



SOF3700U – Data Management

Group 11 - University Database Management System

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Table of Contents

1.1 Project Information

1.2 Goals and Motivation

1.3 Methodology

1.4 Related Work

2.0 Appendix

2.1 Ontario Tech University Website

2.2 Ontario Tech Canvas

2.3 Ontario Tech MyCampus

2.4 Carleton University Website

1.1 Project

The project our team has decided to work on is a university database management system. In this project we will use the database to achieve a simulation of a real-life university database system. The database will be created to be used by many different users that will interact with the database in a university environment. It will demonstrate a working database system for different departments in the university such as the registrar office and different departments for specific majors. The university database system will also simulate how each student will be enrolled into their courses for the semester and a view for what courses they are enrolled in and can also view their transcripts as well. Each person that's part of the university will have a different role at the university and will access to the database for their unique purpose. The database system will keep track of all the students, professors, courses, and the administrators in the university. Each person/department will have different permissions for the database. An example of our database system function will be an administrator in the registrar office that will allow a new student/returning student to be placed in the database. Once the student is enrolled at the university, he/she can register for the courses that are available for their specific major.

1.2 Goals and Motivations

Our goal is to demonstrate a working and user-friendly database application that different users at a university will interact with the database. As students at Ontario Tech university, our group has always been curious about how the university's website is constructed and what challenges they faced when constructing a database system. Our group is looking forward to expanding our knowledge and learning the techniques/concepts that are required to build a database and how each entity interact among themselves. Our group feels this project gives us a scenario of a real-life working environment and helps us simulate a working environment to gain valuable experience.

1.3 Methodology

Our group will be working on the project in a work-live environment, due to COVID-19 pandemic all our meetings will be online. All/most of our meetings will be done on Discord where we have a dedicated server to ask any questions or issues that arise. As for coding, we will be using GitHub to upload most of our work BUT only the team lead will be able to update the codes that are published online. The project will be divided into a divide conquer like method. Each person in the group will be given a task to complete biweekly and once the task is done, the team lead will integrate it into the final project. Our team has decided to break down our team into 3 different roles, team lead, front-end, and back-end. Each person in our group has different skills they have acquired throughout their courses they have taken at Ontario tech and decided each member should apply their strongest skill they have attained to the project. Our team currently consists of 1 team lead, 2 back-end, and 2 front-end developers based off the skillsets our group has. Our team will be meeting each week throughout the semester to give an update on the project. Before our team starts implementing any code or setup the database system, we will construct a design and analysis for the project. Our team will construct formal requirements that will be implemented for each of the database system. Once the designing and modeling for the project is done, we can start to implement the model into code and start constructing our database.

1.4 Related Work

There are a couple of related databases/websites that we can use as reference to our work. We have been investigating the Ontario Tech university MyCampus webpage and have been using that as a reference on how each entity are connected and what user will have which view of the application. We have been investigating the different portals on the Ontario Tech website. The portals we have been studying are the canvas page for students/professors and the MyCampus portal for students and administrators. Another reference our group will be using is the Carleton University webpage, both the references webpage is

shown in Appendix 2. The references will be used in modeling and constructing our database system. Our project will be using the references we have at our disposal and will apply the techniques/concepts that are learned in this course to a real-life application of the university database system. The final product of our database will take the positive and strengths of our references and will be used to apply them to achieve a user-friendly working database that will differ from our references.

2.0 Appendix

2.1 Ontario Tech University Website

COVID-19 information and screening
Learn how we're keeping our campus community safe, healthy and engaged during our gradual return to campus.
Note: The university's mandatory vaccine directive is now in effect. [Learn more about vaccine requirements.](#)

Ontario Tech acknowledges the lands and people of the Mississaugas of Scugog Island First Nation.

QUICK LINKS

OntarioTech
UNIVERSITY

ABOUT FUTURE STUDENTS CURRENT STUDENTS FACULTY AND STAFF PARTNERS RESEARCH GIVING ALUMNI

Virtual Open House

Our next Virtual Open House takes place Saturday, October 23, starting at 1 p.m.

[REGISTER HERE](#)

SAY HELLO AT OPEN HOUSE

Student Relief Fund

2022-2023 Undergraduate Domestic and International Digital Viewbook(s)

Vaccines

Connect With Us Hub

Find a program

[VIEW ALL PROGRAMS](#)

Ontario Tech University offers a diverse array of undergraduate, college-to-university transfer, and graduate programs. Explore our programs below to start your journey!

Welcome! If you are interested in an undergraduate program at Ontario Tech, I'm happy to help!

2.2 Ontario Tech Canvas

Account

Dashboard

Courses

Groups

Calendar

Libras

History

Recent Feedback

Discover

Resources/1

Library

Dashboard

202109 - Natl Foundn for Inform...
202109 - Natl Foundn for Inform...
Fall 2021

202109 - Systems Programming...
202109 - Systems Programming...
Fall 2021

202109 - Software Design & Archi...
202109 - Software Design & Archi...
Fall 2021

202109 - Micropro. & Comput...
202109 - Micropro. & Comput...
Fall 2021

202109 - Design & Analysis of Algo...
202109 - Design & Analysis of Algo...
Fall 2021

202109 - Data Management Syste...
202109 - Data Management Syste...
Fall 2021

202105 - Introductory Sociology...
202105 - Introductory Sociology...
Spring/Summer 2021

202105 - Impact of Sci & Tech on...
202105 - Impact of Sci & Tech on...
Spring/Summer 2021

Ontario Tech - Science Cafe 2020...
Ontario Tech - Science Cafe 2...
Fall 2021

FEAS/FEENS - Upper Year Acade...
FEAS/FEENS - Upper Year Ac...
Fall 2021

To Do

Nothing for now

Recent Feedback

- ✓ [Assign Design Patterns](#)
202109 - Software Design & Architecture - 202021
12 out of 15
"Only one comment and several 2-3. Professors should show their caring!"
- ✓ [Section 001-LAB 2](#)
202109 - Data Management Systems - 102121
13.5 out of 15
"There is no indication on the DB to indicate whether or not it's a test or partial participation in this."
- ✓ [Midterm Assignment](#)
202109 - Data Management Systems - 102121
48 out of 50
[Click here to view the report on work...](#)

[View Grades](#)

INSTRUCTURE

Privacy policy [Accessibility Policy](#) Facebook Twitter

2.3 Ontario Tech MyCampus

MyCampus

My Account

Welcome Abdul Basit

You are logged in

OT Undergraduate

OT Documents

OT Student Life

OT Awards and Financial Aid

OT Services

OT Applicant

Self Service Options

IT Service Desk

OT Student Email

OT Canvas

Logout

Help

October 17, 2021

ARE YOU OK?

The university has many resources available to help you when you are not OK.

IMPORTANT INFORMATION

MYCAMPUS SELF-SERVICE OPTIONS

Some users are currently experiencing login issues while trying to access self-service options in MyCampus.
If you are experiencing this issue, you will need to log in through either **Firefox** or **Safari**, as these are the **only** supporting browsers at this time.

NEW PAYMENT OPTION AVAILABLE

Use the **PayPin** service by **TouchNet** to pay the balance of your tuition by debit/credit card. To find this option:
Navigate to the **helpful links** channel on the right side of this page.
Under the **paying your fees** heading, select **payment options** then **pay with debit/credit card**.

2021-2022 FALL & WINTER SEMESTER INFORMATION

Fall semester important dates and deadlines

- Monday, September 20**
 - Fall semester fees are due in full.
 - Last day to add courses in the fall semester.
 - Last day to drop fall semester courses for a full refund.
- Monday, October 4**
 - Last day to withdraw from fall semester courses without receiving a grade. Courses dropped after this date will be recorded with a grade of W to indicate withdrawal.
 - Last day to drop fall semester courses for a 50 per cent refund of tuition fees.
- Monday, November 15**
 - Last day to withdraw from fall semester courses. Active courses after this date will be graded.

Ontario Tech Ucard

- The Ontario Tech Ucard has been launched! It's a newly designed, digital version of the university's campus ID card. Download and sign into the **Ontario Tech Mobile** app to access your Ucard.
- If you have haven't applied for your Ucard yet, visit the **Ucard** web page to do so.

Universal Transit Pass (UT Pass)

- UT Passes are now issued separately from your Ucard, through the **PRESTO E-Tickets** app. To access your pass, sign into the app using your student (ontarotechu.net) email address.

CAMPUS ALERTS

No current alerts

HELPFUL LINKS

PERSONAL INFORMATION

- Name/gender change form
- Consent for electronic T&A
- Change PIN
- Social Insurance Number collection - mandatory
- Update address and phones
- Update email
- Update emergency contacts

PAYING YOUR FEES

- Account detail by term - OSAP students
- Account summary by term
- Payment options
- Payment and refund deadlines

REGISTRATION

- Plan Ahead
- Add/Drop Classes
- Look up classes to add
- Student Schedule
- Registration fee assessment
- Laptop registration
- Check your registration status
- Personalized exam schedule
- Application for graduation
- Campus bookstore

STUDENT RECORDS

- View holds
- Final grades
- Academic standing request for review
- Academic Transcripts

2.4 Ontario Tech MyCampus Add/Remove Course

Ontario Tech University

Student

Registration

Select a Term

Browse Classes

Browse Classes

Enter Your Search Criteria

Term: Fall 2021

Subject

Course Number

Subject and Course Number

Open Sections Only

Academic Learning & Success

Adult Education & Digital Tech

Applied Bioscience

Automotive Engineering

Biology

2.5 Carleton University Website

The screenshot shows the Carleton University website homepage. At the top is a navigation bar with the Carleton University logo, a 'Current Students' link, a search bar, and a menu of links: Academics, Finances, Employability, Campus Life, Wellness, Online, Faculty & Staff, News, and Events. A red banner below the navigation bar reads 'Visit Carleton's COVID-19 website for latest updates.' The main content area features a large background image of trees with autumn foliage. Overlaid on this are several key sections: 1. 'Exam Schedule Now Available' with a 'Learn More' link. 2. 'MY CARLETON LOGIN' with fields for Username and Password, a 'Login' button, and a link for 'forgot password?'. 3. 'Student Notices' with links to 'Access to Campus Protocols' and 'Virtual Fall Career Fair'. 4. 'Student Headlines' featuring a story about 'Carleton360: Your Complete Student Experience Hub' dated September 2, 2020, and a 'Read more' link. 5. 'Important Dates' showing 'OCT 25 Mon' as a fall break with no classes, 'NOV 12 Fri' as the last day to request formal examination accommodation forms, and 'NOV' as the last day for receipt of... Below the headlines, there are four small featured items: 'Take-Home Exams: the Essay (CSAS Webinar)', 'Exam Schedule Now Available', 'Using cuScreen to Access Campus', and 'Epic Bingo - October 20'.

Carleton University

Current Students

Services Search

Academics Finances Employability Campus Life Wellness Online Faculty & Staff News Events

Visit Carleton's COVID-19 website for latest updates.

Exam Schedule Now Available

[Learn More](#)

MY CARLETON LOGIN

Username

Password

[Login](#) [forgot password?](#)

[New? Try the Carleton 360 student portal.](#)

Student Notices

- [Access to Campus Protocols](#)
- [Virtual Fall Career Fair](#)

Student Headlines

September 2, 2020

Carleton360: Your Complete Student Experience Hub

Carleton University has launched a new portal to help you navigate your Carleton experience!

[Read more.](#)

Important Dates

OCT 25 Mon Fall break, no classes.

NOV 12 Fri Last day to request Formal Examination Accommodation Forms for Dece...

NOV Last day for receipt of

Take-Home Exams: the Essay (CSAS Webinar)

Exam Schedule Now Available

Using cuScreen to Access Campus

Epic Bingo - October 20