Jordan University of Science and Technology
CS375 Operating systems - Assignment 1
Spring 2019-2020

Objectives:

Student should be able to:

- ✓ Learn how to download, install and work on Virtual Machine Manger
- ✓ Become familiar with managing virtual machines (create, delete, assign resources, run operating system images …etc.)
- ✓ Become familiar with Operating System's user interface – Command Line Interpreters (CLI)
- ✓ Practice on the most common commands of Linux OS.

What to submit:

You should submit a short report in English that includes the following:

1. Print screens and description of the steps that you have followed to have your Linux machine working.
2. The problems that you faced during these steps and how did you solve these problems
3. Print screens and description (in your words) of the output of each command that you have run. Also talk about a situation in which you can use that command.

Your report should be written using MS Word. After submitting you work, you should schedule an appointment. Check the due date on the e-learning. to discuss your submission **on your personal computer.** Your grade will be given based on your **submission and discussion on your personal computer**. You are expected to demonstrate any command running without refereeing to any supporting material during the discussion.

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Steps to have your Linux machine working

1. Download VMware workstation player for windows from https://www.VMware .com/products/workstation-player/workstation-player-evaluation.html
2. Download Ubuntu 18.04.2 LTS from (around 1.9 GB): https://www.ubuntu.com/download/desktop.
3. Install VMware workstation player (downloaded in step 1) on your machine.
4. Run VMware workstation player on your machine.
5. Click on create a new virtual machine.
6. Click the Brows button and choose the Ubuntu iso file (downloaded in step 2) and then press next.
7. Type in your information as required and then press Next.
8. Use CS375 as the virtual machine name and choose where you want your virtual machine files to be stored ("c:\virtual machines" is preferred) and then press Next.
9. Leave everything unchanged and press Next.
10. Leave everything unchanged again and press Finish.
11. After some time installing, you will have a Linux running under VMpalyer.
12. Right click on the Ubuntu desktop and click on open terminal.

13. Run the following two commands and enter your password when asked.
14. sudo apt-get update
15. Run the following two commands and enter your password when asked.
16. sudo apt-get install build-essential

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17. Run the following two commands and enter your password when asked and input y when asked.
18. sudo apt install libmpich-dev

Practice using the following commands from the terminal.

ls – directory listing

ls -al – formatted listing with hidden files

cd dir - change directory to dir

cd – change to home

pwd – show current directory

mkdir dir – create a directory

rm file – delete file

rm -r dir – delete directory dir

rm -f file – force remove file

rm -rf dir – force remove directory dir *

cp file1 file2 – copy file1 to file2

cp -r dir1 dir2 – copy dir1 to dir2; create dir2 if it doesn't exist

mv file1 file2 – rename or move file1 to file2 if file2 is an existing directory, moves file1 into directory file2

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cat > file – places standard input into file

cat file – display the file content on the screen

more file – output the contents of file

head file – output the first 10 lines of file

tail file – output the last 10 lines of file

date – show the current date and time

cal – show this month's calendar

uptime – show current uptime

whoami – who you are logged in as

uname -a – show kernel information

cat /proc/cpuinfo – cpu information

cat /proc/meminfo – memory information

man command – show the manual for command

df – show disk usage

whereis app – show possible locations of app

chmod octal file – change the permissions of file to octal, which can be found separately for user, group, and world by adding: ● 4 – read (r) ● 2 – write (w) ● 1 – execute (x) Examples: chmod 777 – read, write, execute for all chmod 755 – rwx for owner, rx for group and world For more options, see man chmod.

grep pattern files – search for pattern in files

grep -r pattern dir – search recursively for pattern in dir

Ctrl+C – halts the current command

exit – log out of current session