

Project Proposal

Title

Exam Scheduling Assistant

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September 18th 2019

Introduction/Overview

Creating an exam schedule is no easy task, especially in the real world where you have unpredictable situations for instance a student taking CSC101 and ITE412 together, or CIV102 and CIV101 together, these might be okay in the perspective of the student but for the person designing the exam schedule it creates conflicts which results in students having several exams in a day. It's not an easy task to accommodate every student so they can all have one exam per day during finals week.

This is the issue/problem that AUIS's registration department faces, students always complain about having multiple exams & We all know how frustrating it can be to have several exams in one day. Each semester the registration office goes through many hours, days & weeks just to come up with a schedule that satisfies all the undergraduate students.

In this project, I will be providing a solution for this problem, which is a web based application. This application will fetch all the necessary information and dynamically notify the user "Registration office" whenever the problem of having multiple exams occur, the application will provide all the necessary information to the user so they can make critical decisions based on them.

Project Type

Development, Industry based.

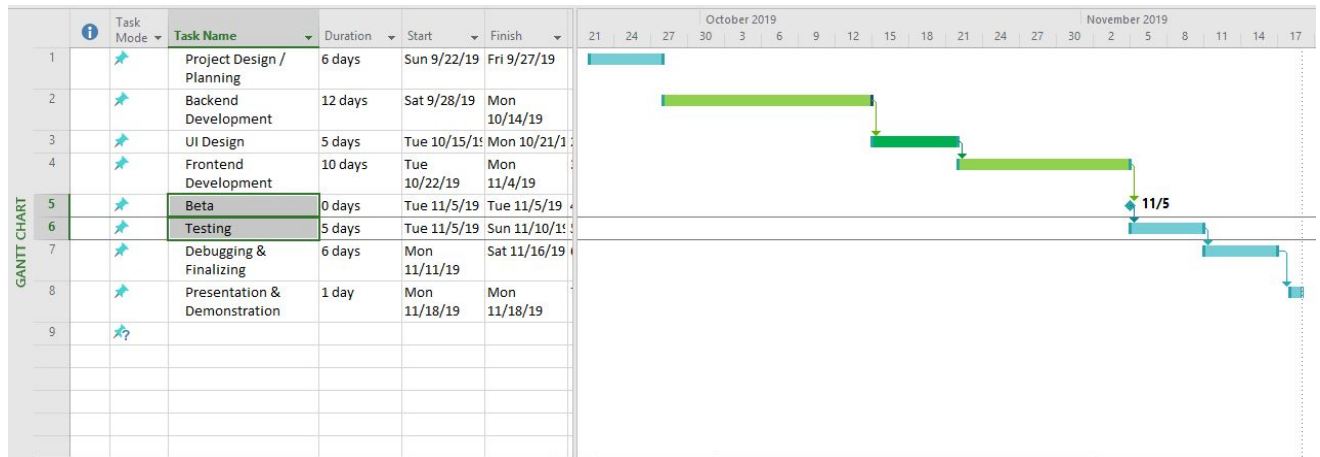
Aim

Reducing the number of students that have more than one exam a day.

Objectives

1. Assisting the registration office in organizing exam schedule.
2. Determine the number of students that have multiple exams based on the current schedule.
3. Provide meaningful information and feedback on the schedule in relation to the students.
4. Creating an interactive interface where the user can drag and drop to easily modify the schedule.
5. Giving suggestions based on the data on how to organise the current schedule.

Timeline/Gantt Chart



Technologies

HTML

CSS

JavaScript

SQL

PHP

FullCalender.io

Repository

[Github.com/ArooxSedq/ITE-412-Capstone](https://github.com/ArooxSedq/ITE-412-Capstone)

Future Plans

- Making the application give suggestions on where to schedule a certain exam so that we get the smallest number of multiple exam conflicts.
- Adding Moodle authentication to sign in students and show them their own exam schedule.

Shortcomings

1. Application opens slowly, and executes most functions slowly due to the large amount of data passed by sonis & the lack of data structures and algorithm improvement.
2. The application does not give suggestions based on the data on how to organise the current schedule.

Literature Review

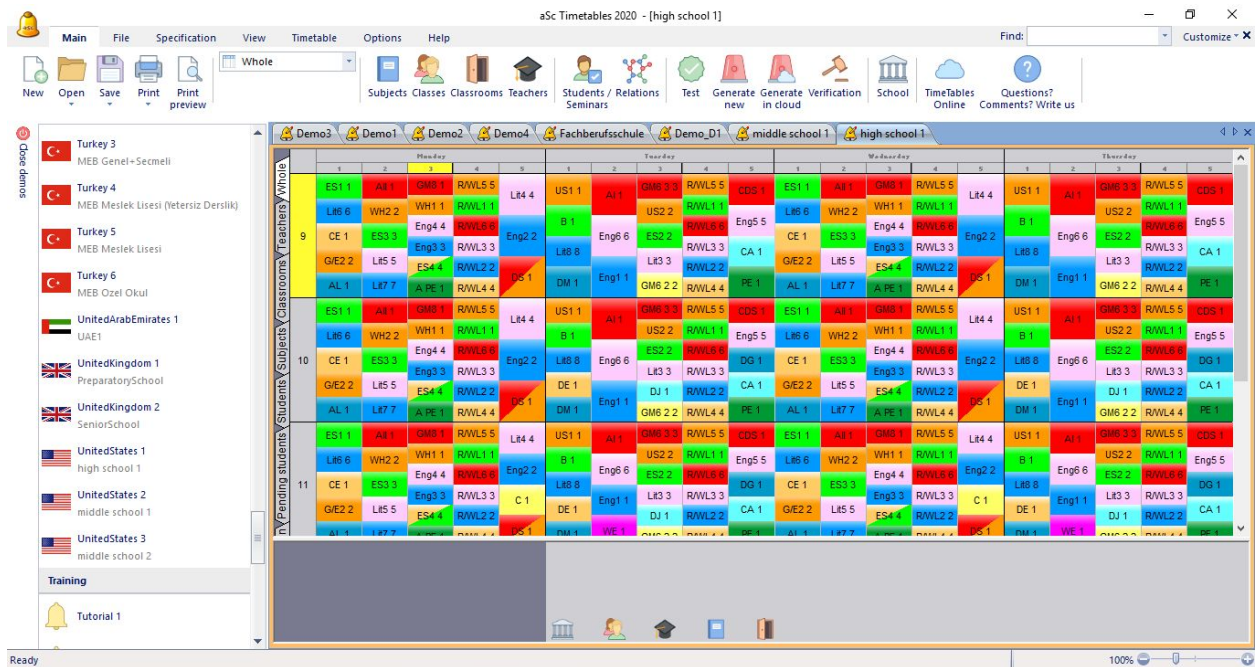
There are many applications that are being used for constructing exam schedules by providing timetables such as Excel, google sheets etc, but these applications don't necessarily improve the process or automating it.

However, I stumbled upon an application that helps automate the process of generating an exam schedule. aSc Timetable 2020 is designed for the same situation but it doesn't tackle the student perspective which is the focus of this project. It's providing an algorithm to generate a schedule based on certain conditions, for example the Instructors availability or classroom availability. It also requires the user to enter all the classes, classrooms.

In terms of interactivity & user interaction, this application possess a very user friendly interface, users can easily drag and drop scheduled exams from a date to another, the exams are colored in unique colors, the auto generator also helps the

user a lot in terms of coming up with a draft schedule. However my exam scheduling assistant will provide the user with all the information regarding the courses offered, It will also tackle the bigger issue of accommodating the students needs.

Below is a snapshot of aSc Timetables 2020



References

“Perfect Scheduling.” *ASc TimeTables - School Scheduling. Best Timetable Software to Create School Timetable.*, ASc Applied Software Consultants, <https://www.asctimetables.com/>.

Shaw, Adam. “JavaScript Calendar.” *FullCalendar*, FullCalendar LLC, <https://fullcalendar.io/>.

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