Assessment Title: Scheduling, Memory and a Man Page

There are three *main* components to this coursework: the first is to complete the process scheduling quesion, the second to complete the memory management question and the third is to write a manual page for the command line tool `mrun`.

Step 1

You will need to download your unique process and memory management questions by visiting ⟨`http://mcgreg.comp.glam.ac.uk/oscw.html`⟩ and typing in your enrolment number and typing *no* to the question asking whether you want a practice question. Now you need to press **submit**. The process and memory questions will be emailed to your university email account and they will be unique. You can say *yes* to obtain a practice question and this will be used in tutorials as a guide to the coursework.

Step 2

Read and answer the questions emailed to you.

Step 3

Place your answers to the process scheduling and memory management questions into a file on the university GNU/Linux filesystem. This file must be in the following location and it must be stored in plain text (ascii). Hint use the program `gedit` to save the file. The answers to your unique question must be saved in a file under your GNU/Linux account in `$HOME/CS2S563/answers.txt`. Both the directory and any files inside it must have no group access and also no other user access. You can alter the file and directory permissions by the command line program `chmod` and check the file and directory by using the command line program `ls`.

You should research and find out how to use the utilities to perform the above changes. You should save the practice question to a file `$HOME/CS2S563/practice.txt`.

Step 4

You are required to write a manual page for the command line program `mrun` which you will have previously explored during tutorials. Writing a manual page is often a task required by new recruits in industry. `mrun` is a multiprocessor run facility which currently has no documentation in man page format. There is documentation for mrun in html under the headings running the csn ⟨`http:// floppsie.comp.glam.ac.uk/csn/csn.html#SEC8`⟩, mrun and mrun.ebnf. You should also consult your tutorial sheet which introduced you to `mrun`. There is some sound manual page creation advice found at these locations ⟨`http://liw.fi/manpages`⟩ and ⟨`http:// www.schweikhardt.net/man_page_howto.html`⟩

Your manual page must also be saved in the directory `$HOME/CS2S563` and the filename must be `mrun.X` where `X` is the appropriate extension for the manual page. This file must also have no group or other user access to it.

There will be extensive guidence given during tutorial/laboratory times throughout the duration of the coursework. The word count limit for the manual page is 1364 words (the word count does not include example code or command line examples enclosed using the approprate manual page markup tags).

Section B: Marking & Assessment

The assignment will be marked out of 100%
The assignment contributes to 50% of the total module marks
This assignment is non bonded

It is estimated that you should spend approximately 50 hours on this coursework

Date Set: 04 11 2019 Submission Date: 24 01 2020 Feedback Date: 17 02 2020

Learning Outcomes		
This assignment addresses the following learning outcomes of the module: Demonstrate a theoretical and practical understanding of the key components of an operating system.		
Hours of Work	**Number of Hours**	
1. Number of hours of work that this assignment should take:	50	
2. Please indicate the number of hours actually taken:		
Marking Scheme	**Marks Available**	**Marks Awarded**
Scheduling question	20	
Memory question	20	
Writing a man page for mrun	50	
Correct file permissions and manual page file name	10	

ASSESSMENT CRITERIA

Performance Level	Criteria
Fail (<40%)	A fail grade will be awarded for an answer which contains major errors and shows little understanding of the issues involved
Third (40%-49%)	A pass grade will be awarded for an answer which addresses the majority of points with few errors or omissions.
2:2 (50%-59%)	An average grade will be awarded for answers which contain no major errors or omissions.
2:1 (60%-69%)	A higher mark can be achieved if the work contains no major errors and also contains an analytical answer.
First (70%+)	A high grade will be awarded for work which includes the earlier criteria and contains a high quality analysis of issues from a range of source materials and makes some original contribution on the subject.