

Iteration 1

Legacy code changes to make the application work

Because we only care about the time of students' schedule rather than actual class information, we change the student UI from multiple columns of course information to only 4 columns of time information only. Since the admin needs to have the authority to force urgent students into the class, we also add a mark function for admin to mark the specific student as an urgent student. We added *day*, *start_time*, *end_time* to the database table *schedule_to_course* as new attributes, and added a boolean column *urgent* to the table *users*. We also updated the gemfile and ruby to more current versions of many gems.

Customer Meeting

Meeting time: 4/7/2022 4:30pm – 5:30 pm

We presented what we completed last week to the customer. There were two main UI pages we modified.

Feedback from the customer

1. Modifying tooltips. The tooltips for time input need to give a hint saying that the input needs to be 24-hour based.
2. Adding a column in the Student Add Schedule page, which gives information to the customer about what students would be busy with during the selected time slot.

Future steps:

1. Work around the interaction between frontend and backend.
2. Implement database for newly added features.
3. Implement an algorithm to find a time slot with minimum cost.

User Stories

Feature: Student Schedule Input

As a student, so that I can input my busy time to form my schedule, I want to have four input fields: day, start time, end time, mandatory to generate my schedule.

Add Schedule for Test Term

Schedule Name:

| Mandatory | Day | StartTime | EndTime |
|--------------------------|--------|-----------|---------|
| <input type="checkbox"/> | Monday | XX:XX | XX:XX |
| <input type="checkbox"/> | Monday | XX:XX | XX:XX |
| <input type="checkbox"/> | Monday | XX:XX | XX:XX |
| <input type="checkbox"/> | Monday | XX:XX | XX:XX |
| <input type="checkbox"/> | Monday | XX:XX | XX:XX |
| <input type="checkbox"/> | Monday | XX:XX | XX:XX |
| <input type="checkbox"/> | Monday | XX:XX | XX:XX |

Save ScheduleCancel

Test

| Mandatory | Day | StartTime | EndTime |
|-----------|--------|-----------|---------|
| No | Monday | 8:00 am | 9:00 am |

Edit ScheduleBack to Home

Feature: Student Input Tooltip

As a student, so that I can get direction about how to input data correctly, I want to have tooltips above each column to generate my schedule.

Feature: Admin adds urgent students

As an admin, so that I can force on the urgent students who need this course for graduation, I want to have the button to mark the student as urgent.

Add a new Student to Test Cohort

| First Name | Last Name | TAMU Email | UIN | Urgent |
|---|----------------------|---|----------------------|--------------------------|
| <input type="text"/> | <input type="text"/> | <input type="text" value="netid@tamu.edu"/> | <input type="text"/> | <input type="checkbox"/> |
| Create Cancel | | | | |

New User Stories

Feature: Type in reasons for schedule

As a student, so that I can explain why I am not available for the zlp course during this time slot, I want to explain it to the admin when I add my schedule table.

Feature: View the reason of time slot occupation

As an admin, so that I can know why some students' schedules conflict with my decided time for the zlp course. I am interested in those courses whose time slot conflicts with the zlp course and how many students choose that course.

Legacy Stories

Feature: Select a common timeslot

As an admin, so that I can decide when to schedule the meeting, I want to see available common time slots of students.

Feature: Determine almost acceptable time slots

As an admin, so that I can ask students to modify their schedules, I want to see time slots that work for all but up to 4 students.

(I logged in with Lauren's id, as an administrator, to run the algorithm and find the time slots that work for all students and for all but up to 4 students)

Feature: Login to the system

As a student so that I can submit my schedules I want to be able to login to the system

(I logged in with Kiersten's id, and checked if I am able to login and submit my new schedules. Works totally fine.)

Feature: View my schedule

As a student so that I can see the schedules I've input into the system I want to be able to view my schedules.

(I logged in with Kiersten's id, and checked to see if I am able to see the schedule that he has inputted into the system. Works totally fine.)

Feature: See which students have submitted their schedules

As an administrator so that I can know when to run the algorithm I want to see which students have submitted their schedules

(I logged in with Lauren's id, as an administrator, and went to the cohort page to see which students have submitted their schedules.)

Test Coverage

Cucumber Tests

We can run the cucumber tests with the "cucumber features" command and the results will be stored in the coverage/index.html file. Currently, cucumber tests cover 59.96% according to coverage analysis.

The main reason for this low coverage is the helper classes under the **controllers/concerns/** directory. **scheduler**, **scheduler_test**, **matrix_generator**, and **helpers** files have 0% cucumber test coverage. Some of these helper classes have been replaced by the second team working on this project however **scheduler** and **matrix_generator** are still used by the AdminController class. We should either get rid of their usage or write necessary tests.

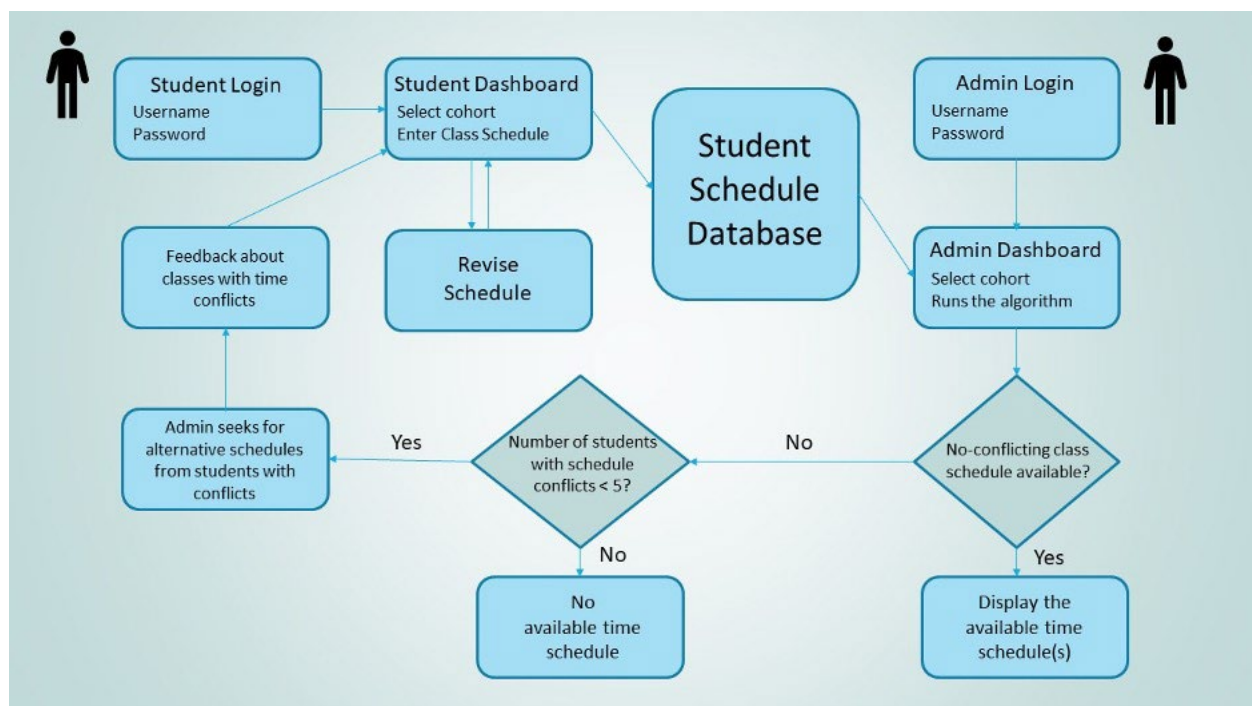
Important models like Term, Course, and Subject have low coverage too. Improving code coverage on these models is quite crucial for the health of the project.

Rspec Tests

The previous team was running unit tests with the “rspec spec/controllers” command because just running rspec was failing. We found that the reason was, there were lots of unit tests written for AdminStudRecs helper and controller under other directories in the spec folder. After removing those tests rspec runs normally and reports 15.3% coverage.

Currently, there are no unit tests written for controllers and it’s the main reason for such low code coverage. This will be an important task for our team as well.

Design Diagram



GitHub: <https://github.com/RuichenNi/TAMU-ZachryLeadershipScheduler>

Heroku:

- This Heroku is not the client’s, but is a personal deployment for us to work on. The final deployment will be on the client’s heroku.

Meeting Recording:

https://drive.google.com/file/d/1qcS7MvX_tKFzEg9lZQ2o2WonpscUwO_b/view?usp=sharing