

**King Saud University**  
**College of Computer and Information Sciences**  
**CSC 227: Operating Systems Homework 1**  
**Due Date: Sunday 7/03/2021**

The use of Virtualization nowadays is widespread. A user can run multiple virtual machines with different guest operating systems in one physical machine that's operated by a host operating system.

You are asked to do the following:

- 1- Install a virtual machine manager (VMM) such as, but not limited to, Virtual Box, VMware or Parallels on top of your host OS.
- 2- Use this VMM to create a virtual machine (VM).
- 3- Install a Linux distribution of your choice on top of the VM you created.
- 4- Create a user and use your first name initial and last name as the username. For example:  
*Ahmad AlRjoub* would use *aalRjoub* username.
- 5- Log in as the user you created and use Linux command -line to show the logged in user and the time the system was booted. (*Hint*: you can use the command *who* to obtain such information. To learn more about how to use a Linux command, you can read the man page of that command by executing the following:

**man command**

For example, you can learn how the command *who* works by executing:

**man who**

Write a brief description of about your experience in Part I which include:

- Which VMM did you use, and why.
- Description of the specifications of your VM including: number of cores, size of RAM, size of hard disk.
- Screenshots of Step 5.

## Part II:

Find the following information about your virtual machine:

- Size of Memory in Kilobytes.
- How much memory is used in Kilobytes.
- How much free space is left in the memory in Kilobytes.
- The size of the swap and how much of the swap space is used in Kilobytes.
- Find 5 processes run by the logged in user, and report their name, PID, how much memory and CPU percentage were they using at the time you found them.

(*Hint*: you can use the command ***top*** to find this information. Lookup its man page to use the appropriate options.)

Provide screenshots with your answer.