Computer Systems Engineering
Weeks 10, 11

UDLAP®

Engineering School

Computing, Electronics
and Mechatronics

Instructor	Dr. Juan Carlos Galán Hernández	**Term**	Spring 2017
Course	Network and Server Administration	**Code**	LIS4091

1 Purpose

This document describes the content and activities for Weeks 10 and 11 of the course **Network and Server Administration** with code **LI4091**.

2 Instructor-led Training Activities

1. Continue with the installation of Arch Linux. This week, arch linux installation continues:
   - Configure the network
   - Review the needed packgaes for development environment

3 Self-pace Learning Activities

Available material:

1. File System
   - http://www.tldp.org/LDP/intro-linux/html/sect_03_01.html
   - http://unix.stackexchange.com/questions/4186/what-is-usr-local-bin#4187

2. User management
   - https://access.redhat.com/documentation/en-US/Red_Hat_Enterprise_Linux/6/html/Deployment_Guide/ch-Managing_Users_and_Groups.html
   - http://www.comptechdoc.org/os/linux/commands/linux_cruserman.html

3. Permissions
   - https://www.linux.com/learn/understanding-linux-file-permissions
   - https://www.linux.com/learn/how-manage-file-and-folder-permissions-linux

4. Installation
   - https://www.linux.com/blog/how-install-software-linux-introduction
   - https://wiki.archlinux.org/index.php/Pacman
   - https://www.cs.duke.edu/courses/spring04/cps108/resources/makefiles/sample.html
   - http://www.techrepublic.com/article/linux-basics-installing-an-application-from-it

5. Resource Administration
   - http://www.tldp.org/LDP/sag/html/system-monitoring.html

6. What is RAID?
   - https://youtu.be/NqozAmsUsWI

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4 Assignment: Installing Linux

1. Install a linux distribution on a virtual appliance with the following characteristics:

   • Must be one of the following distributions: Gentoo, Arch Linux, LFS.

   • It must have the following partitions:

      – home

      – swap

      – boot

   • It must have one NAT network interface with functional Internet

   • It must have at least one normal user with wheel privileges (SUDO)

5 Assessment

1. Grading

$$grade = \begin{cases} x & \text{if } x \le 100 \text{ where } x = \frac{A+2B+3C}{18} \times 100 \\ 100 & \text{otherwise.} \end{cases} \tag{1}$$

$$\tag{2}$$

2. Assesment Reference.

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	1. Unnaceptable	2. Basic	3. Proficient	4. Exceed Expectations	5. Distinguished
A. Due Date	Sent one week later.	Sent three days later.	Sent on time.	Sent two days before.	Sent four days before.
C. Completion	*Manual* steps only covers very few key parts of the installation. The operating system is not bootable after following *Manual's* steps.	*Manual* steps only covers some key parts of the installation. The operating system is bootable after following *Manual's* steps but has no configuration.	*Manual* steps only covers all key parts of the installation. The operating system is fully functional and most basic configuration can be realized with *Manual's* steps.	*Manual* steps are clear and complete. The operating system is fully functional and most basic configuration can be realized following *Manual's* steps. *Manual's* steps include network configuration.	*Manual* steps are exceptionally clear and complete. The operating system is fully functional and most basic configuration can be realized following *Manual's* steps. *Manual's* steps include network configuration and XWindow configuration.
B. Quality of the response.	Answers cover less than 30% of the tests.	Answers cover less than 50% of the test.	Answers cover less than 80% of the tests.	Answers cover less than 90% and at least one problem with medium difficulty was sent.	Answers cover 100% and at least one problem with medium difficulty was sent.