

**LAPORAN HASIL PRAKTIKUM
CLOUD COMPUTING**



Disusun Oleh :

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**PROGRAM STUDI TEKNIK KOMPUTER
FAKULTAS ILMU KOMPUTER
UNIVERSITAS AMIKOM YOGYAKARTA
YOGYAKARTA**

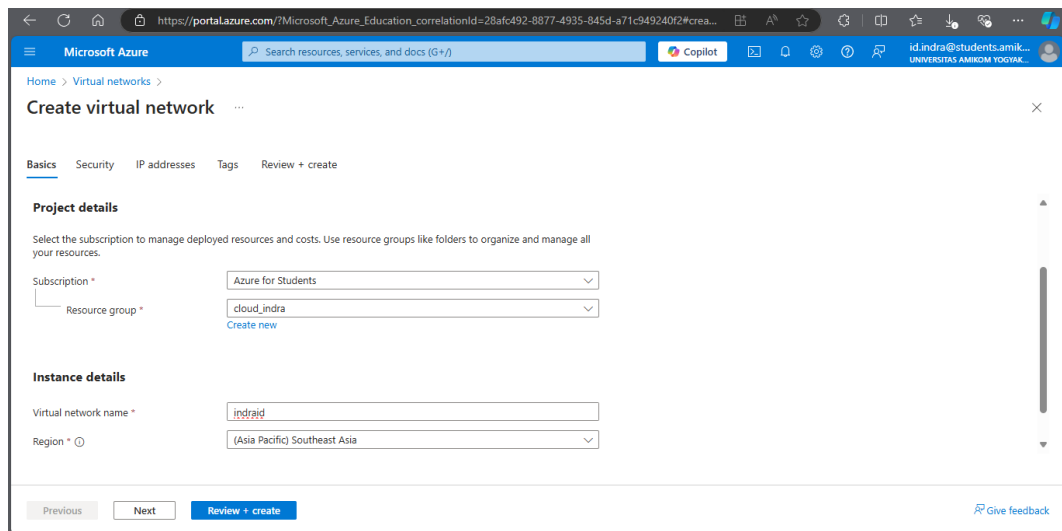
2024

NAMA	: Indra Bagus Pratama	(22.83.0859)
JADWAL PRAKTIKUM	: Jum'at, 13:20 – 15:00 WIB	
DOSEN	: Senie Destya, M.Kom.	
PERTEMUAN KE	: 3	
TOPIK	: Membuat Virtual Network dan Virtual Machine	

A. Membuat Virtual Network

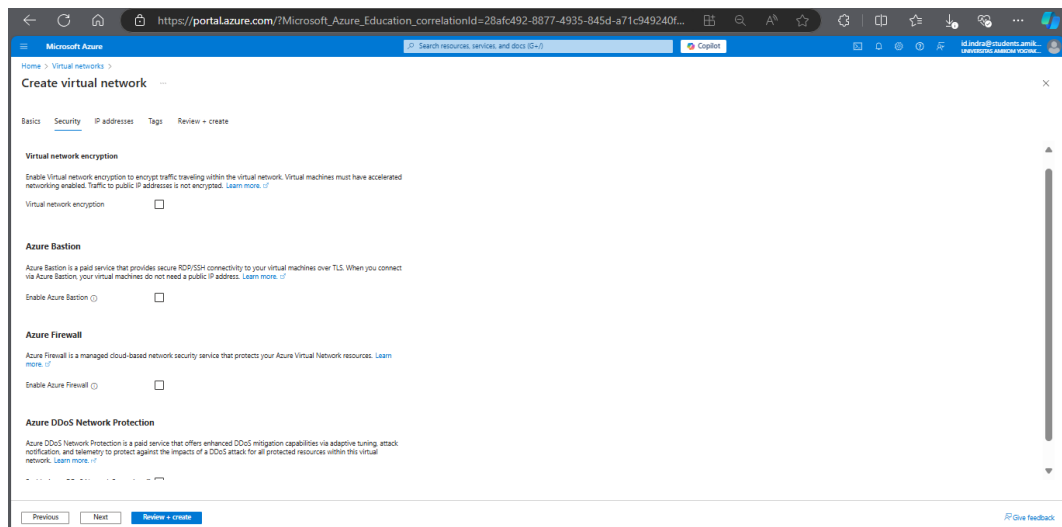
1. Masuk pada menu virtual network

Klik create, masukkan nama virtual network name (isi nama beda jangan sama dengan nama server teman yang lain)



The screenshot shows the 'Create virtual network' page in the Microsoft Azure portal. The 'Basics' tab is selected. Under 'Project details', the 'Subscription' is 'Azure for Students' and the 'Resource group' is 'cloud_indra'. Under 'Instance details', the 'Virtual network name' is 'indraid' and the 'Region' is '(Asia Pacific) Southeast Asia'. At the bottom, there are buttons for 'Previous', 'Next', and 'Review + create'.

2. Setting keamanan, sesuaikan dengan kebutuhan



The screenshot shows the 'Create virtual network' page in the Microsoft Azure portal, with the 'Security' tab selected. It displays several security options: 'Virtual network encryption' (unchecked), 'Azure Bastion' (unchecked), 'Azure Firewall' (unchecked), and 'Azure DDoS Network Protection' (unchecked). Each option has a brief description and a 'Learn more' link. At the bottom, there are buttons for 'Previous', 'Next', and 'Review + create'.

3. Pada Nwtwork setting IP address publik yang akan kita gunakan, tambahkan subnet vpn dan backend

The screenshot shows the 'Create virtual network' wizard in the Microsoft Azure portal, specifically the 'IP addresses' tab. The wizard is for a virtual network named 'indra'. The address space is set to 10.1.0.0/22, which provides 1,024 addresses. Below this, a table lists the subnets:

Subnets	IP address range	Size	NAT gateway
vpn	10.1.0.0 - 10.1.0.255	/24 (256 addresses)	-
backend	10.1.1.0 - 10.1.1.255	/24 (256 addresses)	-

At the bottom of the wizard, there are buttons for 'Previous', 'Next', and 'Review + create'.

4. Peninjauan kembali Virtual Network yang sudah kita buat

The screenshot shows the 'Create virtual network' wizard in the Microsoft Azure portal, specifically the 'Review + create' tab. The wizard is for a virtual network named 'indra'. The address space is set to 10.1.0.0/22 (1,024 addresses). Below this, a table lists the subnets:

Subnet	IP address range	Size
vpn	10.1.0.0/24	(256 addresses)

At the bottom of the wizard, there are buttons for 'Previous', 'Next', and 'Create'.

5. Klik create dan tunggu proses deploy selesai

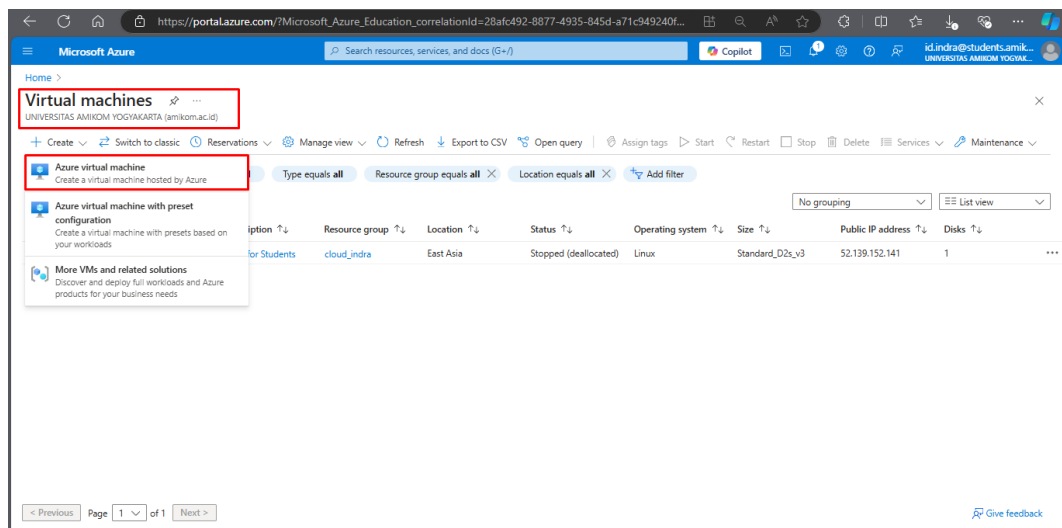
The screenshot shows the 'Overview' page of the deployment in the Microsoft Azure portal. The deployment is named 'indraid-1728096158842'. The status is 'Your deployment is complete'. The deployment details are as follows:

Deployment name	Subscription	Resource group
indraid-1728096158842	Azure for Students	cloud_indra

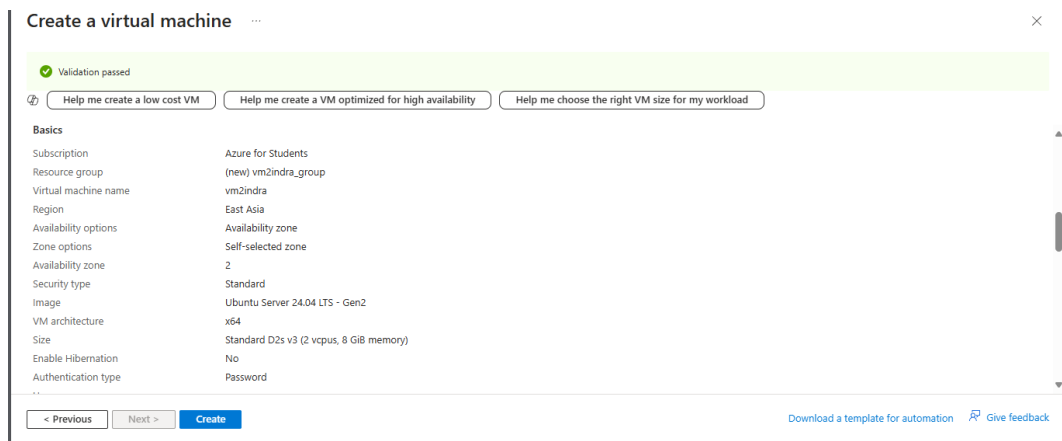
At the bottom of the page, there are buttons for 'Go to resource' and 'Give feedback'.

B. Membuat Virtual Machine

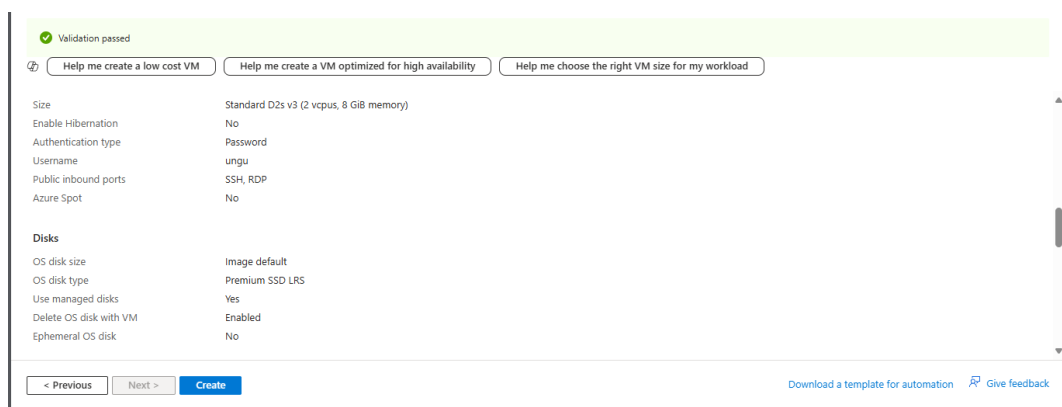
1. Buat azure VM



2. Pada setting basic saya menambahkan nama username dan password (berisi 12 karakter) untuk akses sshnya



3. Pada bagian setting disk, ubah menjadi standart HDD (bagian ini bisa disesuaikan menurut kebutuhan Virtual Machine dengan mempertimbangkan biaya yang akan digunakan) tentu kecepatan HDD dan SSD berbeda.



4. Pada bagian network, setting dan tambahkan inbound port SSH (22) dan RDP (3389)

Validation passed

Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

Networking

Virtual network	(new) vm2indra-vnet
Subnet	(new) default (10.1.0.0/24)
Public IP	(new) vm2indra-ip
Accelerated networking	On
Place this virtual machine behind an existing load balancing solution?	No
Delete public IP and NIC when VM is deleted	Disabled

5. Tidak ada perubahan pada setting manajemen dan monitoring

Microsoft Azure

Search resources, services, and docs (G+)

Home > Virtual machines >

Create a virtual machine

Validation passed

Help me create a low cost VM Help me create a VM optimized for high availability Help me choose the right VM size for my workload

Management

Microsoft Defender for Cloud	None
System assigned managed identity	Off
Login with Microsoft Entra ID	Off
Auto-shutdown	Off
Enable hotpatch	Off
Patch orchestration options	Image Default

Monitoring

Alerts	Off
Boot diagnostics	On
Enable OS guest diagnostics	Off
Enable application health monitoring	Off

< Previous Next > Create

Download a template for automation Give feedback

6. Klik create untuk melakukan proses deploy, terdapat catatan biaya tagihan dari VM yang sudah kita buat

Microsoft Azure

Search resources, services, and docs (G+)

Home >

CreateVm-canonical.ubuntu-24_04-lts-server-20241005094428 | Overview

Deployment

Search

Delete Cancel Redeploy Download Refresh

Overview

Inputs

Outputs

Template

✓ Your deployment is complete

Deployment name: CreateVm-canonical.ubuntu-24_04-lts-server-20241005094428 Start time: 10/5/2024, 9:50:20 AM
Subscription: Azure for Students Correlation ID: 26374c57-7bb3-440e-95a8-ec70d
Resource group: vm2indra_group

Deployment details

Next steps

Setup auto-shutdown Recommended

Monitor VM health, performance and network dependencies Recommended

Run a script inside the virtual machine Recommended

Go to resource Create another VM

Give feedback

Tell us about your experience with deployment

Deployment succeeded

Deployment 'CreateVm-canonical.ubuntu-24_04-lts-server-20241005094428' to resource group 'vm2indra_group' was successful.

Go to resource Pin to dashboard

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 >

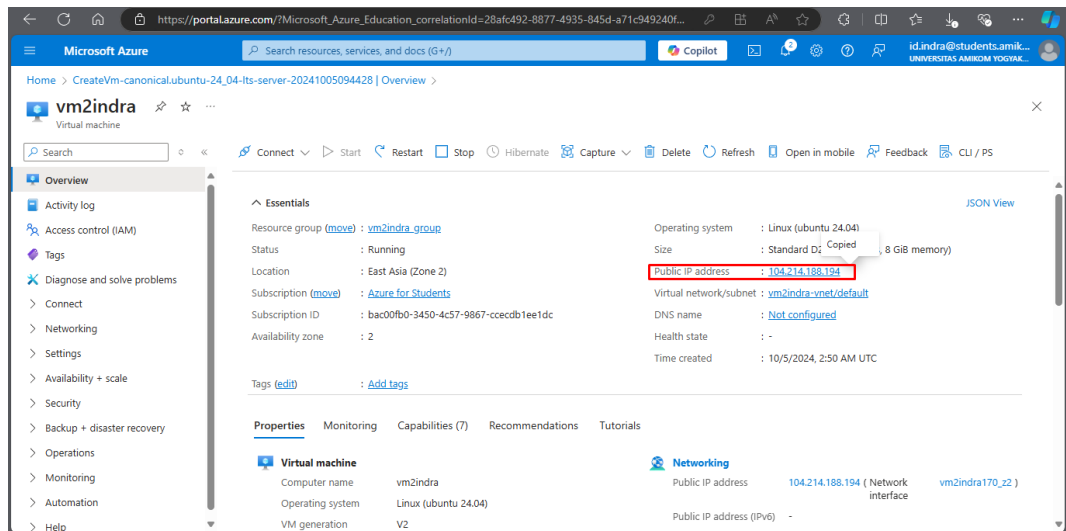
Free Microsoft tutorials

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Work with an expert

Azure experts are service provider partners who can help manage your Azure resources.

7. Setelah VM selesai, masuk kedalam resource dan akan mendapatkan Publik IP Address



8. Uji coba akses VM

```
ungu@vm2indra: ~  
C:\Users\Indra>ssh ungu@104.214.188.194  
ungu@104.214.188.194's password:  
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1015-azure x86_64)  
  
* Documentation:  https://help.ubuntu.com  
* Management:    https://landscape.canonical.com  
* Support:        https://ubuntu.com/pro  
  
System information as of Sat Oct  5 02:53:07 UTC 2024  
  
System load:  0.36           Processes:            123  
Usage of /:   5.0% of 28.02GB Users logged in:       0  
Memory usage: 3%           IPv4 address for eth0: 10.1.0.4  
Swap usage:   0%  
  
Expanded Security Maintenance for Applications is not enabled.  
  
0 updates can be applied immediately.  
  
Enable ESM Apps to receive additional future security updates.  
See https://ubuntu.com/esm or run: sudo pro status  
  
The list of available updates is more than a week old.  
To check for new updates run: sudo apt update  
  
Last login: Sat Oct  5 02:53:09 2024 from 139.192.157.77  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
ungu@vm2indra:~$ |
```