UNIVERSITY OF THE WEST of SCOTLAND

COMP09024 Unix System Administration

Laboratory Demonstration 2021/2022

Please prepare to demonstrate execution of the tasks which follow. You should type up your answers in advance and may refer to them (and any other material) during your actual demonstration. You will receive a mark out of 50, including 10 marks for your general performance, command and insight into the Linux system, which will be evaluated by your assessor on the day.

Available marks for this exercise are indicated after each task. This demo is INDEPENDENT of the laboratory book and contributes 20% of your overall module mark.

You will be expected to demonstrate your individual work during a demonstration slot booked on Moodle during week [redacted]). Most of the syllabus required for the tasks is already covered in the module, but some of the tasks may require additional research.

You should use the Javascript VM link provided on Moodle to prepare (and demonstrate) your tasks. You will be expected to join a meeting in MS Teams, and your presentation will be recorded.

Supervisory help will be kept to a minimum during your work on demonstration exercises. Your assessor will ask you relevant questions during your individual demonstration session. Failure to clearly explain your answers or taking excessively long to respond will result in the appropriate marks being deducted.

Lan Demonstration Tasks

#	Task:	Max	Mark
1.	*Log in as `student` to your system, and in your home directory, create a symbolic link to directory `/home/shared` (which does not yet exist), and create a `scripts` directory. Add the `scripts` directory to your search path for executables.*	5	
2.	*Create a bash-shell script called `regtest` in `student`'s `scripts` sub-directory that checks to see if its first argument is a regular file or not.*	5	
3.	*Show all filesystems that your kernel currently supports. Indicate whether or not the 9p filesystem is currently supported.*	2	
4.	*Find the MAC-address of your machine and its current IP address.*	2	
5.	*Find current Linux version, when it was compiled and the architecture*	3	
6.	*Create a compressed backup of `student`'s home directory in `/tmp`*	4	
7.	*Now log in as `root`, and add a user called `demo` to your system, taking care to provide a home directory in `/home/demo` and to assign a secure password.*	3	
8.	*Assign the user `demo` to the existing `wheel` group. Create a directory, `/home/shared`, for group wheel with permissions: `drwxrws--- 2 root wheel`.*	4	
9.	Use the `date` and `who` commands in a single crontab job that appends a timestamp followed by a list of logged in users to a log file, `/root/nightowls`, at one minute to midnight every night. A further crontab job should remove the log each month. Thus the December log might begin as follows and have entries for every night through to December 31st: Fri 01 Dec 23:59:00 GMT 2017 user1 tty2 2017-11-30 22:00 (:0) user5 pts/1 2017-11-30 20:35 (192.168.1.1) Sat 02 Dec 23:59:00 GMT 2017 user1 tty2 2017-11-30 22:00 (:0) user6 pts/1 2017-12-01 19:27 (192.168.1.8) user5 pts/2 2017-12-01 20:58 (192.168.1.1)	7	
10.	Update the package list, and install the `curl` command, then download the URL http://pict.uws.ac.uk/index.html to a file named `index.html`. Finally uninstall `curl`.	5	
	Command of the Linux environment.	10	
	Mark out of 50	50	
	Final Percentage	100	