

# Uni-Scheduler

*Creates a room table for university courses...*

## Additional information and instructions

Updated: 04/22/2019

## Overview

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Schedule builder application will design your excel file into a room schedule table. Regardless of how it is easy to read the table, it will also:

- Notify about 6 + possible errors (*for example if courses conflict with each other if the time between courses is less than 15 minutes, etc.*)
- Creates a table based on a course type (*for example, if it is hybrid, it will be in both classroom table and hybrid table*)

## Goals

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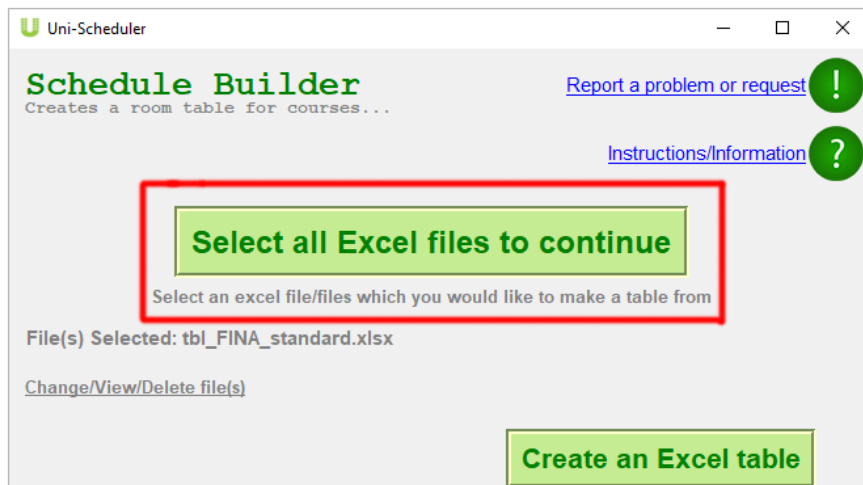
Use Python programming language to develop an academic course scheduling program that will reduce internal course scheduling process time by up to 50%

# Instructions

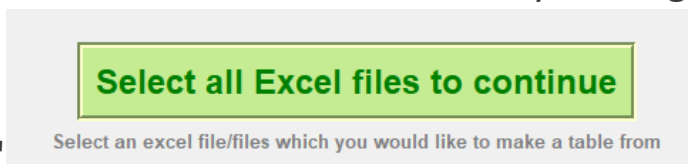
## - Downloading Instructions

Still in development

## - Program Instructions: Files manipulation



Starting from this window you will need to select at least one file by clicking

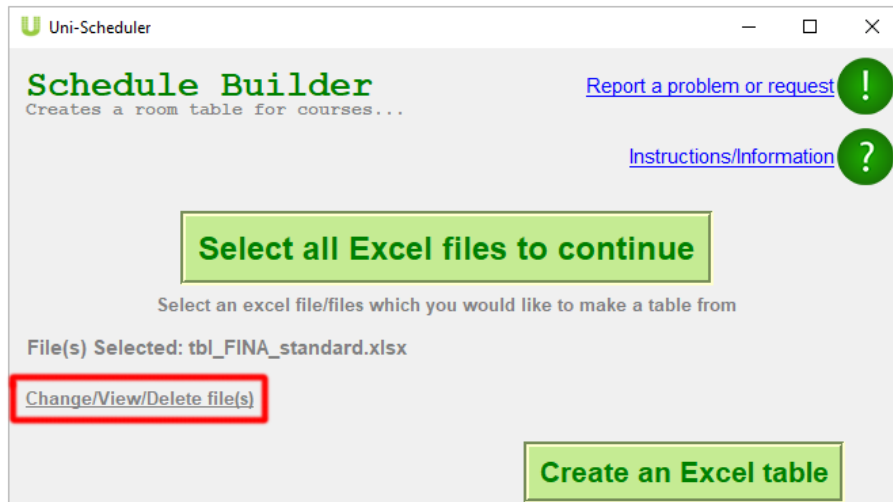


on "Select all Excel files to continue"

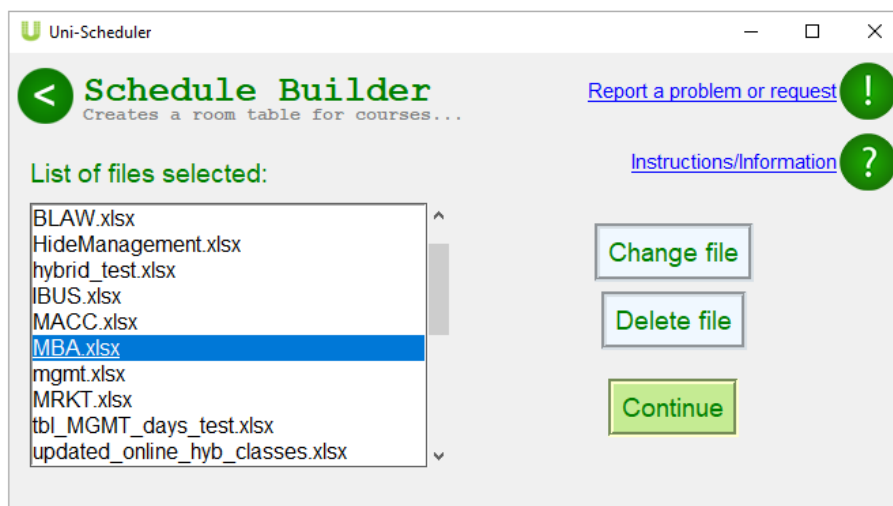
**!** Please note that you can select only excel files and it needs to follow the same format. A table example format:

	A	B	C	D	E	F	G	H	I	J	K	L	M
1													
2	<DEPARTMENT NAME><SPRING/FALL/SUMMER> <YEAR> Schedule												
3	Course	Number	Section	Credits	Title of Course	Room	Days	Time	Enrollment	Faculty	Start Date	End Date	Notes
4	IBUS	380	1	3	Prin Internat'l Busine	AH220	M	9:30-10:45	40	Hashmi, M Anaam			Hybrid

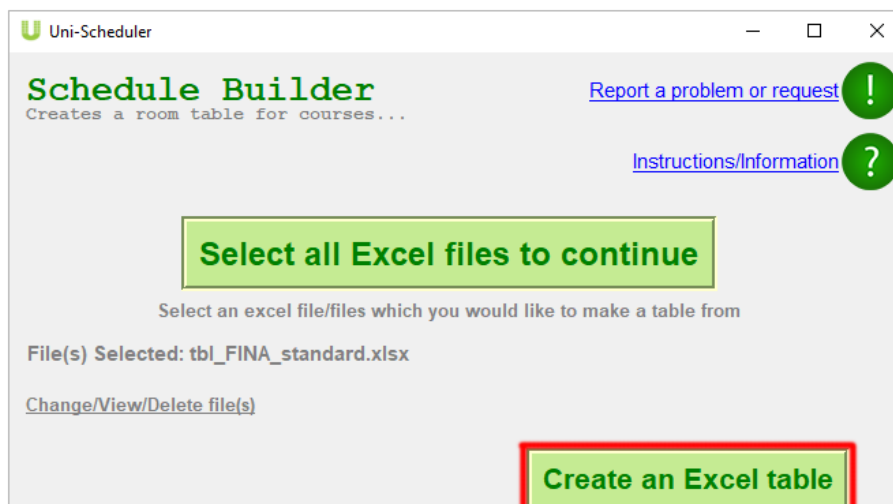
If you want to change, delete or simply view all selected file you can do it by clicking on "Change/View/Delete file(s)"



By doing so, it will move you in another window similar to this:



Press "Continue" to go back to the previous window



If you are done adding or changing files let's move to a more exciting part  
"Create an Excel table"

## - Program Instructions: Table settings

The screenshot shows the 'Uni-Scheduler' window with the 'Schedule Builder' tab. The interface includes a back arrow, the title 'Schedule Builder' with the subtitle 'Creates a room table for courses...', and links for 'Report a problem or request' and 'Instructions/Information'. Under 'Table settings', there are two radio buttons: 'Default order' and 'Days in order'. Below these are two columns of day buttons: the first column has 'Monday', 'Wednesday', 'Tuesday', and 'Thursday'; the second column has 'Monday', 'Tuesday', 'Wednesday', and 'Thursday'. There is an unchecked checkbox for 'Include Friday'. To the right, there is a text input field for 'Name the table:' with the placeholder 'Type name here...'. Below that is a section for 'Select the semester and year:' with dropdown menus for 'Fall' and '2019'. At the bottom right is a green 'Create table' button.

Before actually creating

a table, the program needs to make sure it will follow your requirements (program will allow you to create a table without selecting any of these by having default settings, but it is not recommended).

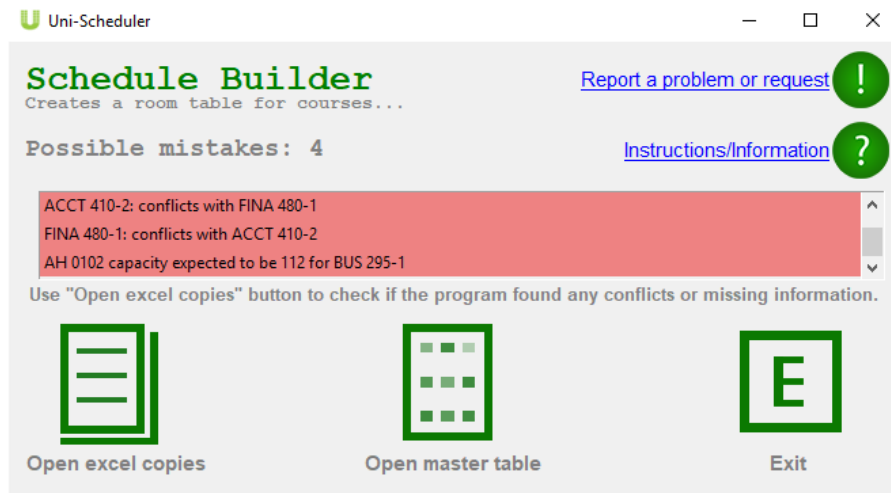
This screenshot is identical to the one above, but a red rectangular box highlights the 'Table settings' section. This box encompasses the 'Default order' and 'Days in order' radio buttons, the two columns of day buttons, and the 'Include Friday' checkbox.

The days order, and if it needs to include Friday as a day is one of the critical section in the table settings, it will result in how the blocking table will look.

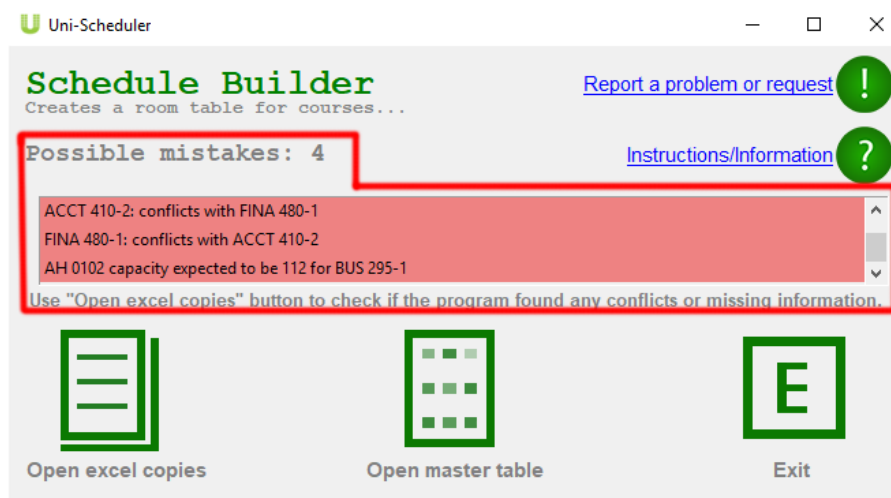
Fill out the rest of the information such as name, semester and year (*note that summer is currently not available as an option*). And let's create a table by pressing "Create table"

## - Program Instructions: The table is ready!

The process of creating the table shouldn't be long. Now you will either have a window with errors or window with no errors.



Let's take a scenario where we have errors.



The program can find multiple types of errors and most important ones will show on this small window.

All types of errors are:

- Course conflicts with another one.
- The course has less than 15 minutes difference than another one
- Course capacity does not match what is says on the university website

- Missing data on cell

**Red** – Important (could be missing of data, but the program will still try it best to fit it)

**Purple** – Information could be wrong (it suggest to check the information double)

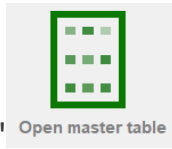
**Yellow** - Missing data and others (not an issue for the program, but suggest to fix it)

While this window will show only red type errors, you can add additional errors by opening



"Open excel copies" [Open excel copies](#) which is highly essential. It will open all excel files where you will be able to see exactly where an error happen with a comment with additional details is. Which will look something like this:

MGMT	300	7	3	Intro to MIS	MH209	MW	8-9:15	36	Kaliski
MGMT	MGMT 300-8: conflicts with MGMT 441-1			Intro to MIS	MH209	MW	9:30-10:45	36	Kaliski
MGMT				Intro to MIS	MH102	TH	11-12:15	25	Kim(LC)
MGMT				Creativity & Innovation	MH209	MW	3:30-4:45	36	Bowyer



Clicking on "Open master table"  will result in opening a blocking table which will look similar to this

Term: Fall 2019		08:00	09:15	09:30	10:45	11:00	12:15	12:30	12:45	01:45	02:00	02:10	03:15	03:20	03:30	04:45	05:00	05:20	06:00
MH 0102	Monday					FINA 362-2				MGMT 230-2					ACCT 200-1				
	Wednesday																		
	Tuesday			ACCT 210-4 / ACCT 210-40															BLAW 476-2 ends at 08:30
	Thursday																		
TC 0080	Monday																		
	Wednesday																ACCT 210-3 ends at 06:15		
	Tuesday																		ACCT 200-4 ends at 07:15
	Thursday																		
AH 0220	Monday							ACCT 210-2 / ACCT 210-40											
	Wednesday																		
	Tuesday			ACCT 200-40							BLAW 452-1				ACCT 200-5				
	Thursday																		
AH 0216	Monday																		
	Wednesday																		MGMT 230-1 ends at 08:45
	Tuesday					ACCT 200-8													
	Thursday																		
AH 0320	Monday																		
	Wednesday																		
	Tuesday			ACCT 330-1		ACCT 210-5													
	Thursday																		
MH 0211	Monday			ACCT 301-2		ACCT 400-2		ACCT 300-2			ACCT 301-1				ACCT 300-1				
	Wednesday																		
	Tuesday					ACCT 330-2					ACCT 300-3								
	Thursday																		
AH 0123	Monday																		
	Wednesday																		
	Tuesday														ACCT 400-1				
	Thursday																		
MH 0209	Monday							BLAW 477-1											
	Wednesday																		
	Tuesday																		
	Thursday																		
MH 0208	Monday	FINA 462-1		FINA 362-1		FINA 480-1		FINA 461-1			FINA 362-3				FINA 362-4				
	Wednesday																		
	Tuesday				FINA 362-8		FINA 460-2				FINA 375-1								FINA 493-1 ends at 08:45
	Thursday																		
MH 0208	Monday					FINA 467-1		FINA 362-6		FINA 460-1		FINA 462-2			FINA 362-5				

ACCT

BLAW

BUS

FIN

MGMT

Classroom Table

Classroom - 2nd Session

Online Table

Telepresence Table

*Note that this table will also create a schedule for other types of courses such as online, hybrid, telepresence, etc. Also, it will split course sessions if it exists.*

## Final Note

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### - Project is open source

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This project is open source which means that anyone who interested can either download or make changes to the project which is great because any student worker who knows a bit of coding will be able to be a part of it.

<https://github.com/igorneaga/schedule>

The main reason for this program is to help reduce the amount of time developing a class schedule/find available room, conflicts, and others.

It will be very appreciable if you could [share your feedback or any ideas!](#)

Thank you!