

Data Management Systems

Project Phase 1

Jonathan Gillett	100437648
Joseph Heron	100425488
Amit Jain	100449233
Wesley Unwin	100370215
Minou Jhin	100434662

Problem

Currently there is limited study space available for students at the University of Ontario Institute of Technology. Although the amount of study space available on campus is limited, there are many rooms that are used for lectures and tutorials, which are available for students to use when there are no classes scheduled. At the moment, there is no easy way for students to identify which rooms are free and at which times the rooms will be used for a class, often students will spend a lot of time searching for an available room only to have it for a short period of time before it is needed for a class.

Our proposal is to provide a web application to help students easily find available rooms on campus and to identify how long the room will be available. Not only would our program help students find rooms to use for studying, it would also allow help clubs find rooms to use for events and meetings.

Goals and Motivations

The goal of our project is to provide an easy to use web application to help students and clubs find available rooms on campus to use. Currently, the process of scheduling a room for events and meetings for clubs can take anywhere from several weeks to a month, which is often far too long if a meeting is scheduled for an earlier date. As for students, there is currently no practical way to find a study room other than booking a room at the library, which has a limited number of study rooms available.

Related Work

As stated previously, the only feasible way for a club to schedule a room for events and meetings is through the Student Association, which can take anywhere from several weeks to a month. As for students the only practical way to find a study room is to book a room at the library, through a page on

their website, which has a limited number of study rooms available; or to search for an available room on campus manually.

The existing methods of finding available rooms on campus differ from our proposal as there are often long delays before a room can be scheduled, or in the case of students a limited number of rooms at the library which can be booked online. Our proposal is to provide an easy to use web application, which streamlines the process of finding available rooms on campus, as students can quickly search for available rooms and view information regarding the duration the room will be available for use.

Methodology

The university has a public site that can be used by students to search course information, the initial stage of our project will be to use this site to view the detailed course information for every course on campus. In order to make use of this information we will write a parser to parse all of this information and then create a complex relational database, which contains all of the information for every course on campus, including the rooms that are used for each course and the dates and times the rooms are used. The next stage of the project will involve writing queries for the relational database to find available rooms given a specified time and date. Finally, the last stage of the project will involve creating a web interface, written in PHP, which will allow students to search for available rooms given the date and time they need a room. By default it will search for all available rooms at the present date and time, but will have options such as specifying the date, time, and building.

For our project we are planning on using the following technologies:

- LAMP Stack (Linux, Apache, MySQL, and PHP)
- Python
- HTML
- CSS
- Javascript
- JQuery (very useful JavaScript library)