Learning Guide

PALX (EN) Linux Course

Pandora FMS

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1. GUIDELINES

This basic Linux course is divided into a theoretical part and a practical part, but you just need to pass the theoretical part to pass the course.

1.1 Theoretical part

The theoretical part of the course consists of solving 13 self-evaluations that include each of the topics of the course, and a final self-evaluation that covers the whole course.

Self-evaluations are made of a certain amount of questions that must be answered by the end of each topic's reading. **A minimum grade of 7 out of 10 must be obtained to pass.** There will be 2 attempts for each self-assessment to pass it successfully, and you will have 15 minutes to fill out the test in each of the attempts. Within each of the attempts, the questions will be made sequentially, that means that if you move on to the next question, you will not be able to return to the previous one.

The final self-assessment consists of 30 questions, where a minimum grade of 7 out of 10 will be required in order to pass. There will be 3 attempts, and you will have 30 minutes to complete each attempt.

Those who fail to pass a self-assessment will have to contact their tutor to find a solution to their problem.

1.2 Practical part

The practical part of the course consists of solving 12 practical cases which can include any of the subjects of the course.

For each case study, a doc or pdf file with the student's solution must be submitted. If there is no answer, the student will not be able to see the solution proposed for the practical case.

1.3 Additional Comments

There is a general forum for questions regarding Linux management and a specific forum for each of the topics, where questions about the study may be raised.

Additionally, there will be a tutoring fixed schedule with the teacher of the course, where special cases involving the problems raised by students can be solved.

2. COURSE OBJECTIVES

By the end of the course, you will be able to:

1. Install a Centos ISO.

2. Manage and set different Linux aspects.

3. Manage Linux tools.

4. Create scripts

To do so, you will have theoretical resources and complementary case studies for a better understanding of the application.

At the end of each thematic unit you will have a self-assessment to be able to consolidate the knowledge and to verify your degree of comprehension.

Also, you have links to Pandora FMS resources with which you can expand your knowledge

3. COURSE STRUCTURE

The course includes the following thematic units:

1. **Introduction.** This topic explains the origins of Linux and some of its versions.

2. **Installing**. You will know the different installing systems, how an installation is partitioned and the different ways to install system tools.

3. **Basic first steps.** You will see the Linux permissions, its file system and the use of basic editing commands, user management and connectivity.

4. **Basic management.** Once the system is installed, you will delve into basic management: how to start services and file management.

5. **Performance management.** You will study different Linux options to be able to take a look at those that are within your computer.

6. **Security and Networking.** You will take a look at the different Linux services in order to get to know the network that surrounds you, and the tools to keep your computer protected.

7. **Apache.** You will also study the Apache service. The installing, settings and services that it can offer you.

8. **MySQL.** Introduction to the database world. You will learn to install, manage and optimize our database.

9. **PHP.** What is PHP? How is it installed, configured and optimized?

10. **NFS.** Data centralization, how to install and configure NFS.

11. **SNMP.** Network administration through SNMP, its installation, levels and different uses.

12. **Advanced scripting.** Linux terms and bash functions.

13. **Advanced concepts.** Advanced Linux concepts not seen in previous topics, such as strace service and kernel optimization