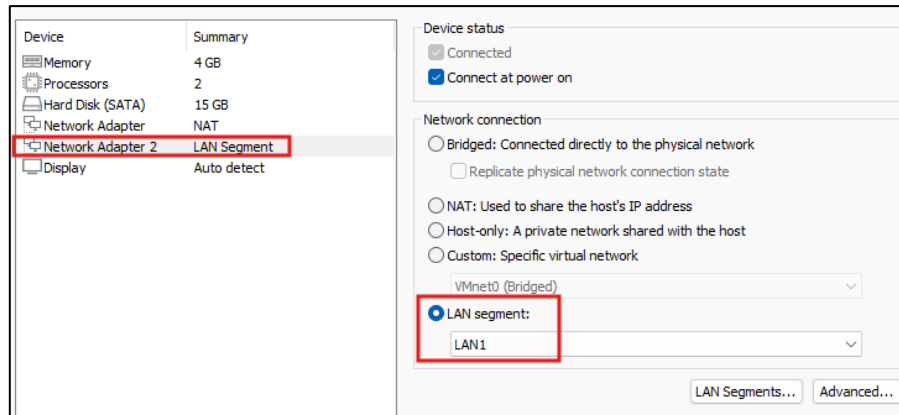


Instructions:

- Download the VM **Final-Exam** using this URL: [Final-Exam-VM](#)
- Before starting the VM**, ensure that the **second Network Adapter** is using **LAN segment LAN1**, if it is not, adjust it:



- VM Username/Password: **root/alma**.
- Create a new Word document and save it as **YourName_Final-Exam.docx**.
- Take screenshots** of all the all the **commands used** and the **results obtained** and **paste them** into the Word document.
- Once completed, convert the document to **PDF** format and submit it in **Moodle**.
- You must also submit a **compressed file** containing of the **/etc/httpd/conf/httpd.conf**, **/etc/named.conf**, **/etc/resolv.conf** and **/var/named/exam.com.zone** files, containing of **/var/www/exam** directory and the **perl** script.

Tasks

/3	<p>1. <u>Server preparation:</u></p> <ul style="list-style-type: none"> ☑ Modify the server name to serverX.exam.com (where X is your number assigned by the teacher). ☑ Install and configure an Apache server to serve web pages from the /var/www/exam directory. ☑ Make sure to: <ul style="list-style-type: none"> • Place an index.html web page in the directory above. • The index.html page must contain links to test all the questions in this exam. • You must test both allowed access and denied access scenarios. <i>See the example provided on the last page of this document.</i>
/3	<p>2. <u>Website creation:</u></p> <ul style="list-style-type: none"> ☑ Create the directory /var/www/exam/q2 and configure the Apache server so that it is only accessible to computers on the 192.168.200 subnet. ☑ Create a web page that automatically displays in the browser when the directory address is entered. The page must display the text "Q2".

/6	<p>3. <u>Authentication and Secure Server:</u></p> <ul style="list-style-type: none"> ☑ Create the secure_exam directory inside /var/www/exam and configure Apache so that only the user roger using the IP address 192.168.200.1, and the password exam, can access it. All other users must be denied access. ☑ Create a secure_exam2 directory inside /var/www/exam and place an .htaccess file in it to define that only the user roger can access the web pages in this directory or just using the IP address 192.168.200.1.
/6	<p>4. <u>DNS and Virtual Hosts:</u></p> <ul style="list-style-type: none"> ☑ Create name-based and port-based virtual hosts using the hostnames listed below. ☑ Use the same IP address 192.168.200.1 for all virtual servers. <p><u>Note:</u> Since these are virtual hosts, the basic configuration is the same for all. Each server must use its own directory to store its web pages. DNS-based name resolution must be used for hostname resolution.</p> <ul style="list-style-type: none"> ☑ Hostname: virtuel1.exam.com Port: 80 Web directory: /var/www/exam/q5/virtuel1_80 ☑ Hostname: virtuel2.exam.com Port: 8000 Web Directory: /var/www/exam/q5/virtuel2_8000
/2	<p>5. <u>CGI</u></p> <ul style="list-style-type: none"> ☑ Inside the /var/www/exam/cgi-bin directory, create a Perl script that displays the text "Examen CGI" as a heading in your web browser. ☑ Only the computer with the IP address 192.168.200.1 should be allowed to execute the programs in this directory.

Final Exam**Question 2**

[Access to Q2 with 127.0.0.1 - Denied](#)
[Access to Q2 with 192.168.200 - Authorised](#)

Question 3

[Access to secure_exam with 192.168.200 and roger - Authorised](#)
[Access to secure_exam with 127.0.0.1 - Denied](#)
[Access to secure_exam2 with 192.168.200 and roger - Authorised](#)
[Access to secure_exam2 with 127.0.0.1 with roger - Authorised](#)

Question 4

[Access to virtuel1.exam.com port 80](#)
[Access to virtuel2.exam.com port 8000](#)

Question 5

[CGI/PERL with 192.168.200.1 - Authorised](#)
[CGI/PERL with 127.0.0.1 - Denied](#)