Computer Programming

C20013

Programming Assignment #1

Brief:

You are to create a Linux command – **mkuser** – which takes a file of proper names and generates user-names from that data.

Additionally, the program should be capable of generating commands pre-prepared for execution in the Unix environment.

Summary:

CTI Senior College has a long-standing policy to describe the creation of user-names. (See the document "*CTI Student Username Policy*").

While such policies can be implemented using spreadsheets it is preferable to fully automate this process to prevent errors.

The completed program does *not* need to be able to create user accounts in a system, just *create the user-names only*.

The program should respond to parameters on the command line, specifically:		
-h	help	Print a help message explaining usage syntax.
-i	input file name	Read the comma separated real name values from this file.
-o	output to file name	If omitted, print to STDOUT only, otherwise output to this file.
-s	output to screen (default)	Output to STDOUT; necessary only when -o has also been specified.
-m	make command string(s)	eg: mkuser -m 'adduser -c "_NAME_" -g "_GROUP_" _USER_ ' Your program will replace the _PLACEHOLDERS_ with the necessary values.
-n	No print	Don't print the user-names. Useful when creating command strings only.
-t	test mode	Test mode used to aid development. Use as you see fit whilst developing.

Presentation:

Marks are awarded for attractive presentation both of the screen output and the source code.

Code indentation and commenting are ***vital***. Programs without correct indentation and suitable commenting are highly unlikely to pass.

Sample Data

With this input file:

Art, Reilly, TOm
ARt , "Murphy-EdWArds, John"
COM, Michaels, SaLly
com, "MacArthur, Will"

the command:

mkuser -s -n -i somefile.txt -m 'mkdir /home/_USER_'

should yield this output on screen:
mkdir /home/art.tomr
mkdir /home/art.johnme
mkdir /home/com.sallym
mkdir /home/com.willma

Submission

By paper via the submission box in Room 15, and online.

For paper submission include:

- Cover sheet ('My Own Work')
- Methodology planner
- Flow chart *or* Decision tree (Read the programming website for information).
- Source code (The perl program, printed)
- Sample data used
- Other screen capture(s) as required
- Any other relevant supporting materials.

Online submission requirements will notified separately.

Due Date:

2013-11-21, 12:45, Thursday
(subject to on-line Calendar changes)