Initial Requirements:

**Domain Knowledge**

FIC holds classes Monday – Friday (possibly Saturdays). There are three time slots per day

* AM: 8:30am – 12:30pm
* PM: 1:30pm – 5:30pm
* Evening: 5:45pm – 10:45pm

Each course is scheduled into one of the time slots in the week (with a few exceptions)

**Problem**

Build a course schedule based on the input files

* Summer 2023 Teaching Schedule.xlsx (Sheet 1)
  + These are the courses that need to be assigned to an instructor
* Summer 2023 Timetable Survey.xlsx
  + A survey sent out to all instructors the “checked” boxes are times that they are not available to teach
  + A database of teachers who are eligible to teach specific courses will be provided

The output will consist of

* Instructor assigned to a course and a time slot that they are available for
* Assign a Room

Constraints:

* Some courses must only use specific classrooms (i.e. CMPT course must use computing labs)
* Some courses have:
  + A 4 hour block and a 2 hour lab block
  + Only 2 hour block
    - Each time slot can accommodate 2 lab times (i.e. 8:30am – 10:30am, 10:30am – 12:30pm)
  + Two 4 hour blocks
* For programs where students must take specific courses at the same time to graduate (Engineering, for example), we need to make sure that there are combinations of classes available, such as:
  + CMPT130, PHYS140 & MATH151
  + MATH100/151 & CMPT115
  + MATH151 & CMPT120
  + MATH152 & CMPT125

This also applies to corequisites, such as

* + ENSC100 & ENSC105
  + ILSA101 & ALAC099
  + ILS101 & ALC099
  + INTG100 & ILS/ILSA (some combination students can choose)
  + CNST101 & CNQS101
* For each course, there is a priority list (seniority list), you can keep this in the database