

ENSE 400 GroupProject #3

Team Name: **VSB_Plus**

Team Members: Xia Hua, Xinyu Liu, Jingkang Yang, Priscilla Chua

Due: **Nov 16, 2020**

Brief project blurb

A change for the better user-friendly design of the Visual Schedule Builder that will help to organize and plan out the time table wisely. As to make the website an interactive course schedule builder, the advising system of the courses to take, and the course detail visualization for the students to build up the desired course schedule with better time planning.


"Show me us what you got"

We now had used the software tools to sketch out our design for the Visual Schedule Builder Plus website interface and are now doing some coding work. As well, to decide/focus on some points that how will the things be done for this project:

- The programming language will be written in html, css, JavaScript, PHP and JSON with the machine learning
- The Course Page will outline the labs information of the class; as well, it can show the deadline information for the assignment and exam of the course
- The website will do the auto fetch JSON file from University of Regina as to get/update the courses information from URcourse
- The Semester Page will only be working for the current semester and the next semester; the current semester is highlighted when the student is editing it
- As for the server of the website, we still have not decided which to use yet; but probably will go with Amazon Web Services(AWS) EC2 since we had some experiences in AWS

Project demo (from lofi, to hifi, to coded MVP(s))

main.html



Visual Schedule Builder Plus

Academic Schedule Builder	Semester Schedule Builder	Course List DB
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Project Description

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.

This project will be focused on the students, the building up of their classes schedule. The opinions from the professors of different faculty and the students are mainly to be considering. The Visual Schedule Builder Plus will be designed for students into the different faculty. Then through the faculty, according to the importance and limitations of classes, the Visual Schedule Builder Plus will recommend the courses to take for the students in the different semesters. After the students have chosen and built up their desired time schedule, the Visual Schedule Builder Plus can also give out some advice on their time table to help them for better time planning.

A good design of the Visual Schedule Builder Plus that will help to organize and build up the time table wisely. It is to solve the problems such as considering what courses to take first to be able to graduate in time, knowing the different limitations of each course(for example, the prerequisites in order to take the class, and when it offers, or the credit hours requires), as well to be aware of which elective classes to take that will benefit them in the future based on their faculty. The enhancing of the functionality for U of R existing Visual Schedule Builder will help the students to select the courses easier.

Screenshot

Update log

v1.0

- main.html page creation
- database creation

2020-10-28

v1.1

- main.html dead, rescuing...

2020-10-29

v1.1.1

- We give up, bye

2020-10-30

Team Info

Personal Image

Personal Image

Personal Image

Personal Image

Name: Xinyu Liu
SID: 2003*****
Position: Scrum Master

Name: Jingkang Yang
SID: 2003*****
Position: Developer

Name: Xia Hua
SID: 2003*****
Position: Developer

Name: Priscilla Chua
SID: 2003*****
Position: Business Analyst

Team Description:
Our goal is to create a user friendly, interactive schedule builder.

Contact Us

GitHub:
<https://github.com/yang242j/VSB-Plus>

email:
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Visual Schedule Builder Plus

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Email:

Password:



Visual Schedule Builder Plus

Academic Schedule Builder	Semester Schedule Builder	Course List DB	
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Default Schedule

Term 1:
Fall 2020

CHEM 104

ENGG 123

ENGG 140

MATH 110

MATH 122

15 Credit Hours

No Project

Many Quiz

Term 2:
Winter 2021

CS 110

ENGG 100

ENGL 100

MATH 111

PHYS 119

15 Credit Hours

Essay

Many Quiz

Term 3:
Fall 2021

CS 115

ENEL 280

ENEV 223

MATH 217

PHYS 112

15 Credit Hours

No Project

Many Quiz

Term 4:
Winter 2022

CS 210

ENEL 281

ENEL 282

MATH 213

STAT 289

15 Credit Hours

No Project

Many Quiz

Term 5:
Fall 2022

CS 215

CS 340

ENEL 384

ENSE 352

ENSE 374

15 Credit Hours

No Project

Many Quiz

Term 6:
Spring 2023

BUS 260

ECON 201

Approve E

9 Credit Hours

No Project

Many Quiz

Term 6.5:
Summer 2023

ENEL 380

ENSE 353

6 Credit Hours

No Project

Many Quiz

Term 7:
Winter 2024

ENEL 387

ENSE 470

ENSE 471

ENSE 475

Approve E

15 Credit Hours

No Project

Many Quiz

Term 8:
Fall 2024

ENGG 303

ENSE 400

ENSE 472

Approve E

Approve E

15 Credit Hours

Capstone Project

Term 9:
Winter 2025

ENGG 401

ENSE 350

ENSE 477

Approve E

Approve E

15 Credit Hours

Capstone Project

Courses Completed

CHEM 104

ENGG 123

ENGG 140

MATH 110

MATH 122

CS 110

ENGG 100

ENGL 100

MATH 111

PHYS 119

CS 115

ENEL 280

ENEV 223

MATH 217

PHYS 112

CS 210

ENEL 281

ENEL 282

MATH 213

STAT 289

CS 215

CS 340

ENEL 384

ENSE 352

ENSE 374

BUS 260

ECON 201

Approve E

ENEL 380

ENSE 353

ENEL 387

ENSE 470

ENSE 471

ENSE 475

Approve E

ENGG 303

ENSE 400

ENSE 472

Approve E

Approve E

ENGG 401

ENSE 350

ENSE 477

Approve E

Approve E

Courses To Take

EMPTY



Visual Schedule Builder Plus

Academic Schedule Builder

Semester Schedule Builder

Course List DB

Default Schedule

Term 1:
Fall 2020

CHEM 104

ENGG 123

MATH 110

MATH 122

12 Credit Hours

No Project

Many Quiz

Term 2:
Winter 2021

EMPTY

0 Credit Hours

Break

Term 3:
Fall 2021

0 Credit Hours

Notes: (NOT part of design)

- 1) Academic Schedule Builder is only a simulator, which mean, anyone can play with it even not a currently registered student.
- 2) If this person decide to take a break at certain semester, drag EMPTY to that semester to represent the break. Next term (3) will show up. EMPTY course came with the Break label.
- 3) Each course has several labels, the grey one, which represent this course's identity.
- 4) New labels and new courses can be added in the future into database through back end.
- 5) Courses To Take will only show up the courses can be take based on Courses Completed.
- 6) Approved Elective includes Technical Elective, Open elective, Social science elective, and Natural Science elective.
- 7) Elective courses can only be decide, choose, in Semester Schedule Builder. Because elective courses are vary depend on department decision.
- 8) Semester Schedule Builder can only simulate current semester and next semester. Because SSB will display more details of selected courses which are only be posted before the new semester.
- 9) The UofR log is designed as the home button link to page-1

Courses Completed

CHEM 104

ENGG 123

MATH 110

MATH 122

Courses To Take

ENGG 140

CS 110

ENGG 100

ENGL 100

MATH 111

EMPTY



Visual Schedule Builder Plus

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Default Schedule(Fall 2020):

Term 1:

ENSE 400	ENEL 387	ENSE 496AC	ENSE 496AD	ENSE 472
15 credit	hard	many quizzes	no proj	
hours				

Term 2:

ENSE 400	ENEL 387	ENSE 496AC	ENSE 496AD	ENSE 472
15 credit	hard	many quizzes	no proj	
hours				

Coures completed:

- ENGG 100
- ENGL 100
- ENEL 280
- ENEL 281
- ENEL 282

Coures need to take:

- ENSE 470

semesterBuilder.html



Visual Schedule Builder Plus

Academic Schedule Builder

Semester Schedule Builder

Course List DB

Term 3: Fall 2021 ▾

ENGG 140

CS 110

ENGG 100

ENGL 100

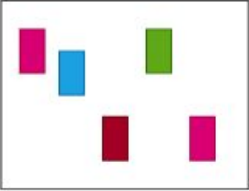
ENGG 140
Labels: Quizzes, Equations, Physics
Descriptions: *****

CS 110
Labels: Programming, C++, Basic CS
Descriptions: *****

ENGG 100
Labels: 3D Graphic, Basic Engineering, Time consuming
Descriptions: *****

ENGL 100
Labels: Literature, Essays, Basic English
Descriptions: *****

Weekly Schedule



Exam Date:
ENGG 140 MID 1 Sep 20
CS 110 MID Oct.10
ENGG 100 MID 1 Sep 20
ENGL 100 Final Dec.10

Notes: (NOT part of design)

- 1) Term selector is a drop down menu. And it can only choose current and next semester, no passed or future semester.
- 2) Courses detail info is the same as original VSB with one additional label line added.
- 3) Exam Date section will display both midterm and final exam dates. It should highlight or bold or underline the potential conflict date to notify the student. (Time conflict, same day, two continuous days)
- 4) Courses Completed and Courses To Take are two equally spaced content area stick with the browser bottom. move up and down as the user scroll. This design should give user a friendly experience because while students trying to determine the courses of next semester, they often will check this two section.

Courses Completed

CHEM 104 ENGG 123 MATH 110 MATH 122

Courses To Take

MATH 111 EMPTY



Visual Schedule Builder Plus

Home Academic Schedule Builder **Semester Schedule Builder** Course List Database Login SignUp

Choose a term: **Fall 2020**

Course List



ENGG 140
ENGG 110
ENGG 100
ENGG 100

ENGG 140

Course Detail Info: ****-****-****-****

CS 110

Course Detail Info: ****-****-****-****

ENGG 100

Course Detail Info: ****-****-****-****

Weekly Schedule & Exam Date

Weekly Schedule



Exam Date

IMMEDIATELY-EXAMINABLE OPEN DATES:

Sept 14th: Introductory Open on UoR Courses. **Optional****

Oct 13th: Exam #1 on UoR Courses. **Required****

Nov 2nd: Exam #2 on UoR Courses. **Required****

Nov 23rd: Exam #3 on UoR Courses. **Required****

Dec 9th: Final Exam on UoR. **Required****

Please refer to the UoR website for more information.

Oct 7th and Dec 1st: **Optional****

Package/ Submission Due Dates:

Every Friday, by 11:59pm. **Optional****

First submission due date is Sept 18th.

**** Required**, which means failure to complete these exams or quite will result in a final grade of 'N'.

Note: DO NOT wait until the end of the semester to let me know that you are engaged to complete no exam and/or my not happen with the grade to you are earning. I am unable to help ensure the course is completed. I can offer study help during the semester, but I DO NOT give out "free" credits to boost a grade at the end. Please do not ask me to.

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Calendar sample: <https://www.codeproject.com/Articles/732679/HTML-Event-Calendar-Scheduler>

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Calendar sample: <https://www.codeproject.com/Articles/732679/HTML-Event-Calendar-Scheduler>

Courses Completed:

Courses To Take:

ENGG 100

courseDB.html



Visual Schedule Builder Plus

Academic Schedule Builder

Semester Schedule Builder

Course List DB

Filter



CHEM 104	ENGG 123	ENGG 140	MATH 110	MATH 122	CS 110	ENGG 100	ENGL 100	MATH 111	PHYS 119
CS 115	ENEL 280	ENEV 223	MATH 217	PHYS 112	CS 210	ENEL 281	ENEL 282	MATH 213	STAT 289
CS 215	CS 340	ENEL 384	ENSE 352	ENSE 374	BUS 260	ECON 201	Approve E.	ENEL 380	ENSE 353
ENEL 387	ENSE 470	ENSE 471	ENSE 475	Approve E.	ENGG 303	ENSE 400	ENSE 472	Approve E.	Approve E.
ENGG 401	ENSE 350	ENSE 477	Approve E.	Approve E.					

Notes: (NOT part of design)

- 1) Filter button is a drop down menu with multiple filter functionality. Filters includes, Faculty, Elective region, difficulty level, hot level, lecture type (online, field, classroom, with lab) etc
- 2) Difficulty level will be preliminary determined by average score in the passed semester. eg. average > 80 easy, 80 > average > 60 normal, average < 60 hard
- 3) Hot level will be preliminary determined by average time taken from course is able to register to 90% registered. eg. some takes hours, some empty up the close date.
- 4) Courses button can be clicked to go to courses detail page.



Visual Schedule Builder Plus

[Academic Schedule Builder](#)[Semester Schedule Builder](#)[Course List DB](#)

CHEM 104

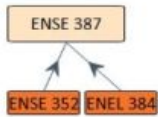
- Course Name: General Chemistry I
- Course Prerequisites: CHEM 30 or CHEM 100 (65%)
- Labels: Basic Chemistry, Time consumed.
- Course Description: *****
- Professor have taught: Dr.A, Professor B
- History Average: 66%
- TextBook: "*****" (Not required)
- Course content:
 - Quiz: Yes, offer weekly
 - Project: No
 - Filed: No
 - Lab: Yes, every two week
- Syllabus:
 - Assignment 10%
 - Lab 20%
 - Quiz: 10%
 - Midterm: 20%
 - Final Exam: 40%



Visual Schedule Builder Plus

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Example for visualizing course prerequisites:



Next up

We will be checking on how the course data can be handled as to contact with the UR IT support. And, to keep on exploring more visualization tools that can be used to improve the better usability for the website design. Next, to organize the documents in the github. Lastly, we will finish up the AWS server setup(LAMP: Linux, Apache, MySQL, and PHP), as well as to finish the HTML part of frontend.