

VSB_PLUS

Vlog#1

Xia Hua, Xinyu Liu, Jingkang Yang, Priscilla Chua
Oct 5 2020

Project deats

What we are doing

A good design of the Visual Schedule Builder Plus that will help to organize and build up the time table wisely.

Problem we are solving

1. what courses to take first to be able to graduate in time
2. knowing the different limitations of each course
3. which of elective classes to take that will benefit them in the future based on their faculty

Gaps we are filling

1. advising system
2. detailing the course information
3. laid out the benefit elective classes based on different faculty

Innovation and Introduction to the world

- 1.classification into different faculty
- 2.based on the faculty, it will give out advice on the courses to take for the students
- 3.after the students have chosen and built up their desired time schedule, it also gives some command on their time table to help them for better time planning

Project & documentation review

What we are currently working on

1. Researching on the Visual Schedule Builder from different University (lots of University using same schedule builder) and get inspire from some schedule build Apps
2. Brainstorm the most suitable UI design
3. Note down helpful ideas
4. Developing LoFi prototype

Demonstration:


- 1) Inspire by other product
- 2) Roadmap(kanban)
- 3) Empathy map
- 4) Data visualization sample
- 5) LoFi prototype


GitHub/Version control “stamp of approval”

https://github.com/yang242j/VSB_Plus


Github





 master ▾ **VSB_Plus** / Document /


 Nick-liu666 Update .DS_Store


..


 Scrum#1


 Vlogs

 .DS_Store


 Milestone_based_schedule.pdf


 Problem_definition.md


 master ▾ **VSB_Plus** / Document / Scrum#1 /


 Irving-Hua recommit


..


 .DS_Store


 400Project-Interface brainStorm.pdf


 Business_case.pdf


 ENSE 400 Project #1 (1)-10-04.pdf

 Empathy Map For VSB_Plus.pdf

 LoFi_1.pdf

 Project Requirements Scrum#1.pdf

 Project_charter.pdf

 ScrumReport#1-10.04.pptx

Milestone Schedule



MILESTONE-BASED SCHEDULE	
Project Name	VSB_Plus
Milestone	Date
Project intro vlog	Sep 23 2020 (intro vlog)
Business case and project charter	Oct 5 2020 (Scrums #1)
Problem & requirements prerequisites	
Startling of project roadmaps	
Prototypes(lo-fidelity)	
1st project progress video blog (vlog)	Oct 19 2020 (vlog #1)
System/architectural design pictures	
Role-based access/security provisions	Nov, 2 2020 (Scrums #2)
Prototypes(hi-fidelity)	
2nd project progress video blog (vlog)	Nov 16 2020 (vlog #2)
Coding	

Business Case & Charter



BUSINESS CASE	
Proposed Project	Enhancing the functionality of University of Regina existing Visual Schedule Builder and helping future students course selection easier.
Date Produced	September 19, 2020
Background	The ideas about project is actually came from my roommate. He was trying to register the ENSE 374 course for this fall semester. But it's failed, because he wasn't took the prerequisite class CS 210 before. However, the ENSE 374 is fall-only course, and also it is a prerequisite course for other many high level courses. So, this course is really important to take in this semester for he. Then, he made the appointment with advisor trying to register the course. But still not working. So, he has to wait this course for one year which could delay his graduation. So, we believe there are other students may face the same problem, especially for new students who are unfamiliar with the course registration system. So, we want to do a project to fix this kind question and try to help students to plan their course schedule well.
Business Need/ Opportunity	The website are able to provide reasonable advices on course selection with different condition and semester. This web application can help students arrange their entire academic schedule and have a better plan for the college life. Students will no longer missing any important course in a certain semesters. It helps students to graduate smoothly with less academic mistakes. Meanwhile, students can realize the courses prerequisites and save the time waiting for academic advisors. For the academic advisors, this application will reduce the obvious questions from students which saves time for more valuable academic conversations and will improve work efficiency. Advisors can have more time to focus on other complex work.
Options	We could use the agile software development model to complete the project for handling any project changes or user feedback. We could use concept of Minimum viable product (MVP) in doing our project.
Cost-Benefit Analysis	
This project could help student plan entire course schedule and avoid missing any important course. The student can have better understanding about the personal program process and priority of each course. Meanwhile, it can save the time and energy for the advisors.	

PROJECT CHARTER	
Project Name	Visual Schedule Builder Plus (VSB_Plus)
Date Produced	September 18, 2020
Project Goals	A web-base application which help students arrange the their entire course schedule and provide reasonable advice about course selection.
Project Objectives	For developing a interactive and flexible web application, it required to programmer own a lot of web programming knowledge and back-end management ability.
Project Budget	N/A
Project Sponsor	N/A
Project Manager	
Additional Key Project Stakeholders	
Students and advisors at the University of Regina	
Other Universities under the similar situation	
Overall Project Milestones	Dates
Project intro vlog	Sep 23 2020
Business case and project charter	Oct 6 2020 (Scrums #1)
Problem & requirements prerequisites	
Starting of project roadmaps	
Prototypes(lo-fidelity)	
1st project progress video blog (vlog)	Oct 19 2020
System/architectural design pictures	Nov, 2 2020 (Scrums #2)
Role-based access/security provisions	
Prototypes(hi-fidelity)	


Market Analysis

Product Name	VSB	Degree Audit	VSB_Plus
Preference	Schedule builder for one semester	Academic schedule, less detail	Based on students need, manage both semester schedule and academic calendar
Utility	Contain many class detail info	Helps manage each semester schedule	Having a good overall management of all classes
Course Recommendation	No	No	Yes
Friendly UI	Yes	Yes	Maybe Yes
Professor info	No	No	Yes
What Problem solved	Build schedule for a specific term	Overview what course needed for different terms	Customize the scheduled course for multiple terms
Show Courses Relationship	Weak	Weak	Strong, visualized courses relationship
Further plan	No	Yes, fixed	Yes, dynamic

Inspires



It is a great search function!

 **University of Regina** **UR Self-Service**

HELP EXIT

Search Classes and Build Schedule

Build Schedule

Use the Visual Schedule Builder (VSB) to find your optimal schedule. VSB will present all of your schedule options and allow you to pick the one that works best for you. It then presents you with your Course Reference Numbers (CRNs) that you may use to register yourself via UR Self-Service.

[Go to the Visual Schedule Builder](#)

Search Classes

Select the term you would like to enrol in and enter "Submit". You will then be able to search the possible course offerings for that term.

Search by Term:

None

RELEASE: 8.7.1.2

© 2020 Ellucian Company L.P. and its affiliates.

Class Schedule Search

Sep 28, 2020

Use the selection options below to search the class schedule for the term displayed above (top right corner).

- Subject (*) Required field** - You MUST select at least one Subject.
 - Search for multiple subjects using the Shift key (for multiple, consecutive values) OR the Ctrl key (for multiple, non-consecutive values).
 - To reduce scrolling, enter the first letter of the subject you are searching for.
 - The Subject Code Table is listed in Section 24.3 of the Undergraduate Calendar.
 - You may choose any combination of additional fields to narrow your search.
- Course Number** - Search by entering the full number or by using the appropriate characters (i.e., "2" retrieves all course numbers beginning with 2).
- Title** - Enter any portion of the Class Title to refine your search.
- Campus** - Select "On" in order to refine your search and view only classes held on the main campus or choose "Off" to view classes held elsewhere.

* When your selection is complete, click "Class Search" to perform the search.

Subject: Academic Foundations
Actuarial Science
Administration
Anthropology
Art
Art History
Arts
Astronomy
Biochemistry
Biology

Course Number:

Title:

Schedule Type: All
Activity
Applied

Instructional Method: All
Class offered in French
LIVE-streamed class

Credit Range: hours to hours

Course Level: All
Graduate
Non-Credit

Part of Term: All
Full Term
Part of Term A1

Instructor: All
Aamodi, Audrey Jennifer
Abbott, Sarah

Start Time: Hour Minute am/pm

End Time: Hour Minute am/pm

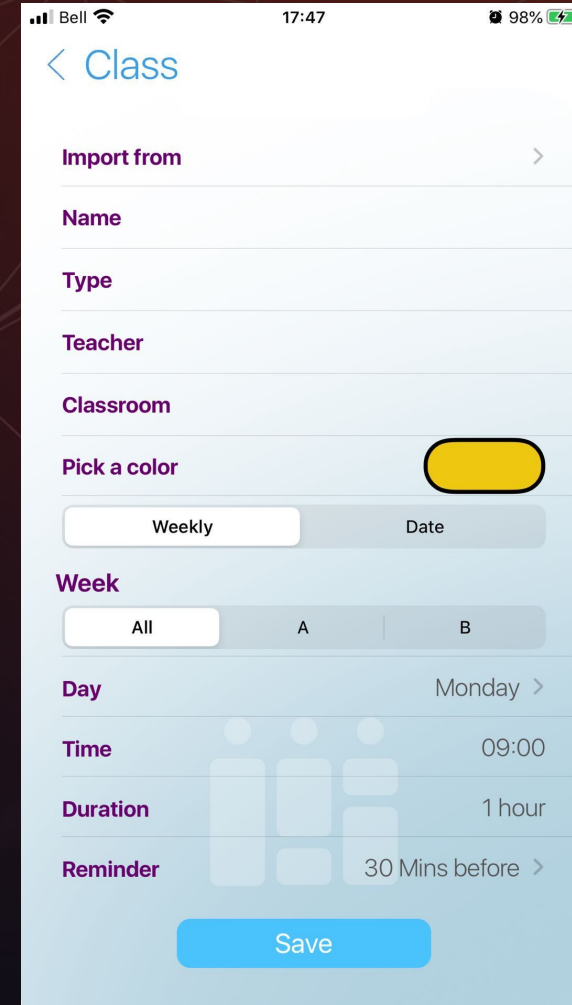
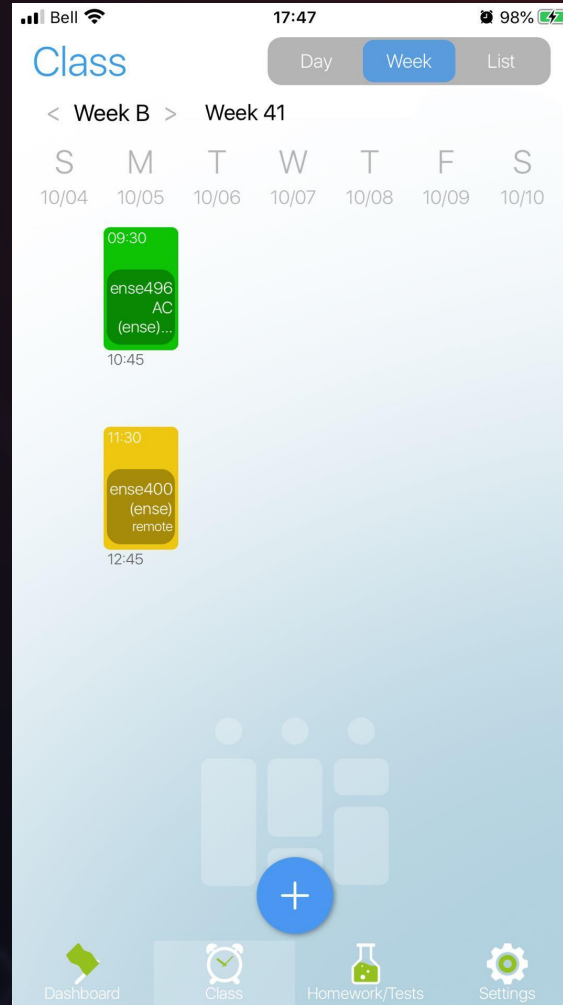
Days: ☐ Mon ☐ Tue ☐ Wed ☐ Thur ☐ Fri ☐ Sat ☐ Sun

RELEASE: 8.7.1.2

Inspires

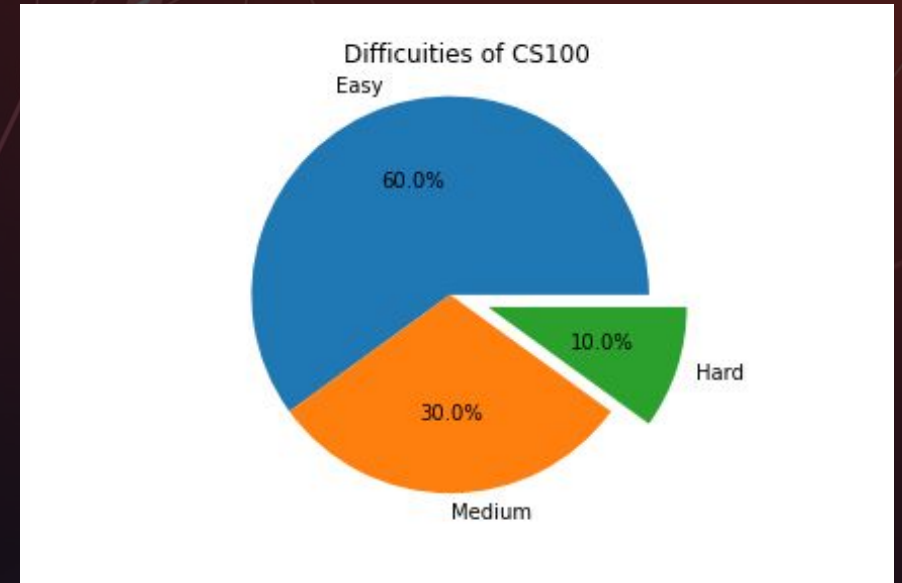
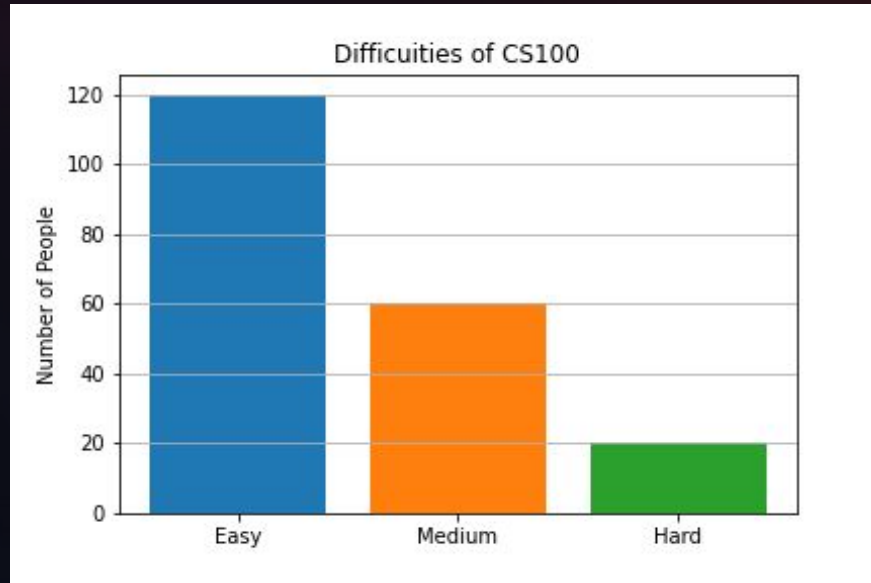


We can use a add button to drag course form inventory, set color of class , add some comment (holidays for example)



Screenshot from an app called studenttimetable

Data Visualization Sample



- These charts are generated using python matplotlib.
- These are made up sample data

Empathy Map and Brainstorm file



Main Interface

drag courses to timetable

Default schedule : generate by system can be modified

Course recommend : right side box , according to the importance ,decide highly recommend or something else

Show Term Info

Modify different term

Show summer only winter only courses

The course type (elective /open elective /technical elective/required/....) give tags to courses and list it

Show final exam schedule

Filter class according the difficult /popularity/professor

Data visualize

Universities' visual schedule builder and degree audit suggestion

Term is fixed , can not modified

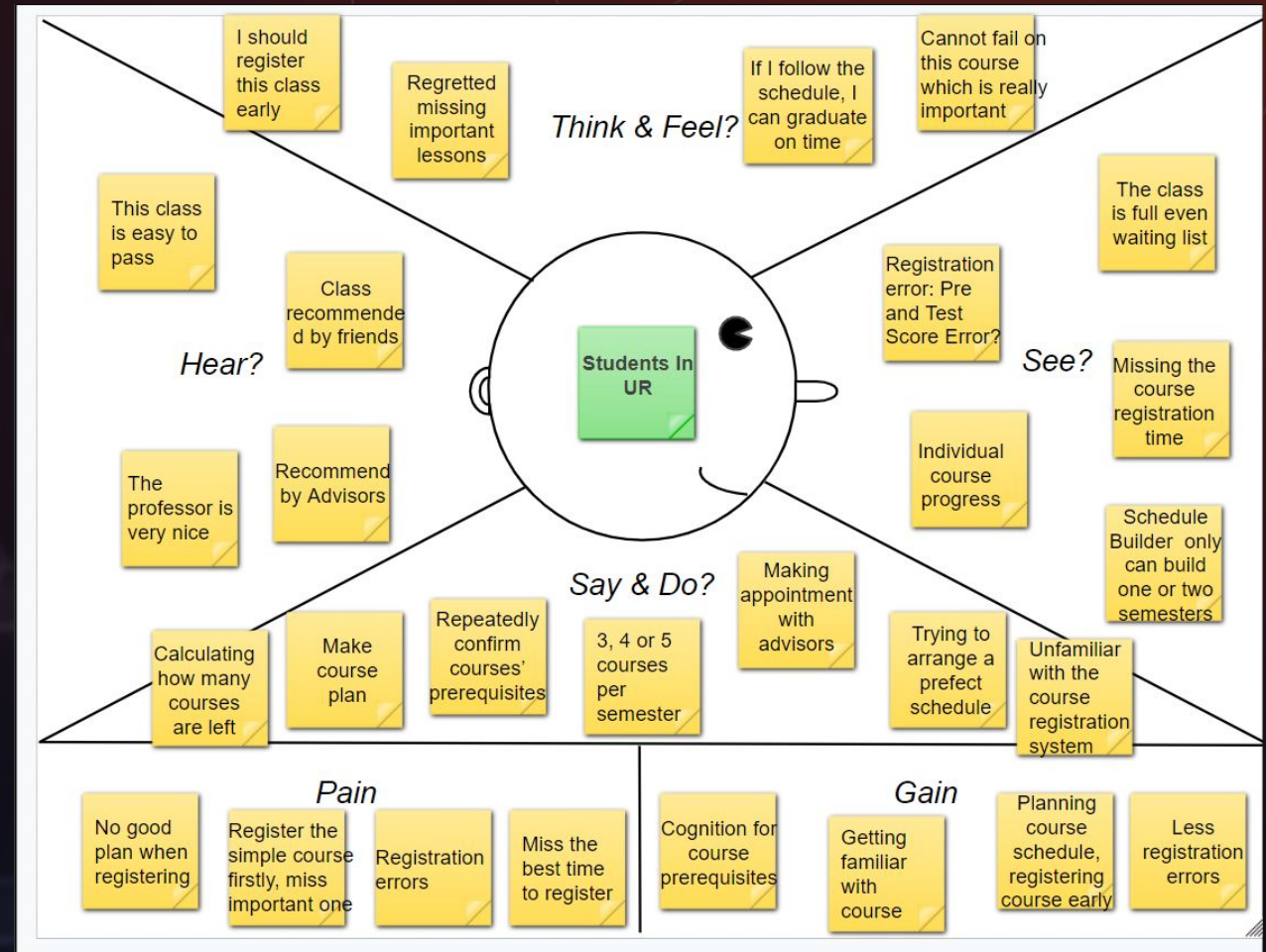
Have to search the course and know about it before, can not get help directly form system

Search system should be more user friendly

Two interface patterns one is show more information, another filter the unwanted data

Give permission to student

Build a course relation tree(data visualization)



LoFi and Kanban



The screenshot displays the GitHub interface for the repository `yang242j/VSB_Plus`. The repository is in the `master` branch and has 1 branch and 0 tags. The file list shows the following files and their commit history:

File	Commit Message	Time Ago
Document	scrum#1 lofi , project_charter and business_case file	1 minute ago
.DS_Store	Modify Business Case doc	5 days ago
README.md	Update README.md	2 days ago
_config.yml	Merge branch 'master' into GitHub_page	3 days ago

The README.md content is as follows:

VSB_Plus

Visual Schedule Builder Plus

- [GitHub IO Page](#)

The purpose of this UofR Software Engineering Capstone Project is to enhance the functionality of UofR existing Visual Schedule Builder and helping future students course selection easier.

Vlogs

- [All Vlogs](#)
- Latest vlog (Youtube video ID: y45IOaX7iNw)

The right sidebar shows repository statistics: 0 Watch, 0 Star, 0 Fork. It also lists contributors: yang242j, Nick-llu666, and Irving-Hua. The repository is active on GitHub Pages.

https://github.com/yang242j/VSB_Plus/blob/master/Document/Scrum%231/LoFi_1.pdf

Next Up



We will be to collect some data with the people in the future based on the experience of using the new design of our Visual Schedule Builder Plus; such as, knowing how they feel about it, what is good and what is confusing/useless that needs to be removed, or new ideas can be added. Lastly, according to data/experience from the users about the new design, we will rethink and redesign the Visual Schedule Builder Plus for better usability. (Probably Hifi, and UML)

Group reflection

01

Do you feel you are on track ?

Yes, we are on track. Because we set regular meetings every week and share ideas on brainstorm files, most important is everyone is willing to participate

02

Do you feel there are barriers to your success

Yes, after we do some research on Visual Schedule Builder and degree Audit on Urcourses, they are doing very well on many aspects. The problem is they are not user friendly.

03

Do you need any help going forward

We need the data for different faculty. Need a scientific method to demonstrate classes

04

Question or concerns

Maybe we are not able to use machine learning technologies because of the lack of data

References

Uofr class schedule search

[https://banner.uregina.ca:17023/ssbprod/
bwskfcls.P_GetCrse](https://banner.uregina.ca:17023/ssbprod/bwskfcls.P_GetCrse)



Thank you