

Cmpt 470 Project Proposal

BackStory:

We have all suffered from “terrible” school schedules. This may include an 10:30-11:20 class, followed by a 5:30-8:20 class in the same day. It may also mean making the trek up Burnaby Mountain for a single hour long tutorial. These schedules are inefficient, exhausting, and cut down our time to study and simply live our lives.

The Idea:

The end goal of this project is to create a program that helps create optimal school schedules for students. The program will hook into a school’s database of offered courses. The program will also hook into the student’s record to determine what courses they’ve taken and what courses they should take. From there the program will come up with a list of courses that it suggests that the student should take for the next semester and will present them in a “nice” schedule. The idea of a nice schedule is that it tries to avoid large time gaps between classes, school days with only one class, and other unpleasant scheduling faults.

User Preferences:

These would mainly be an add-on but we believe that a “good schedule” is subjective. Different people have different things going on in their lives and we would like to help them organize their school life accordingly.

We have a few ideas so far, but we would like the user to dictate how many courses they are willing to take during the semester and what times or days they would be free to take classes. The user may also have this course that they are really excited to take and all schedules must include this course. After the user inputs their preferences our program would go to work and generate a list of potential schedules for the user to see.

Interface:

We’re still working on what exactly the interface would look like. One idea is to have some sort of input or login for the user. This would then lead the user to a sort of form with a list of preferences for the user to fill out. Once the user has filled out the forms the program will generate a list of schedules, possibly with a graphical time grid format.

Backend:

We understand that we will be facing a sort of knapsack problem when it comes to building optimal schedules. There are some online algorithms that will help us with this. We hope to use django as the technology for this project.

Why:

We hope that an application like this will help people utilize their time more efficiently. With more time they could study more efficiently and improve academic performance.