

Submission Worksheet

Submission Data

Course: IT490-450-M2025

Assignment: IT490 MQ Test Individual

Student: Filip M. (fm369)

Status: Submitted | **Worksheet Progress:** 100%

Potential Grade: 10.00/10.00 (100.00%)

Received Grade: 0.00/10.00 (0.00%)

Started: 6/6/2025 3:09:59 PM

Updated: 6/7/2025 8:03:57 PM

Grading Link: <https://learn.ethereallab.app/assignment/v3/IT490-450-M2025/it490-mq-test-individual/grading/fm369>

View Link: <https://learn.ethereallab.app/assignment/v3/IT490-450-M2025/it490-mq-test-individual/view/fm369>

Instructions

- Walkthrough: <https://youtu.be/tqT0ZAxccbQ>
- 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
 - Hardware: 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%

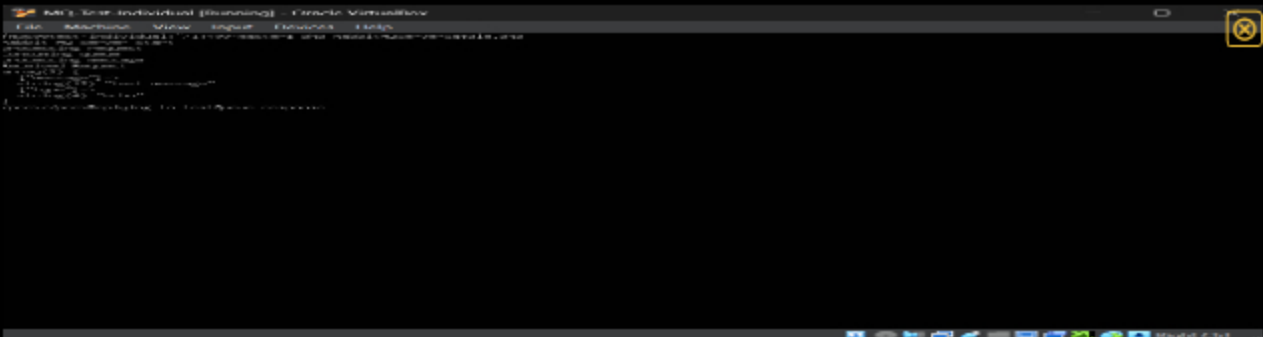
Part 1:

Details:

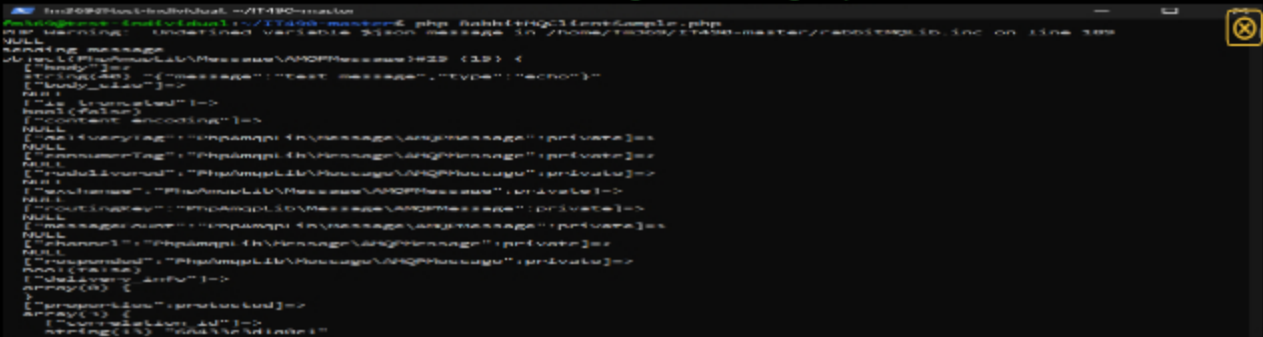
- Demonstrate a successful send/receive of the example message
- Hostname should be test-individual or similar
- Username should be your ucid

- Details:**

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



Shows Server receiving and sending request.



Shows Client sending and receiving request

Shows Client sending and receiving request

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⇒ Part 2:


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

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Your Response:

First I had to download VirtualBox to set up my test-individual VM. I then downloaded Ubuntu server 24.02.4 and installed that on the VM. I created a user with my UCID and set a password. I then followed the initial setup steps for the VM such as updating the OS and installing necessary

features. Once that was done, I downloaded all the files from the IT490-master repository. Then once again, I had to download a few more things such as "composer" in order for PHP to function correctly. Once everything was ready to go, I launched RabbitMQServerSample.php and opened up Powershell on my PC. I then tried to SSH into the VM, however it wasn't working initially. That's because the Network adapter in the VM settings was set to NAT instead of "Bridged Adapter". Once I changed it, I was able to SSH into the VM. Once I successfully logged into the VM via SSH, I launched the RabbitMQClientSample.php. I then saw that I received a reply from the server and once I checked the VM, I saw that the server received the request.

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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.



Script that automates most of the setup process
(have to still enter password for some things to
install)

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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/FilMan17/IT490/blob/main/module%202/Setup.sh>



URL

<https://github.com/FilMan17/IT490>

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⇒ Part 3:

Progress: 100%

Details:

- Briefly explain each step of the process in the script

Your Response:

I simply just followed the order that we set up everything in, in the walkthrough video. First, the script downloads the zip file of the master repository. Then, it installs the unzip feature and unzips "master.zip". Next, it goes into the "IT490-master" directory and downloads updates for the OS. It then installs those updates and any pending updates. After that, the script installs php and downloads composer. Composer is then installed along with the nano feature. This is in case we need to go into a file and change something manually. The next command goes into the "composer.json" file and changes "Something-Fun" to "something-fun". Composer is then updated and rabbitmq-server is installed. Finally, the script ends off by launching "RabbitMQServerSample.php" which then waits for a request from client.



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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:

I would say the easiest part of the assignment was making the script (assuming I did it correctly). That's because all I had to do was trace back and retype the commands that I used to initially set everything up. I could have made the script even more automatic by finding a way to automatically give the password of the user, but I don't think that's necessary in this case.



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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:

Funny enough, setting up the VM in VirtualBox was the hardest part for me. This was because I kept getting weird errors during the installation process of Ubuntu Server. After some research, I came across a post that said to disable the LVM option during installation and increase RAM allowance. This seemed to be the solution and I was able to get the VM running. Also, I wasn't able to SSH into the VM initially because the default setting for the network adapter is "NAT". Once I switched it to "Bridged Adapter" I was able to SSH into it.



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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 a few things during this assignment. I've never used Ubuntu server before so I learned how to set that up including installing any pending updates on it after installation. More importantly, I learned the inner functions of the RabbitMQ Server and Client that are used to communicate with each other. Evidently, we will be building on this as we go further into the course. Lastly, I brushed up on my bash scripting by having to build the script in order to automate the setup process.



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