EECS 2032E

Lab 3
Fall 2021

In this lab you will use a stream editor (sed) in order to manipulate data in a file. You will also write bash scripts to search and process information in text files. The lab should be submitted as **submit 2032E LAB3 file_name**

Problem 1

Write a sed script (sed not bash) that takes a file with names and phone numbers. The phone numbers are the form
An optional "+" followed by 1-area_code-exchange_code-station_code   for example +1-416-555-1212
The script should change that to 1(416)555-1212

File name is **lab3_1.sed**

Problem 2

Write a shell script that takes no arguments, then it displays the number of subdirectories, and the number of regular files as follows

The number of subdirectories: xxx
The number of regular files   : xxx

Submit as lab3_2.sh

Problem 3

Consider a small database in a bank that consists of three files with contents as follows

names.txt

Contains records, each record on a line by itself. The fields of the records are

separated by tabs. The fields in the order of appearing is:

Name, on the form lastname, followed by comma, space and first name.

For example Smith, John

Account type, just one letter either S for saving, or C for checking

Balance, showing the client balance

For example

Smith, John   S   3215.16

The second file is

account.txt

This files contains records with two fields separated by a tab. The first field is account number (8 digit number), the second is the name field in the same format as in the names file.
For example

12345678   Smith, John

The third file is

address.txt

Contains records of two fields each separated by tabs
The first record is account number, and the second is address. Keep in mind that the address record is one record (streets and cities are not separated by tabs).

For example

12345678   1 Yonge St. Toronto ON M3M1M3

The script runs and ask continue?

If the user entered y or Y (on the same line it says continue?)
The system prompts the user with account number followed by a space.

The user enters an account number.

If that account number exists in the data base, the system outputs

User name (same format as in the data base) followed by a space, then the account type (saving or checking), followed by a space, then the balance, followed by a space and then the address.

Then on a separate line, it asks continue?

And the whole thing is repeated again.

If the account number does not exist in the database, it prints No such client.

If the user enters anything other that y or Y when the system displays continue? The program terminates

submit as lab3_3.sh