redirect to the form view page
        with the route "forms/n/delete".
```

```gherkin
Feature: Fix Preview Form display
    As a Professor,
    So that I can see an accurate preview of the form,
    I want to remove spurious bullet point symbols displayed at the end when clicking on "
        Preview Form".
```

```gherkin
Feature: Balanced teams wrt Programming Proficiency
    As a Professor,
    So that I can create balanced teams,
    I want to ensure each team has an almost equal level of programming proficiency.
```

```gherkin
Feature: Ineligible students cannot view a form
    As a student, if I am ineligible to view the form then I should see an error message "
        You are not eligible to access this form".
```

```gherkin
Scenario: Professor views form change summary
  When I select an existing form
  And I click on "View Change History"
  Then I should see a list of all modifications made to the form
  And each modification should display the date, time, and type of change
```

```gherkin
Feature: Populate teams by gender
    As a Professor,
    So that I can ensure gender representation (female and other non-male genders) in teams,
    I want to ensure that individuals from underrepresented gender groups are always teamed
        with others from similar backgrounds, so no team has only a single representative
        from these groups.
```

```
Feature: Populate teams by ethnicity
    As a Professor,
    So that I can ensure inclusivity in teams,
    I want to ensure that individuals from underrepresented groups are not the only
        representatives of their group within a team.
```

```
Feature: Creating a new form response
    As a user I want to create and submit a form response So that my responses are saved in
        the system
Background:
    Given a form with ID 1 exists
    And a student with ID 1 exists
    And I am on the new form response page for form 1 and student 1
Scenario:
    Saving a form response as a draft
    When I fill in the form response with "Sample draft answer"
    And I click "Save as Draft"
    Then I should be redirected to the new form response page for form 1 and student 1 And I
        should see a notice "Draft saved temporarily. It will be discarded once the session
        ends."
```

```
Feature: Editing a form's deadline
  As a user
  I want to edit the deadline of a form
  So that the form saves the new deadline and confirms my changes
  Background:
    Given a form with ID 1 exists with a current deadline of "November 7 2024 at 05:44 PM
        CST"
    And I am on the edit form page for form 1
  Scenario: Successfully updating the form deadline
    Given the "Preview" button is not present on the page
    When I select a new deadline of "November 10 2024 at 04:30 PM CST"
    And I click "Save"
    Then I should see a success message "Deadline saved successfully"
    And the success message should disappear after 2 seconds
    And the form deadline should be updated to "November 10 2024 at 04:30 PM CST"
    And I should remain on the edit form page
```

```
Feature: Saving a draft of a form response
  As a student
  I want to save a draft of my response
  So that I can complete it later without filling out the entire form
  Background:
    Given I am on the new form response page for form 1
  Scenario: Saving a draft response without filling out the form
    When I click "Save as Draft"
    Then I should see a message "Draft saved temporarily. It will be discarded once the
        session ends."
    And I should remain on the new form response page
```

```
Feature: Viewing forms and student details
  As a student
  I want to view available forms and check my account details
  So that I can complete my submissions and ensure my information is correct
  Background:
    Given I am logged in as a student with UIN "12345" and Section "A"
    And I am on the student dashboard page
  Scenario: Verifying logout functionality
    When I click the "Logout" button
    Then I should be logged out successfully
    And I should be redirected to the login page
    And I should see the message "You have been logged out successfully"
  Scenario: Viewing forms open to the student
    When I visit the "Available Forms" page
    Then I should see a list of forms open to me
    And each form should display a title and submission deadline
```

```gherkin
Scenario: Checking UIN and Section as part of student details
  When I visit the "My Account" page
  Then I should see my UIN as "12345"
  And I should see my Section as "A"
Scenario: Viewing a specific form
  Given there is an available form titled "Course Feedback"
  When I click on "Course Feedback" form
  Then I should be taken to the form details page
  And I should see the form title "Course Feedback"
  And I should see a "Submit" button
  And I should see a "Save as Draft" button
```

SPRINT BACKLOG :

Sprint Goal:

The primary objectives for this sprint are to complete the backend with thorough testing and to finalize the UI for all pages. Comprehensive testing will cover all workflows, ensuring robustness in both the backend and frontend.

On the UI side, this sprint will focus on finalizing CSS for the entire site. While some basic styling, such as headers, has already been implemented, further work will enhance the overall UI/UX design and complete the visual consistency of all pages.

In terms of backend development, the team encountered challenges in implementing certain scenarios, particularly around introducing randomness in team creation each time the "create team" function is triggered. After a dedicated discussion, the team aligned on an approach to address this requirement, and it will be implemented in this sprint. Additionally, any remaining minor tasks will be addressed to achieve end-to-end development of the project.

Stories pulled into the sprint, assigned developers and story points:

Team Members	Assigned User Stories	Story Points and Time Estimates
Hitha Magadi Vijayanand	Populating teams based on programming proefficiency (completion)	3
	Restrict Ineligible Students from Accessing Forms with Error Notification	2
Phani Jyothi Kurada	Ensure Correct Navigation and Naming for "Duplicate Form" Action	3
	Limit "View Responses" to Display Submitted Student Responses Only	3
	Populating teams based on gender (completion)	3

Ramya Reddy Gotika	Fix and Align Update_deadline.feature and deadline_Error_handling.feature Scenarios with Requirements	3
Raja Karthik Vobugari	UI additions	2
	Enhance "Upload Students" on View Form Page with Guidelines, Sample Sheet, and Navigation	3
	Fix Unique Index Error for UIN During Bulk Insert in upsert_all Operation	2
	Update Redirection Logic and Step Definitions in Forms_controller.feature for Error Handling and View Page Access	1
	Checking access for students before displaying form	2
Sahithi Duppati	Revise Button Availability and Route, and Correct Formatting in "Preview Form" Display	2
	UI additions	2
Sai Jaideep Reddy Mure	Allow Draft Saving Without Completion, Update Response Submission Redirect, and Add Navigation Button	3
	Changes to form response page of students	3
Uday Kumar Reddy Mettukuru	Populating teams based on ethnicity (completion)	5
Ritika	Making ethnicity information mandatory	1
	Making gender information mandatory	1
	Ui improvements	2

PROJECT RESOURCES:

Heroku : https://teamformation-c5eaebc1d53b.herokuapp.com/
GitHub Repo : https://github.com/phanijyothi11-tamu/team-formation.git
Project Management page : https://github.com/users/phanijyothi11-tamu/projects/1 Slack
workspace : https://app.slack.com/client/T07PN8XD8D7/C07P6NWELCD