



IT4090

Cloud Computing

4th Year, 1st Semester

Azure Lab 1

Practical Session

Submitted to

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1. Create virtual machine

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home > Virtual machines >

Create a virtual machine

Try out the Microsoft Copilot for Azure for additional recommendations when creating a virtual machine.

Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * Azure for Students

Resource group * (New) my_VM

Create new

Instance details

Virtual machine name * myVM

Region * (Europe) Norway East

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Give feedback

Figure 1. 1: Select subscription and create virtual machine name

Microsoft Azure

Search resources, services, and docs (G+)

Copilot

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Create a virtual machine

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Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

Availability options

Availability zone

Zone options

☒ Self-selected zone
Choose up to 3 availability zones, one VM per zone

☐ Azure-selected zone (Preview)
Let Azure assign the best zone for your needs

Availability zone *

Zone 1

You can now select multiple zones. Selecting multiple zones will create one VM per zone. [Learn more](#)

Security type

Standard

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Figure 1. 2: Select necessary instance details

Microsoft Azure

Home > Virtual machines >

Create a virtual machine

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Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

Image *

See all images | Configure VM generation

This image is compatible with additional security features. [Click here to swap to the Trusted launch security type.](#)

VM architecture ☐ Arm64 ☒ x64

Run with Azure Spot discount ☐

Size *

See all sizes

< Previous | Next: Disks > | **Review + create**

[Give feedback](#)

Figure 1. 3: Choose proper image and size according to region

Microsoft Azure

Home > Virtual machines >

Create a virtual machine

Try out the Microsoft Copilot for Azure for additional recommendations when creating a virtual machine.

Help me create a low cost VM | Help me create a VM optimized for high availability | Help me choose the right VM size for my workload

Hibernate is not supported by the size that you have selected. Choose a size that is compatible with hibernate to enable this feature. [Learn more](#)

Administrator account

Authentication type ☒ SSH public key ☐ Password

Azure now automatically generates an SSH key pair for you and allows you to store it for future use. It is a fast, simple, and secure way to connect to your virtual machine.

Username *

< Previous | Next: Disks > | **Review + create**

[Give feedback](#)

Figure 1. 4: Select SSH public key and create a username

Microsoft Azure

Home > Virtual machines >

Create a virtual machine

Try out the Microsoft Copilot for Azure for additional recommendations when creating a virtual machine.

Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

SSH public key source: Generate new key pair

SSH Key Type:

- ☒ RSA SSH Format
- ☐ Ed25519 SSH Format

 Ed25519 offers better performance and security with a smaller key size, while RSA is still widely used particularly for legacy systems and applications.

Key pair name *: myVM_key

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports *: ☐ None

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Figure 1. 5: SSH public key source with key pair name

Microsoft Azure

Home > Virtual machines >

Create a virtual machine

Try out the Microsoft Copilot for Azure for additional recommendations when creating a virtual machine.

Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

Inbound port rules

Select which virtual machine network ports are accessible from the public internet. You can specify more limited or granular network access on the Networking tab.

Public inbound ports *: ☐ None ☒ Allow selected ports

Select inbound ports *: HTTP (80), SSH (22)

All traffic from the internet will be blocked by default. You will be able to change inbound port rules in the VM > Networking page.

< Previous Next: Disks > Review + create Give feedback

Figure 1. 6: Choose Allow selected ports and then select SSH (22) and HTTP (80)

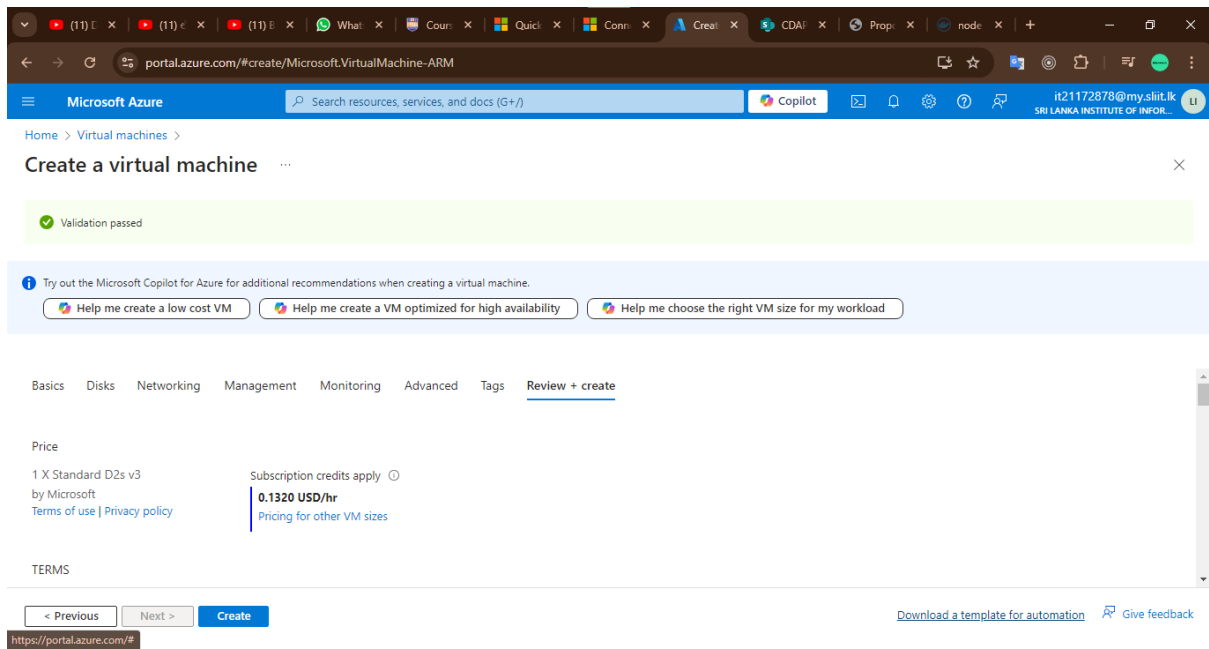


Figure 1. 7: My virtual machine details

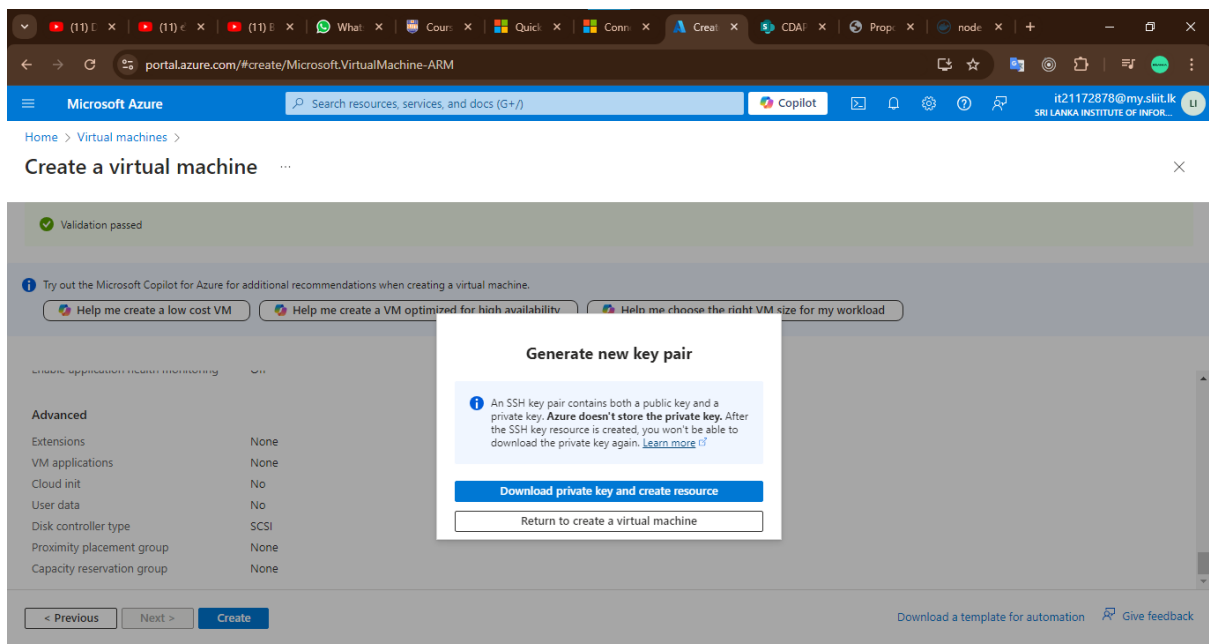


Figure 1. 8: Generate new key pair and download .pem file

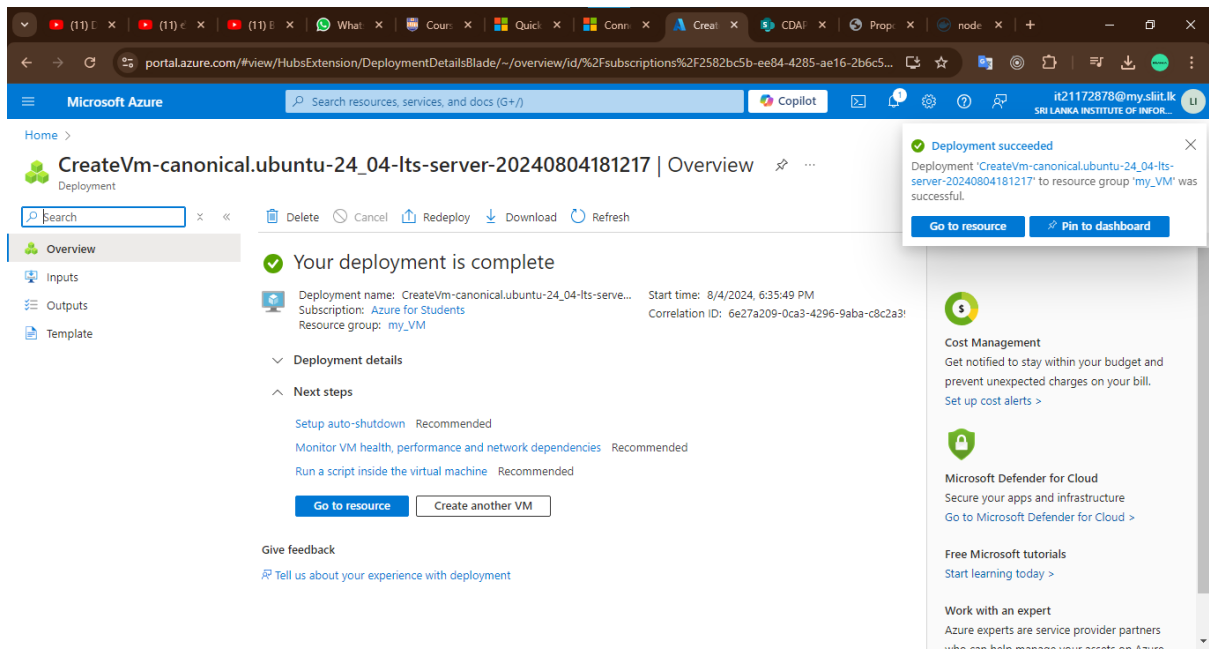


Figure 1. 9: Go to resource

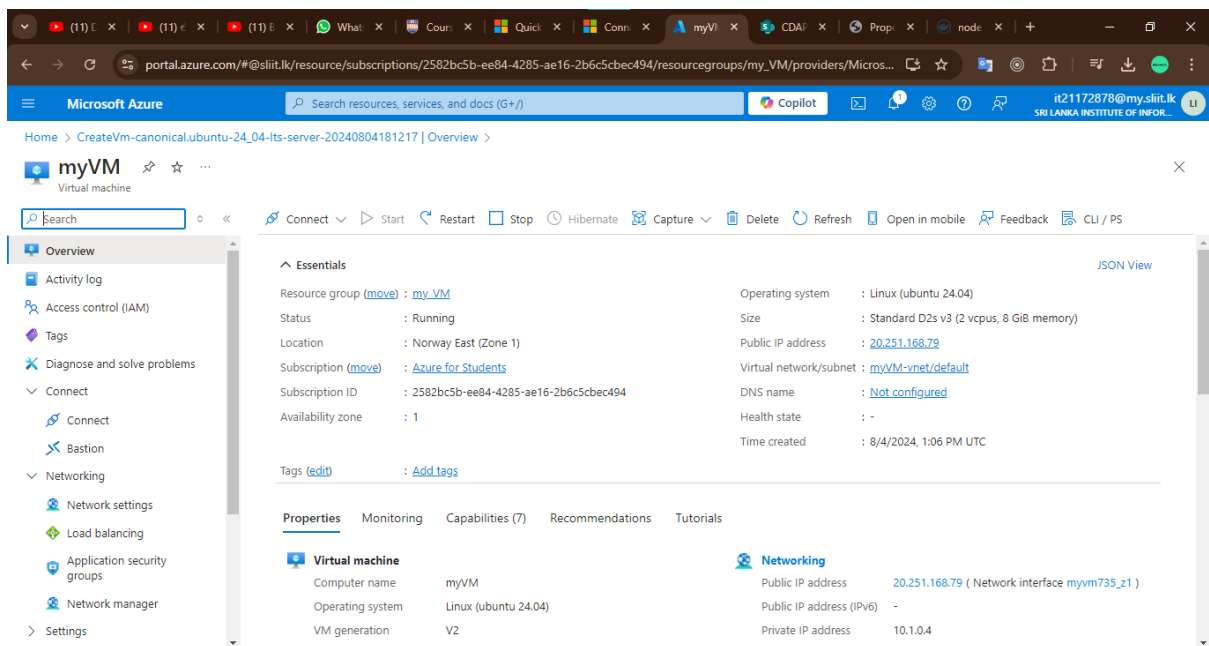


Figure 1. 10: My virtual machine overview

2. Connect to virtual machine

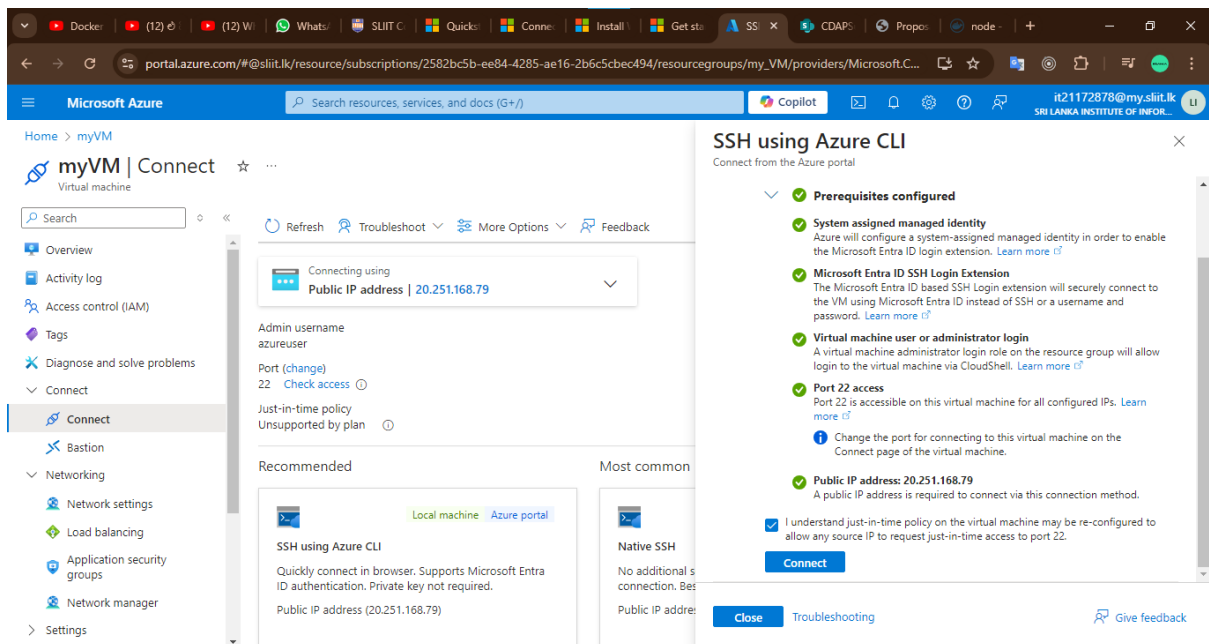


Figure 2. 1: Create SSH connection

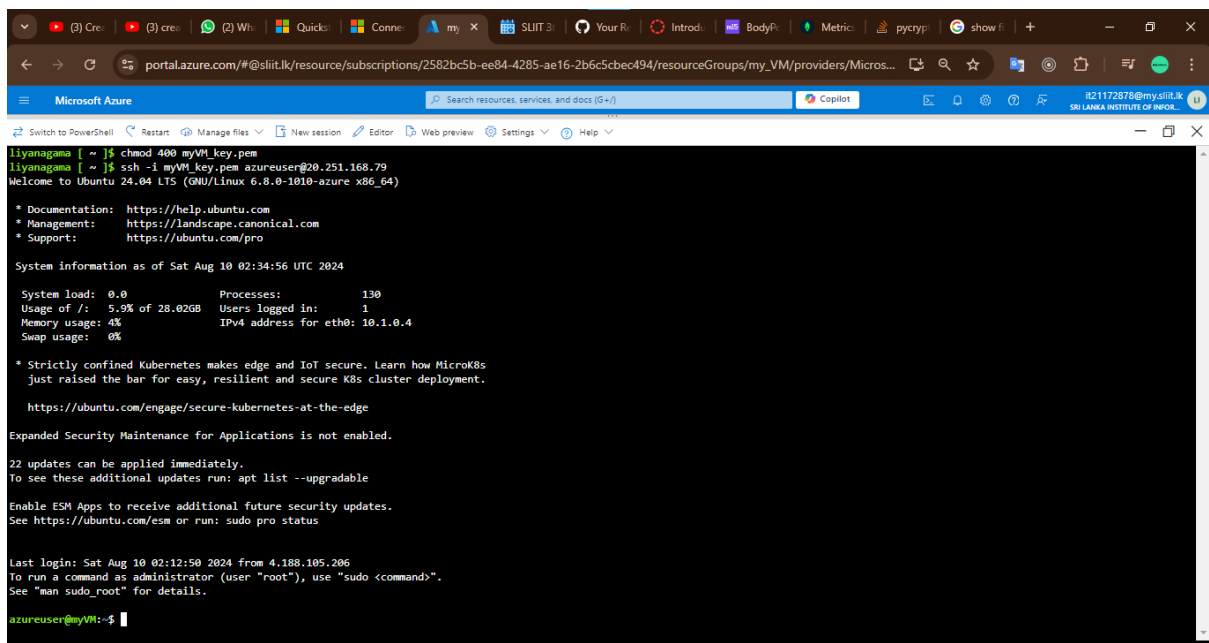


Figure 2. 2: Replace the IP address with the path to the .pem

3. Install web server

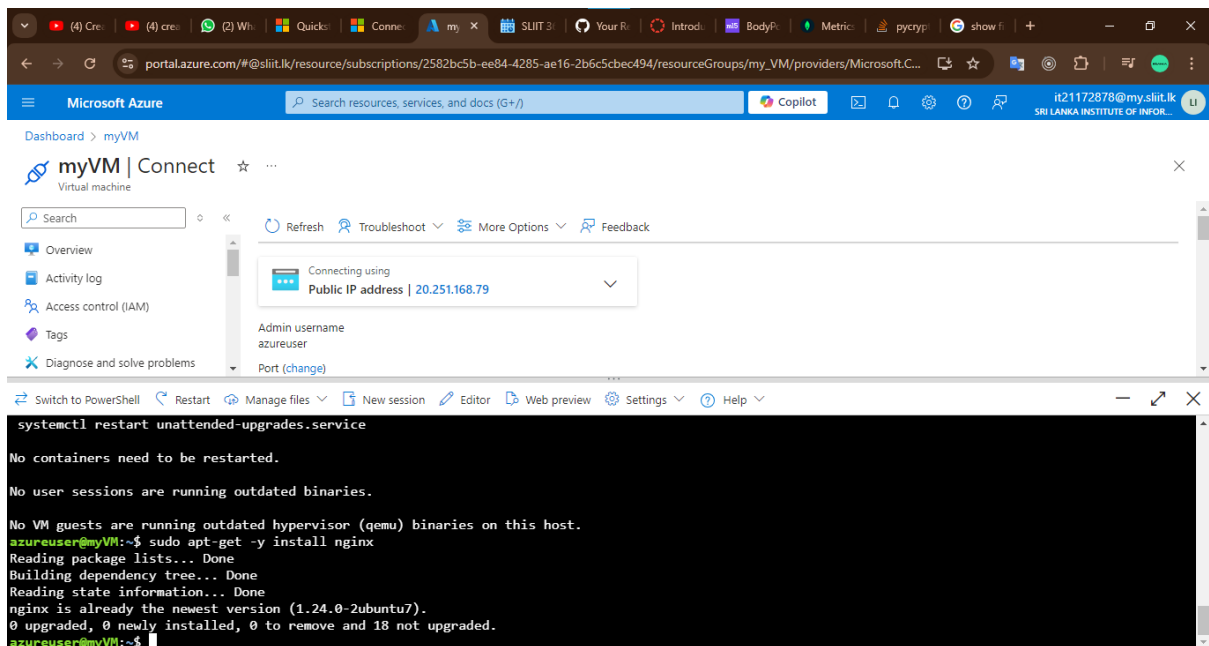


Figure 3. 1: Install the NGINX web server

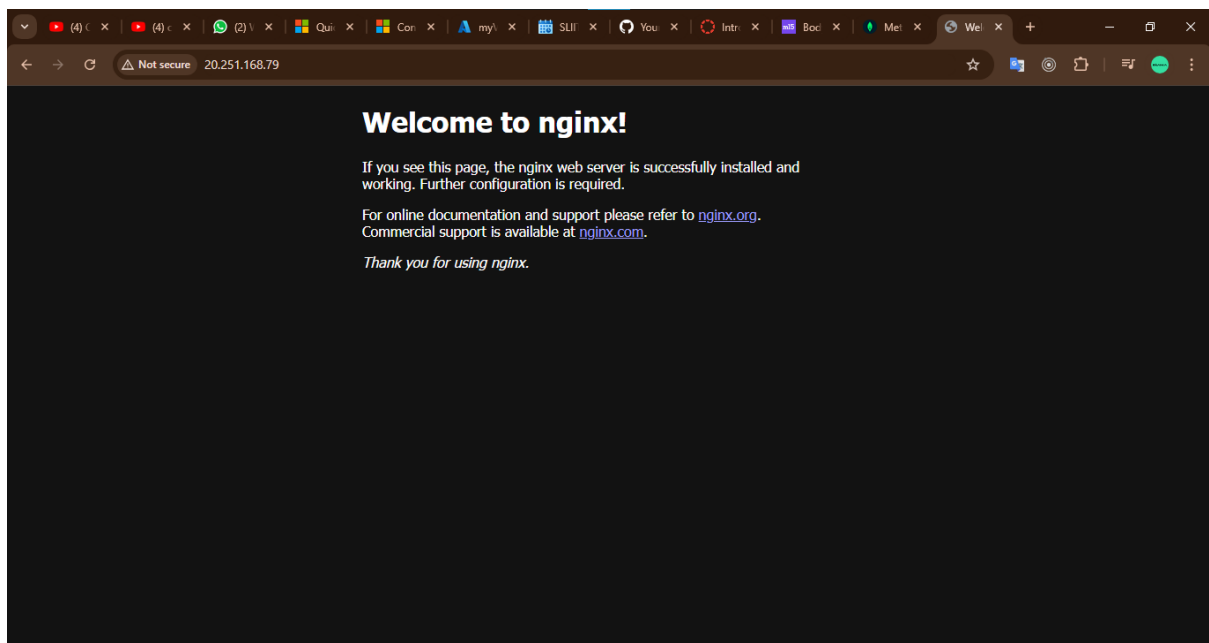


Figure 3. 2: View the web server in action

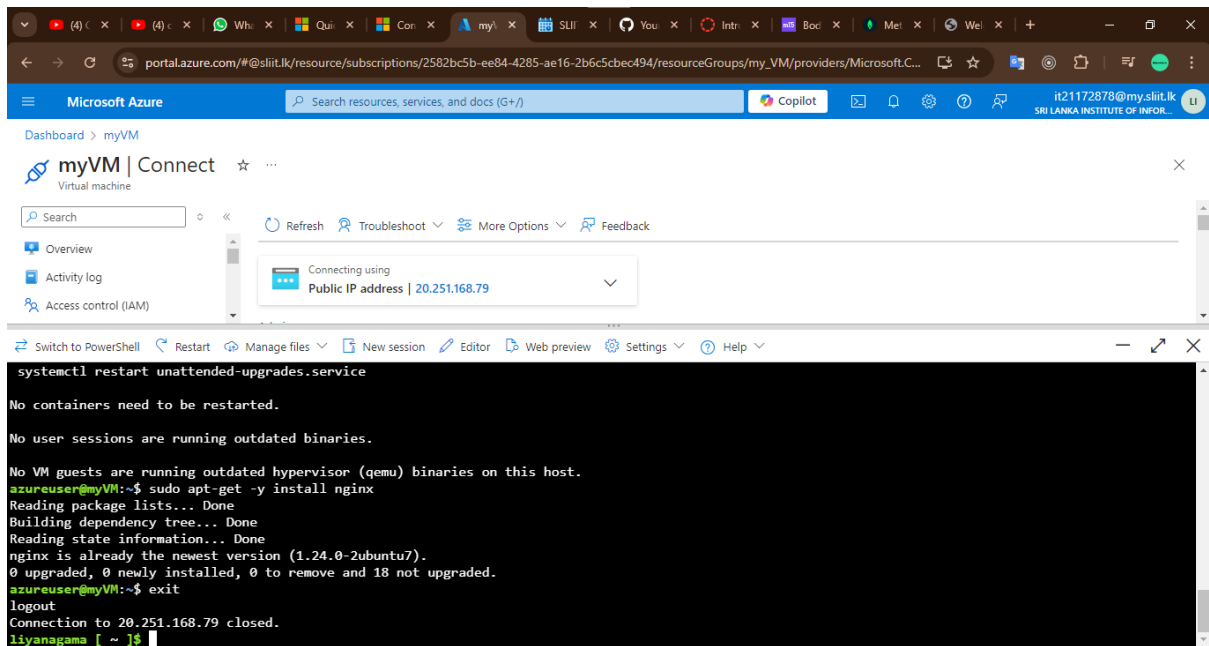


Figure 3. 3: Type exit to leave the SSH session

4. Clean up resources

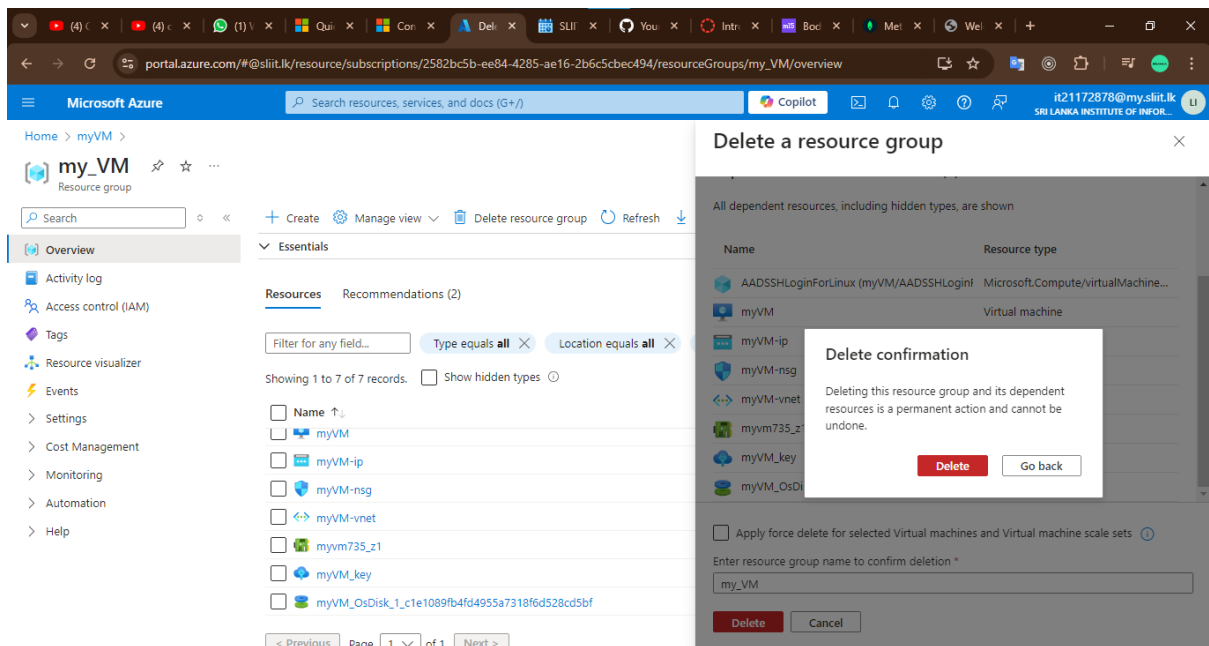


Figure 4. 1: Type the name of the resource group and select Delete to finish deleting the resources

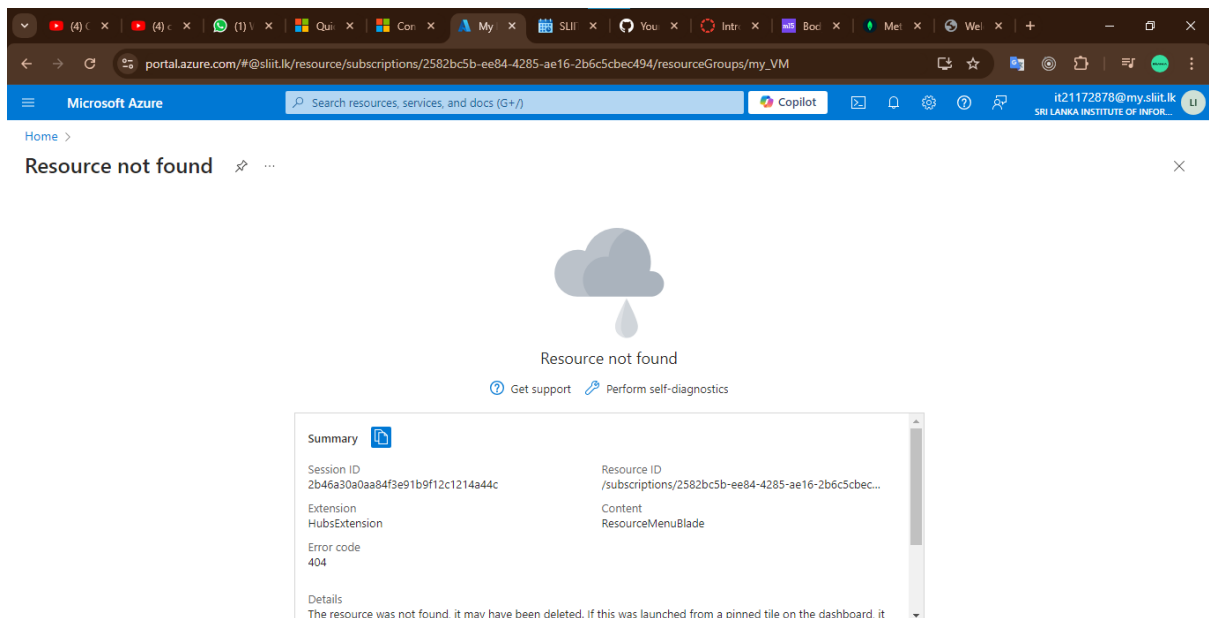


Figure 4. 2: Deleted resources