Conflict Checker

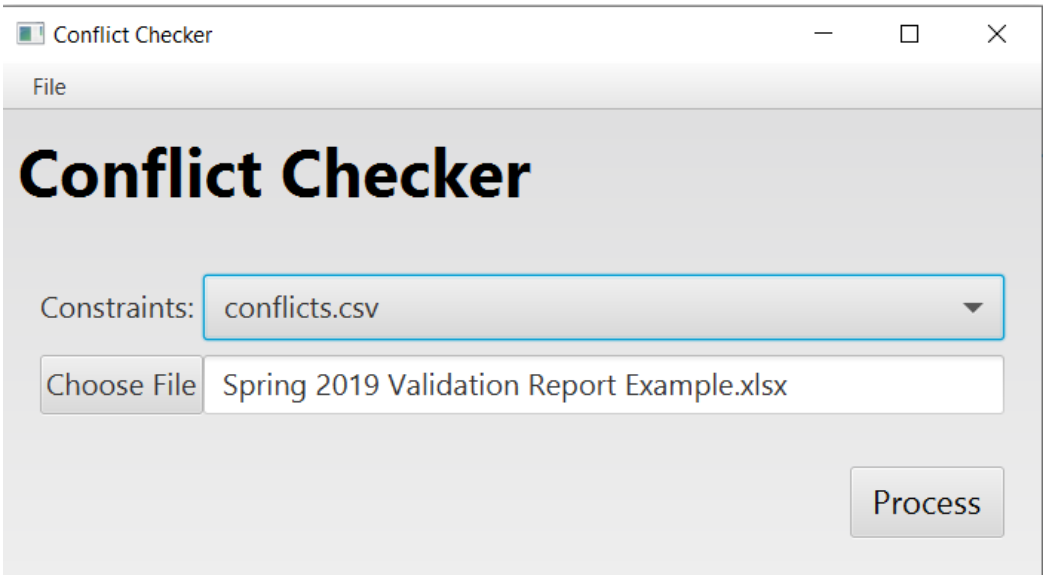
And How to Use it

So you want to start using the Conflict Checker? Below is a tutorial detailing all you will need to know to begin using this application.

1) Open the application ** FINISH THIS SECTION ONCE DEPLOYED **

   ** Picture **

2) A Graphic User Interface (GUI) will be opened with all the capabilities necessary to check for conflicts.



3) In order to check for conflicts, they must be determined in a conflicts.csv file. The file must be saved as a csv to work properly, but if you are using excel, you should be able to open, edit, and save your conflicts without any problems as a csv.
   a. Each individual conflict is defined as a row in the conflicts file, while each line begins with the priority of that conflict. e.g.:

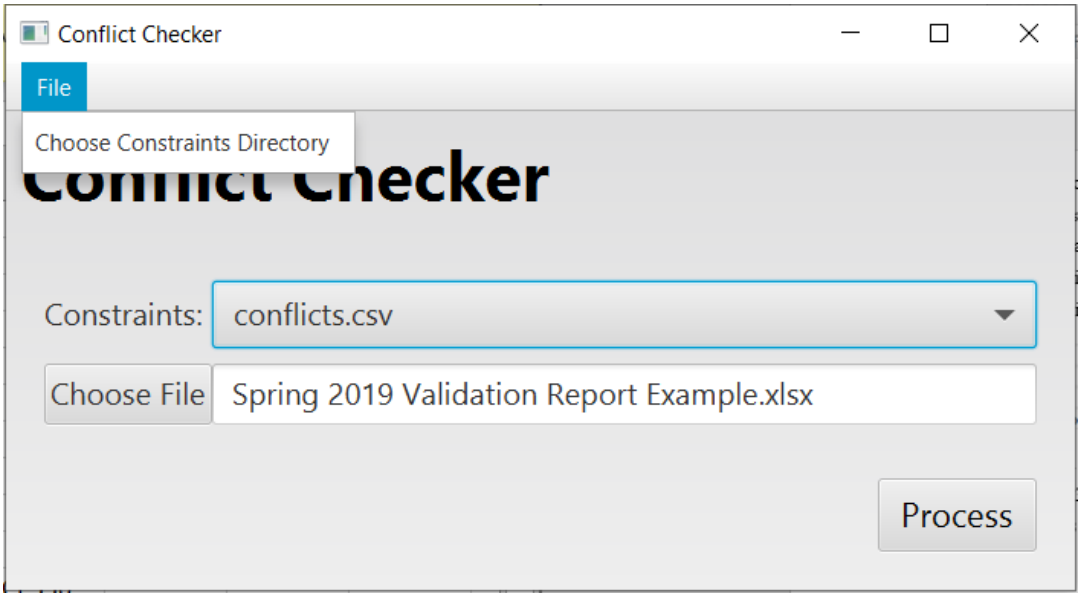
17	Priority	CS-HU153	CS221	ECE230	ECE330			
18	Priority	CS-HU250	CS253	ECE230	ECE330			
19	Priority	CS-HU250	CS271	CS310	CS390	ECE230	ECE330	
20	Non-priori	CS361	CS430	CS472	CS474	CS457	CS464	CS450

   b. On line 17, we are defining a Priority conflict that enforces CS-HU153, ECE230, and ECE330 cannot be scheduled together

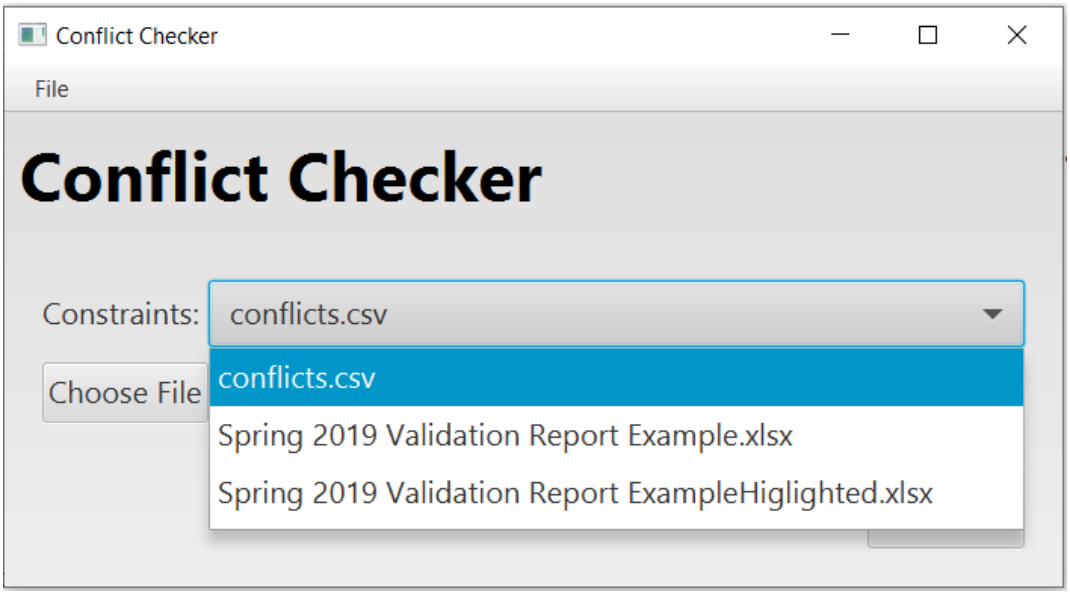
c. Conflicts should be defined with their class code only. No other information.

4) The next step in the process is to tell the Conflict Checker where your conflicts.csv file is.

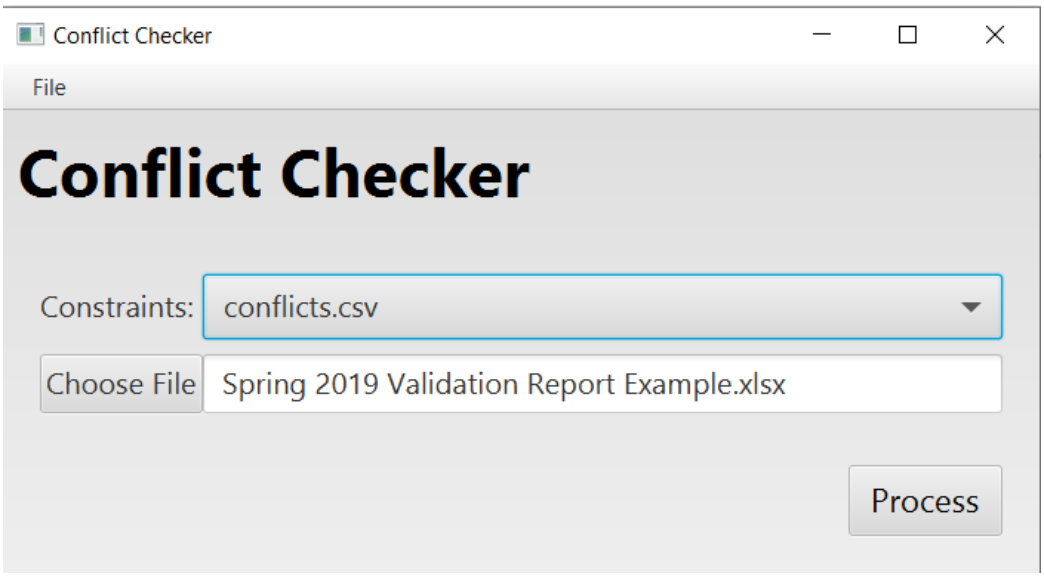
a. Taking a second look at the GUI, if you click “File”, the option “Choose Constraint Directory” should appear.



b. Click that and navigate through the file chooser to where your csv file is located.



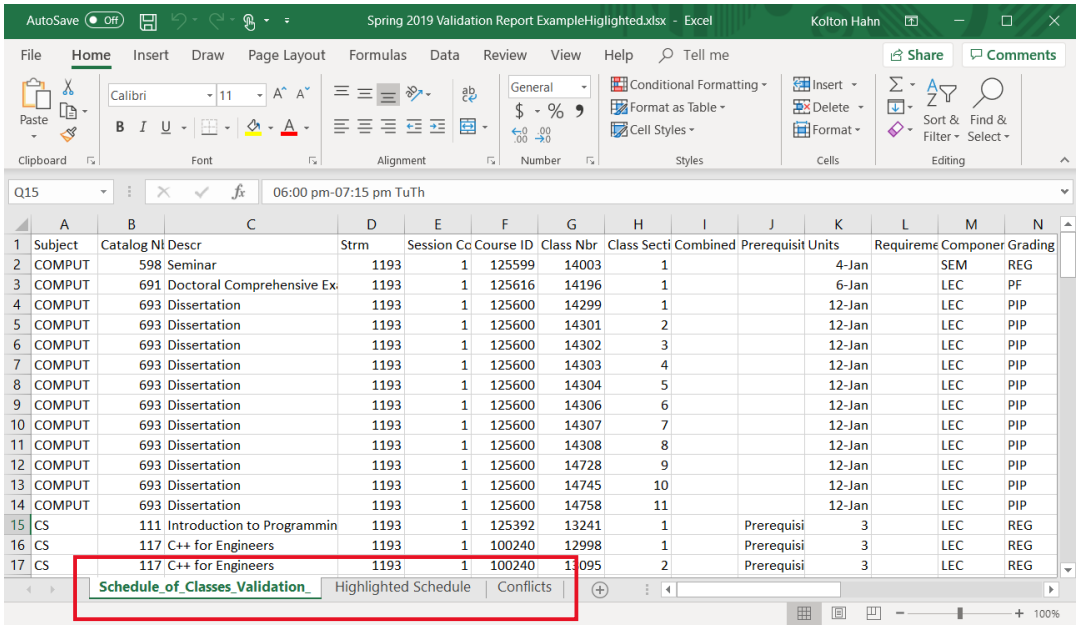
c. On the main GUI, select the conflicts file you have just created.



d. Finally click "Choose File" and select the .xlsx file that contains the current schedule from PeopleSoft that you would like to check for conflicts from. Finally click "Process" and let the program do its magic!

5) After selecting the necessary files, and clicking "Process", Excel will automatically open that contains the original schedule, a highlighted conflicts schedule, and a tree version of the conflicts. Below is how to read and use each of these.

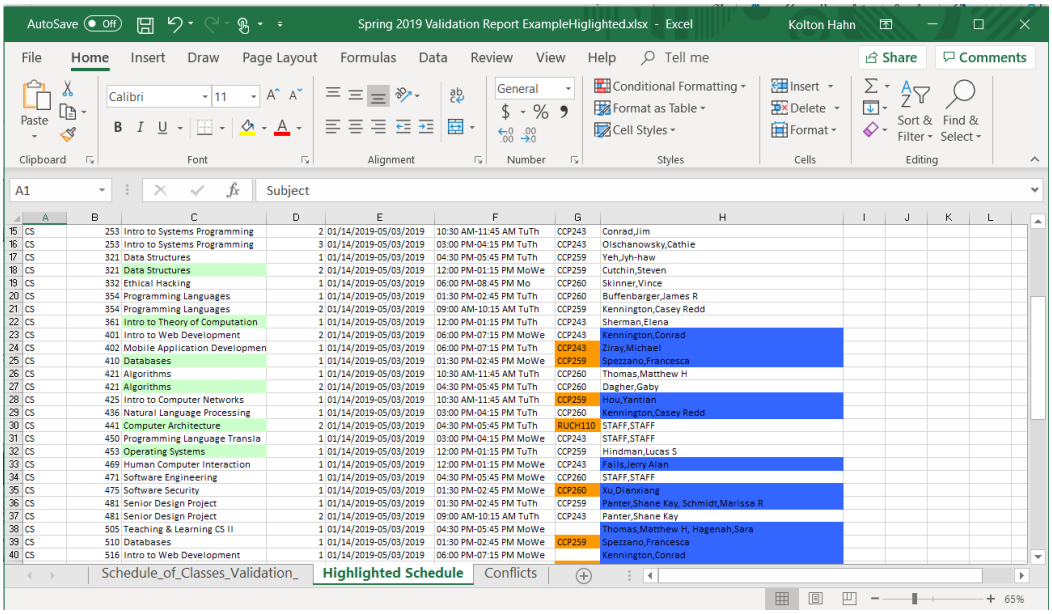
a. First off, the excel file opens on the tab containing the original file, so nothing should appear different except for the new tabs on the bottom:



b. Second in the line of Conflict Checker features is the “Highlighted Schedule” tab seen above. This tab contains an overview of the conflicts by reducing redundant columns and highlighting what is causing a conflict in any given row

   i. Green = Constraint Conflict; Orange = Room Conflict; Blue = Instructor Conflict.

   ii. Constraint Conflicts indicate an error with the file you created for the program, Room Conflicts indicate that a room is double booked, and an Instructor Conflict indicates an instructor is expected to be in two classes at one time.

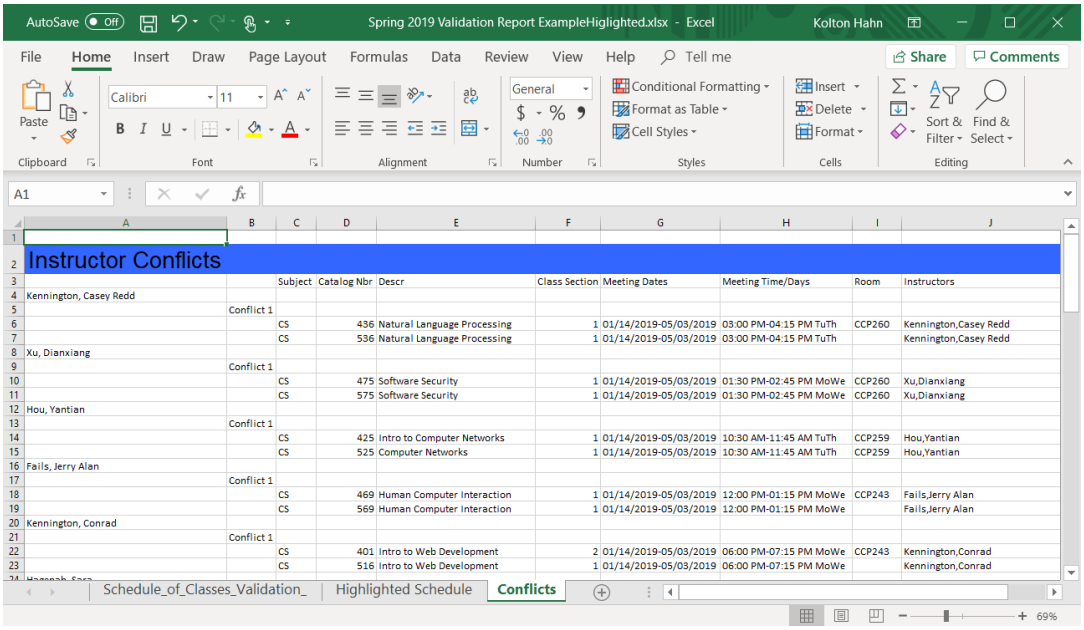


c. Finally, we have the tree view under the tab “Conflicts.” This view will likely make narrowing down where a conflict is coming from the easiest.

   i. In this view, each conflict is separated into three groups: Instructor, Room, and Constraint Conflicts. From there, the left most line indicates the exact reason for the conflict.

   ii. If you follow the ‘tree’ structure depicted below, you can see which classes have invoked that conflict. Looking at this one, most the information you could need to detect conflicts should be readily apparent:

Continues on next page



	Subject	Catalog Nbr	Descr	Class Section	Meeting Dates	Meeting Time/Days	Room	Instructors
Kennington, Casey Redd								
Conflict 1								
	CS	436	Natural Language Processing	1	01/14/2019-05/03/2019	03:00 PM-04:15 PM TuTh	CCP260	Kennington,Casey Redd
	CS	536	Natural Language Processing	1	01/14/2019-05/03/2019	03:00 PM-04:15 PM TuTh		Kennington,Casey Redd
Xu, Dianxiang								
Conflict 1								
	CS	475	Software Security	1	01/14/2019-05/03/2019	01:30 PM-02:45 PM MoWe	CCP260	Xu,Dianxiang
	CS	575	Software Security	1	01/14/2019-05/03/2019	01:30 PM-02:45 PM MoWe	CCP260	Xu,Dianxiang
Hou, Yantian								
Conflict 1								
	CS	425	Intro to Computer Networks	1	01/14/2019-05/03/2019	10:30 AM-11:45 AM TuTh	CCP259	Hou,Yantian
	CS	525	Computer Networks	1	01/14/2019-05/03/2019	10:30 AM-11:45 AM TuTh	CCP259	Hou,Yantian
Fails, Jerry Alan								
Conflict 1								
	CS	469	Human Computer Interaction	1	01/14/2019-05/03/2019	12:00 PM-01:15 PM MoWe	CCP243	Fails,Jerry Alan
	CS	569	Human Computer Interaction	1	01/14/2019-05/03/2019	12:00 PM-01:15 PM MoWe		Fails,Jerry Alan
Kennington, Conrad								
Conflict 1								
	CS	401	Intro to Web Development	2	01/14/2019-05/03/2019	06:00 PM-07:15 PM MoWe	CCP243	Kennington,Conrad
	CS	516	Intro to Web Development	1	01/14/2019-05/03/2019	06:00 PM-07:15 PM MoWe		Kennington,Conrad

Now that is all you need to know about the Conflict Checker! Delving into the program and exploring some of its functionality is the best way to become familiar with its features.

If you do need more information, refer to the project's README which contains some information on individual files.

Good luck with your scheduling needs!

Authors: Caleb Cook, Jordan Paoletti, Kolton Hahn

Developed for: Boise State Computer Science Department