Lab Assignment

Cybersecurity and Digital Forensics Academy

"Linux File Navigation, User Management, and Bash Scripting"

1. Purpose of the Lab Assignment: The purpose of the lab is to enable us practice the use of linux commands to enable us master how to navigate through files, manage users and also practice Bash Scripting.

2. The Structure of the Lab. The Lab report is presented in the following sub headings in order to give it a professional and structured outlook.

2.1. Title Page

Lab Title: Linux File Navigation, User Management, and Bash Scripting

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Student ID: 2025/CFP/7550

Course Name: WASF101 Introduction to Web Application Security

Instructor Name: Mr Zakariyya

Date of Submission: March 19, 2025.

2.2 Executive Summary

This lab assignment has enabled me use different commands ranging from creating files and folders and also changing and assigning users and groups to files and directories. I have learnt and fully understand the concepts of user management and practical implementation of Bash commands.

2.3 Lab Objectives

The objective to the lab is to enable us make use of our already installed VMware, Virtual Box and Kali Linux installations and setups to successfully run and implement Linux file navigation and manage file and folders users and groups and also practical text and run Bash Scripting commands. It has been a very good starting point that demonstrate the academy's commitment to giving us the very best orientation and starting point towards making use ready and having a working and functional VMware to implement numerous tasks ahead.

2.4 Tools and Resources Used

The tools and resources for this laboratory work are the VMware and Linux commands to effectively demonstrate and implement the content and concepts in the title of the lab: "Linux File Navigation, User Management, and Bash Scripting". The VMware with a Linux file enabled me to successfully run the commands and achieve the purpose and aim of the practical lab class. The practical lab has been a good starting point for me and my intention to learn and master Linux as the scripting language for cybersecurity and digital forensic. I am glad to have learnt how to installed and use the VMware and achieve a required learning and practical steps need to successfully demonstrate and implement file navigation, user management and Bash Scripting.

2.5 Methodology

The methodology for this lab assignment hinges on the downloading and subsequent installation of VMware software and then the downloading of the Kali Linux for VMware file and having it open and made running to be able to have a virtual machine to run Linux and do the lab assignment successfully. It has been a successful implementation of the concepts learnt in the lecture notes through a meticulous implementation of the concepts and principles learnt. The VMware has been installed and enabled to run the codes to navigate files, change and assigned users and groups, and practice the Bash Scripting.

2.6 Screen Shoots and Evidence

2.7 Analysis and Findings

The practical lab has exposed me to practically create folders, files, delete, and move them or copy them around easily. I have discovered how to assignment users and associate privileges to files and folders and users and groups. The assigned users and

groups have privileges that demonstrate their level of access and things they can perform on the files and their limits based on the associated privileges and restrictions. This knowledge is definitely a great turning point to my learning ability and the exposure required to determine and know the level to what each user and groups have and what privileges they are given or not in relation to a file or folder.

2.8 Challenges and Solutions

The work has been quite challenging, as the first video appears, it look like I have learnt something very difficult despite my computing background. It video appeared not to have proper introduction but just began by assigning user permissions and groups and later moving to privileges, I got confused. I just took my time to watch the video again and again and then every fell in place and easily master the concepts and begin to feel at home. Things become much easier when I finally have the VMware up and running. Though even that came with a lot of stress. I even the pdf installation guide and followed it religiously and all steps were successful until when I came to open the VMware file I downloaded after installing the VMware installations. When I clicked open VM option and couldn't locate the downloaded folder, I couldn't know why and with my experience I think I should figure it out. I said I am sure I have downloaded this file and why is it missing. I later discovered that I have not unzipped the downloaded file. From there unzipped it and open the file on the VMware and hence have my Kali Linux up and doing.

2.9 Conclusions

The practical lab has given me the necessary exposure and practical implementation of various Linux Commands and operations that have buttressed my understanding and commitment to learning and mastering the Linux principles and operations. I has been a great experience of creating folders, files and easily moving them around and assigning them to users and groups and also associating different privileges to them and demonstrating my understanding and usage of the Bash Scripting Commands. It has been a good experience worthy of repetition.

2.10 Recommendations

The following recommendation was derived from the lesson learnt during the exercises.

The usage of the Virtual Box has not been explained up to now please. It has also not included in I am able to download the VMware and Virtual Box but I am only using the VMware the setup guide. I recommend that an adjustment be made to the installation guide to explain and demonstrate the reason of downloading the Virtual Box and what and how it should be used.

2.11 References

Mr. Zakariyya (2025). Linux File Navigation, User Management, and Bash Scripting PDF. ICDFA.