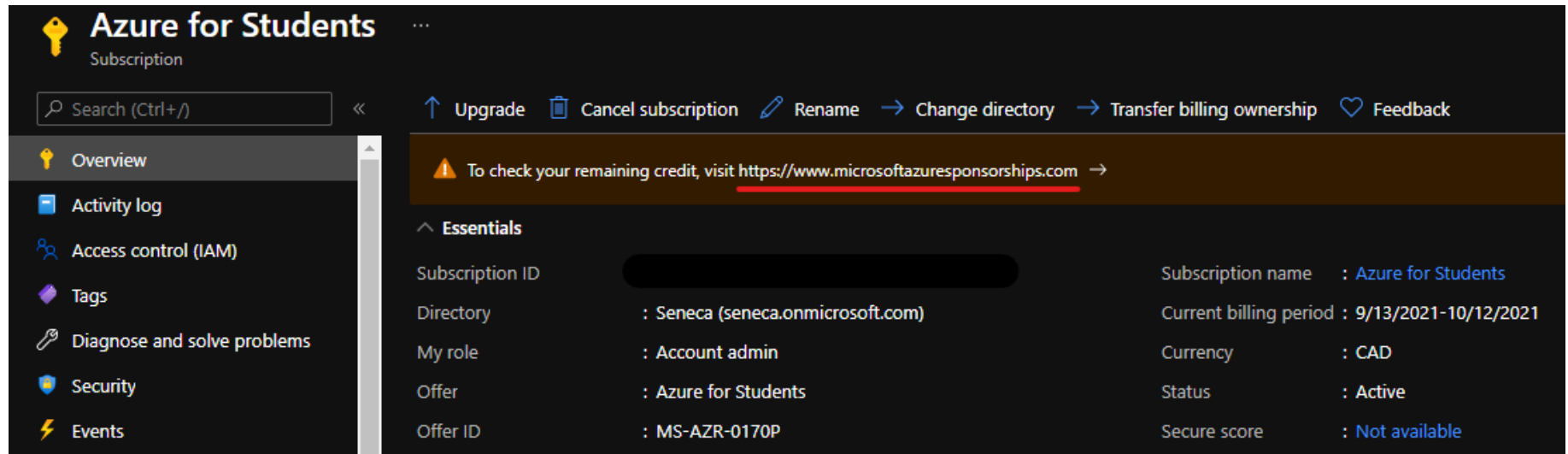




Lab 9: Create a VM with a Template

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.



The screenshot shows the 'Azure for Students' subscription page. The left sidebar contains navigation links: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Security, and Events. The main content area has a top bar with a search box and action links: Upgrade, Cancel subscription, Rename, Change directory, Transfer billing ownership, and Feedback. Below this is a warning banner about checking remaining credit. The 'Essentials' section displays subscription details in a table.

Essentials	
Subscription ID	[Redacted]
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

09 - Create a VM with a Template

In this walkthrough, we will deploy a virtual machine with a QuickStart template and examine monitoring capabilities.

Task 1: Explore the gallery and locate a template (10 min)

In this task, we will browse the Azure QuickStart gallery and deploy a template that creates a virtual machine.

1. In a browser, access the [Azure Quickstart Templates gallery](#). In the gallery you will find a number of popular and recently updated templates. These templates automate deployment of Azure resources, including installation of popular software packages.
2. Browse through the many different types of templates that are available.

Note: Are there are any templates that are of interest to you?

3. Search for or directly access the [Deploy a Virtual Machine](#) template.

Note: The **Deploy to Azure** button enables you to deploy the template via the Azure portal. During such deployment, you will be prompted only for small set of configuration parameters.

4. Click the **Deploy to Azure** button. Your browser session will be automatically redirected to the [Azure portal](#).
5. If prompted, sign in to the Azure subscription you want to use in this lab.
6. Click **Edit template**. The Resource Manager template format uses the JSON format. Review the parameters and variables. Then locate the parameter for virtual machine name. Change the name to **<studentID>-vm**. **Save** your changes. You are returned to the **Custom deployment** blade in the Azure portal.

Edit template

Edit your Azure Resource Manager template

+ Add resource ↑ Quickstart template ↑ Load file ↓ Download

- > ⚙ Parameters (10)
- > 📄 Variables (8)
- ▼ ☁ Resources (6)
 - 📁 [variables('storageAccountName')] (Microsoft.Storage/storageAccounts)
 - 📁 [parameters('publicIPName')] (Microsoft.Network/publicIPAddresses)
 - 🛡 [variables('networkSecurityGroupName')] (Microsoft.Network/networkSecurityGroups)
 - 🔗 [variables('virtualNetworkName')] (Microsoft.Network/virtualNetworks)
 - 🌐 [variables('nicName')] (Microsoft.Network/networkInterfaces)
 - 💻 [parameters('vmName')] (Microsoft.Compute/virtualMachines)

```

92     "vmName": {
93       "type": "string",
94       "defaultValue": "dtrinh1-vm",
95       "metadata": {
96         "description": "Name of the virtual machine."
97       }
98     },
99   },
100   "variables": {
101     "storageAccountName": "[concat('bootdiags', uniquestring(resourceGroup().id))]",
102     "nicName": "myVMNic",
103     "addressPrefix": "10.0.0.0/16",
104     "subnetName": "Subnet",

```

7. On the **Custom deployment** blade configure the parameters required by the template (replace **xxxx** in the DNS label prefix with letters and digits such that the label is globally unique). Leave the defaults for everything else.

Setting	Value
Subscription	Choose your subscription
Resource group	myRGTemplate (create new)
Location	(US) East US
Admin username	azureuser
Admin password	Pa\$\$w0rd1234

Setting	Value
DNS label prefix	myvmtemplatexxxx
Windows OS version	2019-Datacenter

8. ** Note: There is no cost associated with this template.
9. Click **Review + Create**.
10. Monitor your deployment.

Task 2: Verify and monitor your virtual machine deployment

In this task, we will verify the virtual machine deployed correctly.

1. From the **All services** blade, search for and select **Virtual machines**.
2. Ensure your new virtual machine was created.


Virtual machines

Microsoft

[+](#) Add [⌚](#) Reservations [≡](#) Edit columns [↻](#) Refresh | [🏷️](#) Assign tags [▶](#) Start [↺](#) Restart [■](#) Stop [🗑️](#) Delete [☰](#) Services

Subscriptions: 1 of 4 selected – Don't see a subscription? [Open Directory + Subscription settings](#)

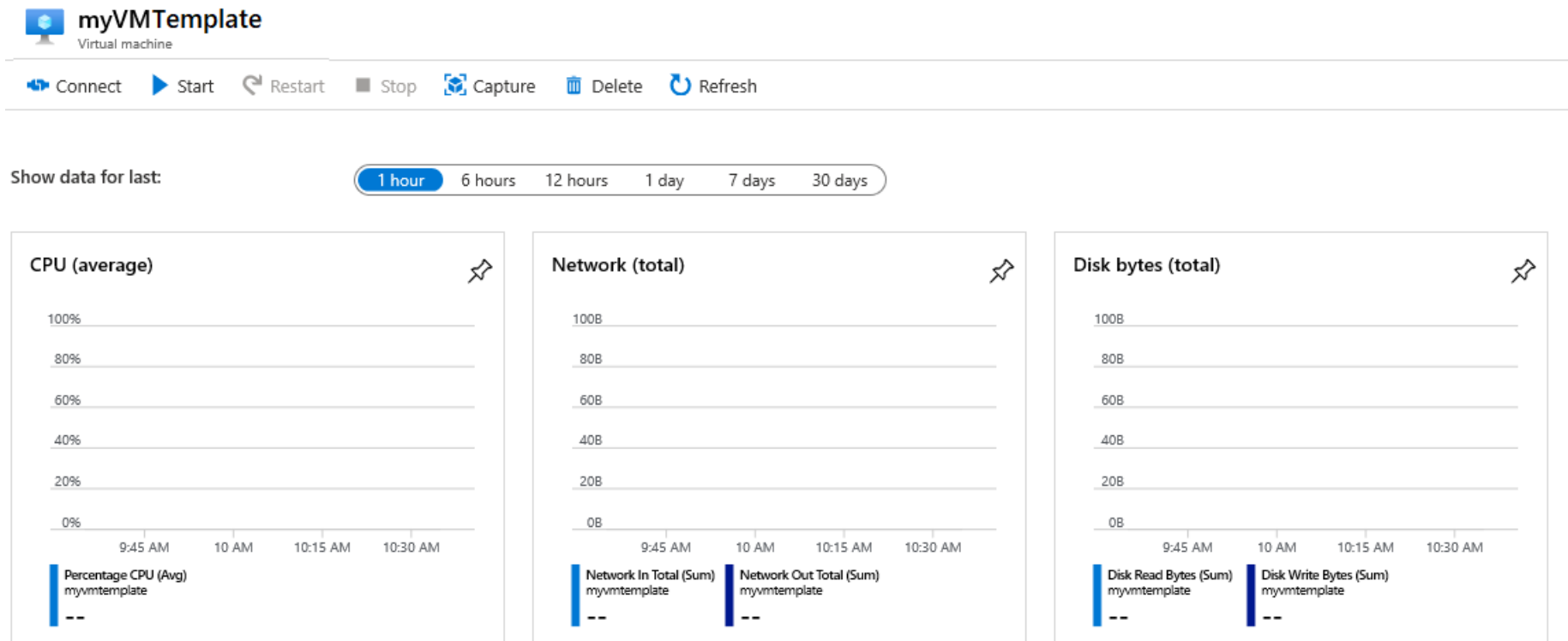
1 items

<input type="checkbox"/>	Name ↑↓	Type ↑↓	Private IP address	Resource group ↑↓	Location ↑↓	Status
<input type="checkbox"/>	 myVMTemplate	Virtual machine	10.0.0.4	myRGTemplate	East US	Running

3. Select your virtual machine and on the **Overview** pane scroll down to view monitoring data.

Note: The monitoring timeframe can be adjusted from one hour to 30 days.

4. Review different charts that are provided including **CPU (average)**, **Network (total)**, and **Disk bytes (total)**.



5. Click on any chart. Note that you can **Add metric** and change the chart type.
6. Return to the **Overview** blade.
7. Click on the **Activity log** (left pane). Activity logs record such events as creation or modification of resources.
8. Click **Add filter**, and experiment with searching for different event types and operations.

myVM - Activity log

Virtual machine

Management Group : **None** Subscription : **Visual Studio Enterprise** Timespan : **Last 6 hours** Event severity : **All**

Resource type ^ : 0 selected **+ Add Filter**

Resource type

Operation
An action or command, such as create, delete, and write, that affects Azure Resource Manager resources

Event initiated by
The user who started an operation

Event category
The event type for certain operations

	Status	Time	Time stamp	Subscription
10 > i Operation	Succeeded	2 h ago	Mon Oct 14...	Visual Studio Enterprise
> i Event initiated by	Updated	2 h ago	Mon Oct 14...	Visual Studio Enterprise
> i Event category	Succeeded	3 h ago	Mon Oct 14...	Visual Studio Enterprise
> i Deallocate Virtual Machine	Succeeded	3 h ago	Mon Oct 14...	Visual Studio Enterprise
> i Health Event Updated	Updated	3 h ago	Mon Oct 14...	Visual Studio Enterprise
> i Create or Update Virtual Machine Extension	Succeeded	3 h ago	Mon Oct 14...	Visual Studio Enterprise
> w 'audit' Policy action.	Succeeded	3 h ago	Mon Oct 14...	Visual Studio Enterprise

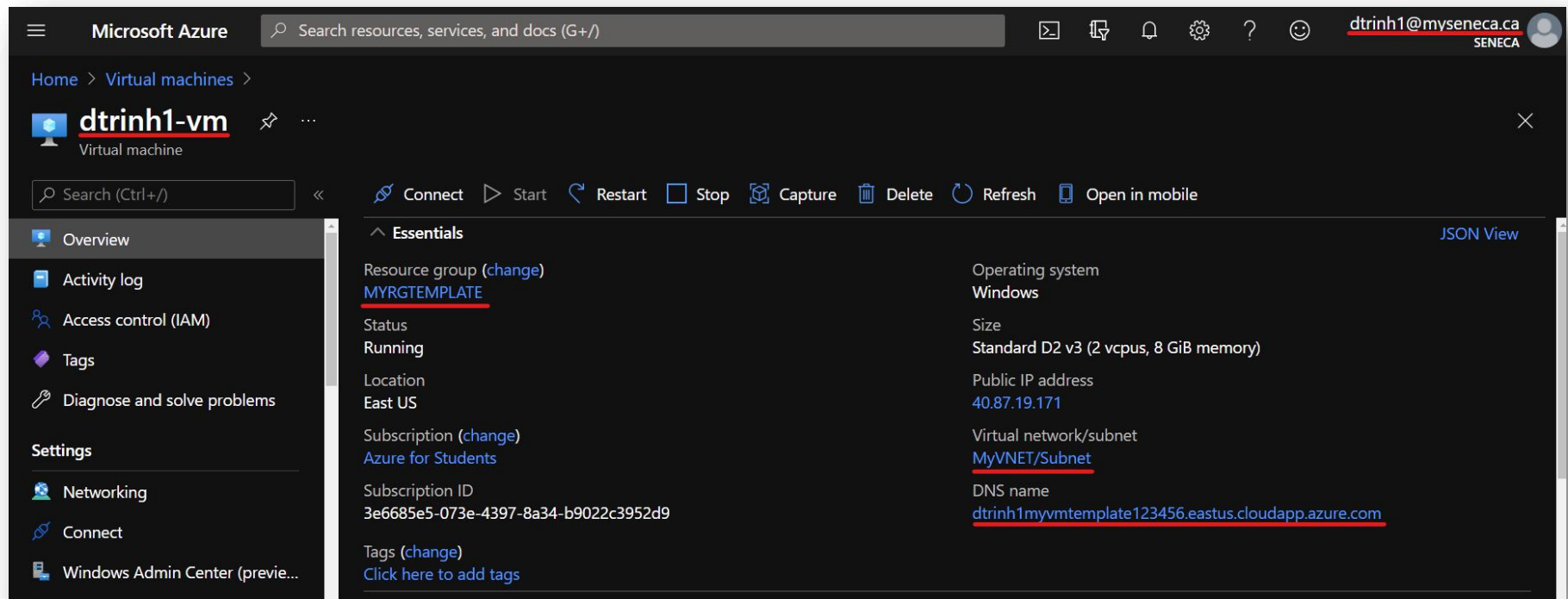
Note: To avoid additional costs, you can remove all resources in the resource group. Search for resource groups, click your resource group, and then delete the resources within the resource group. **DO NOT DELETE YOUR RESOURCE GROUP.**

Submission Requirements

Submit a screenshot with the following information:

Screenshot #1:

- Overview properties of the virtual machine created using a template
- The Azure Portal with your login ID



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 for 'dtrinh1@myseneca.ca'. The main content area is titled 'Resource groups' and shows the 'myRG' resource group. The left sidebar contains a list of resource group settings: Overview, Activity log, Access control (IAM), Tags, Resource visualizer, Events, Deployments, Security, Policies, Properties, and Locks. The 'Resources' tab is selected, showing a table with 0 records. The 'Essentials' section displays subscription information, including the Subscription ID (3e6685e5-073e-4397-8a34-b9022c3952d9) and Location (East US). The 'Deployments' section shows 'No deployments'.

Microsoft Azure

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

Home > Resource groups >

Resource groups

Seneca (seneca.onmicrosoft.com)

Create Manage view

myRG

Resource group

Overview

Activity log

Access control (IAM)

Tags

Resource visualizer

Events

Settings

Deployments

Security

Policies

Properties

Locks

Essentials

Subscription (Move)

Azure for Students

Subscription ID

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

Deployments

No deployments

Location

East US

Tags (Edit)

Click here to add tags

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