

Conestoga College - NTWK8141 - Section 3
Practical Assignment 2 - Clarifications and Corrections
Instructor: Jason Paul

This assignment has 3 parts:

1. Hand-In: A build-book document which showcases the steps to install and configure the various components of the projects.
2. Project Demo: A live demo of the Guacamole and Reverse Proxy Servers. The goal is to demonstrate understanding of how the installed system works and be capable of troubleshooting or making changes to it as instructed.
3. Skills Demo: A practical skills demo focusing on the material from weeks 9-14.

Collectively, Practical Assignment 2 is worth 20% of your total grade. The breakdown is below in each section.

Practical Assignment 2 Hand-In

Due Date: Sunday July 28, 2024 @ 11:59PM (End of Week 12)

Grading: 2% of total grade

- **Update 07/22:** No Zoom recording is required for this part of the assignment, as it is quite long, and it's more important that you learn to build the software configuration properly.
- See the PDF files for the deliverables and the network infrastructure diagram.
- You can research and use other sites to complete the assignment. Some links have been provided in the PDF, but you can research and use other links as needed. This is a change from the PA1 guidelines and is allowed.
- All steps must be performed manually with no automation and must be documented in a PDF with steps and screenshots.
- All screenshots must show your full Host OS desktop, have the proper date/time clock showing, and show your face in a Zoom thumbnail. Annotate screenshots with your steps using boxes, arrows, and text.
- Include a **References** section at the bottom of your PDF, and Include links to all resources used in your project, including links to official documentation, articles, forum posts, etc. This is to ensure you are properly citing the other resources you use in this project.
- All connections between VMs should resolve DNS properly. You can manage this via your Windows Active Directory Domain Server.
- Include a screenshot of usermapping.xml in Guacamole.

- This project requires you to join Linux servers to your Active Directory domain which you should already have created. This practice will be helpful in preparing for your capstone project. There are multiple ways to do this - one way is linked below.

Resources:

- [Apache Guacamole Website](#)
- [Apache HTTPD Web Server Project Website - Reverse Proxy Setup Guide](#)
- [RedHat - How to join a Linux system to an Active Directory domain](#)
- [YouTube – Apache Guacamole Installation – Step by Step \(PDF in video description\)](#)
- [Enabling LDAP/Active Directory Authentication in Apache Guacamole](#)
- [CentOS – Updating Repositories](#)
- [SourceForge - Tutorial to install and run Guacamole with LDAP/AD](#)
- [Layerstack – How to install Apache Guacamole on Ubuntu and Debian](#)

Practical Assignment 2 Project Demo

Due Date: Wednesday July 31, 2024 (Week 13 Class)

Duration: 90 Minutes

Grading: 4% of totalgrade

- During class you will be recording and submitting a demo showing your project functioning. You will be required to show the ability to connect to your Debian/Ubuntu and Rocky headless servers using a web browser via the load balancer by accessing www.linuxtest.ca (this will need to be configured with DNS to function).
- Once connected, you must access the Guacamole portal and connect to each Windows machine. You will need to open the CLI on both your Guacamole server and Windows machine to show the RDP connection is successful.
- In addition to demonstrating the functioning system, you will be asked to make some changes to the system. You will be required to adjust and restart services as needed, confirm functionality, and document as instructed. This will be recorded live on Zoom and submitted as part of the assignment.
- You will create a PDF showing screenshots validating all the instruction steps. All screenshots must show your full Host OS desktop, have the proper date/time clock showing, and show your face in a Zoom thumbnail. Annotate screenshots with your steps using boxes, arrows, and text.
- This demo will be recorded via Zoom, and the recording must show your full Host OS desktop with proper date/time clock showing. It must also show your full face in the video thumbnail.

Practical Assignment 2 Skill Demo

Due Date: Wednesday August 7, 2024 (Week 14 Class)

Duration: 90 Minutes

Grading: 14% of total grade

- **Update 07/17:** For this demo, you will be allowed to use the eText, CLI tools, and the official Apache website (www.apache.org). No other resources are allowed.
- **Update 07/22:** Please prepare a new Linux Mint GUI install, and a new Rocky Linux CLI install to use for the skills demo.
- During class, you will be completing a series of practical tasks based on material from Weeks 9-14.
- To prepare, review all material from the weekly course slides, eText, In-Class Assignments, etc.
- This demo will be recorded via Zoom cloud recordings, and the recording must show your full Host OS desktop with proper date/time clock showing. It must also show your full face in the video thumbnail.