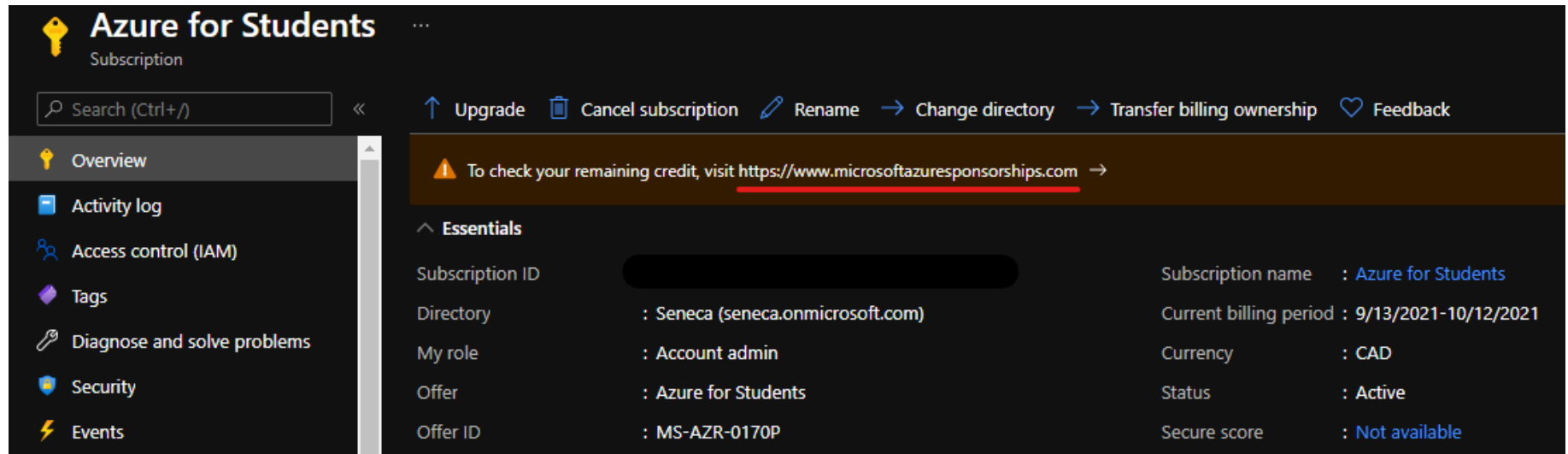




Lab 16: Implement resource tagging

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

16 - Implement resource tagging

In this walkthrough, we will create a policy assignment that requires tagging, create a storage account and test the tagging, view resources with a specified tag, and remove the tagging policy.

Task 1: Create a Policy assignment (5 min)

In this task, we will configure the **Require a tag on resources** policy and assign it to our subscription.

1. Sign in to the [Azure portal](#).
2. From the **All services** blade, search for and select **Policy**.
3. Scroll down to the **Authoring** section, click **Assignments**, and then click **Assign Policy** from the top of the page.
4. Notice the **Scope** for our policy will be subscription wide.
5. Select the **Policy definition** ellipsis button (end of the textbox on the right). **Search** for policy definitions including the value **tag**, in the result set, click on the **Require a tag on resources** definition, then click **Select**.

Microsoft Azure

Search resources, services, and docs (G+)

...

All services >

Assign

Basics

Scope

Scope Learn

Exclusions

Optionally

Basics

Policy defini

Assignment

Description

Policy enforc

Assigned by

Available Definitions

×

Type

All types

Search

require a tag

Policy Definitions (4)

Require a tag and its value on resources

Built-in

Enforces a required tag and its value. Does not apply to resource groups.

Require a tag on resources

Built-in

Enforces existence of a tag. Does not apply to resource groups.

Require a tag and its value on resource groups

Built-in

Enforces a required tag and its value on resource groups.

Require a tag on resource groups

Built-in

Enforces existence of a tag on resource groups.

Review +

Select

Cancel

Page 4 of 12

6. On the **Assign policy** blade, in the **Parameters** tab, type in **studentID** for the tag name. Click **Review + create**, and then **Create**.

Note: This is a simple example to demonstrate tagging. Please note that the assignment takes around 30 minutes to take effect.

Assign policy ...

Basics Parameters Remediation Non-compliance messages Review + create

Specify parameters for this policy assignment.

Tag Name * ⓘ

studentID



7. The **Require a tag on resources** policy assignment is now in place. When a resource is created, it must include a tag with the Company key.

Home > Policy - Assignments

Policy - Assignments

» [Assign initiative](#) [Assign policy](#) [Refresh](#)

Scope: [...](#) Definition type: Search: Category:

Total Assignments ⓘ: 2 Initiative Assignments ⓘ: 1 Policy Assignments ⓘ: 1

name	Scope	Type	Policies	Category
Require a tag on resources	Azure Pass - Sponsorship	Policy	1	Tags

Task 2: Create a storage account to test the required tagging

In this task, we will create storage accounts to test the required tagging.

1. In the Azure Portal, from the **All services** blade, search for and select **Storage accounts**, and then click **+ Add**.
2. On the **Basics** tab of the **Create storage account** blade, fill in the following information (replace **xxxx** in the name of the storage account with letters and digits such that the name is globally unique). Leave the defaults for everything else.

Setting	Value
Subscription	Use your subscription

Setting	Value
Resource group	myRGTags (new)
Storage account name	<studentID>storageaccountxxxx (example: dtrinh1storageaccount)
Location	(US) East US

3. Click **Review + create**.

Note: We are testing to see what happens when the tag is not supplied.

4. You will receive a Validation failed message. Click the **Click here to view details** message. On the **Errors** blade, on the **Summary** tab note the error message stating that resource was disallowed by Policy.

Note: If you view the Raw Error tab you will see the specific tag name that is required.

[Home](#) > [New](#) > [Storage account - blob, file, table, queue](#) > Create storage account

Create storage account

 Validation failed. Click here to view details. →

[Basics](#) [Networking](#) [Advanced](#) [Tags](#) [Review + create](#)

Basics

Subscription	Azure Pass - Sponsorship
Resource group	(New) myRGTags
Location	East US
Storage account name	myrgtaglab
Deployment model	Resource manager
Account kind	StorageV2 (general purpose v2)
Replication	Read-access geo-redundant storage (RA-GRS)
Performance	Standard

Create

< Previous

Next >

[Download a template for](#)



Errors

[Summary](#) [Raw Error](#)

ERROR DETAILS

Resource 'myrgtaglab' was disallowed by policy. (Code: RequestDisallowedByPolicy)

Policy: [Require a tag on resources](#)

WAS THIS HELPFUL?  

Troubleshooting Options

[Check Usage + Quota](#) 

[New Support Request](#) 

Note - you need to wait 30 minutes for tagging to be complete.

5. Close the **Error** pane and click **Previous** (bottom of the screen). Provide the tagging information.

Setting	Value
Tag name	Company (may not be in the drop-down list)
Tag value	Contoso

- Click **Review + create** and verify that the validation was successful. Click **Create** to deploy the storage account.

Task 3: View all resources with a specific tag

- In the Azure Portal, from the **All services** blade, search for and select **Tags**.
- Note all tags and their values. Click the **Company : Contoso** key/value pair. This will display a blade showing the newly created storage account, as long as you included the tag during its deployment.

Home > Tags > All resources

Tags
Microsoft

- Company : Contoso**
- environment : production
- ms-resource-usage : azure-cloud-sh...

All resources
Microsoft

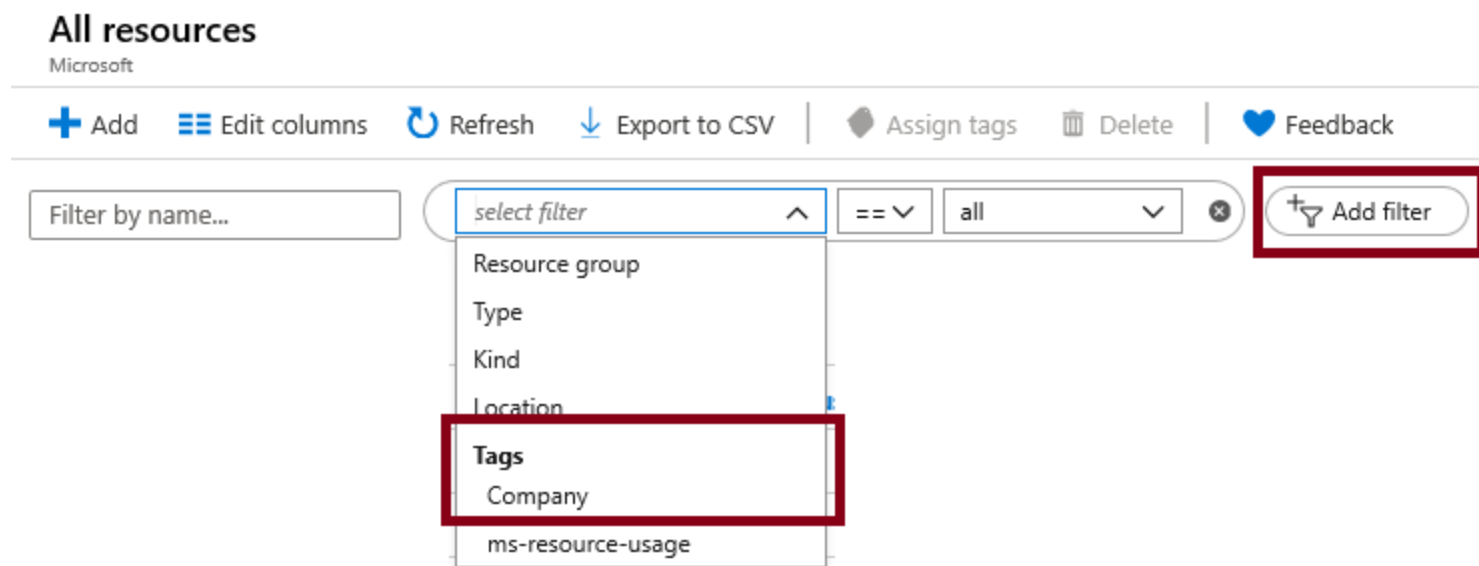
+ Add Edit columns Refresh Export to CSV Assign tags Delete

Showing 1 to 1 of 1 records. ☐ Show hidden types ⓘ

Name ↑↓	Type ↑↓	Resource group ↑↓	Location ↑↓
storageaccountces	Storage account	myRGTags	East US

- In the Portal, display the **All resources** blade.

4. Click **Add filter** and add the **Company** tag key as the filter category. With the filter applied, only your storage account will be listed.



Task 4: Delete the policy assignment

In this task, we will remove the **Require a tag on resources** policy so it does not affect our future work.

1. In the portal, from the **All services** blade, search for and select **Policy**.
2. Click the **Require a tag on resources** policy entry.
3. Click **Delete Assignment** in the top menu.
4. Confirm you wish to delete the policy assignment in the **Delete assignment** dialogue by clicking **Yes**
5. If you have time, create another resource without a tag to ensure the policy is no longer in effect.

In this walkthrough, we created a policy assignment that required tagging, created a storage account and tested the tagging, viewed resources with a specified tag, and removed the tagging policy.

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:

- Error message when attempting to create a storage account without the correct tags
- The Azure Portal with your login ID

The screenshot shows the Microsoft Azure portal interface. At the top, the user is logged in as **dtrinh1@myseneca.ca** (SENECA). The main heading is **Microsoft.StorageAccount-20210405163057 | Overview**. Below the heading, there is a search bar and buttons for **Delete**, **Cancel**, **Redeploy**, and **Refresh**. A red banner indicates **Deployment failed. Click here for details →**. The section **Your deployment failed** provides details: **Deployment name:** Microsoft.StorageAccount-20210405163057, **Subscription:** Azure for Students, **Resource group:** myRGTags, **Start time:** 4/5/2021, 4:31:54 PM, and **Correlation ID:** a18fa8af-c715-4fbb-aa5b-5c337fd1e82b. Below this, there is a link for **Deployment details (Download)**. At the bottom, a table lists the resources:

Resource	Type	Status	Operation details
dtrinh1storageaccount	Microsoft.Storage/storageAccounts	<u>Forbidden</u>	Operation details

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

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

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 ↑↓