**Topic: "** **Special directories and files in Linux"**

**Performed by students RPZ-93B group**

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**The purpose of the work:**

1. Gaining practical skills in working with the Bash command shell.
2. Familiarity with special directories and files in Linux.

**Material support of classes**

1. Computer type IBM PC.

2. Windows family of operating systems (Windows 7).

3. Virtual machine - Virtual Box (Oracle).

4. GNU / Linux operating system - CentOS.

5. Cisco Network Academy website netacad.com and its online Linux courses

**Tasks for preliminary preparation.**

1. Read brief theoretical information for laboratory work and make a small dictionary of basic English terms on the purpose of commands and their parameters.
2. On the basis of the considered material give answers to the following questions:

2.1 What are Setuid and Setgid permissions used for?

2.2 What does the system need the so-called "sticky bit" (Sticky Bit). Give examples of when this permission should be used.

1. Learn Cisco Academy Online Course Materials:

- NDG Linux Essentials (Chapter 18 all Topics)

1. Take the NDG Linux Essentials course on the following topics:

- Chapter 18 Exam

1. Prepare the initial version of the report in electronic form:

- Title page, topic and purpose of the work

- Glossary of terms

- Answers to paragraphs 2.1-2.3 of the tasks for preliminary training

**Progress.**

1. Initial work in CLI mode in Linux Linux family:

1.1 Start the VirtualBox virtual machine, select CentOS, and start it. Log in under the user: CentOS, login password: reverse (if you are performing LR in room 401) and lower the terminal.

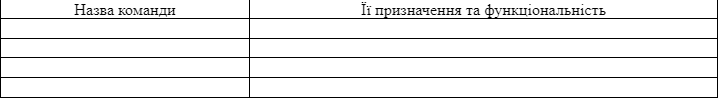
1.2 Start the Ubuntu\_PC virtual machine (if you are performing LR tasks through the netacad academy)

1.3 Start your Linux operating system (if you are running your own PC and have it installed) and start the terminal.

1. Study all the examples of commands presented in the laboratory work of the NDG Linux Essentials course:

* Lab 18: Special Directories and Files

1. Create a table of commands studied in paragraph 2 of the work in the following form:



**Test questions**

1. How can I create a hard link? In what situations it is expedient to use them?
2. How can I create a symbolic link? In what situations it is expedient to use them?
3. Compare hard and symbolic links?
4. There is an original file and two links have been created for it - symbolic and hard. What will happen to other files if you delete:

- original file;

- symbolic link;

- hard link.

**Сonclusion:** I am gaining practical skills in working with the Bash shell. Familiarity with special directories and files in Linux.