

Міністерство освіти і науки України
Карпатський національний університет
імені В.Стефаника

Факультет математики та інформатики
Кафедра інформаційних технологій

Інформатика і програмування

Лабораторна робота № 2b

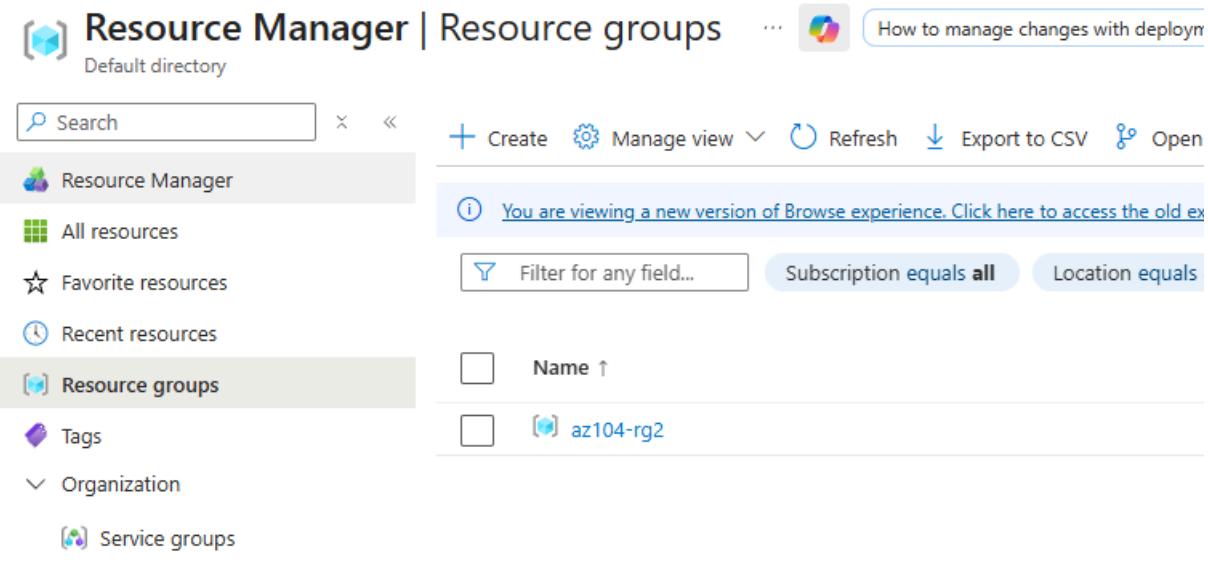
Тема: Manage Governance via Azure Policy

Виконав: Прокутко В.В
Група ІПЗ-43
Дата: 12 грудня 2025
Викладач: Поварчук Д.Д

Івано-Франківськ – 2025

Task 1: Assign tags via the Azure portal

In this task, you will create and assign a tag to an Azure resource group via the Azure portal. Tags are a critical component of a governance strategy as outlined by the Microsoft Well-Architected Framework and Cloud Adoption Framework. Tags can allow you to quickly identify resource owners, sunset dates, group contacts, and other name/value pairs that your organization deems important. For this task, you assign a tag identifying the resource Cost Center.



The screenshot shows the Azure Resource Manager interface for managing resource groups. The left sidebar lists navigation options: Resource Manager, All resources, Favorite resources, Recent resources, Resource groups (which is selected and highlighted in grey), Tags, Organization, and Service groups. The main content area has a search bar and various management buttons (Create, Manage view, Refresh, Export to CSV, Open). A message at the top says, "You are viewing a new version of Browse experience. Click here to access the old experience." Below this are filter options for "Subscription equals all" and "Location equals". Under the "Resource groups" heading, there is a table with one row: "az104-rg2".

Task 2: Enforce tagging via an Azure Policy

In this task, you will assign the built-in *Require a tag and its value on resources* policy to the resource group and evaluate the outcome. Azure Policy can be used to enforce configuration, and in this case, governance, to your Azure resources.

Policy - Microsoft Azure

portal.azure.com/?i=en-en-gb#view/Microsoft_Azure_Policy/PolicyMenuBlade.MenuView/~/Assignments

Microsoft Azure

Search resources, services, and docs (G+) Copilot vladkeeks@gmail.com DEFAULT DIRECTORY (VLADKEEKS)

Home > Policy

Policy | Assignments

Search

Assign policy Assign initiative Refresh

Overview Compliance Remediation Events Authoring

Definitions Assignments Machine Configuration Exemptions

Scope : Azure subscription 1 Definition type : All definition types

Total Assignments : 1 Initiative Assignments : 0 Policy Assignments : 1

Assignment name : 1 Assignment ID : 1 Scope : Azure subscription 1/az104-rg2 Type : Policy

Require Cost Center tag and its value on resources

Edit columns Export to CSV

Add or remove favorites by pressing Ctrl+Shift+F2+H

Give feedback

Require Cost Center tag and its value on resources - Microsoft Azure

portal.azure.com/?i=en-en-gb#view/Microsoft_Azure_Policy/AssignmentDetail.ReadyViewId/%2fsubscriptions%2f9889eb0-ca11-4e0d-8116-0764f6dbd196%2fresourcegroups%2fa104-rg2%2fproviders%2fmicrosoft.authorization%2fpolicies%2frequirecostcenter%2fassignments%2f1

Home > Policy | Assignments >

Require Cost Center tag and its value on resources

Policy Assignment

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

Essentials

| | | | |
|--------------------|--|--------------------|----------------------------------|
| Name | : Require Cost Center tag and its value on resources | Scope | : Azure subscription 1/az104-rg2 |
| Definition version | : 1.0.* | Excluded scopes | : -- |
| Description | : Require Cost Center tag and its value on all resources in the resource group | Definition type | : Policy |
| Assignment ID | : /subscriptions/9889eb0-ca11-4e0d-8116-0764f6dbd196/resourcegroups/az104-rg2/providers/microsoft.a... | Policy enforcement | : Default |
| Assigned by | : -- | | |

Parameters (2) Resource selectors (0) Overrides (0) Exemptions (0) Remediation (0) Deployed resources Managed Identity

Search by parameter name All types

Parameter ID : Parameter name : Parameter value : Policy assigned to :

| tagName | Tag Name | Cost Cent... | User defined p... |
|----------|-----------|--------------|-------------------|
| tagValue | Tag Value | '0000' | User defined p... |

Edit columns

Give feedback

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

[Copy Full E](#)

ERROR VIEW

Resource 'lab02cc' was disallowed by policy. (Code: RequestDisallowedByPolicy, Policy(s): Require Cost Center tag a its value on resources [Policy link](#))

WAS THIS HELPFUL?  

 [Explain with Copilot](#)

Troubleshooting Options

[New Support Request](#) 

Give Feedback

 [Tell us about your experience with the Errors page](#)

Task 3: Apply tagging via an Azure policy

In this task, we will use the new policy definition to remediate any non-compliant resources. In this scenario, we will make any child resources of a resource group inherit the Cost Center tag that was defined on the resource group.

The screenshot shows the Microsoft Azure Policy | Assignments page. A success message in the top right corner states: "Successfully deleted assignment 'Require Cost Center tag and its value on resources' from 'Azure subscription 1/ae104-rg2'. Please note that the change takes around 30 minutes to take effect." Below this, there are three summary sections: Total Assignments (0), Initiative Assignments (0), and Policy Assignments (0). The left sidebar includes links for Overview, Compliance, Remediation, Events, and Authoring, with 'Assignments' currently selected.

The screenshot shows the Microsoft Azure Assign policy page. It displays configuration details for a policy assignment, including parameters like 'Tag Name: Cost Center' and 'Remediation: Create a remediation task (Yes)'. On the right side, there are three status messages: "... Remediation task creation in progress", "Role Assignments creation succeeded", and "Creating policy assignment succeeded".

Task 4: Configure and test resource locks

In this task, you configure and test a resource lock. Locks prevent either deletions or modifications of a resource.

Screenshot of the Microsoft Azure Policy | Assignments page.

The page shows the following statistics:

- Total Assignments: 1
- Initiative Assignments: 0
- Policy Assignments: 1

A single policy assignment is listed:

| Assignment name | Scope | Type |
|--|--------------------------------|--------|
| Inherit the Cost Center tag and its value 000 from the resource group if missing | Azure subscription 1/az104-rg2 | Policy |

Navigation links include: Overview, Compliance, Remediation, Events, Authoring, Definitions, Assignments, Machine Configuration, and Exemptions.

Screenshot of the Microsoft Azure Deployment | Overview page for deployment lab002bb_1765468775346.

The deployment status is shown as "Your deployment is complete".

Deployment details:

- Deployment name: lab002bb_1765468775346
- Subscription: Azure subscription 1
- Resource group: az104-rg2
- Start time: 11/12/2025, 18:01:11
- Correlation ID: a04094e3-bd9d-410b-a16b-84207bae3206

Next steps:

- [Go to resource](#)
- [Give feedback](#)
- [Tell us about your experience with deployment](#)

Right sidebar features:

- Cost Management**: Get notified to stay within your budget and prevent unexpected charges on your bill. [Set up cost alerts >](#)
- Microsoft Defender for Cloud**: Secure your apps and infrastructure. [Go to Microsoft Defender for Cloud >](#)
- Free Microsoft tutorials**: Start learning today. [Start learning today >](#)
- Work with an expert**: Azure experts are service provider partners who can help manage your assets on Azure and be your first line of support. [Find an Azure expert >](#)

Microsoft Azure

lab002bb - Microsoft Azure | Create Your Azure Free Account | All groups - Microsoft Azure | Microsoft account | Your profile | My Apps

portal.azure.com/?i=en-en-gb@vladkeeks@gmail.onmicrosoft.com/resource/subscriptions/9889ebc0-ca1f-4e0d-8116-0764f6dbd196/resourceGroups/az104-rg2/providers/Microsoft.Storage/storageAccounts/lab002bb/overview

Microsoft Azure

lab002bb - Storage account

Overview

Activity log, Tags, Diagnose and solve problems, Access Control (IAM), Data migration, Events, Storage browser, Storage Mover, Partner solutions, Resource visualizer, Data storage, Security + networking, Data management, Settings, Monitoring, Monitoring (classic), Automation, Help.

Resource group (move) : az104-rg2, Location : eastus, Primary/Secondary Location : Primary: East US, Secondary: West US, Subscription (move) : Azure subscription 1, Subscription ID : 9889ebc0-ca1f-4e0d-8116-0764f6dbd196, Disk state : Primary: Available, Secondary: Available, Tags (edit) : Cost Center : 000.

Performance : Standard, Replication : Read-access geo-redundant storage (RA-GRS), Account kind : StorageV2 (general purpose v2), Provisioning state : Succeeded, Created : 12/11/2023, 6:01:15 PM.

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

Blob service, File service.

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.

File service: Large file share : Enabled, Identity-based access : Not configured, Default share-level permissions : Disabled.

Security, Networking.

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

Networking: Public network access : Enabled, Public network access scope : Enable from all networks, Private endpoint connections : 0, Network routing : Microsoft network routing, Endpoint type : Standard.

Add or remove favorites by pressing Ctrl+Shift+F2+F.

Delete a resource group - Microsoft Azure

Resource Manager | Resource groups

Resource group: az104-rg2

Resource Manager, All resources, Favorite resources, Recent resources, Resource groups, Tags, Organization, Service groups, Management groups, Subscriptions, Tools, Resource graph explorer, Resource graph queries, Resource visualizer, Resource explorer, ARM API playground, Resource mover, Deployments, Templates, Template specs, Help + troubleshooting.

Resource group: az104-rg2

Overview, Activity log, Access control (IAM), Tags, Resource visualizer, Events, Settings, Deployments, Security, Deployment stacks, Policies, Properties, Locks, Cost Management, Monitoring, Automation, Help.

Subscription (move) : Azure subscription 1, Subscription ID : 9889ebc0-ca1f-4e0d-8116-0764f6dbd196, Tags (edit) : Cost Center : 000.

Resources, Recommendation.

1 resources being deleted across 1 subscriptions, 1 resource groups. All dependent resources, including hidden types, are shown.

| Name | Resource type | Subscription | Resource Group |
|----------|-----------------|----------------------|----------------|
| lab002bb | Storage account | Azure subscription 1 | az104-rg2 |

Filter for any field... Name : lab002bb.

Enter resource group name to confirm deletion : az104-rg2.

Delete, Cancel.

vladkeeks@gmail.com DEFAULT DIRECTORY (VLADKEEK...)

Delete resource group az104-rg2 failed

The resource group az104-rg2 is locked and can't be deleted. Click here to manage locks for this resource group.

Help me troubleshoot