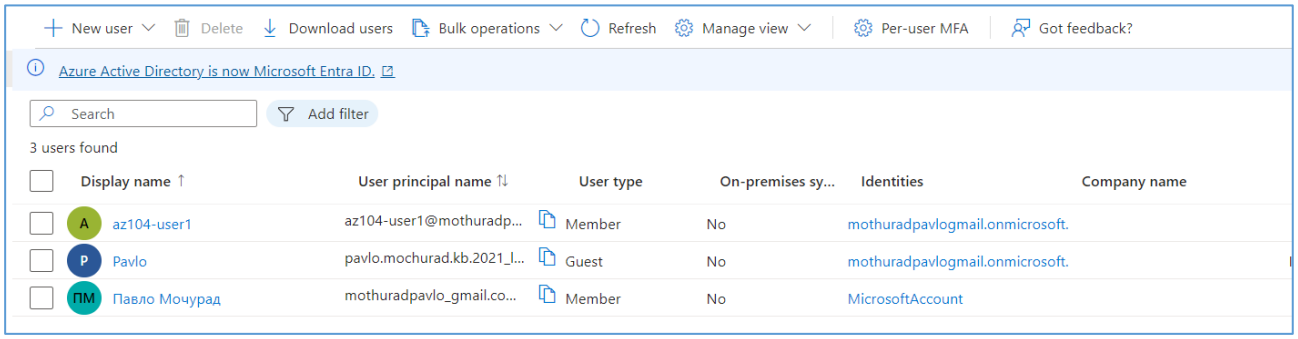
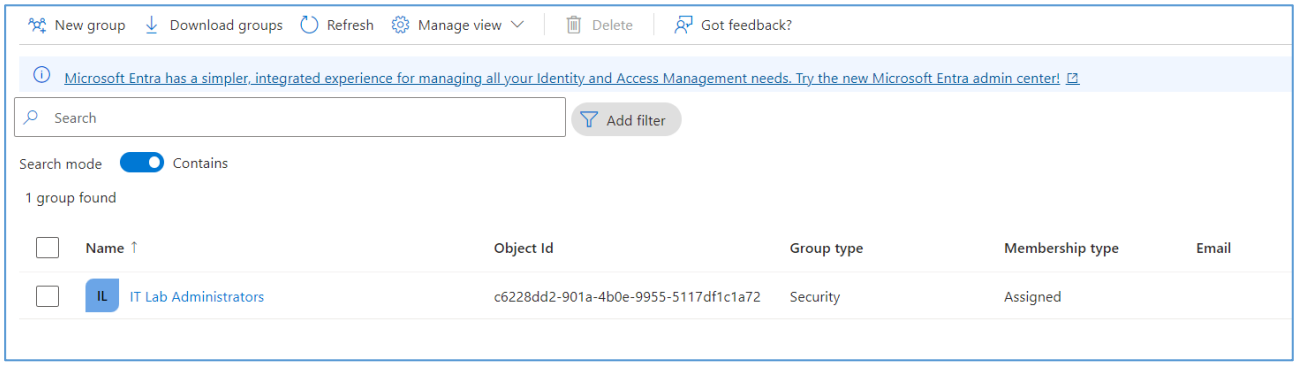
Lab 01: Manage Microsoft Entra ID Identities

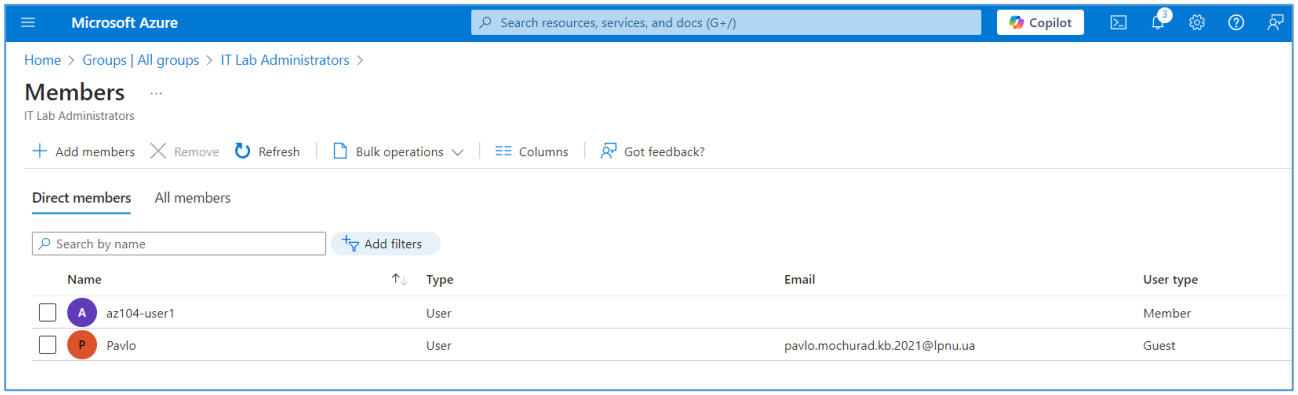
1) Task 1: Create and configure user accounts

I created a user and also invited an external user.



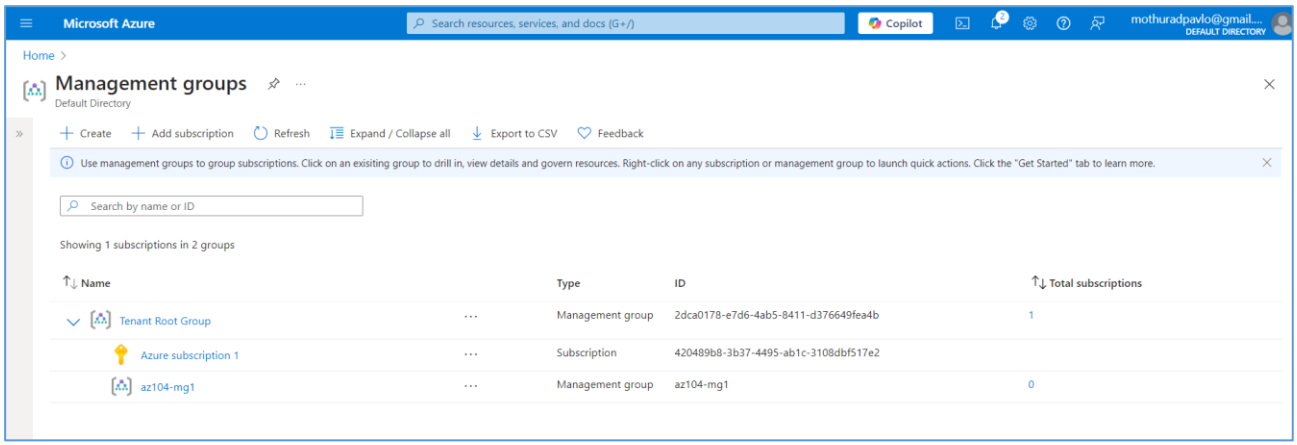
Task 2: Create groups and add members.





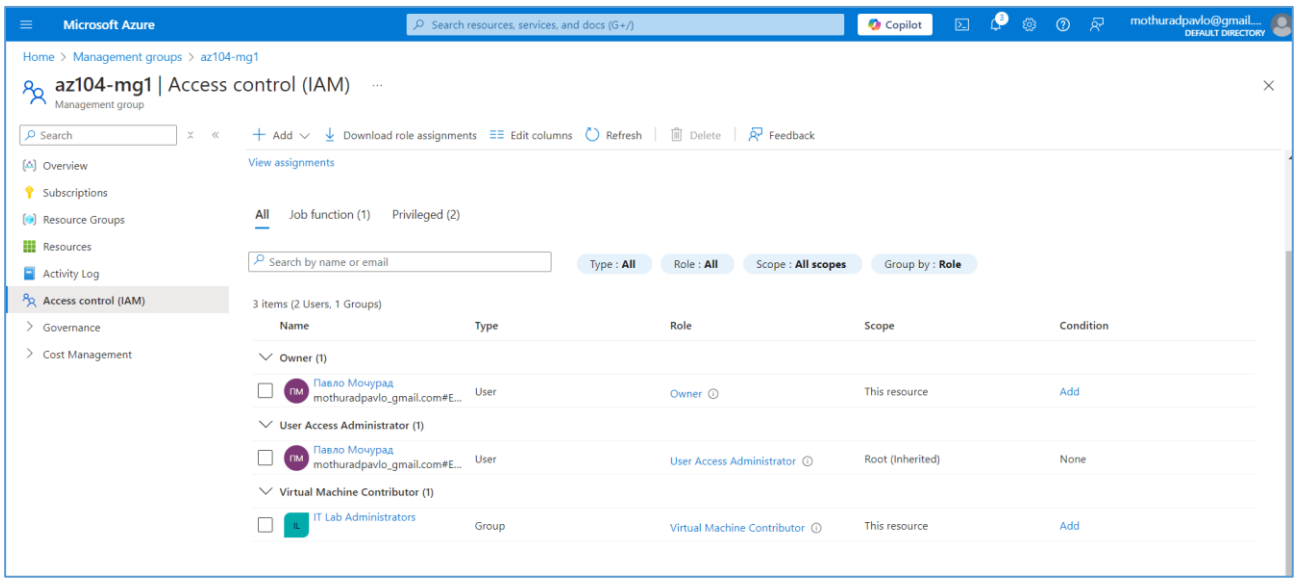
Lab 02a - Manage Subscriptions and RBAC

Task 1: Implement Management Groups

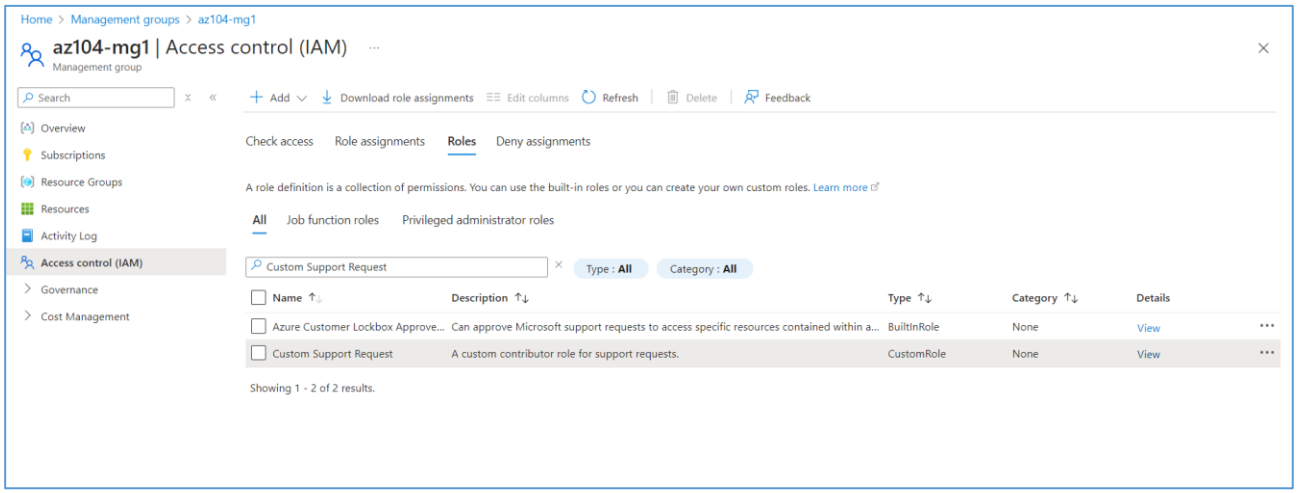


Task 2: Review and assign a built-in Azure role.

Assigned the VM Contributor role to the group from the previous lab.

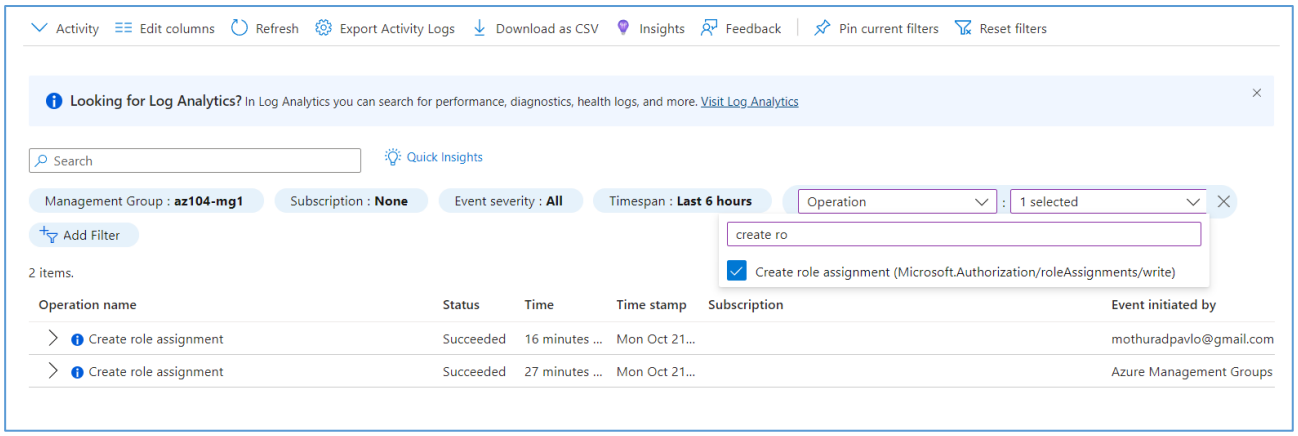


Task 3: Create a custom RBAC role



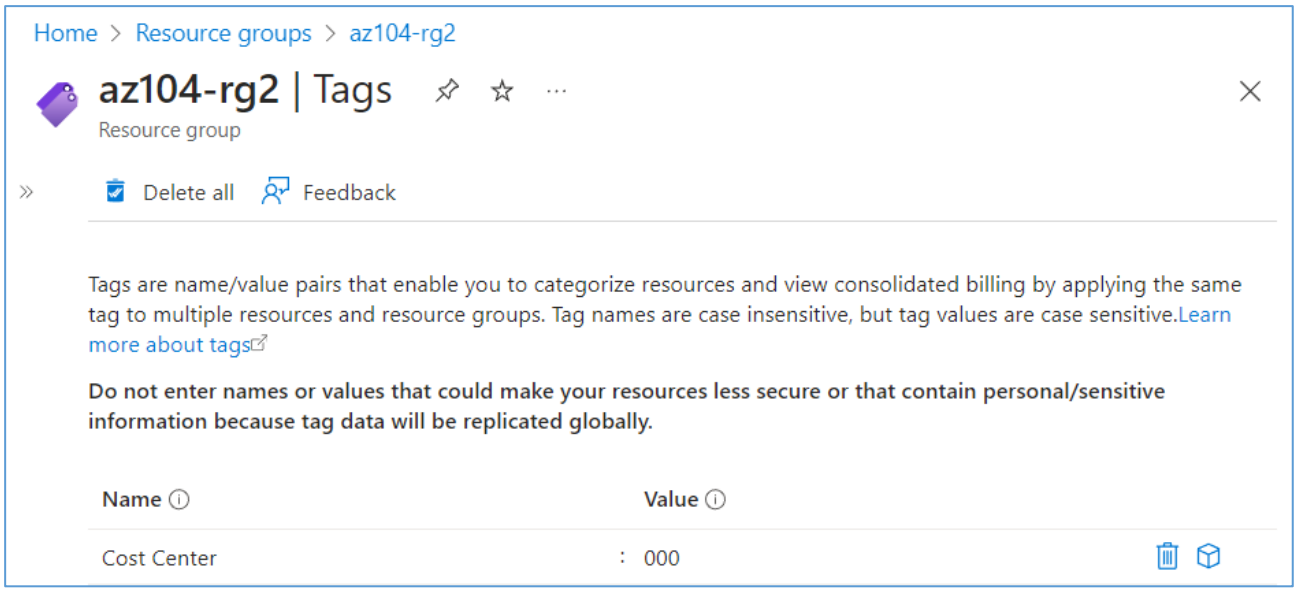
Task 4: Monitor role assignments with the Activity Log

Filtered the role by role creation operation.



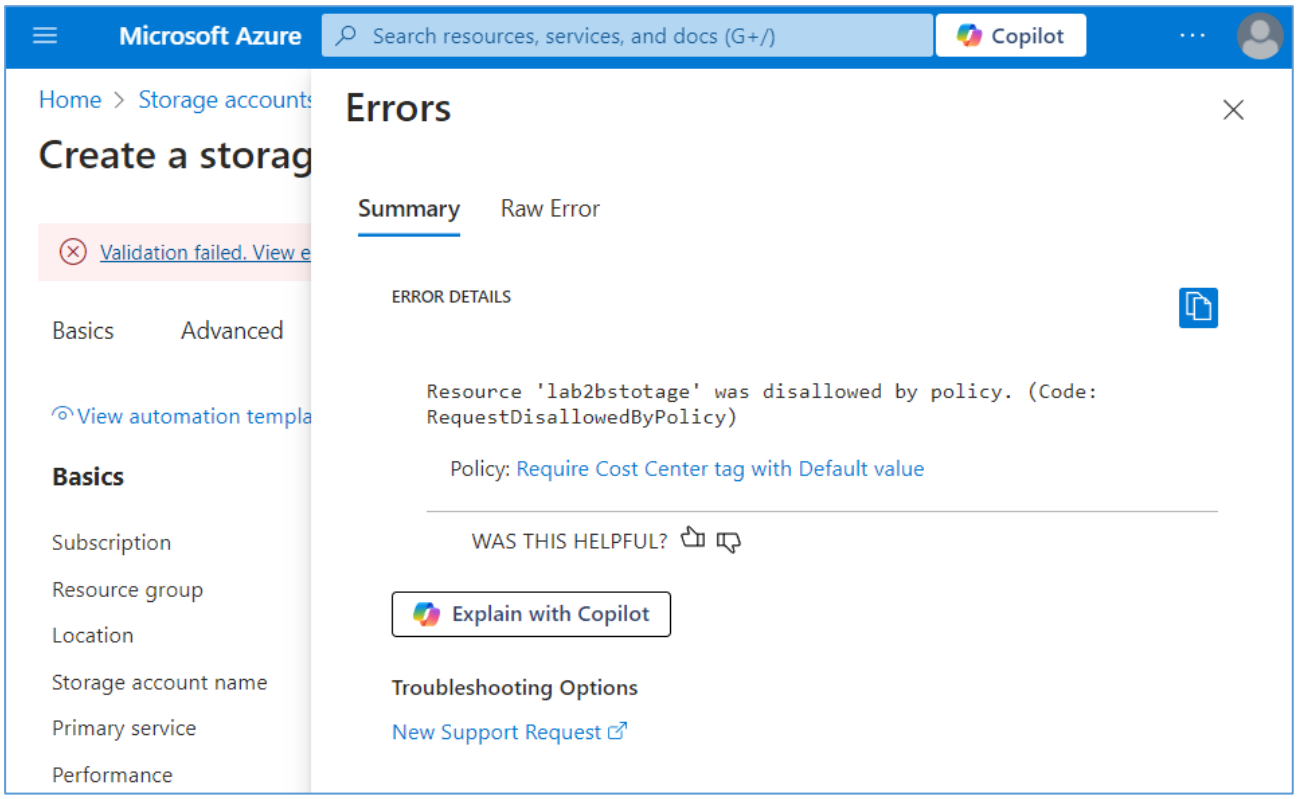
Lab 02b - Manage Governance via Azure Policy

Task 1: Assign tags via the Azure portal



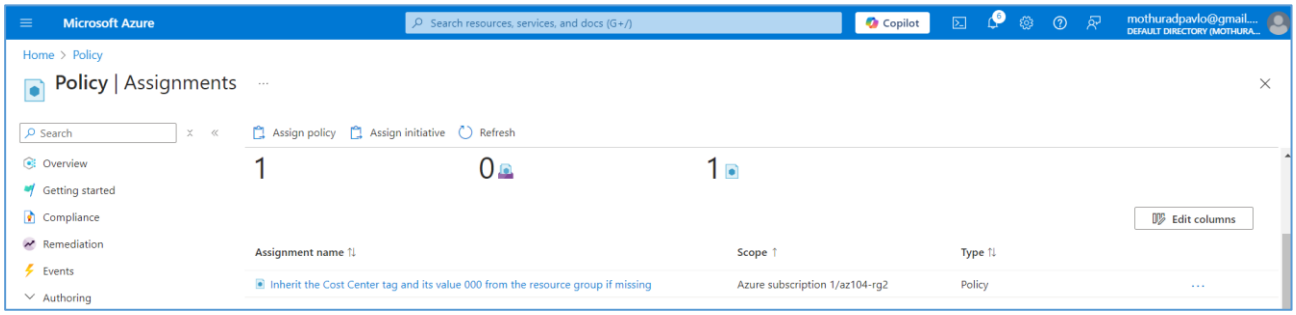
Task 2: Enforce tagging via an Azure Policy

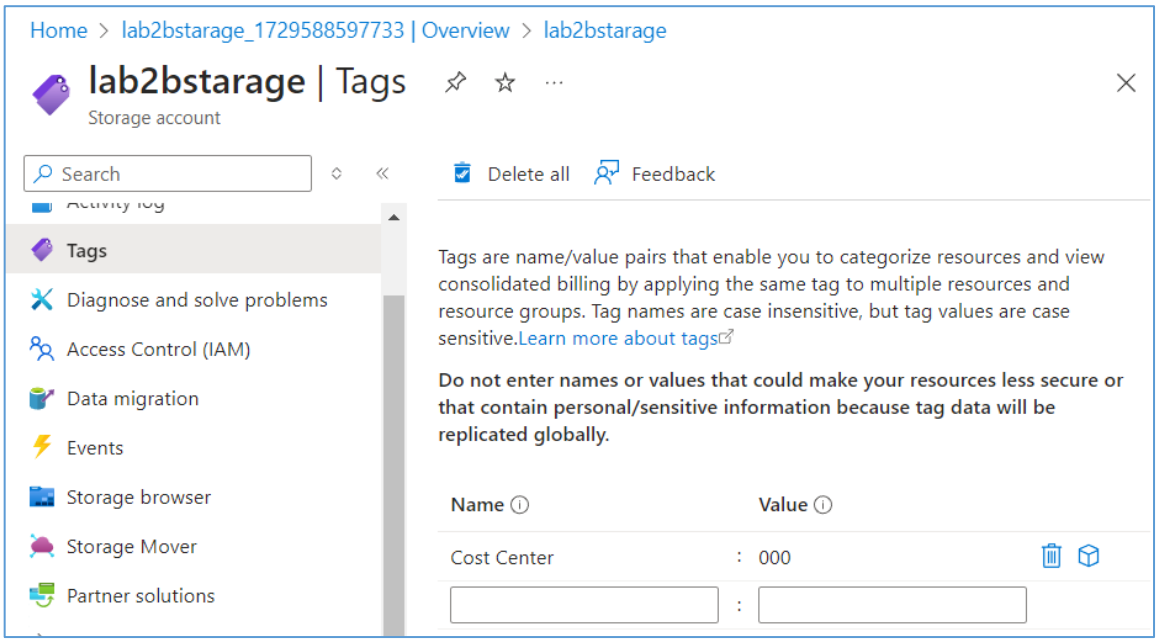
After setting the policy, an error occurs when trying to create a resource without a tag.



Task 3: Apply tagging via an Azure policy

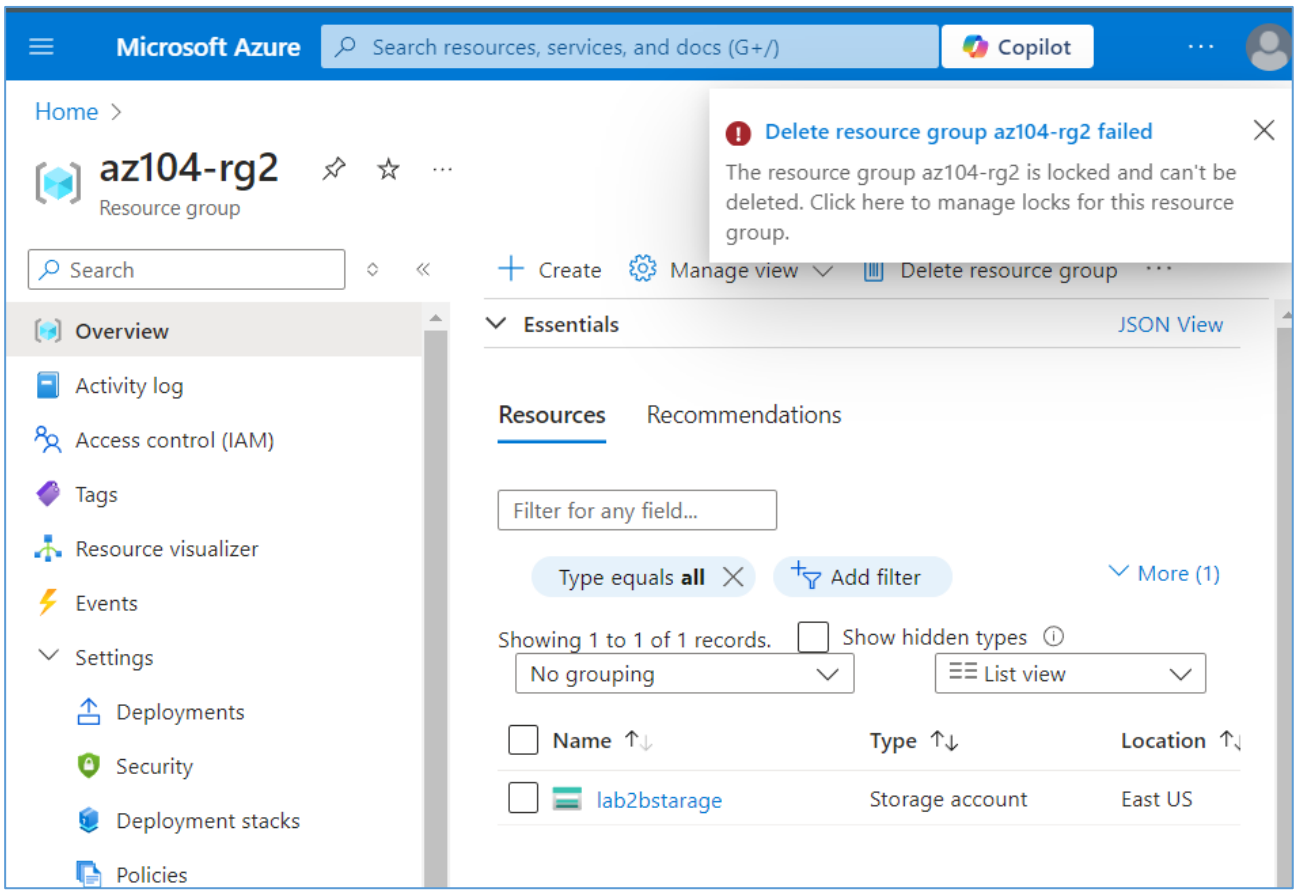
After deleting the old policy, I created a new one that would assign the tag if it didn't exist. When creating a storage account, I didn't add a tag. But after creating it, it appeared.





Task 4: Configure and test resource locks

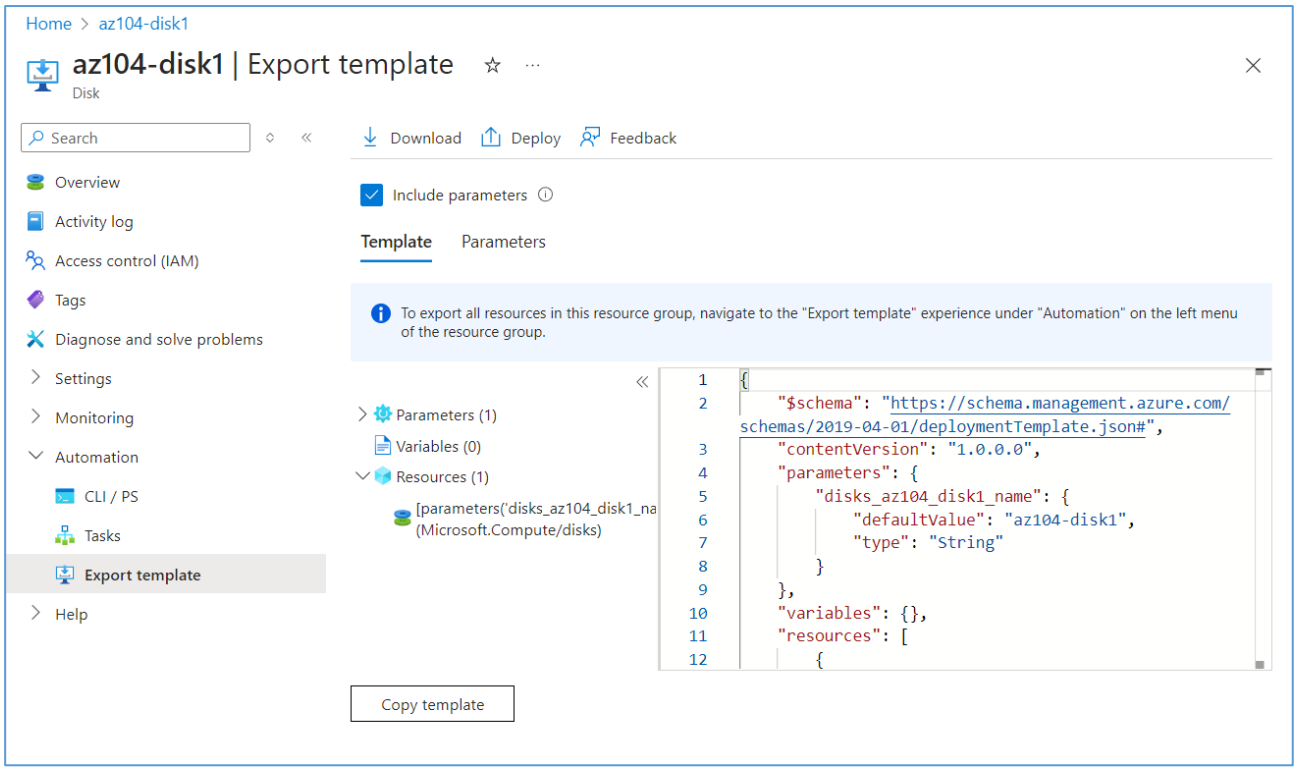
After setting up the lock, I tried to delete the resource group and got an error. This means the lock is working.



Lab 03 - Manage Azure resources by using Azure Resource Manager Templates

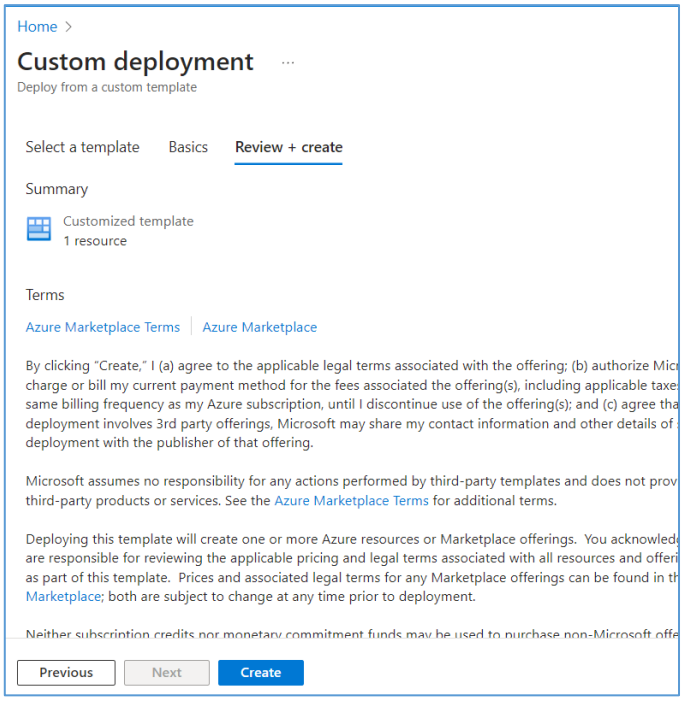
Task 1: Create an Azure Resource Manager template

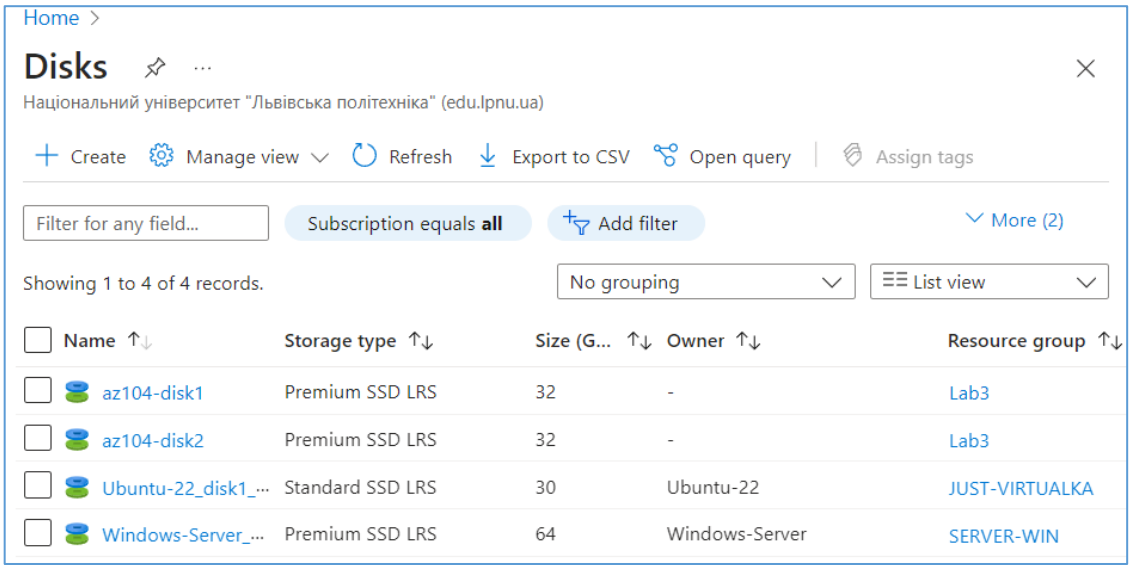
I created the resource manually on the portal, then downloaded the ARM template.



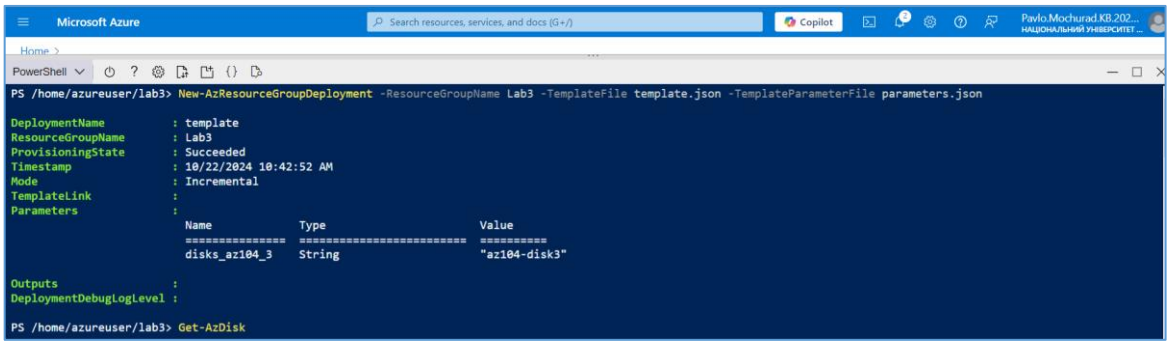
Task 2: Edit an Azure Resource Manager template and then redeploy the template.

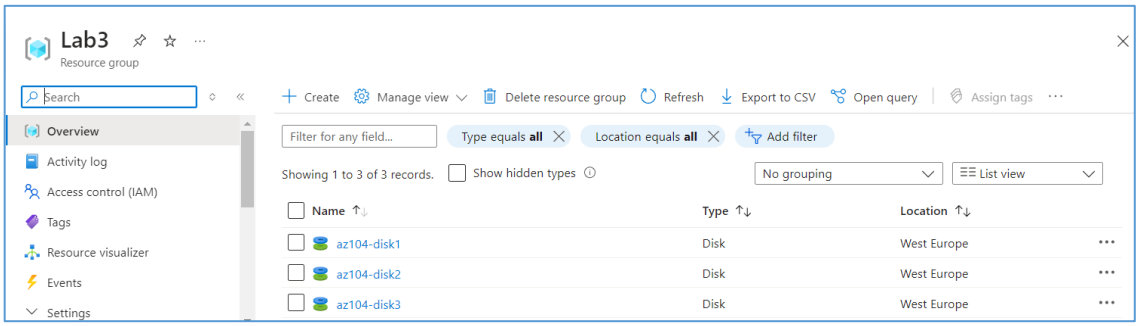
Using the template, I changed the disk name in templayte.json.





Task 3: Configure the Cloud Shell and deploy a template with PowerShell.





Task 4: Deploy a template with the CLI

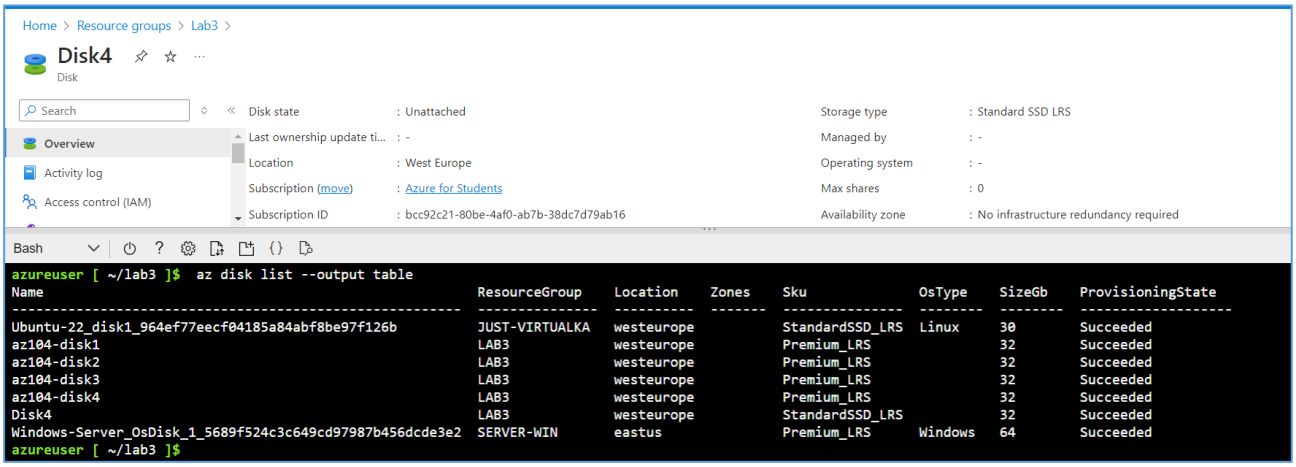
```
Bash
azureuser [ ~ ]$ cd lab3/
azureuser [ ~/lab3 ]$ nano template.json
azureuser [ ~/lab3 ]$ nano parameters.json
azureuser [ ~/lab3 ]$ az deployment group create --resource-group Lab3 --template-file template.json --parameters parameters.json
{
  "id": "/subscriptions/bcc92c21-80be-4af0-ab7b-38dc7d79ab16/resourceGroups/Lab3/providers/Microsoft.Resources/deployments/template",
  "location": null,
  "name": "template",
  "properties": {
    "correlationId": "4748c400-114d-4e73-a795-3666a5e9e68d",
    "debugSetting": null,
```

```
azureuser [ ~/lab3 ]$ az disk list --output table
Name                                                      ResourceGroup    Location    Zones    Sku              OsType    SizeGb    ProvisioningState
--------------------------------------------------------  ---------------  ----------  -------  ---------------  --------  --------  -------------------
Ubuntu-22_disk1_964ef77eecf04185a84abf8be97f126b          JUST-VIRTUALKA   westeurope           StandardSSD_LRS  Linux     30        Succeeded
az104-disk1                                               LAB3             westeurope           Premium_LRS                32        Succeeded
az104-disk2                                               LAB3             westeurope           Premium_LRS                32        Succeeded
az104-disk3                                               LAB3             westeurope           Premium_LRS                32        Succeeded
az104-disk4                                               LAB3             westeurope           Premium_LRS                32        Succeeded
Windows-Server_OsDisk_1_5689f524c3c649cd97987b456dcde3e2  SERVER-WIN       eastus               Premium_LRS      Windows   64        Succeeded
azureuser [ ~/lab3 ]$
```

Task 5: Deploy a resource by using Azure Bicep

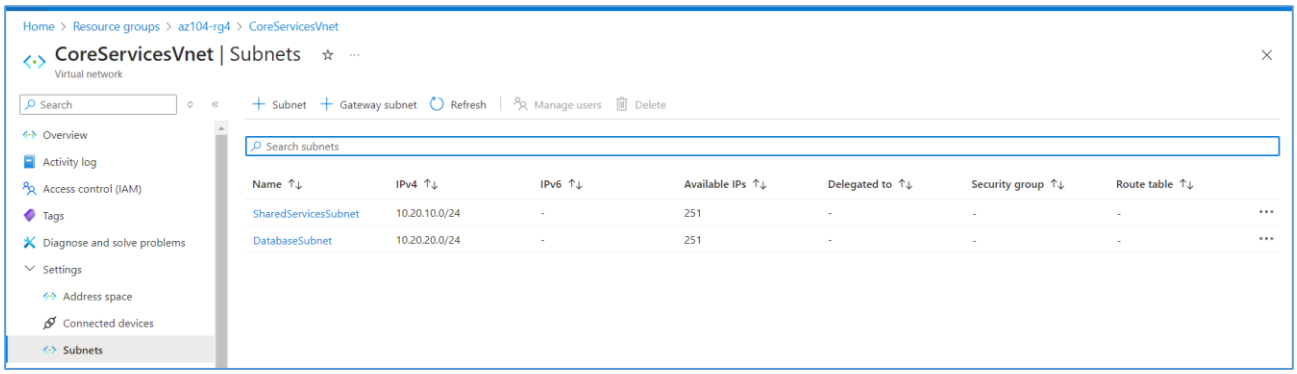
```
azureuser [ ~/lab3 ]$  az deployment group create --resource-group Lab3 --template-file azuredeploydisk.bicep
A new Bicep release is available: v0.30.23. Upgrade now by running "az bicep upgrade".
/home/azureuser/lab3/azuredeploydisk.bicep(2,7) : Warning no-unused-params: Parameter "managedDiskName" is decla
red but never used. [https://aka.ms/bicep/linter/no-unused-params]
/home/azureuser/lab3/azuredeploydisk.bicep(7,7) : Warning no-unused-params: Parameter "diskSizeinGiB" is declare
d but never used. [https://aka.ms/bicep/linter/no-unused-params]

{
  "id": "/subscriptions/bcc92c21-80be-4af0-ab7b-38dc7d79ab16/resourceGroups/Lab3/providers/Microsoft.Resources/d
eployments/azuredeploydisk",
  "location": null,
  "name": "azuredeploydisk",
  "properties": {
    "correlationId": "8400788d-520e-4bc8-9e63-3e92208e51ee",
    "debugSetting": null,
    "dependencies": [],
    "duration": "PT6.2860569S",
    "error": null,
    "mode": "Incremental"
```



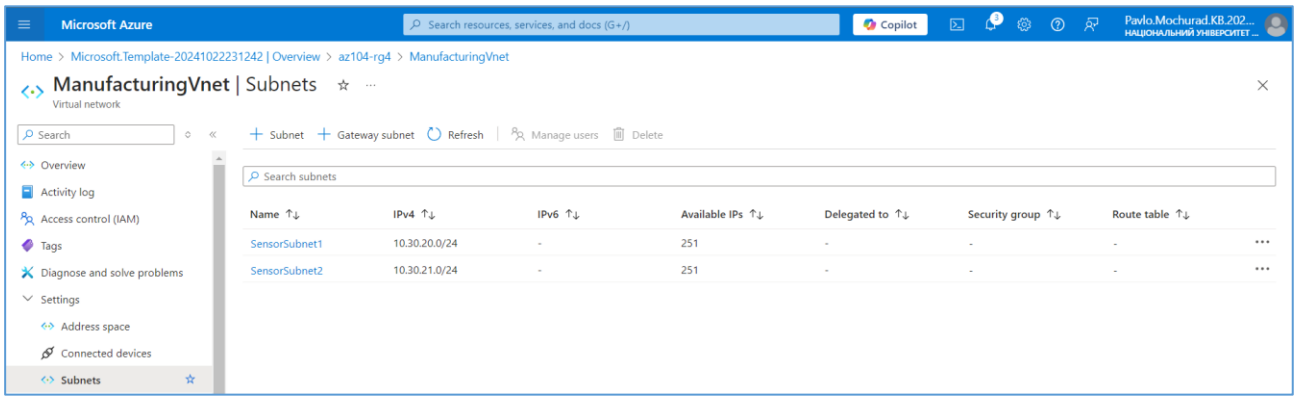
Lab 04 - Implement Virtual Networking

Task 1: Create a virtual network with subnets using the portal

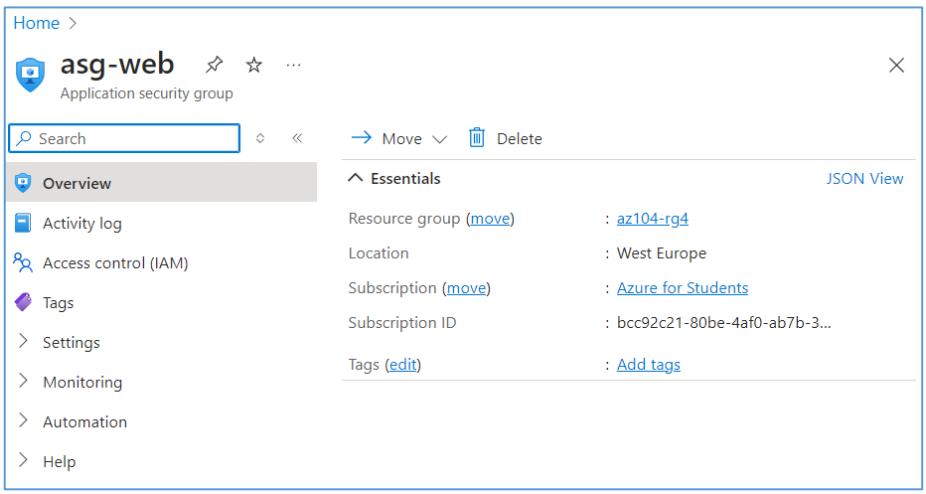


Task 2: Create a virtual network and subnets using a template.

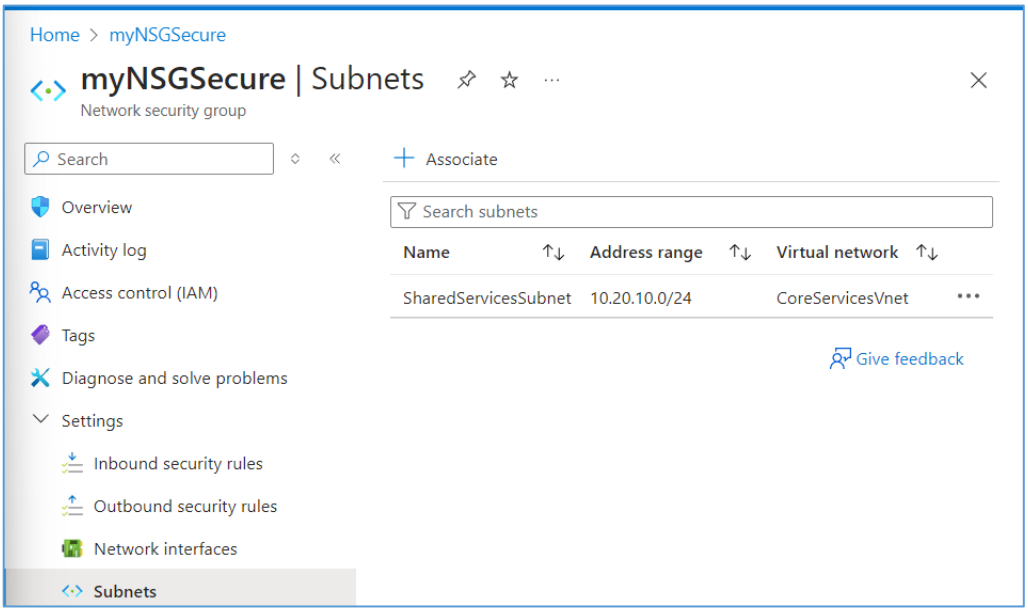
I used the arm template from a previous task where I deployed resources manually. But I changed the v-net name, subnet, and address space fields.



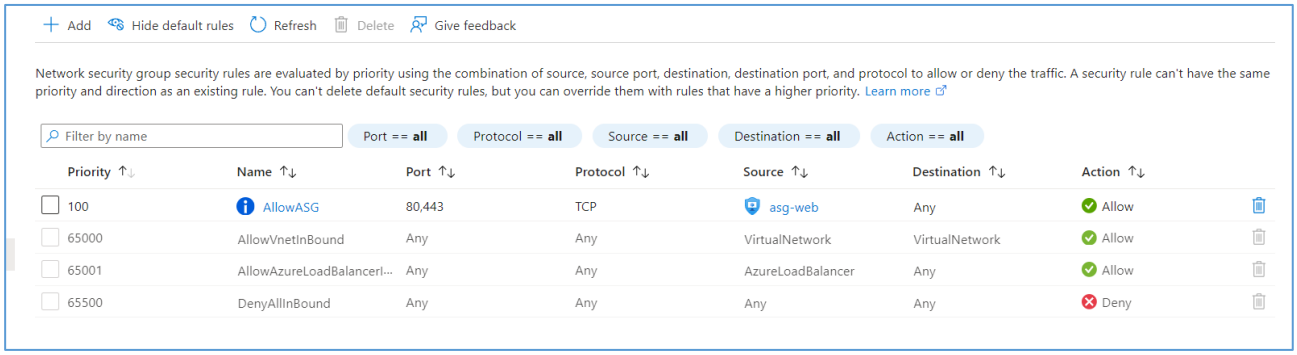
Task 3: Create and configure communication between an Application Security Group and a Network Security Group.



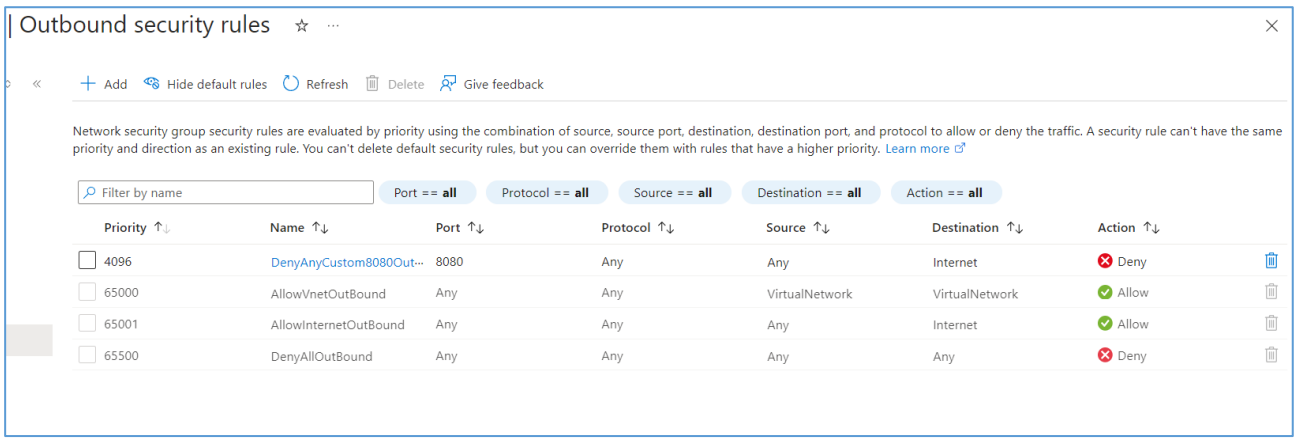
Application security group



Network Security group with associate subnet



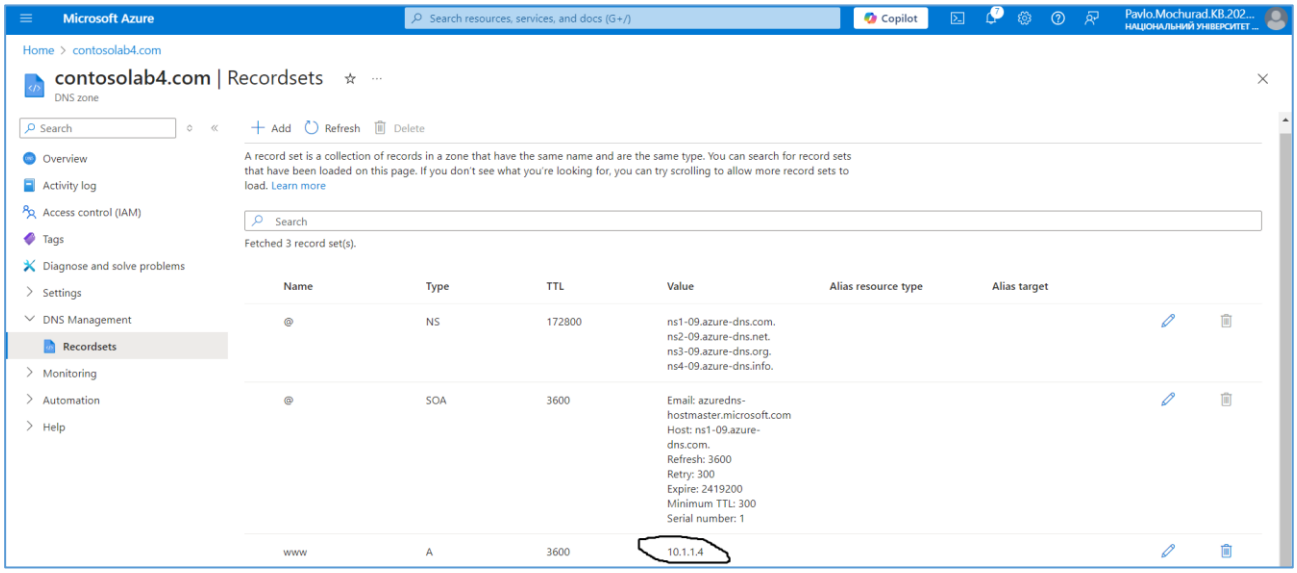
Inbound rules



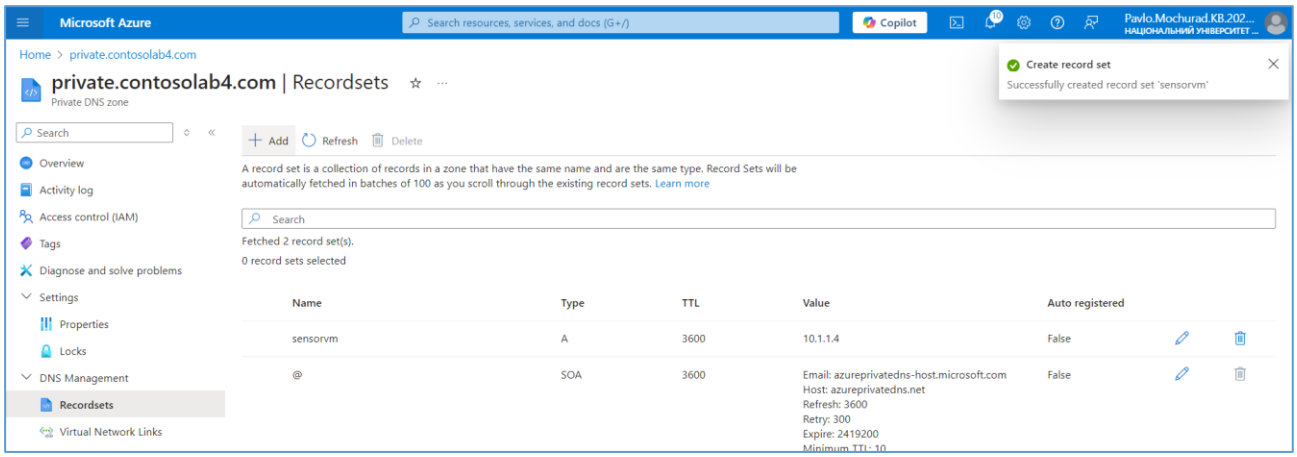
Outbound rules

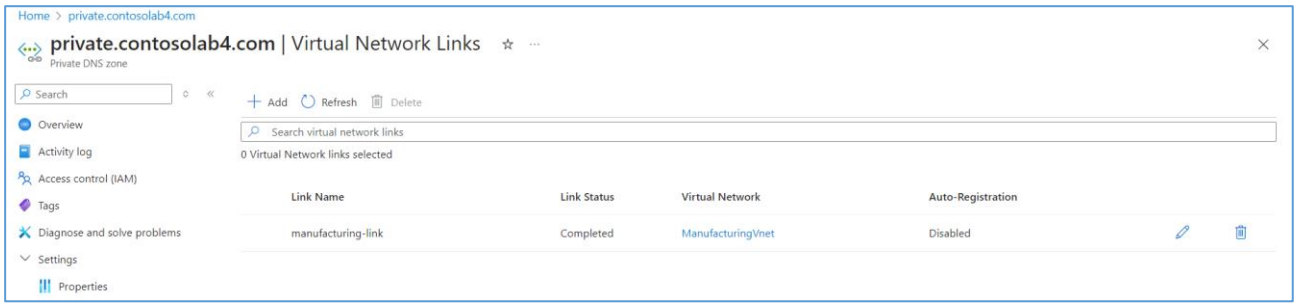
Task 4: Configure public and private Azure DNS zones

Configure a public DNS zone



Configure a private DNS zone




Home > private.contosolab4.com
private.contosolab4.com | Virtual Network Links
Private DNS zone
Search
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Properties
Add
Refresh
Delete
Search virtual network links
0 Virtual Network links selected
Link Name
Link Status
Virtual Network
Auto-Registration
manufacturing-link
Completed
ManufacturingVnet
Disabled