

Computer contest, 11th – 12th classes

Rules:

Please read with attention before starting to answer and solve the tasks. At the beginning you will have 10 minutes to ask questions about the tasks and after that we will start counting the time. Every task is independent therefore you can start with any task in particular.

Before solving any task, log on your acadnet mail address to find the necessary information needed for connecting to the infrastructure.

Very important! You must NOT change the administrator password. If any changes are made to the administrator password you will be disqualified.

Every task has 10 points. You have 180 minutes for the entire contest as following: 50 minutes for the theoretical part and the rest for the practical part. You can start in any order you want.



1. Task 1 – Browser**Windows machine**

- Configure the browser so that it will start with three homepages when opening it (www.google.com, www.acadnet.ro, www.ccna.ro)
- Configure the Windows system so that you can search the internet from the Start Menu

2. Task 2 – TCP**Windows machine**

- Enable Telnet Server
- Change the port number used by Telnet Server to 1110
- Change the number of simultaneous sessions to 42.
- Make sure that you have on the system a firewall rule which will allow traffic for port 1110

3. Task 3 – Desktop Environment**Linux machine**

- Increase the number of workspaces to 5.
- Make sure that a window opened in one workspace is **not** available in the taskbar of the other workspaces.

4. Task 4 – Request Query**Linux machine**

- Using the Linux utility tool tcpdump you want to inspect all the HTTP queries towards www.acadnet.ro and redirect the output in a file named dump.txt on the Desktop.
- Use the manual page of the Linux command to find more information about the usage of it.

5. Task 5 – File permission**Linux machine**

- Create a file in the destination folder /home/student named “AcadNet 2013”, escaping the blank between the file name.
- Modify the file permission so that the owner can read and execute the file. The group is able to write the file and finally the others can only read the file.



6. Task 6 – DNS & MAC**Windows machine**

- You want to prevent domain names from going offline. Therefore configure a secondary DNS with the following IP address: **8.8.4.4**.
- Write your Windows MAC address in a file on the desktop named “MAC.txt”.

7. Task 7 – Users and folders**Windows machine**

- Create two users Bilbo and Gandalf.
- After that, make them part of a new group called LOTR.
- Give both users full control of a folder, created by you, named “The Ring”, folder located on Desktop.

8. Task 8 – IP address**Linux machine**

- Find out your IP address, netmask, gateway address and the address allocation mode of the remote Ubuntu machine, using only the terminal (for the internet access link) and write the information into a file on the Desktop named “IP address.txt”.

9. Task 9 – Taskbar**Windows machine**

- Create two folders IronMan and Hulk on the **C drive**.
- For easy access pin the two folders on the taskbar 7 View the two folders pinned on the taskbar and make sure the path is correctly configured so that click on the two pinned folders won't open just Windows Explorer, but the content of them.

10. Task 10 – Users**Linux machine**

Create two new users named:

- Andreea – with the user password “2013”.
- Lucia – with the user password “1320”.



Also you want to put them in a common group named "Friends". Finally you want user "Andreea" to send a message to user "Lucia" telling her "See you asap".

11. Task 11 – Firewall

Windows machine

- Add a firewall rule that will block ICMP inbound traffic
- Add a firewall rule so that your station is not allowed to initiate traffic for destination port 23

12. Task 12 – Server WEB

Linux machine

- On the Linux system you need to install a web server (for example apache).
- Afterwards check if the server is running properly and configure the module "userdir".

13. Task 13 – WEB page gathering

Linux machine

- Download using the terminal from linux a web page with a maximum speed of 3kB/s in an output file named "myindex" on the Desktop. After that append the command you used at the end of the file "myindex".

