“Київський фаховий коледж зв’язку”

Циклова комісія Комп’ютерної та програмної інженерії

**ЗВІТ ПО ВИКОНАННЮ**

**ЛАБОРАТОРНОЇ РОБОТИ №2**

з дисципліни: «Операційні системи»

**Тема:** **“Знайомство з інтерфейсом та можливостями ОС Linux”**

Виконали студенти

групи КСМ-13а

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Перевірив викладач

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***The goal of the work:***

***1. Acquiring practical skills in working with virtual machine environments and operating systems of various types and families - their graphical shell, logging in and out of the system, familiarization with the structure of the desktop, studying the basic actions and settings when working in the system.***

***Material provision of classes***

***1. IBM PC type computer.***

***2. OS family Windows (Windows 7).***

***3. Virtual machine - Virtual Box (Oracle).***

***4. GNU/Linux operating system - CentOS.***

***Tasks for preliminary preparation.***

***1. Read the short theoretical information for the laboratory work and make a small dictionary of basic English terms on the issues of assigning commands and their parameters.***

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***2. Study the materials of the online course of the Cisco Academy “NDG Linux Essentials”:***

***- Chapter 3 - Working in Linux***

***- Chapter 4 - Open Source Software and Licensing***

***3. Take the test in the NDG Linux Essentials course on the following topics:***

***- Chapter 03 Exam***

***- Chapter 04 Exam***

***4. Define the following concepts:***

***- CLI mode***

***- Terminal based on graphical user interface***

***- Virtual terminal***

***5. Prepare the initial version of the report electronically:***

***- Title page, topic and purpose of the work***

***- Glossary of terms***

***- Answers to items 5 and 6 from tasks for preliminary preparation***

***Progress.***

***1. Working in graphical mode in the Linux family OS (working with Internet sources):***

***1.1. Select the graphical shell for the Linux family OS that you want to consider. Consider***

***the structure of the user workspace, and describe its main components (\*\*\*shown***

***main components of the Gnome shell):***

***- Applications tab***

***- Places tab***

***- System menu***

***- Activities overview navigation space***

***\*\*\* If you have chosen a different graphical interface, the menu components may be different.***

***1.2. Launching programs. Explore the possibilities of launching applications in different ways (describe the method and how***

***ability to show screenshots):***

***- Launch programs through the quick launch bar***

***- Launch programs through menu search***

***- Launch programs via the launcher widget***

***- Launch programs through the global menu***

***1.3. Logging out and shutting down in Linux. How to perform the following actions in the graphical interface***

***(give screenshots):***

***- Change user to root***

***- Restarting the system***

***- Shutting down the system***

***2. Work in a mobile OS environment.***

***2.1. Describe the main menu of your mobile OS, what GUI does it use?***

***2.2. Describe the mobile phone component settings menu.***

***2.3. Using keyboard shortcuts to perform special actions.***

***2.4. Sign in and shut down the device. Features of battery power settings.***

***Control questions***

***1. Give examples of Linux server applications for database servers, messaging servers, and***

***file sharers.***

***2. Compare the Bourne shell, C, Bourne Again (Bash), the tcsh, the Korn shell (Ksh), and zsh.***

***3. What is a package manager for? What package managers do you know in Linux?***

***4. What security tools are used in Linux?***

***5. Why is the use of virtualization now so relevant?***

***6. How do you understand the concept of containerization?***

***7. What are the advantages/disadvantages of using open source software?***

***8. \*\*\*How many active virtual consoles (terminals) can be in the process of Linux operation***

***silencing How to call them and switch between them? Give examples?***

***9. \*\*\*Which virtual console (terminal) functions as a graphical shell?***

***10. \*\*\*Is it possible to log into a Linux system multiple times under the same system name? What benefits can it provide?***

***Conclusions***

***In the course of the laboratory work, the Linux OS was studied, and the issue of the interface and capabilities of the Linux OS was theoretically studied in more detail.***

***The acquired skills of working with commands and settings will be very useful in further work with Linux. We have mastered the basics of entering commands, launching programs, as well as important settings that allow you to adapt the system to your own needs.***