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### **Project Proposal: Schedule Finder**

Schedule Finder is a tool to help University of Washington students decide their course schedules for the rest of their stay in UW. It can be used in two ways:

- (i) By providing the major and graduation date - schedule finder would find an optimal solution for you every quarter, ensuring a manageable workload each quarter, and also ensuring that you fulfill all the requirements by the intended graduation date.
- (ii) By providing a list of classes the student is interested to take.

Once a schedule is decided and approved by the student, the schedule finder would also enroll you into those classes.

Schedule Finder would be a great help to the students of University of Washington. With schedule Finder, students wouldn't have to get up at 6:00 in the morning to register. They could approve their schedules the night before, and Schedule Finder would register for them in the morning. Students wouldn't have to worry about missing out on important class they needed to take and not graduating on time. Students would also save time hunting through classes to make sure none of them clash with each other.

This project is worth developing as there is nothing so convenient out there for the students. This would greatly reduce the stress of registration week. The only competitors and alternate solution out there is for students to register by themselves, which is clearly not ideal.

There is great scope for this project to become even bigger in the future - for instance, students could mention the major they are trying to get into, and schedule finder could find schedules for them which satisfy the requirements to apply for the major. Schedule Finder could also suggest additional non-required classes that the student could take which would help them get into the major.

#### **Challenges:**

The biggest challenge we will most likely face is how do we know future time schedules? Time schedule for a particular quarter is easy to figure out. Knowing future time schedules is very essential for our program to work. There are ways we have thought of that give us our best chance:

In the course catalog, for many majors along with a course description for each course, the time when a course offered is given for each course. This can be of great benefit for to plan schedules ahead of time. Furthermore, many majors/departments, such as even CSE, release 'tentative schedules' ahead of time which would also be of great

benefit to us. Lastly, we can always predict which course is going to be offered when by looking at past schedules. This is not perfect, thus we will have to let the user know of the uncertainty and provide alternatives in case this fails.

In all cases, maintaining the program for curriculum changes, course catalog changes, is absolutely necessary.

### **How to Solve the Problem:**

The basis of the tool will be a graphically based executable program that will allow the user to input either a list of desired classes or a major to be automatically filled out with suggested classes using UW's DARS information. We will take the list of classes and after finding the time schedule of the classes for the near future, predicting those time schedules that haven't been determined, and taking note of each class's prerequisites, try to find a plan for how to fit every class into a schedule. In addition, it will have the option of registering for classes for you - either through schedule finder or through a more direct method accessing UW's classes database if possible, trying at first for one set of classes but adjusting as classes fill up to other options from the list of classes they are planning to take - similar to the UWrobot website, but free of charge.