Sprint 1 Plan

TEAM ROLES:

Product Owner: Pavithra Gopalakrishnan
Scrum Master: Navya Unnikrishnan

CUSTOMER MEETING:

Monday afternoons, PETR 102B

CUSTOMER MEETING MINUTES:

Date: 09/23 1:30PM
Place: PETR 102B

teaching_assignment_matching_app.docx

Application Inputs:

- Instructor & preferences
- Sections
- Rooms & times
- Course and conflicts
- Good to have: prepopulate some schedules manually

Application Outputs:

- Schedule in Csv format
- Display each section's room, time, and instructor
- Interactive display
    - Schedule "exotic classes"
- Things to consider
    - Ignore Labs/TAs
    - Data must be persistent
    - Online/Asynchronous/In-person class types
    - Hard/Soft constraints for professors
        - Hard
            - Time constraints
            - No Under/Overloaded instructors
        - Soft
            - Teaching Preferences (Likert Scale)

SUMMARY:

The main customer need is to have an application that creates an efficient classroom schedule, which for each course section, assigns a time, a room, and an instructor, while satisfying a range of constraints. These constraints include room capacity, instructor availability, teaching style requirements, and course conflicts. The system also needs to consider instructor preferences, such as desired teaching times and course preferences, in order to maximize their satisfaction. The application provides a solution by providing an easy to understand interface which allows the user to upload data, preferences and constraints as csv files. It then automatically generates a schedule that meets both hard constraints and soft preferences, while minimizing wasted classroom space and balancing instructor workloads. The application will have additional features such as the ability to manually override schedules and see detailed schedule views, as well as export the generated schedules for easy sharing.

The key stakeholder for this application is the Associate Department Head, who is responsible for creating the teaching schedule before every semester. The secondary stakeholders are the Instructors and Students, who benefit indirectly from having flexible course schedules. The application integrates all scheduling requirements into one platform, allowing for streamlined data input, constraint satisfaction, and schedule optimization, while being scalable for future adjustments.

USER STORIES

Create UI Mockups
As a UX designer
So that the application is easy to use and intuitive
I want to create UI mockups for logging in, managing schedules and importing data

Analyse client data
As a developer
So that the application can be designed well
I want to analyse the client-provided constraints and preferences to identify patterns

Import CSV data
As a Scheduler
So that I can create an efficient teaching schedule
I want to upload course constraints and professor preferences as CSV files

Deploy app to Heroku
As a Developer
So that I can easily deploy and maintain the app
I want to deploy the app to Heroku

Login to the app through OAuth

As a Scheduler

So that I can securely manage my data and schedules

I want to login to the application using my university email

Handle constraint format changes

As a Developer

So that the application can adapt to future changes

I want to configure the system to adapt to input data changes

Conflicting course scheduling

As a Scheduler

So that students have maximum flexibility in course selection

I want to ensure that conflicting courses are not scheduled at the same time

Assign all required courses

As a scheduler

So that no required course is left untaught

I want to make sure that all required courses are assigned professors, time slots and rooms in the schedule

Assign adequate courses

As a Scheduler

So that professors have manageable workloads

I want to make sure that professors are not assigned more or fewer courses than they are required to teach

View generated schedules

As a Scheduler

So that I can view my schedule

I want to be able to view all my generated schedules on the app

Export schedules

As a Scheduler

So that I can share my generated schedule

I want to be able to export my schedules

Assign classrooms efficiently

As a Scheduler

So that classrooms are not over or under utilised

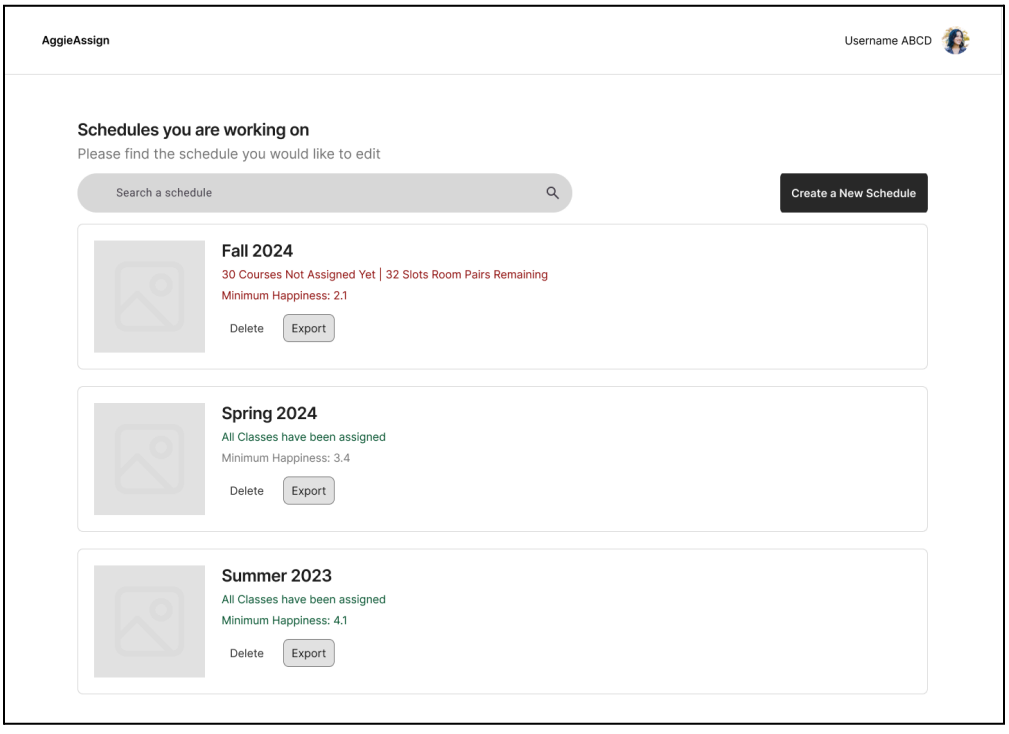
I want to make sure that classes are assigned to classrooms efficiently

USER INTERFACE MOCKUPS:

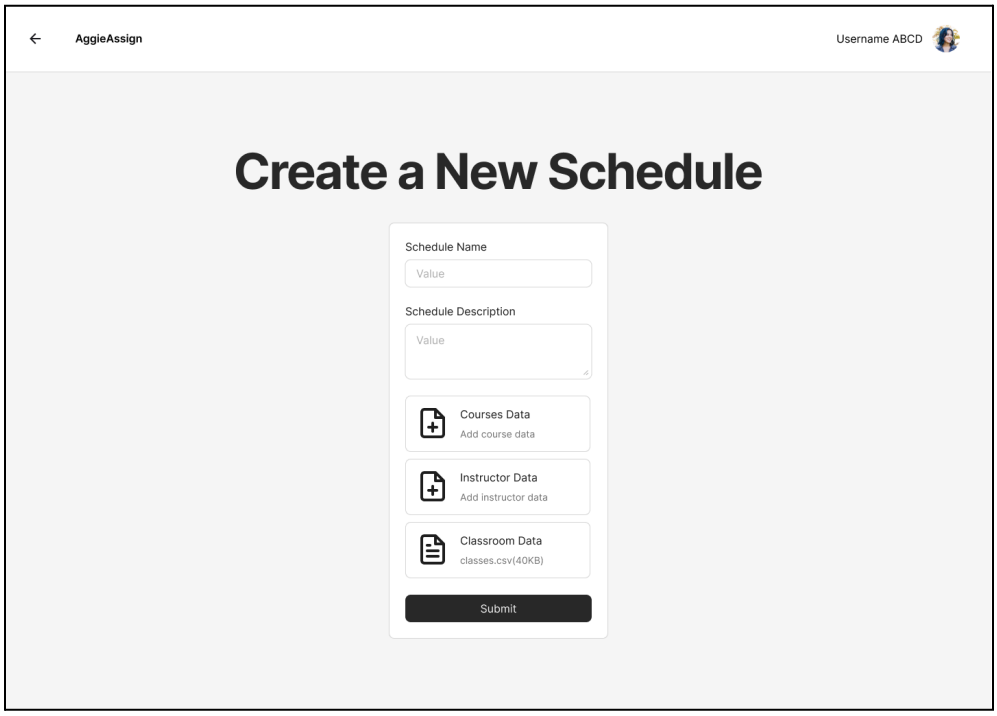
Figma:
https://www.figma.com/design/CRRqUd8c0q8BnKWkPlY1pS/AggieAssign?node-id=0-1&m=dev&t=tqPtIKvDjV7etD6b-1

User should be able to login:

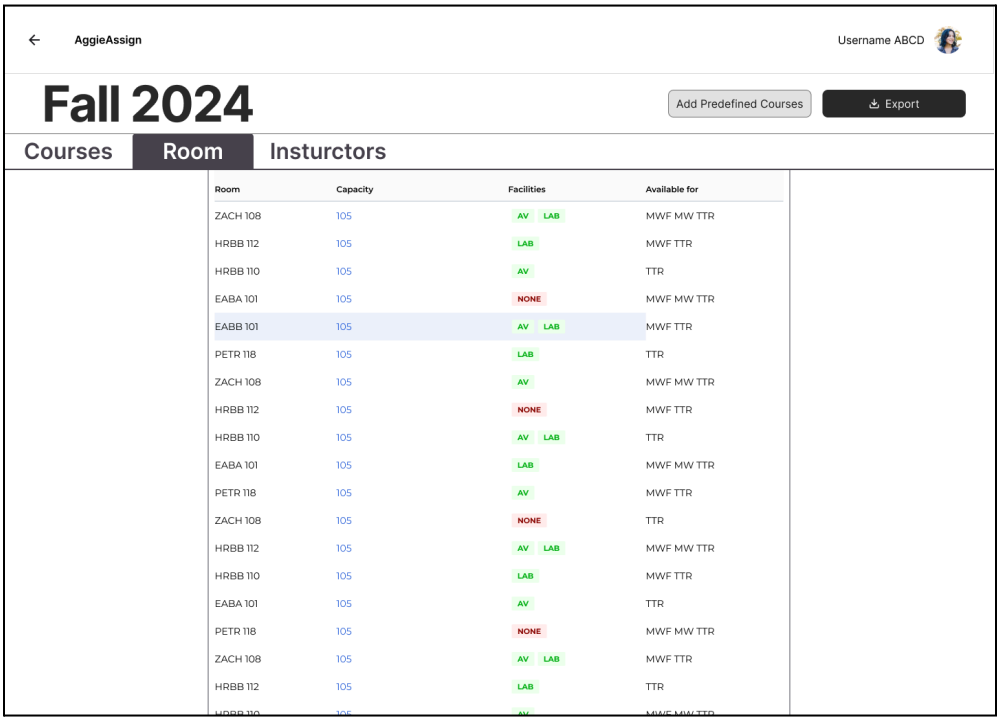
After login, all generated schedules of the user should be displayed



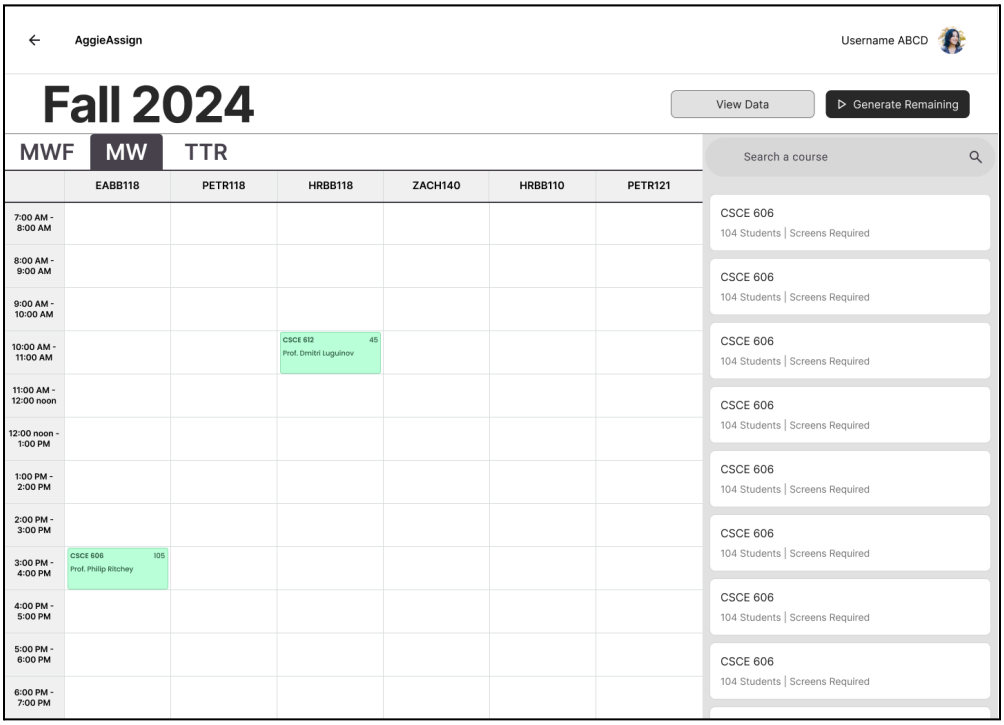
User should be able to create a new schedule by clicking on the “Create a new Schedule” button, which takes them to the create schedule page



User should be able to see details of the uploaded constraints



Once a schedule is generated, user should be able to see detailed views



LINKS:

Deployed App: https://faculty-teaching-assignment-31f5f9c405bc.herokuapp.com/
GitHubRepo: https://github.com/tamu-edu-students/Faculty-Teaching-Assignment
Pivotal Tracker: https://www.pivotaltracker.com/n/projects/2721604
Slack:https://tamu.slack.com/archives/C07PA043PA7
AggieAssign Workspace:
https://join.slack.com/t/aggieassign/shared_invite/zt-2qx61d7v8-uIal2qMdu94fICjEllCCIA