Assignment 1 - COEN 244

Stuart Thiel

September 18, 2023

Introduction

This assignment is worth **5%** of your grade. This is an **individual assignment** (so individual, I put *your* student ID on it) and you should not share your assignment with anyone else. The **assignment is due Sep 29th at 11:59PM, Montreal time**.

All submissions must go through Moodle. I like EAS, but the new VPN rules suck.

Q1)   Filtering Files

Assume the information of all the TAs for the ECE department is stored in a file that is called TAs.txt. In order to be eligible for the TA position, a student should be currently registered and can not be an alumni. However, the file contains old data; it includes some records of TAs who have already graduated and who are no longer allowed to TA. The format of each TA record in the file is as follows:

```
Status      First_Name      Student_Id      Year_Hired
```

The first line of the file should show the total number of students records (max number of records is 100).

Note that the TAs can be classified as any of the following (even if they don't all appear in your example):

- **Grad**
- **UGrad**
- **Alum**

Part A)

You need to write a program that reads the file, removes any lines with invalid TAs (those who have Alum as the value for classification) and updates the original file.

Work with a vector of TA objects.

Example 1

```
Initial Student File:

5
Alum    George    4042349    2015
UGrad   Abdulla   5788200    2019
UGrad   Udaipal   9172880    2014
Alum    Jashan Preet Singh   1562166    2015
UGrad   Jeffrey   7576729    2015


Initial Student File: After Correction:

3
UGrad   Abdulla   5788200    2019
UGrad   Udaipal   9172880    2014
UGrad   Jeffrey   7576729    2015
```