Here is the data for the University of Canterbury 2016 timetable as well as the student clashes currently in the system this year.  I have also included location sizes so that the constraint of being able to fit all the students into the room is visible.

The challenge for you is to reduce student clashes by shifting class times without clashing rooms or teaching staff.

In reality there are other constraints as well not included in this data:

* Staff availability and time constraints (not too many lectures in a row, some staff are part time…)
* Location properties (AV, Echo recording, flat/tiered etc.)
* Course constraints (tutorials after lectures, one day between lectures etc.)