VCC CSL7510

Assignment 1 Report

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1. Step by step instruction for implementations
   a. Installation of Virtual box and creation of multiple VMs

      The below tables show the details of the OS and VirtualBox application used.

application	Version
Virtual box	7.1.6.r167084
HOST OS	Windows 11
Guest OS	Lubunut 24.04 LTS

Table 1: Software version used

Created two instances of VM as shown in figure 1

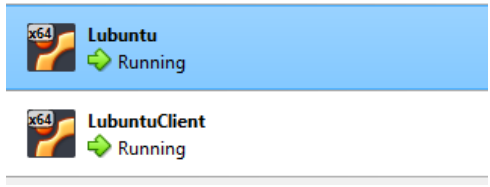

Figure 1. Snaps of two VMs created

- Lubuntu: It is a Server that creates a simple POST based micros services that listens on port 5000 and responds to request send to /hello endpoint

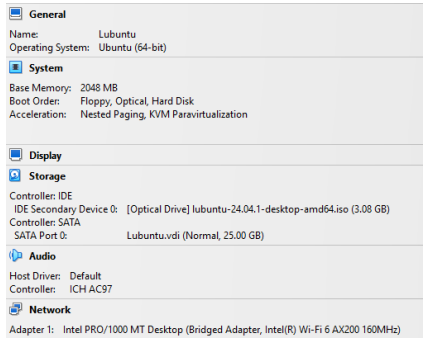

Figure 2. Snaps shot of Server VM

- LubuntuClient: It creates a simple POST-based microservice that listens on port 5000 and responds to requests sent to the /hello endpoint.

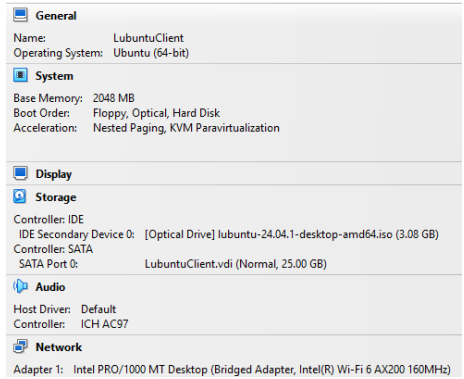

Figure 3. Snap shot of Client VM

b. Configuration of network settings

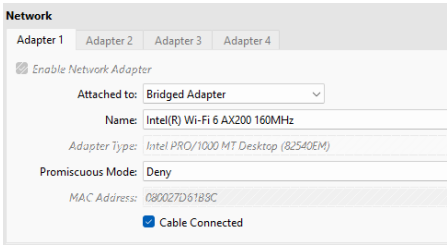

Figure 4. Network setting of both Server and Client VMs.

As shown in Figure 4 have used Bridge adapter. This will make sure VMs acts like another other device in the local network and hence can interact among themselves.

c. Deployment of a simple micro service application
Created a simple echo server-based Micros service.

2. Architecture design of connections of VMs and host of micro service applications

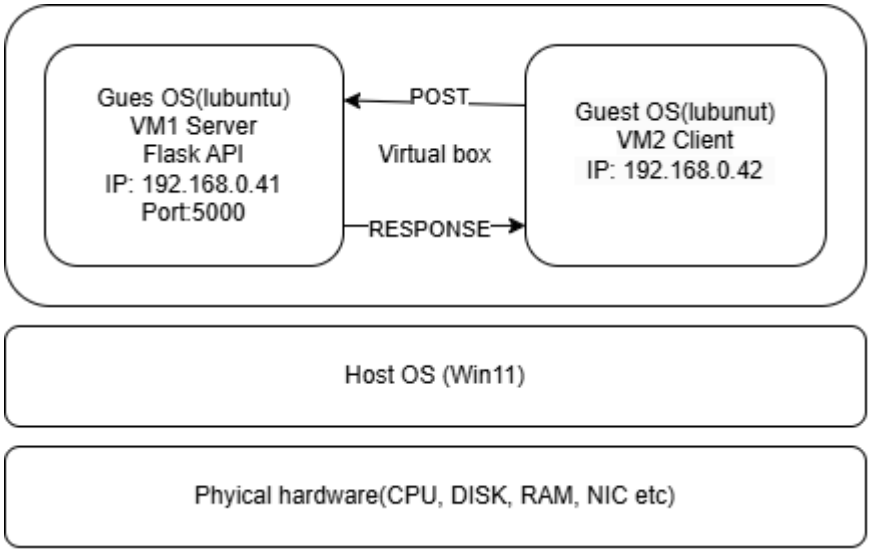

Figure 5. Architecture diagram of the connections

3. Github link https://github.com/m22aie221/CSL7510

4. A video demonstrating the creation, configuration, and hosting process with a voice-over explanation.

   https://drive.google.com/drive/folders/1dExqwqCF7KeICSSjM5ED14HkR5qq9Lcd?usp=drive_link