

Walkthrough-Create a Virtual machine using Azure Portal

In this walkthrough task we will create a virtual machine in Azure via the Azure Portal, configure it as a web server and connect to the web server over the internet.

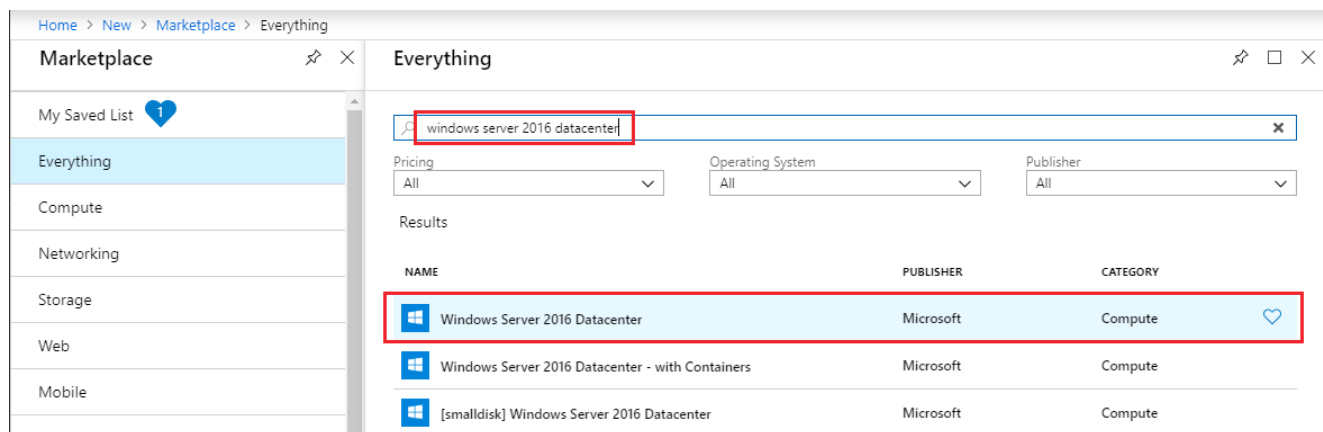
You can complete this walkthrough task by completing the steps outlined below, or you can simply read through them, depending on your available time.

Prerequisites

- You require need an Azure subscription to perform these steps. If you don't have one you can create one by following the steps outlined on the **Create your Azure free account today**¹ webpage.

Steps

1. Sign in to the Azure portal at <https://portal.azure.com>²
2. Choose **Create a resource** in the upper left-hand corner of the Azure portal.
3. In the search box above the list of Azure Marketplace resources, search for and select **Windows Server 2016 Datacenter**, then choose **Create**.



¹ https://azure.microsoft.com/en-us/free/?ref=microsoft.com&utm_source=microsoft.com&utm_medium=docs&utm_campaign=visualstudio

² <https://portal.azure.com>

4.

Windows Server 2016 Datacenter

Microsoft

Windows Server 2016 is a comprehensive server operating system designed to run the applications and infrastructure that power your business. It includes built-in layers of security and innovation to help you run traditional and cloud-native applications with confidence. This Server with Desktop Experience image includes all roles including the graphical user interface (GUI).

This image can be used with [Azure Hybrid Benefit for Windows Server](#).

Legal Terms

By clicking the Create button, I acknowledge that I am getting this software from Microsoft and that the [legal terms](#) of Microsoft apply to it. Microsoft does not provide rights for third-party software. Also see the [privacy statement](#) from Microsoft.

[Save for later](#)

PUBLISHER	Microsoft
USEFUL LINKS	Documentation Introducing Windows Server 2016 What's New in 2016 Learn more

Select a deployment model ⓘ

Resource Manager Activate Windows Go to Settings to activate Windows.

[Create](#)

5.

6. In the **Basics** tab, under Project details, make sure the correct subscription is selected and then choose to **Create new resource group**. Type *myResourceGroup* for the name.

Home > New > Create a virtual machine

Create a virtual machine

Basics **Disks** Networking Management Guest config Tags Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization.
Looking for classic VMs? [Create VM from Azure Marketplace](#)

PROJECT DETAILS

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

* Subscription ⓘ Pay-As-You-Go

* Resource group ⓘ (New) myResourceGroup
[Create new](#)

7.

8. Under **Instance details**, type **myVM** for the Virtual machine name and choose **East US** for your Location. Leave the other defaults.

INSTANCE DETAILS

* Virtual machine name ⓘ ✓

* Region ⓘ ▼

Availability options ⓘ ▼

* Image ⓘ ▼
[Browse all images and disks](#)

* Size ⓘ **Standard DS1 v2**
 1 vcpu, 3.5 GB memory
[Change size](#)

9.

10. Under the **Administrator account** section, provide a username, such as **azureuser** and a password. The password must be at least 12 characters long and meet the defined complexity requirements.

ADMINISTRATOR ACCOUNT

* Username ⓘ ✓

* Password ⓘ ✓

* Confirm password ⓘ ✓

✓ Password and confirm password must match.

11.

12. Under **Inbound port** rules, choose **Allow selected ports** and then select **RDP (3389)** and **HTTP (80)** from the drop-down. These are to allow us to connect to the virtual machine using RDP over port 3389 and then to see a web page display over HTTP on port 80.

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 ▼

⚠ These ports will be exposed to the internet. Use the Advanced controls to limit inbound traffic to known IP addresses. You can also update inbound traffic rules later.

13.

14. Go to the Management tab and under the **Monitoring** section under **Boot diagnostics** select **Off**

Create a virtual machine

Basics Disks Networking **Management** Guest config Tags Review + create

Configure monitoring and management options for your VM.

MONITORING

Boot diagnostics ⓘ ☐ On ☒ Off

OS guest diagnostics ⓘ ☐ On ☒ Off

IDENTITY

System assigned managed identity ⓘ ☐ On ☒ Off

AUTO-SHUTDOWN

Enable auto-shutdown ⓘ ☐ On ☒ Off

BACKUP

Enable backup ⓘ ☐ On ☒ Off

15.

16. Leave the remaining defaults and then select the **Review + create** button at the bottom of the page.

SAVE MONEY

Save up to 49% with a license you already own using Azure Hybrid Benefit. [Learn more](#)

* Already have a Windows license? ⓘ ☐ Yes ☒ No

Review + create Previous Next : Disks >

17.

18. Once Validation is passed click the **Create** button. It can take approx three to five minutes to deploy the virtual machine.

Create a virtual machine

✓ Validation passed

[Basics](#) [Disks](#) [Networking](#) [Management](#) [Guest config](#) [Tags](#) [Review + create](#)

PRODUCT DETAILS

Standard DS1 v2

by Microsoft

[Terms of use](#) | [Privacy policy](#)

Subscription credits apply ⓘ

0.1063 EUR/hr

[Pricing for other VM sizes](#)

TERMS

By clicking "Create", I (a) agree to the legal terms and privacy statement(s) associated with the Marketplace offering(s) listed above; (b) authorize Microsoft to bill my current payment method for the fees associated with the offering(s), with the same billing frequency as my Azure subscription; and (c) agree that Microsoft may share my contact, usage and transactional information with the provider(s) of the offering(s) for support, billing and other transactional activities. Microsoft does not provide rights for third-party offerings. See the [Azure Marketplace Terms](#) for additional details.

BASICS

Subscription	Pay-As-You-Go
Resource group	(new) myResourcegroup
Virtual machine name	myVM
Region	East US
Availability options	No infrastructure redundancy required
Username	azureuser

Create

Previous

Next

[Download a template for automation](#)

19.

20. Once the virtual machine is created, go to the resource group you placed the virtual machine in, and open up the virtual machine, then click the **Connect** button on the virtual machine properties page.

myResourcegroup

Search (Ctrl+/)

Overview

Activity log

Access control (IAM)

Tags

Events

Settings

Quickstart

Resource costs

Deployments

Policies

Properties

Locks

Automation script

+ Add Edit columns Delete resource group Refresh Move Assign tags Delete Export to CSV

Subscription (change)
Pay-As-You-Go

Subscription ID
974e6e39-73eb-48b0-9226-dae31425c367

Deployments
1 Succeeded

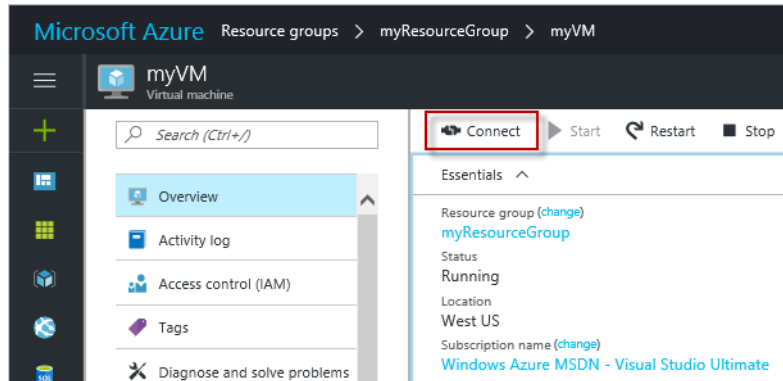
Tags (change)
[Click here to add tags](#)

Filter by name... All types All locations No grouping

6 items Show hidden types ⓘ

NAME	TYPE	LOCATION
myResourcegroup-vnet	Virtual network	East US
myVM	Virtual machine	East US
myVM_OsDisk_1_caeb4eebabe243aaa17a203e268ee3a5	Disk	East US
myvm619	Network interface	East US
myVM-ip	Public IP address	East US
myVM-nsg	Network security group	East US

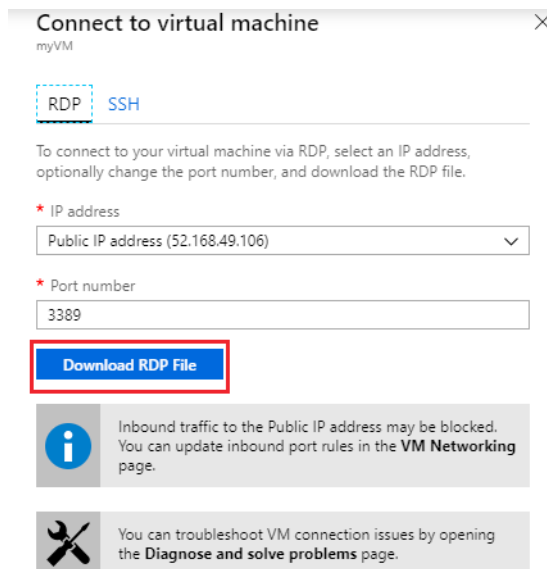
21.



22.

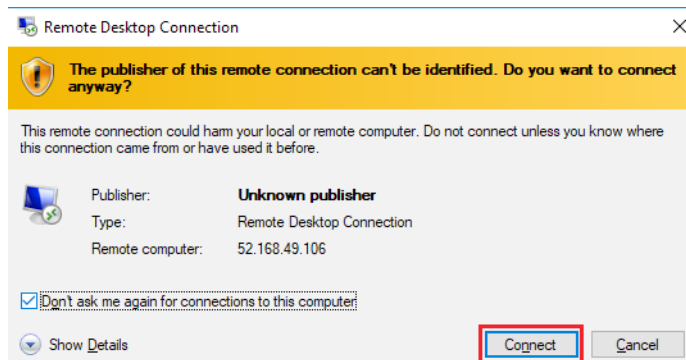
Note: The following directions tell you how to connect to your VM from a Windows computer. On a Mac, you need an RDP client such as this Remote Desktop Client from the Mac App Store and on Linux virtual machine you could connect directly from a bash shell using `ssh`.

1. In the **Connect to virtual machine** page, keep the default options to connect by DNS name over port 3389 and click **Download RDP File**.



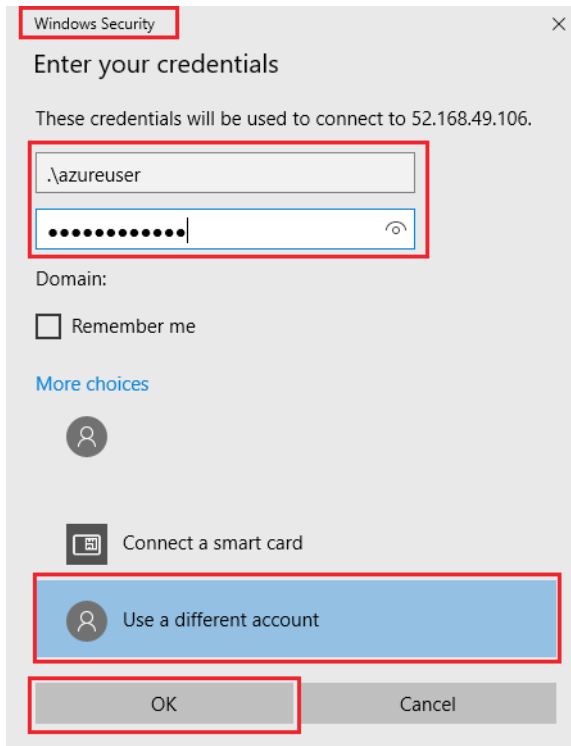
2.

3. Open the downloaded RDP file and click **Connect** when prompted.

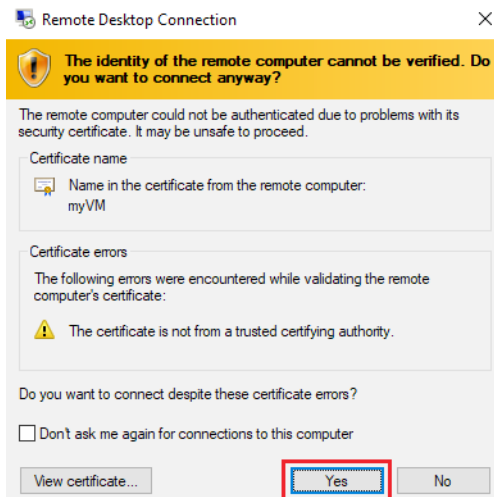


4.

5. In the **Windows Security** window, select **More choices** and then **Use a different account**. Type the username as localhost\username, (you could also type .\azureuser) enter password you created for the virtual machine, and then click **OK**.



- 6.
7. 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.

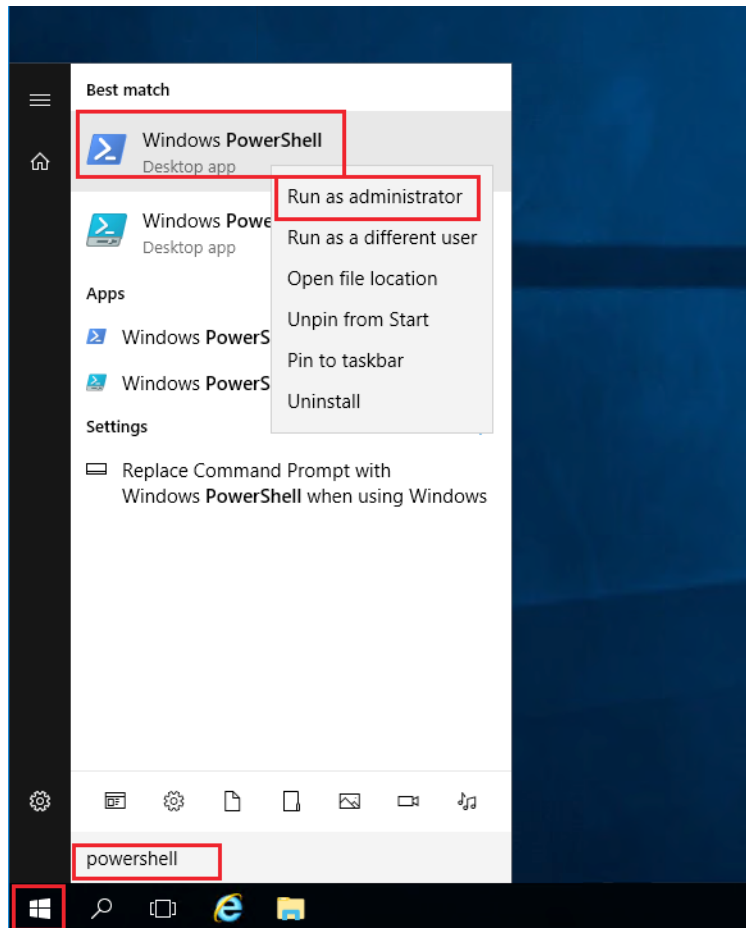


- 8.

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

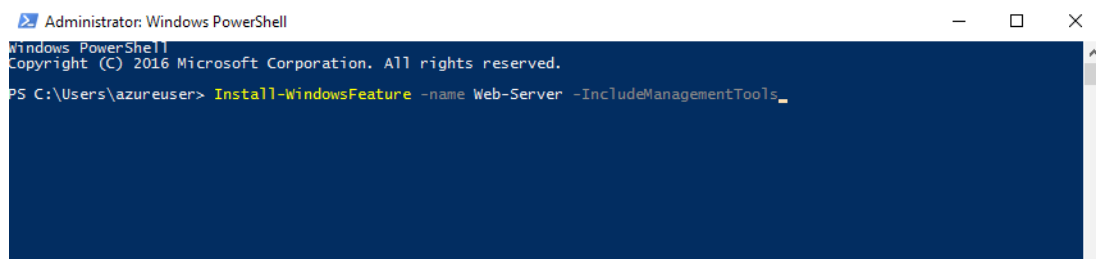
If you wish and have time you could also make the deployed server a functioning web server and make a web page available publicly, by continuing with the following steps

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



- 2.
3. Install the **Web-Server** feature in the virtual machine by running the following command in the PowerShell command prompt:
PowerShell

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



1. When completed you should see a prompt stating **Success** with a value **True**, among other items in the output. You do not need to restart the virtual machine to complete the installation. Close the RDP connection to the VM.

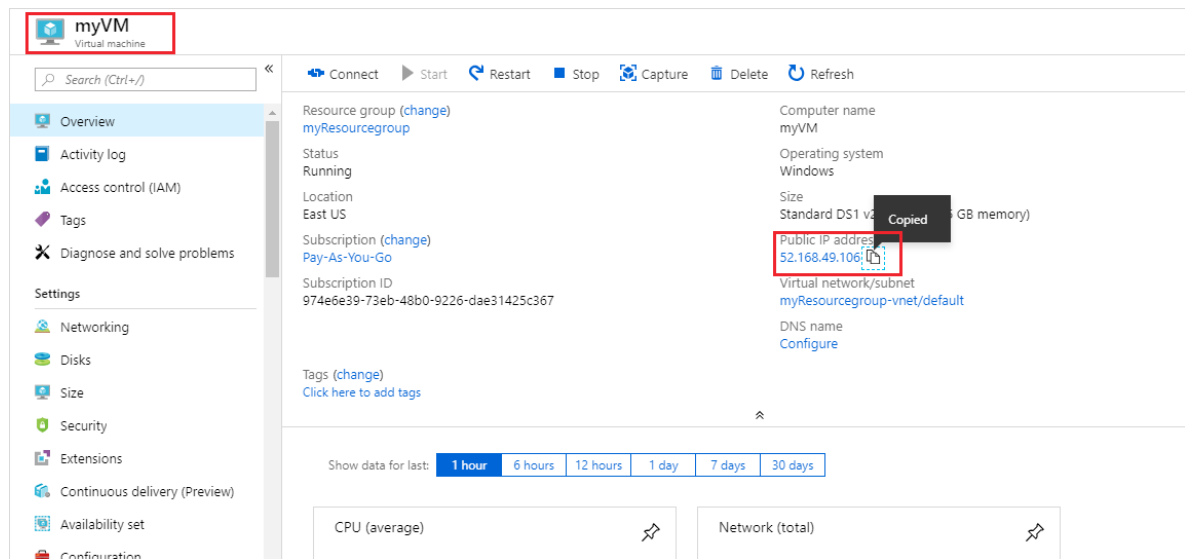

```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\Users\azureuser> Install-WindowsFeature -name Web-Server -IncludeManagementTools

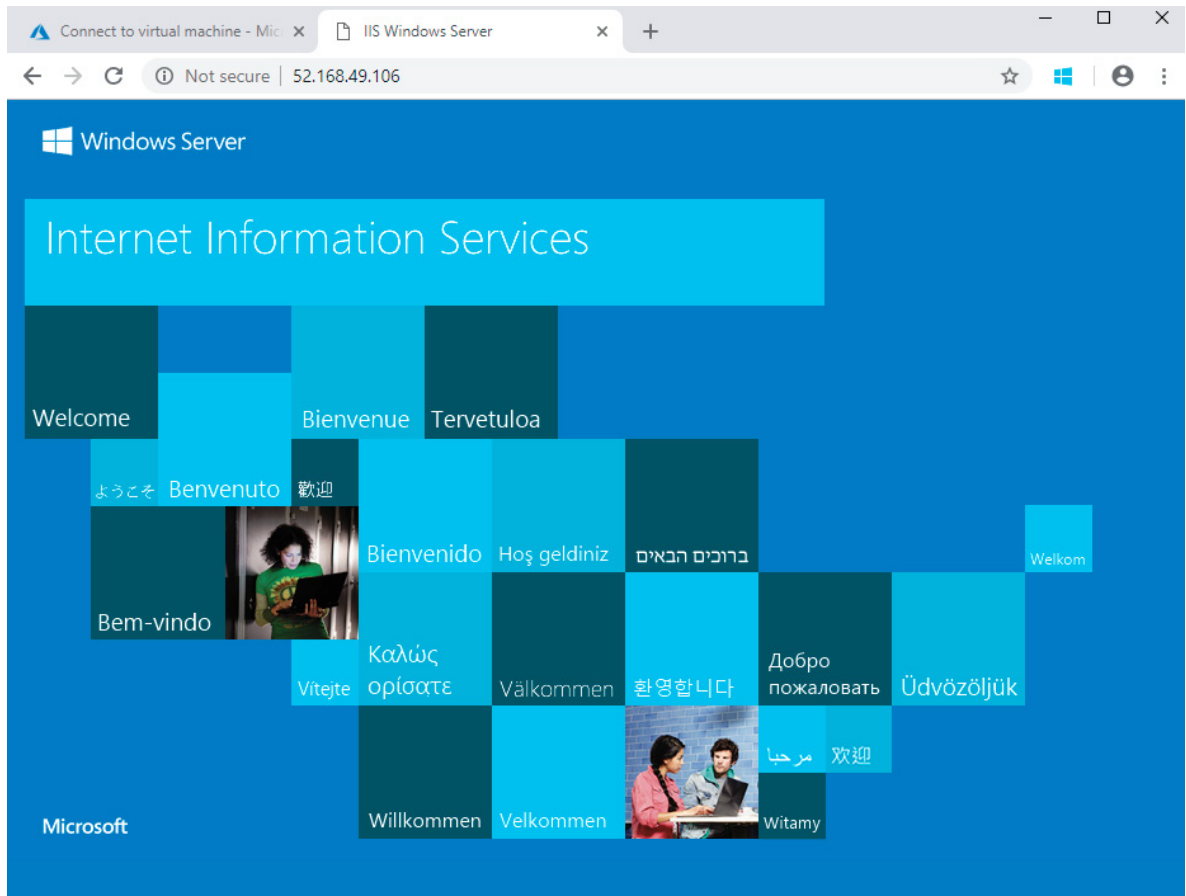
Success Restart Needed Exit Code      Feature Result
-----
True      No           Success      {Common HTTP Features, Default Document, D...

PS C:\Users\azureuser>
```

1. Back in the portal, select the VM and in the overview pane of the VM, use the **Click to copy** button to the right of the IP address to copy it and paste it into a browser tab.



1. The default IIS Web Server welcome page will open, and is available to connect to publicly via this IP address, or via the fully qualified domain name.



Congratulations! You have created a web server that can be connected to publicly via this IP address, or via the fully qualified domain name. If you had a web page to host you could deploy those source files to the virtual machine and host them for public access on the deployed virtual machine.

Note: Remember to delete the resources you have just deployed if you are no longer using them to ensure you do not incur costs for running resources. You can delete all deployed resources by deleting the resource group in which they all reside.