

Звіт Лабораторна 8

Manage Virtual Machines

Task 1: Deploy zone-resilient Azure virtual machines by using the Azure portal

The screenshot displays the Microsoft Azure portal interface in a web browser. The main heading is "CreateVm-MicrosoftWindowsServer.WindowsServer-201-20250324120421 | Overview". Below this, a notification states "Your deployment is complete" with a green checkmark. The deployment details table lists the following resources:

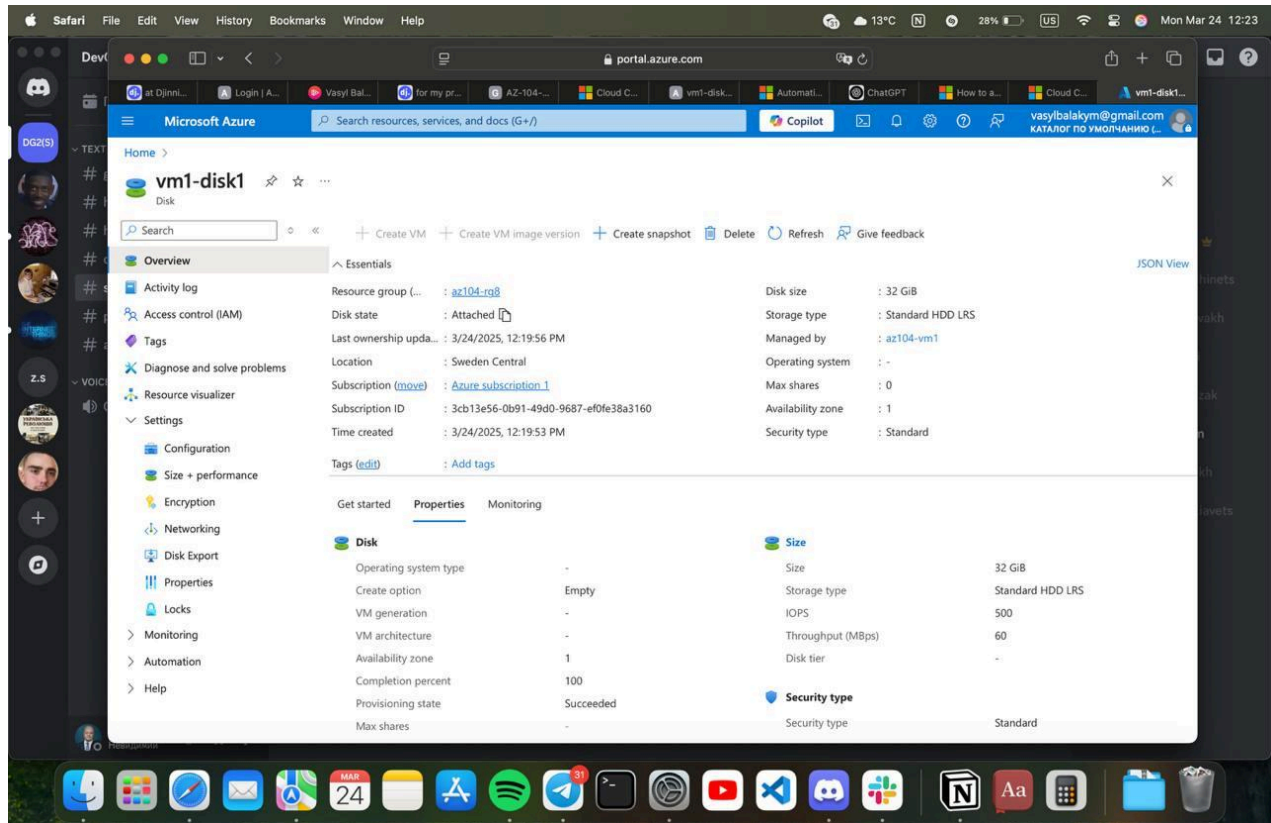
Resource	Type	Status	Operation details
az104-vm1	Microsoft.Compute/virt...	OK	Operation details
az104-vm2	Microsoft.Compute/virt...	OK	Operation details
az104-vm1643_z2	Microsoft.Network/net...	Created	Operation details
az104-vm1979_z1	Microsoft.Network/net...	Created	Operation details
az104-vm1-vnet	Microsoft.Network/virtu...	OK	Operation details
az104-vm1-nsg	Microsoft.Network/net...	OK	Operation details
az104-vm2-ip	Microsoft.Network/publ...	OK	Operation details
az104-vm1-ip	Microsoft.Network/publ...	OK	Operation details

Below the table, the "Next steps" section recommends:

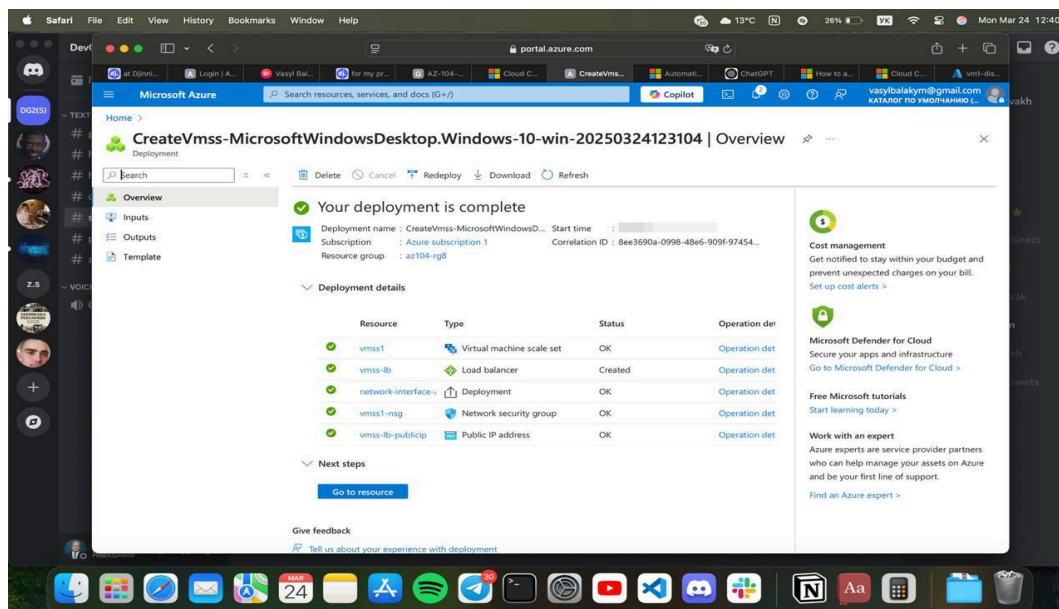
- Setup auto-shutdown Recommended
- Monitor VM health, performance and network dependencies Recommended
- Run a script inside the virtual machine Recommended

On the right side, there are several informational cards: "Cost Management", "Microsoft Defender for Cloud", "Free Microsoft tutorials", and "Work with an expert". A notification in the top right corner states: "Deployment succeeded. Deployment 'CreateVm-MicrosoftWindowsServer.WindowsServer-201-20250324120421' to resource group 'az104-rg8' was successful."

Task 2: Manage compute and storage scaling for virtual machines(in this photo we manually change size for vm,scalling)



Task 3: Create and configure Azure Virtual Machine Scale Sets



Task 4: Scale Azure Virtual Machine Scale Sets

The screenshot displays the 'Scaling' configuration page for a Virtual Machine Scale Set (vmsst1) in the Microsoft Azure portal. The left sidebar shows the navigation menu with 'Scaling' selected. The main content area includes a 'Predictive autoscale' section with a 'Mode' dropdown set to 'Disabled' and a 'Pre-launch setup of instances (minutes)' field. Below this is the 'Default' auto-created default scale condition. The 'Scale mode' is set to 'Scale based on a metric'. The 'Rules' section shows two rules: 'Scale out' and 'Scale in', both triggered by 'When vmsst1' and 'Average: Percentage CPU > 70'. The 'Instance limits' section shows 'Minimum' and 'Maximum' set to 2, and 'Default' set to 2. A 'Schedule' section at the bottom states 'This scale condition is executed when none of the other scale condition(s) match'. A notification at the top right indicates 'Resource vmsst1 updated'.

Resource 'vmsst1' updated
Successfully updated configuration for 'vmsst1'

Instance count: 2

Predictive autoscale
Mode: Disabled
Pre-launch setup of instances (minutes):
Enable Forecast only or Predictive autoscale. [Learn more about Predictive autoscale.](#)

Default * Auto created default scale condition

Delete warning: The very last or default resource rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale.

Scale mode: ☒ Scale based on a metric ☐ Scale to a specific instance count

Rules

Scale out:
When: vmsst1 (Average: Percentage CPU > 70) Increase percent by 50

Scale in:
When: vmsst1 (Average: Percentage CPU < 50) Decrease percent by 50

+ Add a rule

Instance limits
Minimum: 2 Maximum: 2 Default: 2

Schedule
This scale condition is executed when none of the other scale condition(s) match

+ Add a scale condition

The screenshot displays the 'Instances' configuration page for a Virtual Machine Scale Set (vmsst1) in the Microsoft Azure portal. The left sidebar shows the navigation menu with 'Instances' selected. The main content area includes a search bar for virtual machine instances. Below the search bar is a table listing the instances. The table has columns for Instance, Computer name, Status, Protection policy, Provisioning state, Health state, and Latest model. Two instances are listed: vmsst1_0 and vmsst1_1, both with a status of 'Running' and a health state of 'Succeeded'.

Search virtual machine instances

Instance	Computer name	Status	Protection policy	Provisioning state	Health state	Latest model
<input type="checkbox"/> vmsst1_0	vmsst14pu00000	Running		Succeeded		Yes
<input type="checkbox"/> vmsst1_1	vmsst14pu00001	Running		Succeeded		Yes

Give feedback

```
az vm create --name myCLIVM --resource-group az104-rg8 --image Ubuntu2204  
--admin-username localadmin --generate-ssh-keys
```

And create vm using cli

Висновок: у лабораторній 8, ми створили віртуальні машини з декількома зонами, для масштабування змінили розмір диска (мануальне масштабування), після чого ми створили VMSS для того щоб відбувалось автоматичне масштабування зважаючи на певні умови які ми вписали, після чого створили віртуальну машину за допомогою cli.