Syllabus

COURSE GENERAL INFORMATION

Course Title: Linux Fundamentals Lab
Code: PWLF 1010
Contact Hours: 45
Term: 18/Noviembre/2020 – 21/Diciembre/2020
Teacher: Joel Vargas Ramos
Email: jvargas@passwordpr.com

Course Description

This course implements a "practice as you read" approach to learning. Each learner has hands-on access to a Linux virtual machine to practice, explore and trial Linux command line concepts. The learner is provided prescriptive step-by-step labs. These labs provide a learning environment where students interact with the Linux operating system and build on their skills and knowledge as they progress through the course.

Objectives

Knowledge of Linux is a helpful skill for a wide variety of careers in business and Information Technology fields. Many emerging and growing career opportunities including big data, cloud computing, cyber security, information systems, networking, programming and software development (to name a few) require basic to advanced knowledge of the Linux command line. During the course, students will study the following objectives:

- Understand Linux as an operating system
- Explain some of the considerations for choosing an operating system
- Understand some of the basics of open source software and licensing
- Acquire basic knowledge of working with Linux
- Learn basic Linux command line skills
- Learn how to use help commands and navigate help systems when using Linux
- Basics of how to work with Linux files and directories
- Searching and extracting data from Linux files
- Basic understanding of the concept of scripting
- Familiarity with the components of desktop and server computers

Skills Distribution

Class Laboratory:

- Lab 1- Introduction to Wireshark
- Lab 2- Download and Install Linux OS in VM
- Lab 3- Install Apps in VM
- Lab 4- Getting Help and Man
- Lab 5- Manage File, Using Shell and Compression
- Lab 6- Editing Files with the Vim Editor

Homework Lab:

- Homework Lab 1- Directory Structure
- Homework Lab 2- Pathnames
- Homework Lab 3- Man Pages
- Homework Lab 4- Tree Process

Evaluation Criteria

CRITERIA	Grade total
Lab 1-3	100
Lab 4-6	100
Lab Homework's 1-4	100
Assistance	100
Total	400

*6 Points less for each absence. 100 Points when starting the course.

Assignments are always due in class on the day designated. You are responsible for any work lost due to technical problems, etc. Late papers will lose a letter grade for each day that they are late. Any exceptions must be properly documented and discussed in advance for an extension to be arranged.

Educational Resources

- Neo LMS (2020). Linux Fundamentals PWLF 1010. *passwordtech.edu20*.

  https://passwordtech.edu20.org/

- Linux Survival. (2020). *Linux Modules 1-4*. https://linuxsurvival.com/

- Smith, R. (2017). *CompTIA Linux + Study Guide*. (2nd Edition). Indianapolis, Indiana.

  Sybex John Wiley and Sons, Inc.

Notes

• *Reasonable Accommodation***:** Any student who requires a reasonable accommodation should do the request at the beginning of the course or as soon as he / she acquires knowledge of what it requires, through the Professor in charge and this notifying the Academic Director.

• *Honesty, fraud, plagiarism:* The lack of honesty, fraud, plagiarism and / or any other inappropriate behavior in relation to the student's academic performance constitute violations of the Institution's Catalog, its Rules of Conduct and Student Duties. Major infractions, as determined by the Catalog, may result in the suspension of the Institution for a definite time or permanent expulsion as stipulated in the Norms of Conduct and Duties of the Student.