

**Lab 8 CST8912\_011**

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**Submitted to:**

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**Lab-8**

# Title

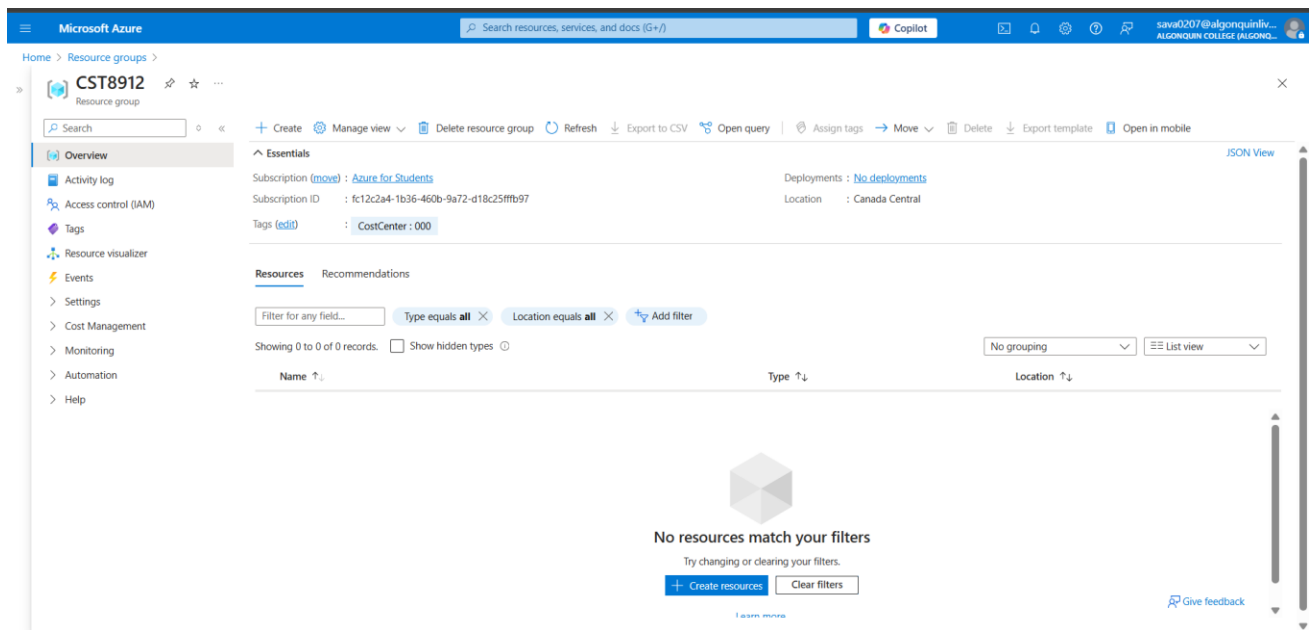
- Enforcing Tagging and Resource Locks in Azure

## Introduction

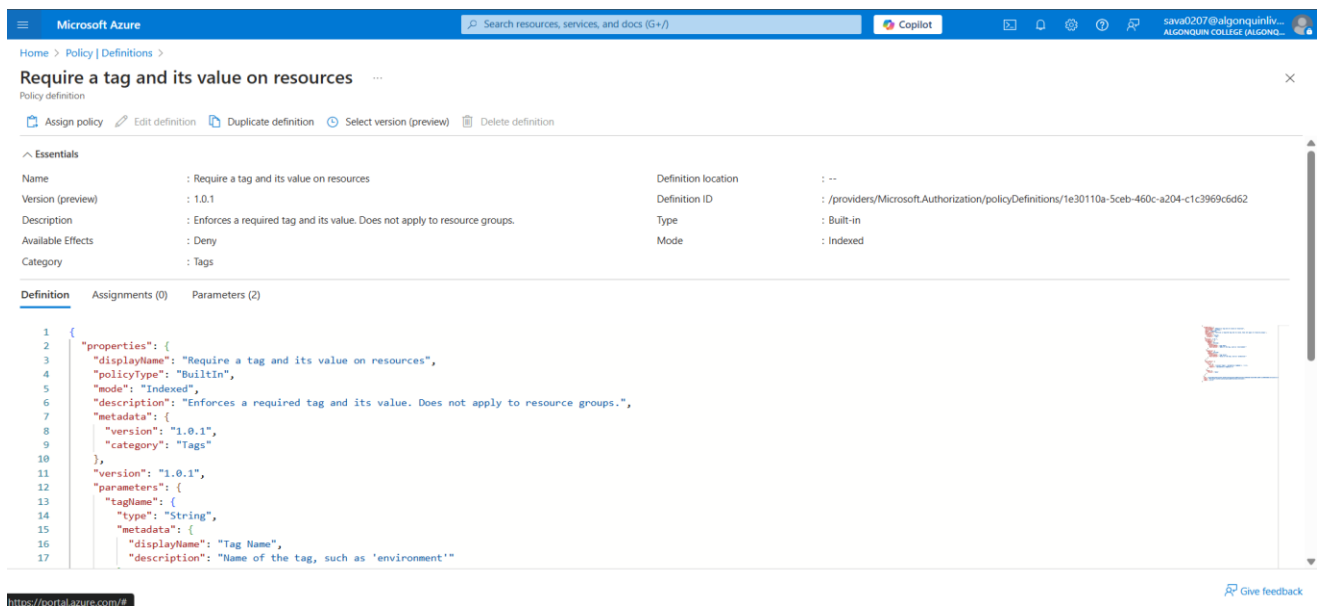
- Managing cloud resources effectively is crucial for keeping everything organized, secure, and compliant with company policies and industry regulations. One of the simplest yet most powerful ways to do this is through **tagging**, which involves adding labels to resources to track costs, improve security, and automate processes. In this lab, you'll learn how to set up and enforce **tagging policies** in Azure to ensure all resources follow a consistent structure. You'll also configure **resource locks** to prevent accidental deletions or changes to important resources. By the end, you'll understand how tagging and resource locks help keep cloud environments well-managed, cost-efficient, and secure.

## Steps

- first, sign in to the Azure portal and create a resource group with the necessary tags. Then, enforce tagging by assigning a built-in policy that requires a "Cost Center" tag on resources in the group. Afterward, test the policy by attempting to create a storage account without the tag, which should result in a validation error. For remediation, assign another policy to automatically inherit the "Cost Center" tag from the resource group for any missing resources. Next, configure resource locks to prevent accidental deletion of the resource group and test it by trying to delete the group, which will be blocked due to the lock. Finally, clean up by deleting the policy assignments and resources like storage accounts and tags from the portal. This process ensures proper cloud governance using tags, policies, and resource locks.



## 1.1 Resource group with Added tag value



## 2.1 Policy definition

Microsoft Azure Search resources, services, and docs (G+/I) Copilot sava0207@algonquiniv... ALGONQUIN COLLEGE (ALGONQ...

Home > Policy | Definitions > Require a tag and its value on resources >

## Assign policy

Basics Parameters Remediation Non-compliance messages Review + create

**Scope**

Scope \* Azure for Students/CST8912 [Learn more about setting the scope](#)

Exclusions Optionally select resources to exclude from the policy assignment.

Resource selectors [Expand](#) Using resource selectors, you can further refine this assignment's applicability by targeting specific subsets of resources. Expand to learn more.

**Basics**

Policy definition \* Require a tag and its value on resources

Version (preview) \* 1.0\*

Overrides [Expand](#) Using overrides, you can change the effects or referenced versions of definitions for all or a subset of resources evaluated by this assignment. Expand to learn more.

Assignment name \* Require Cost Center tag with Default value

Description Require Cost Center tag with default value for all resources in the resource group

Policy enforcement ☒ Enabled

Previous Next Review + create Give feedback

## 2.2 Assign a policy

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Home > Policy | Definitions > Require a tag and its value on resources >

## Assign policy

Basics Parameters Remediation Non-compliance messages Review + create

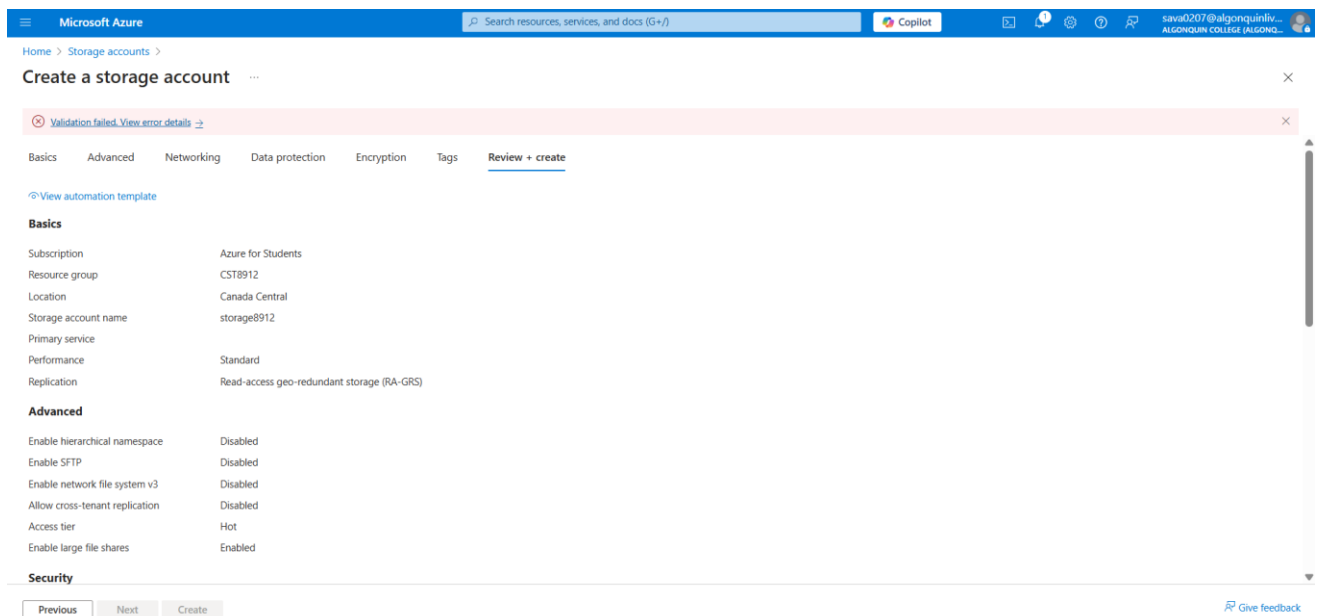
[Search by parameter name](#) ☒ Only show parameters that need input or review

Tag Name \* Cost Center

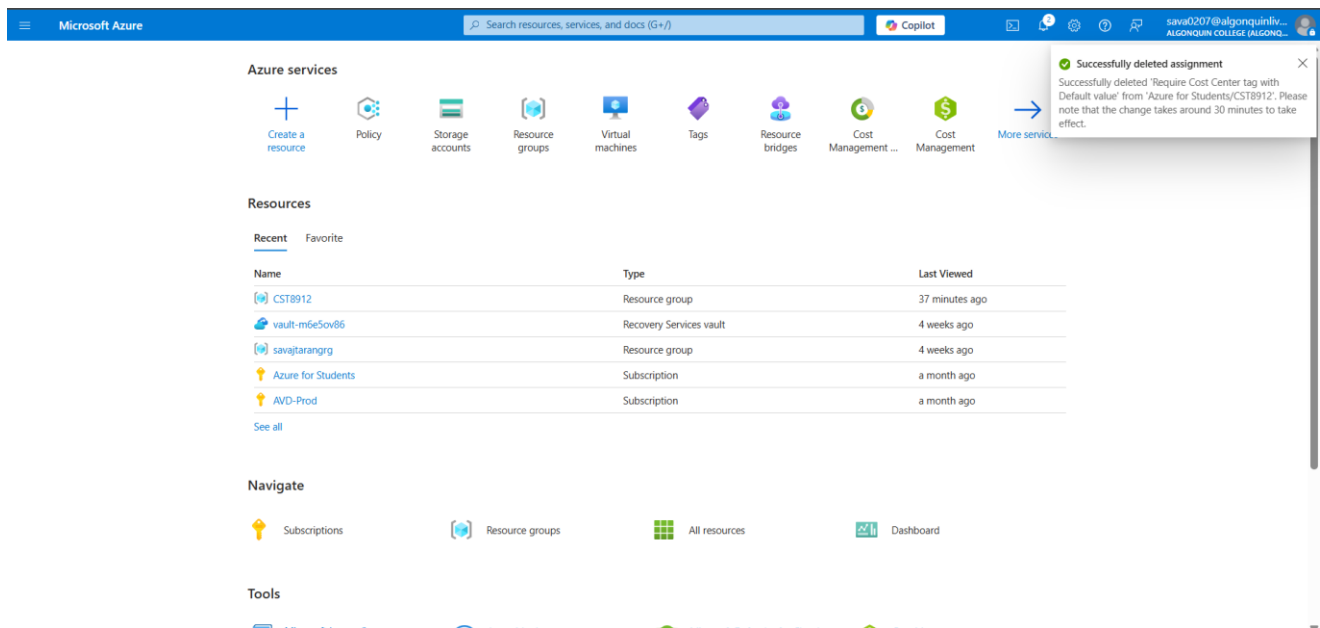
Tag Value \* 000

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## 2.3 Policy tags



## 2.4 Storage account validation failed message



## 3.1 Deleting created policy

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Home > Policy | Assignments >

## Assign policy

Basics Parameters Remediation Non-compliance messages Review + create

**Scope**

Scope \* Azure for Students/CST8912 Learn more about setting the scope

Exclusions Optionally select resources to exclude from the policy assignment.

Resource selectors (Expand) Using resource selectors, you can further refine this assignment's applicability by targeting specific subsets of resources. Expand to learn more.

**Basics**

Policy definition \* Inherit a tag from the resource group if missing

Version (preview) \* 1.\*\*

Overrides (Expand) Using overrides, you can change the effects or referenced versions of definitions for all or a subset of resources evaluated by this assignment. Expand to learn more.

Assignment name \* Inherit the Cost Center tag and its value 000 from the resource group if missing

Description Inherit the Cost Center tag and its value 000 from the resource group if missing

Policy enforcement Enabled

Previous Next Review + create Give feedback

### 3.2 Creating policy definition

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## Assign policy

Basics Parameters Remediation Non-compliance messages Review + create

Search by parameter name Only show parameters that need input or review

Tag Name \* Cost Center

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### 3.3 Parameters of policy assignment

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## Assign policy

Basics Parameters **Remediation** Non-compliance messages Review + create

By default, this assignment will only take effect on newly created resources. Existing resources can be updated via a remediation task after the policy is assigned. For deployIfNotExists policies, the remediation task will deploy the specified template. For modify policies, the remediation task will edit tags on the existing resources.

☒ Create a remediation task

Policy to remediate Inherit a tag from the resource group if missing

**Managed Identity**  
Policies with the deployIfNotExists and modify effect types need the ability to deploy resources and edit tags on existing resources respectively. To do this, choose between an existing user assigned managed identity or creating a system assigned managed identity. [Learn more about Managed Identity.](#)

Create a Managed Identity ☒

Type of Managed Identity ☒ System assigned managed identity ☐ User assigned managed identity

System assigned identity location (Canada) Canada Central

**Permissions**  
This identity will also be given the following:

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### 3.4 Remediation of policy assignment

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Home >

**cst8912** Storage account

Search

Upload Open in Explorer Delete Move Refresh Open in mobile CU / PS Feedback

**Overview**

Activity log Tags Diagnose and solve problems Access Control (IAM) Data migration Events Storage browser Storage Mover Partner solutions

**Essentials**

Resource group (move) : CST8912  
Location : canadacentral  
Primary/Secondary Location : Primary: Canada Central, Secondary: Canada East  
Subscription (move) : [Azure for Students](#)  
Subscription ID : fc12c2a4-1b36-460b-9a72-d18c25f9b97  
Disk state : Primary: Available, Secondary: Available  
Tags (edit) : CostCenter : 000

Performance : Standard  
Replication : Read-access geo-redundant storage (RA-GRS)  
Account kind : StorageV2 (general purpose v2)  
Provisioning state : Succeeded  
Created : 3/17/2025, 6:39:09 PM

**Properties** Monitoring Capabilities (7) Recommendations (0) Tutorials Tools + SDKs

**Blob service**

Hierarchical namespace	Disabled
Default access tier	Hot
Blob anonymous access	Disabled
Blob soft delete	Enabled (7 days)
Container soft delete	Enabled (7 days)
Versioning	Disabled
Change feed	Disabled
NFS v3	Disabled
Allow cross-tenant replication	Disabled
Storage tasks assignments	None

**Security**

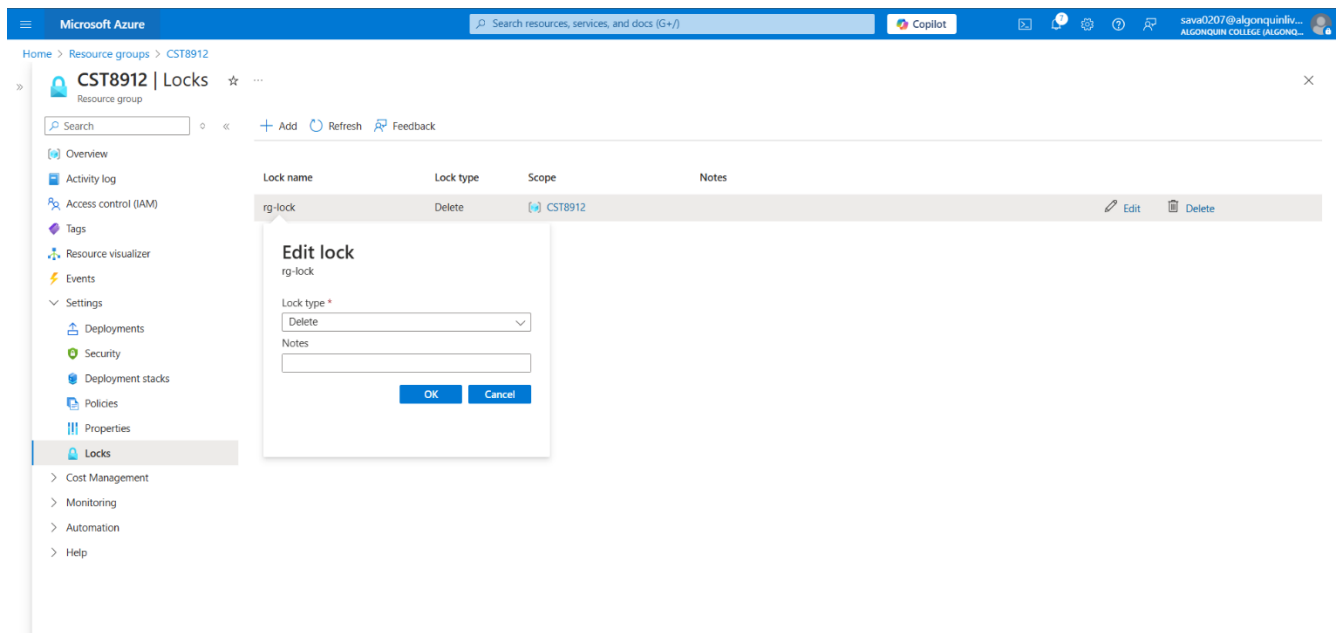
Require secure transfer for REST API operations	Enabled
Storage account key access	Enabled
Minimum TLS version	Version 1.2
Infrastructure encryption	Disabled

**Networking**

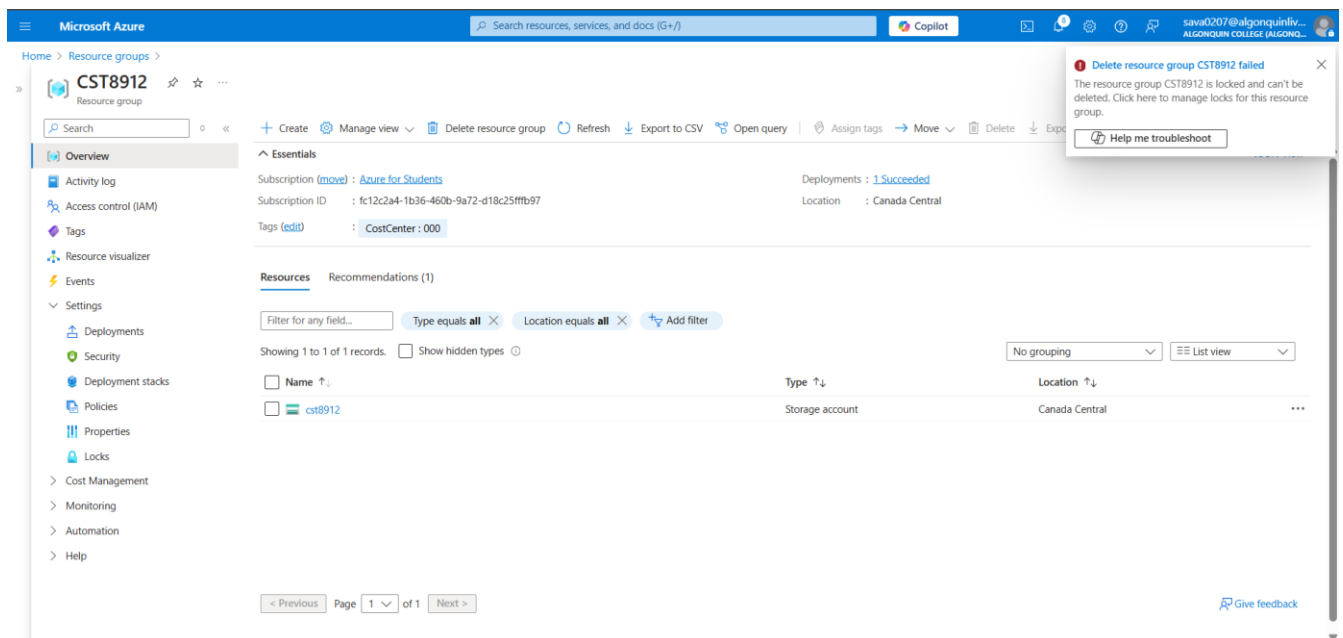
Allow access from	All networks
Private endpoint connections	0
Network routing	Microsoft network routing
Access for trusted Microsoft services	Yes

[JSON View](#)

### 3.5 Automatically assigned tag Cost Center with the value 000



## 4.1 Locking in the resource group



## 4.2 Receive a notification denying the deletion of Resource Group



Microsoft Azure

Search resources, services, and docs (G+)

Copilot

Home > Policy | Assignments >

### Inherit the Cost Center tag and its value 000 from the resource group if missing

Policy Assignment

Edit assignment Delete assignment Duplicate assignment View compliance View definition Create exemption Create remediation task

Essentials

Name: Inherit the Cost Center tag and its value 000 from the resource group if missing Scope: Azure for Students/CST8912

Definition version (preview): 1.1\*\* Excluded scopes: --

Description: Inherit the Cost Center tag and its value 000 from the resource group if missing Definition type: Policy

Assignment ID: /subscriptions/1c12c2a4-1b36-460b-9a72-d18c25ffb97/resourcegroups/cst8912/providers/... Policy enforcement: Default

Assigned by: --

Parameters (1) Resource selectors (0) Overrides (0) Exemptions (0) Remediation (1)

Search by parameter name All types

Parameter ID 1: tagName Parameter name 1: Tag Name Policy assignment parameter reference type 1: User defined parameter

Delete assignment

Do you want to delete the policy assignment 'Inherit the Cost Center tag and its value 000 from the resource group if missing'?

Yes No

Give feedback

## 5.1 Deleting policy

Microsoft Azure

Search resources, services, and docs (G+)

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Home >

cst8912 Storage account

Search

Upload Open in Explorer Delete Move Refresh Open in mobile CLI / PS Feedback

Overview

Activity log Tags Diagnose and solve problems Access Control (IAM) Data migration Events Storage browser Storage Mover Partner solutions

Data storage Security + networking Data management Settings Monitoring Monitoring (classic) Automation Help

Essentials

Resource group (move): CST8912 Performance

Location: canadacentral Replication

Primary/Secondary Location: Primary: Canada Central, Secondary: Canada East Account kind

Subscription (move): Azure for Students Provisioning state

Subscription ID: fc12c2a4-1b36-460b-9a72-d18c25ffb97 Created

Disk state: Primary: Available, Secondary: Available

Tags (edit): CostCenter: 000

Properties Monitoring Capabilities (7) Recommendations (0) Tutorials Tools + SDKs

Blob service

Hierarchical namespace Disabled

Default access tier Hot

Blob anonymous access Disabled

Blob soft delete Enabled (7 days)

Container soft delete Enabled (7 days)

Versioning Disabled

Change feed Disabled

NFS v3 Disabled

Allow cross-tenant replication Disabled

Storage tasks assignments None

Security

Require secure transfer operations

Storage account key

Minimum TLS version

Infrastructure encryption

Networking

Allow access from

Private endpoint connection

Network routing

Access for trusted namespaces

### Delete storage account

The following storage account and its contents will be deleted.

Resource to be deleted

cst8912

Dependent resources to be deleted

The data provided is regularly updated about 2-4 times a day and published hourly. If your account has extremely large objects, it may be over a day between updates.

Resource	Number of instances	Total data stored
Containers	-	-
File shares	-	-
Tables	-	-
Queues	-	-

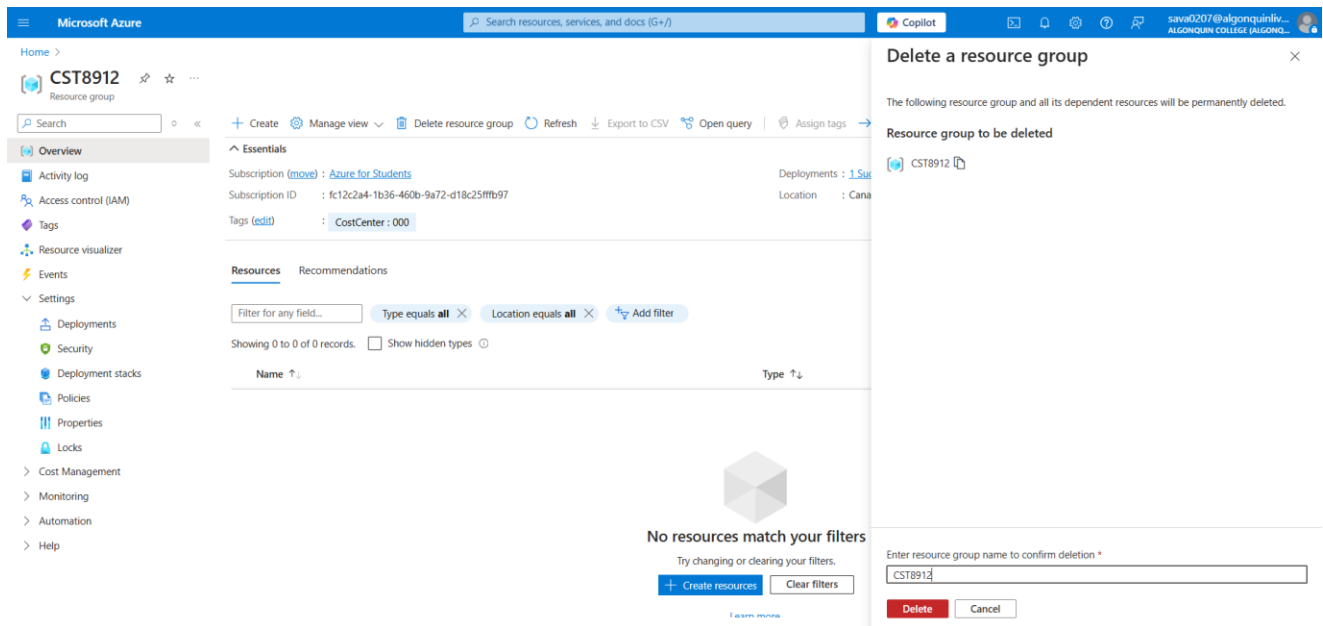
Enter storage account name to confirm deletion \*

cst8912

Delete Cancel

Give feedback

## 5.2 Deleting Storage account



### 5.3 Deleting resource group

## References

- References for this task are taken from the provided lab file.