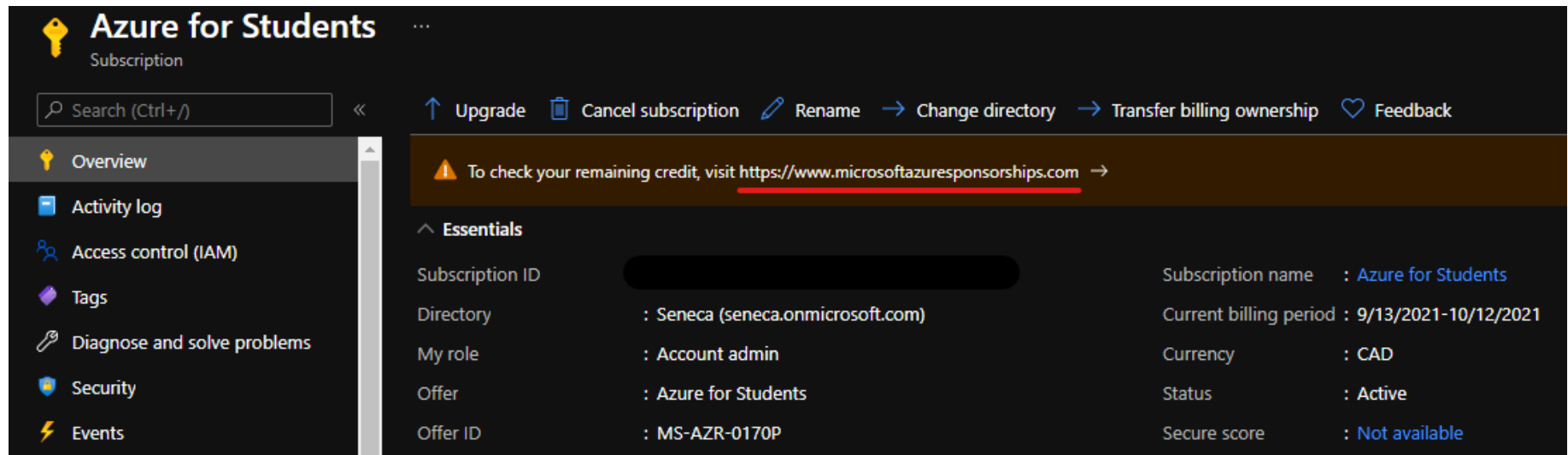




Lab 1: Create a Virtual machine in the portal

At the end of each lab, any resources you created in your account will be preserved. Some Azure resources, such as VM instances, may be automatically shut down, while other resources, such as storage services will be left running. Keep in mind that some Azure features cannot be stopped and can still incur charges (i.e. Azure Bastion). To minimize your costs, delete all resources and recreate them as needed to test your work during a session.



Azure for Students
Subscription

Search (Ctrl+/) << << Upgrade Cancel subscription Rename Change directory Transfer billing ownership Feedback

⚠ To check your remaining credit, visit <https://www.microsoftazuresponsorships.com> →

^ Essentials

Subscription ID		Subscription name	: Azure for Students
Directory	: Seneca (seneca.onmicrosoft.com)	Current billing period	: 9/13/2021-10/12/2021
My role	: Account admin	Currency	: CAD
Offer	: Azure for Students	Status	: Active
Offer ID	: MS-AZR-0170P	Secure score	: Not available

Reference: [AZ-900T0X-MICROSOFTAZUREFUNDAMENTALS](#)

01 - Create a virtual machine in the portal

In this walkthrough, we will create a virtual machine in the Azure portal, connect to the virtual machine, install the web server role and test.

Note: Take time during this walk-through to click and read the Informational icons.

Task 1: Create the virtual machine (10 min)

In this task, we will create a Windows Server 2019 Datacenter - Gen1 virtual machine.

1. Sign in to the [Azure portal \(https://portal.azure.com\)](https://portal.azure.com).
2. From the **All services** blade, search for and select **Virtual machines**, and then click + **Add** and choose +**Virtual machine**.
3. On the **Basics** tab, fill in the following information (leave the defaults for everything else):

Settings	Values
Subscription	Choose your subscription
Resource group	myRGVM (create new)
Virtual machine name	myVm
Location	(US) East US

Settings	Values
Image	Windows Server 2019 Datacenter - Gen1
Size	Standard D2s v3
Administrator account username	azureuser
Administrator account password	Pa\$\$w0rd1234
Inbound port rules - Allow select ports	RDP (3389) and HTTP (80)

4. Switch to the Networking tab, and look for the **Select inbound ports**:

Settings	Values
Select inbound ports	HTTP (80), RDP (3389)

5. **Note** - Verify that both port 80 and 3389 are selected
6. Switch to the Management tab, and in its **Monitoring** section, select the following setting:

Settings	Values
Boot diagnostics	Disable

7. Leave the remaining defaults and then click the **Review + create** button at the bottom of the page.
 8. Once Validation is passed click the **Create** button. It can take anywhere from five to seven minutes to deploy the virtual machine.
 9. You will receive updates on the deployment page and via the **Notifications** area (the bell icon in the top menu).
- **Verify Port 80 and 3389 were opened**

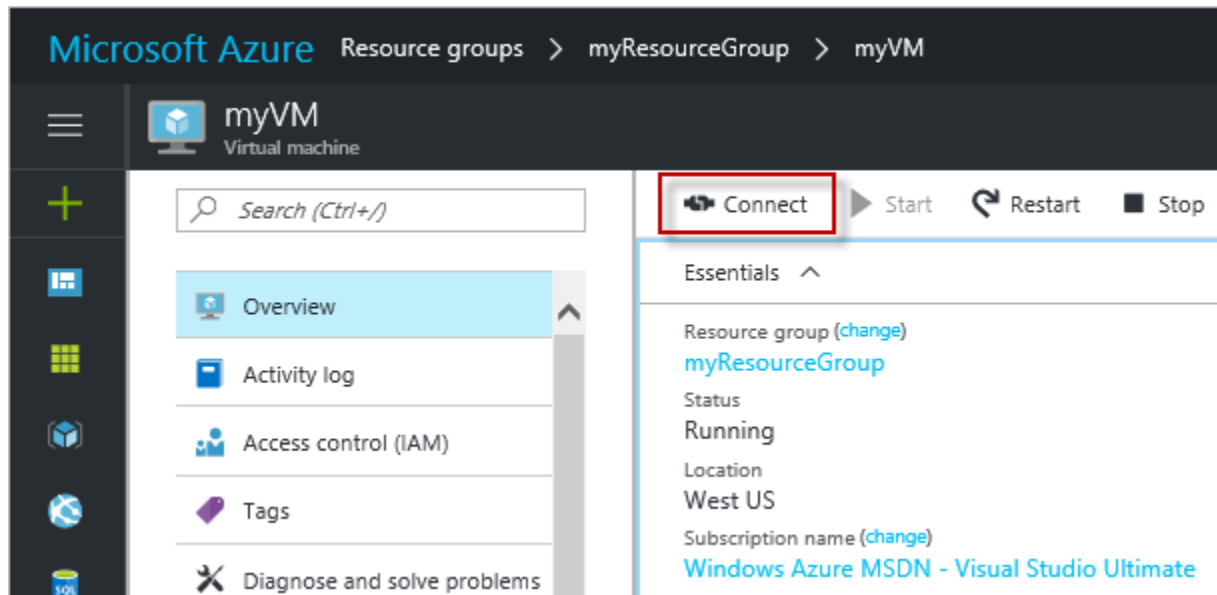
Task 2: Connect to the virtual machine

In this task, we will connect to our new virtual machine using RDP.

1. Search for **myVM** and select your new virtual machine.

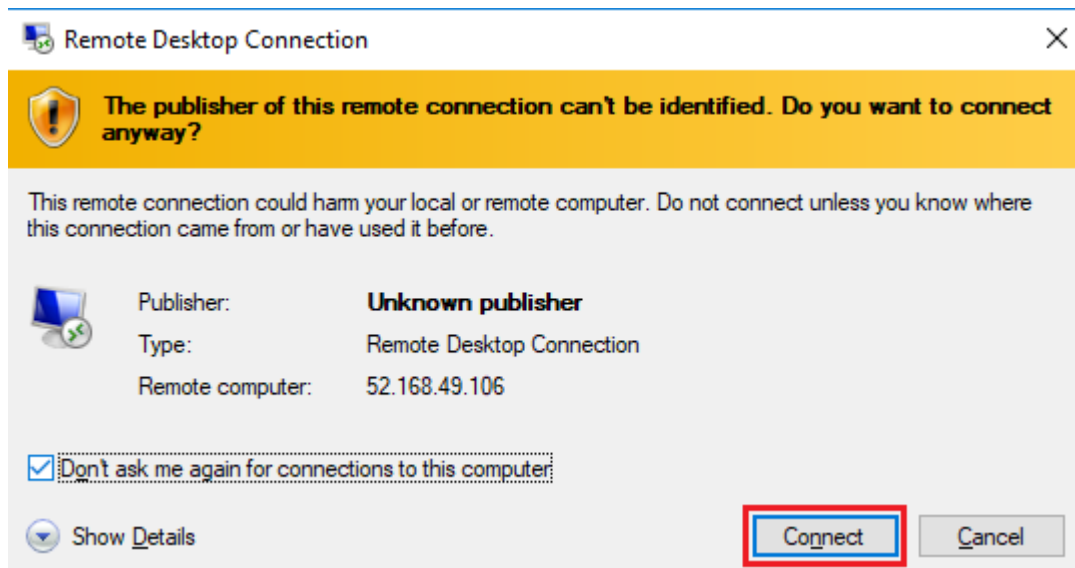
Note: You could also use the **Go to resource** link on the deployment page or the link to the resource in the **Notification** area.

2. On the virtual machine **Overview** blade, click the **Connect** button and choose **RDP**.

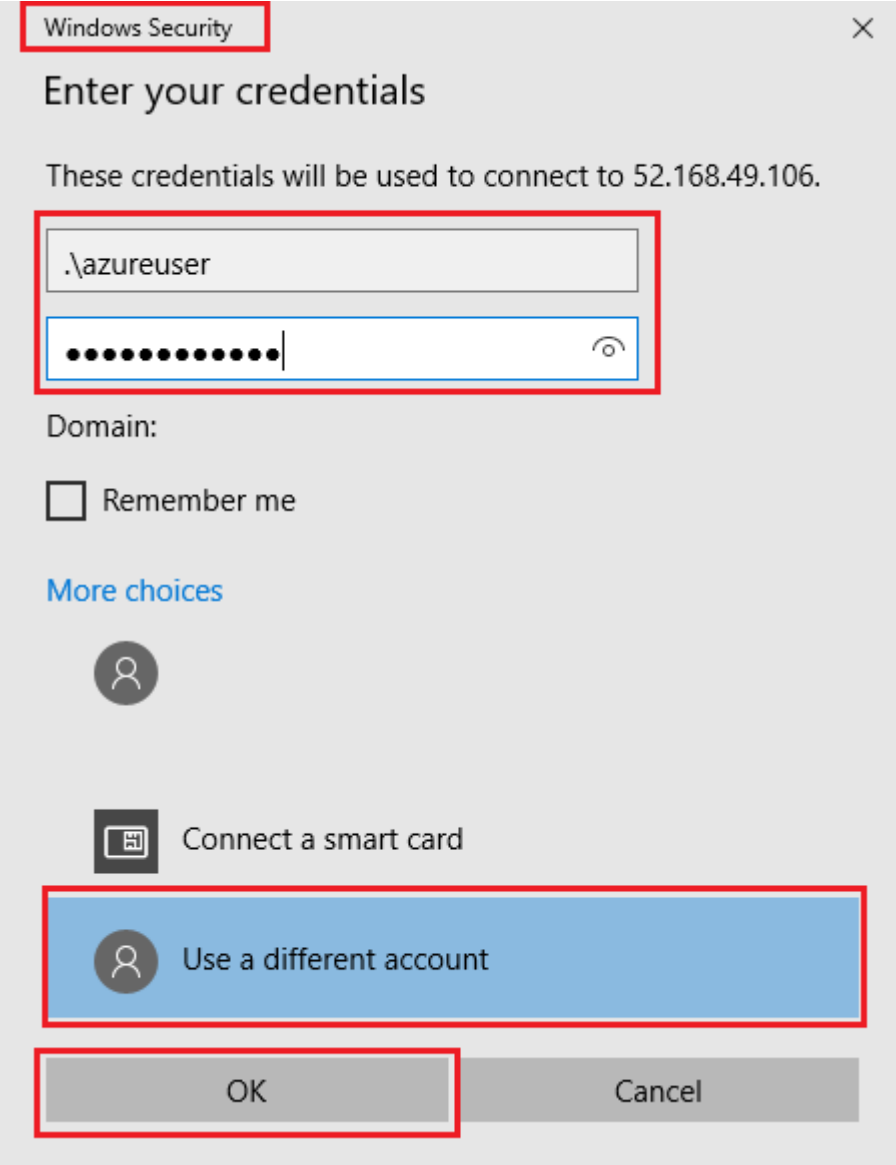


Note: The following directions tell you how to connect to your VM from a Windows computer. On a Mac, you need an RDP client such as this Remote Desktop Client from the Mac App Store and on a Linux computer you can use an open source RDP client.

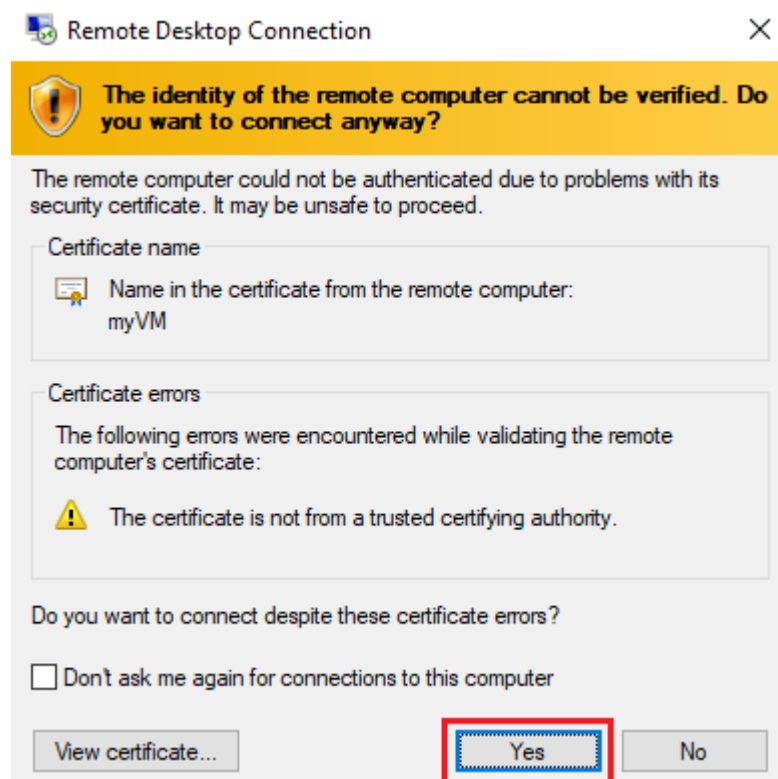
3. In the **Connect to virtual machine** page, keep the default options to connect with the public IP address over port 3389 and click **Download RDP File**.
4. **Open** the downloaded RDP file and click **Connect** when prompted.



5. In the **Windows Security** window, select **More choices** and then **Use a different account**. Provide the username (.\\azureuser) and the password (Pa\$\$w0rd1234). Click **OK** to connect.



6. You may receive a certificate warning during the sign-in process. Click **Yes** or to create the connection and connect to your deployed VM. You should connect successfully.



Congratulations! You have deployed and connected to a Windows Server virtual machine in Azure

Task 3: Install the web server role and test

In this task, install the Web Server role on the server and ensure the default IIS welcome page can be displayed.

1. Open up a PowerShell command prompt on the virtual machine, by clicking the **Start** button, typing **PowerShell**, right clicking **Windows PowerShell**, and selecting **Run as administrator** in the right-click menu.



Best match



Windows **PowerShell**

App

Apps



Windows **PowerShell** ISE



Windows **PowerShell** (x86)



Windows **PowerShell** ISE (x86)

Settings



PowerShell Developer Settings



Allow local **PowerShell** scripts to run without signing



Replace Command Prompt with Windows **PowerShell**

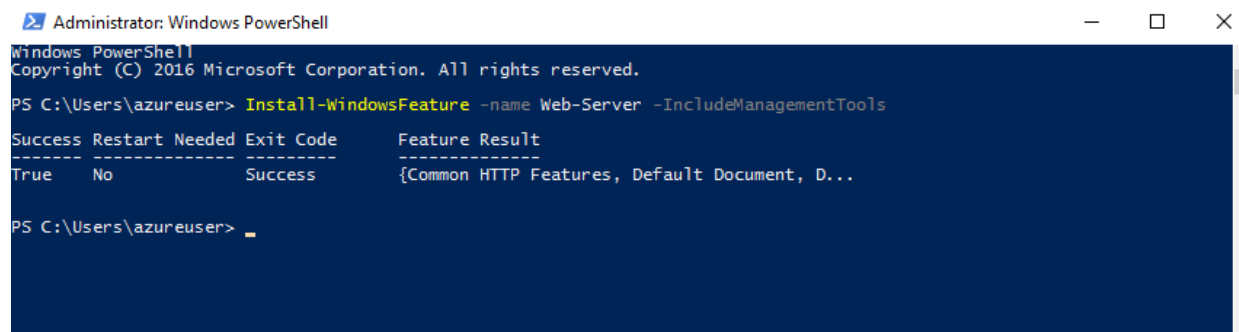


2. Install the **Web-Server** feature in the virtual machine by running the following command in the PowerShell command prompt. You can copy and paste this command.

CodeCopy

```
Install-WindowsFeature -name Web-Server -IncludeManagementTools
```

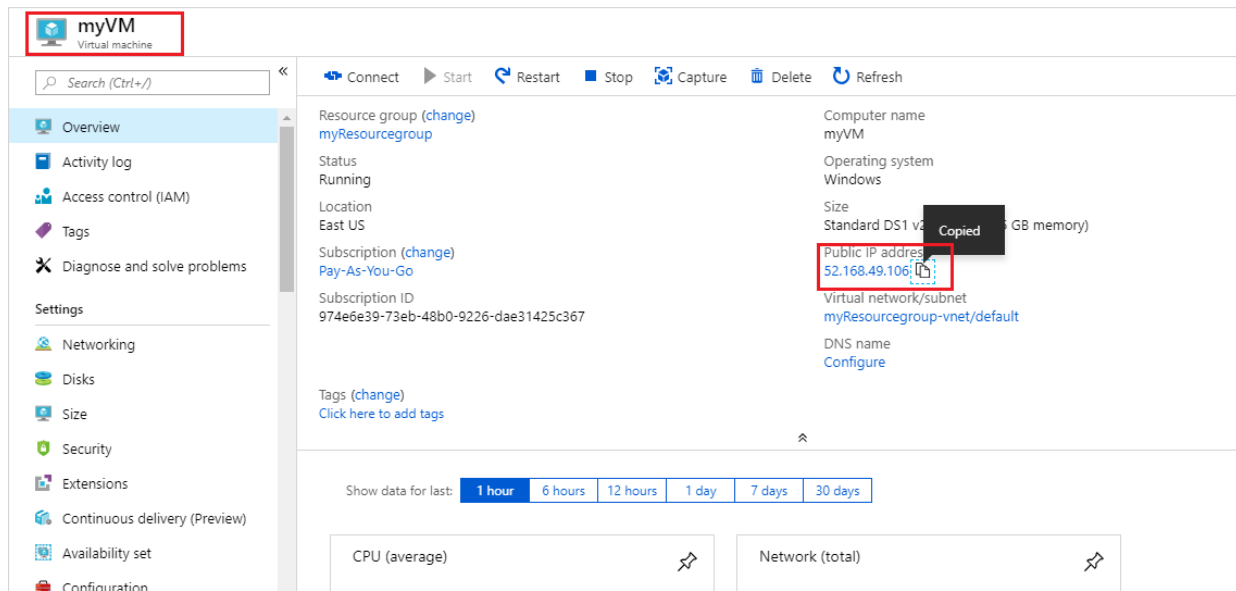
3. When completed there will be a prompt stating **Success** with a value **True**. You do not need to restart the virtual machine to complete the installation. Close the RDP connection to the VM.



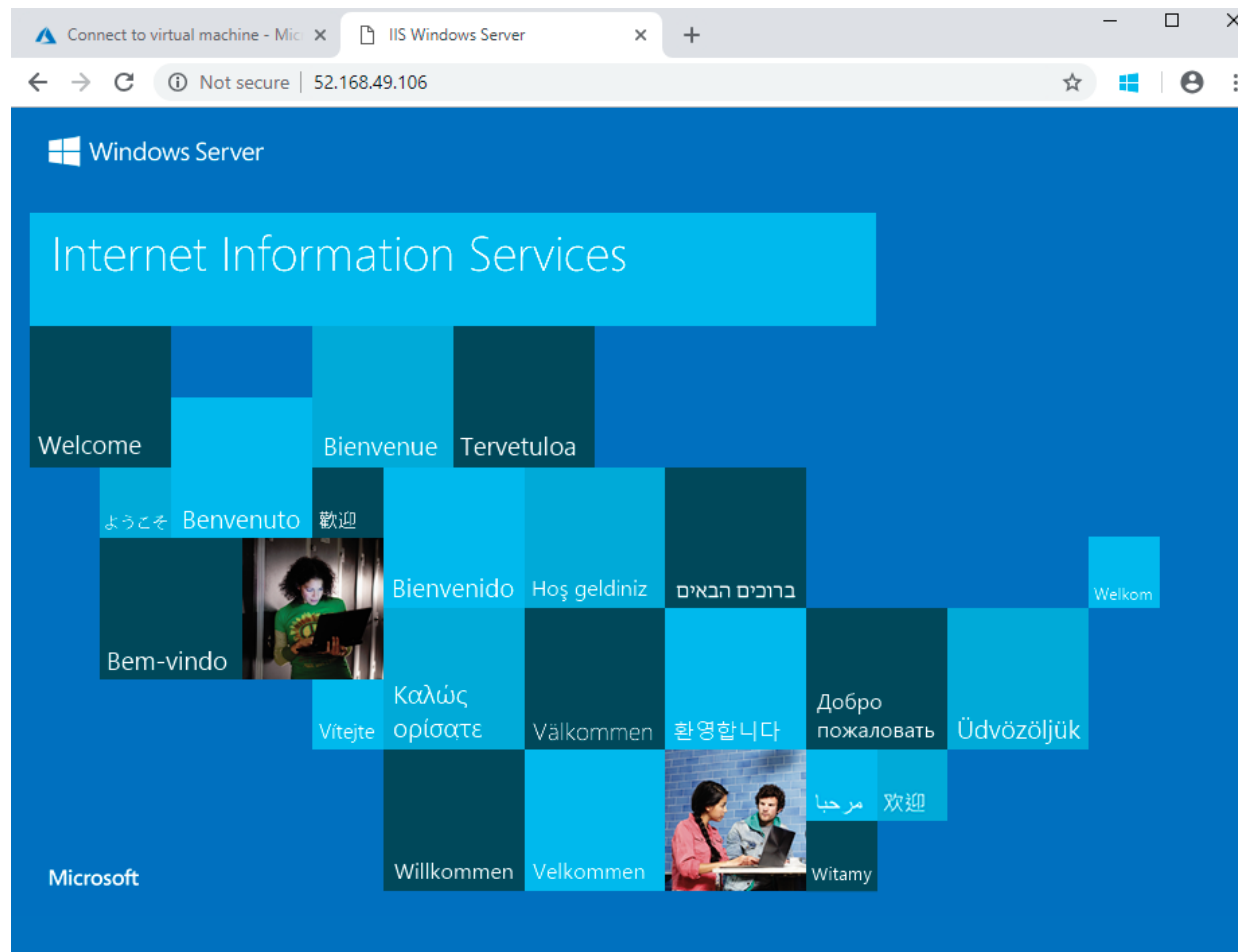
The screenshot shows a Windows PowerShell window titled "Administrator: Windows PowerShell". The command prompt displays the command `Install-WindowsFeature -name Web-Server -IncludeManagementTools` and its output. The output is a table with four columns: Success, Restart Needed, Exit Code, and Feature Result. The values are True, No, Success, and {Common HTTP Features, Default Document, D... respectively.

Success	Restart Needed	Exit Code	Feature Result
True	No	Success	{Common HTTP Features, Default Document, D...

4. Back in the portal, navigate back to the **Overview** blade of myVM and, use the **Click to clipboard** button to copy the public IP address of myVM, open a new browser tab, paste the public IP address into the URL text box, and press the **Enter** key to browse to it.



5. The default IIS Web Server welcome page will open.



Modify the default website title to your student ID (i.e. dtrinh1) instead of "IIS Windows Server".

Congratulations! You have created a web server that is accessible via its public IP address. If you had a web application to host, you could deploy application files to the virtual machine and host them for public access on the deployed virtual machine.

Note: To avoid additional costs, you can remove all resources in the resource group. Search for resource groups, click your resource group, and then delete the resources within the resource group. **DO NOT DELETE YOUR RESOURCE GROUP.**

Submission Requirements

Submit a screenshot with the following information:

Screenshot #1:

- Access to your webpage using an external IP address
- Webpage with the title modified to your student ID
- The Azure Portal with your login ID [requires another browser window]

The screenshot displays the Microsoft Azure Portal interface on the left and a Windows Server virtual machine (myVM) on the right. The Azure Portal shows the 'Virtual machines' section for the 'Seneca' resource group, with 'myVM' selected. The Windows Server VM is running 'Internet Information Services' and displays a multi-language 'Welcome' message. The 'Networking' section on the right provides details about the VM's network configuration.

Property	Value
Operating system	Windows (Windows Server 2019 Datacenter)
Size	Standard D2s v3 (2 vcpus, 8 GiB memory)
Public IP address	13.82.120.27
Virtual network/subnet	myRGVM-vnet/default
DNS name	Configure

Networking

Property	Value
Public IP address	13.82.120.27
Public IP address (IPv6)	-
Private IP address	10.0.0.4
Private IP address (IPv6)	-
Virtual network/subnet	myRGVM-vnet/default
DNS name	Configure

Screenshot #2:

- Successful deletion of resources within resource group. **DO NOT DELETE YOUR RESOURCE GROUP!**

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and user information (dtrinh1@myseneca.ca). The main content area is titled 'Resource groups' and shows a list of resource groups, with 'myRG' selected. The 'myRG' resource group is highlighted in the left sidebar. The main pane displays the 'Overview' tab for 'myRG', showing subscription details (Subscription ID: 3e6685e5-073e-4397-8a34-b9022c3952d9, Location: East US). Below the overview, the 'Resources' tab is active, showing a table with 0 records. The table has columns for Name, Type, and Location. The status bar at the bottom of the resources table indicates 'Showing 0 to 0 of 0 records'.

Microsoft Azure

Search resources, services, and docs (G+/)

Home > Resource groups >

Resource groups

Seneca (seneca.onmicrosoft.com)

Create Manage view

Filter for any field...

Name ↑↓

myRG

Overview

Activity log

Access control (IAM)

Tags

Resource visualizer

Events

Settings

Deployments

Security

Policies

Properties

Locks

myRG

Resource group

Search (Ctrl+)

Create Edit columns Delete resource group Refresh Export to CSV Open query Assign tags

Essentials

Subscription (Move) Azure for Students

Subscription ID 3e6685e5-073e-4397-8a34-b9022c3952d9

Tags (Edit) Click here to add tags

Deployments No deployments

Location East US

Resources Recommendations

Filter for any field... Type == all Location == all Add filter

Showing 0 to 0 of 0 records. Show hidden types No grouping List view

Name ↑↓ Type ↑↓ Location ↑↓