Submission Worksheet

Submission Data

Course: IT490-450-M2025
Assignment: IT490 MQ Test Individual
Student: Christopher S. (cjs77)
Status: Submitted | **Worksheet Progress:** 100%
Potential Grade: 10.00/10.00 (100.00%)
Received Grade: 0.00/10.00 (0.00%)
Started: 6/16/2025 1:48:19 AM
Updated: 6/16/2025 11:16:32 PM
Grading Link: https://learn.ethereallab.app/assignment/v3/IT490-450-M2025/it490-mq-test-individual/grading/cjs77
View Link: https://learn.ethereallab.app/assignment/v3/IT490-450-M2025/it490-mq-test-individual/view/cjs77

Instructions

- Walkthrough: https://youtu.be/tgT0ZAxccbQ

1. Read all instructions and requirements first
2. Use any VM creation tool that gives you root access and persistent storage
    - VirtualBox, Multipass, cloud (Amazon, Google, Azure, etc) (Docker won't be an option here)
    - Create a hostname relevant to the assignment (i.e., test-individual)
    - Create a user of your ucid with a password, ensure relevant permissions
    - Hardward: 1GB Memory, 10GB Hard Drive
    - Install a server version of linux (i.e., Ubuntu Server 24.04)
    - Hint: You may want to get a base install working and use that as a cloning point for quicker destroy/create cycles
3. Use the example code from the master branch of https://github.com/MattToegel/IT490
4. Connect to the VM with two separate ssh connections
    - Run the RabbitMQServerSample.php file successfully in one instance
    - Run the RabbitMQClientSample.php file successfully in another instance
    - Proper data should be sent/received
5. Create a `setup.sh` script that automates the installation/setup logic
6. Fill in the below requirements
7. Submit and Export once done
8. Upload the PDF to your personal GitHub repo for the class
9. Upload the PDF to Canvas

Section #1: (7 pts.) Example Solution

Progress: 100%

Task #1 (3.50 pts.) - Working Example

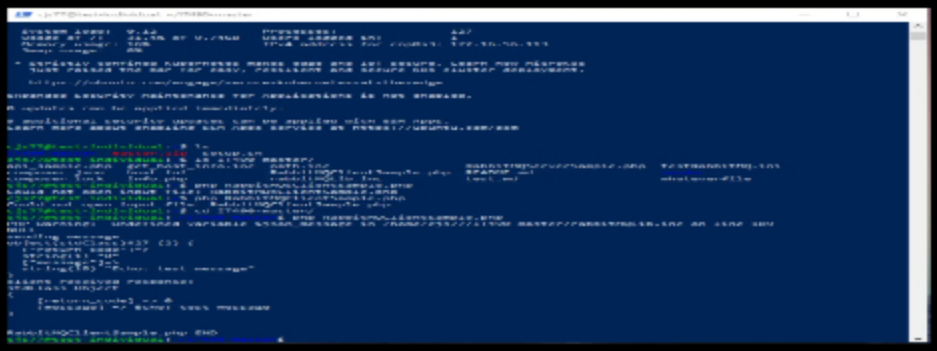
Progress: 100%

Part 1:

Progress: 100%

Details:

- Demonstrate a successful send/receive of the example message
- Hostname should be test-individual or similar
- Username should be your ucid



Client sending and receiving messages

Server consuming and replying messages

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Part 2:

Progress: 100%

Details:

- Detail the initial setup experience and note things you had to address in order for the example to work

Your Response:

Setting up the VM in VirtualBox was not very difficult. Changing the VM network settings to use a bridged connection instead of NAT was the most difficult part. I had to do some troubleshooting with my VM as when I first set it up, the installation would fail which I figured out was due to a lack of memory and my VM did not have an IPV4 address. That was fixed when I switched from a wifi connection to an ethernet connection. Installing all the necessary packages was fairly easy. Took me too long to figure out that my VM did not have ssh installed when I was trying to ssh into it. Overall, the setup experience went well after switching devices and restarting the process.(and following the video!)

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Task #2 (3.50 pts.) - Setup Script

Progress: 100%

Part 1:

Progress: 100%

Details:

- Show a snippet of the `setup.sh` script you created to automate the installation and configuration steps that lead up to a working example.

Setup Script for VM

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Part 2:

Progress: 100%

Details:

- Include the direct link to the file from your personal class repository

URL #1
https://github.com/ChrisSpinden5684/cjs77-IT490-450/blob/main/setup.sh

URL
https://github.com/ChrisSpinden5

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Part 3:

Progress: 100%

Details:

- Briefly explain each step of the process in the script

Your Response:

The first 8 steps are updating and upgrading packages to the current version after startup, then installing packages that our VM needs to run the server.

ZIP to compress and uncompress files PHP to run and comply PHP files NANO to edit text files COMPOSER for dependancies needed with PHP rabbitmq-server for running backend net-tools for

networking

Then we enable and start the rabbitmq-server service

Then we install ssh and its packages, enable and start the ssh service so that our VM is able to be connected to.

Then we clone the repo that has our program files to a zip file, unzip that file and enter that repo we just created.

Finally, we update the composer package as it was needed in order to run the sample code.

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Section #2: (3 pts.) Reflection

Progress: 100%

Task #1 (1 pt.) - What was the easiest part of this assignment

Progress: 100%

Details:

- At least a few solid sentences

Your Response:

The easiest part of this assignment was installing packages. VM setup was annoying and took a lot of troubleshooting on the network end but was overall very smooth.

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Task #2 (1 pt.) - What was the hardest part of this assignment

Progress: 100%

Details:

- At least a few solid sentences

Your Response:

Determining whether to use NAT or bridged connection on the VM was the hardest part. NAT gave me an IP but I could not SSH. Bridged connection should have worked at first but my apartment building was not giving me an IP address for my VM which I think was due to the fact that my network is managed(not by me)

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Task #3 (1 pt.) - What did you learn during this assignment

Progress: 100%

Details:

- At least a few solid sentences

Your Response:

I learned about troubleshooting specifically network issues. VM installation has too many configuration options and it can be very confusing. I also did not realize how many packages you need to install when using Linux. I was so used to them being setup that configuring a barebone server took a lot mroe downloading than I thought.

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