Database

4.1

Within the database, it’s very important to note that the active user using the app will have a corresponding ID number. This is will be used during the user’s process throughout their activity time. Thus any action will correspond to that user ID. When accessing the database, the user is detected to be either admin or students. The database however, is commonly used when the user is a student, thus allowing them to view/change their schedule from the database.

Going further into the student objects, it branches out into 2 separate blocks: registered and program. Registered block contains the list of the courses the student is currently enrolled in. Furthermore, the sections block is used to represent the enrolled course’s sections which include: lecture, tutorial and labs. The reason sections, tutorials and laboratories blocks are linked to the registered block is to achieve a quicker access to the saved course, as courses within the registered block will have an existing section ID which includes tutorial and labs ID if possible. This method is preferred over accessing the section block first followed by accessing the tutorial/labs sections when accessing the database.

The other path: program will allow the student to access the correct program sequence according to the corresponding program. This option is selected when the student wants to add a new course to their schedule. Following the program block is the programsequence block which contains the list of course within the program’s sequence. Once in the course block, it branches out into a few other blocks: subject, coursecorequisite and courseprequisite blocks. The subject block returns the code of the course selected from the, ie: SOEN341. The courseprequisite and coursecorequisite blocks contain any possible pre/corequisite of that selected course.

Furthermore, the courses block is linked to the sections block , in order to finally insert the course into the schedule with the same ID as the original user.

4.2

* **Users** : Contains a list of every users of this application.
* **Admins**: Contains list of every “admin”-type in the users table
* **Students**: Contains list of every “student”-type in the users table
* **Registered**: contains list of registered courses for a selected student
* **Program**: contains list of every program in Concordia
* **Programsequence**: list of courses for a selected program.
* **Courses**: Contains details of a selected general course. Details contain: code, co-requisite, pre-requisite and section. This does not contain the availability of the class for a semester.
* **Subject**: Similar to program table, however contains the code rather than the name.
* **Courseprequisite**: contains list of courses that are pre-requisite of a selected course.
* **Coursecorequisite**: contains list of courses that are co-requisite of a selected course.
* **Sections**: contains a list of every lecture sections of selected course.
* **Semesters**: contains details of start and end date of a selected course in the selected semester
* **Lectures**: contains details about a selected lecture section (room #, start time, end time)
* **Tutorials**: contains a list or every possible tutorial sections of the selected lecture section (if exists) and their details.
* **Laboratories**: Contains a list of every possible laboratory section of the selected lecture section (if exists) and their details