Assignment: Set Up an Azure Virtual Machine with a Free Account

Objective

The purpose of this assignment is to enable students to gain the skills to create, configure, and perform basic management of virtual machines on the Azure platform.

Assignment Steps:

1- Create an Azure Account:

I have created a free trial Azure account with a €200 balance, which provides access to a wide range of Azure services for learning and experimentation.

2- Create a Resource Group:

I logged in to the Azure portal and created a new resource group named `OrhanKahyaoglu\_RG` in the West Europe region. This resource group will contain all resources related to my assignment.

3- Create a Virtual Machine:

I navigated to the "Virtual machines" service and created a new VM named `OrhanKahyaoglu-VM` in the same region as my resource group.

- \*\*Image:\*\* Windows Server 2019 Datacenter

- \*\*Size:\*\* Standard\_B1s (to optimize free trial credits)

![alt text](image-4.png)

- \*\*Administrator username and password:\*\* Set securely

- \*\*Networking:\*\* Default virtual network and subnet, with a public IP assigned

- \*\*NSG rules:\*\* RDP (port 3389) enabled for remote access

All settings were reviewed before creating the VM.

4-Connect to the Virtual Machine:

After deployment, I connected to the VM using the RDP file downloaded from the Azure portal. I logged in with the administrator credentials I set during creation.

5-Create and Connect to Azure File Share:

I created a new storage account in the Azure portal and, within it, a new file share named `CV\_OrhanKahyaoglu’.

- On the VM, I mapped the file share as a network drive using the PowerShell script provided by Azure:

$connectTestResult = Test-NetConnection -ComputerName orhankahyaoglus.file.core.windows.net -Port 445

if ($connectTestResult.TcpTestSucceeded) {

# Save the password so the drive will persist on reboot

cmd.exe /C "cmdkey /add:`"orhankahyaoglus.file.core.windows.net`" /user:`"localhost\orhankahyaoglus`" /pass:`"44gCp2vM1Fepr/qLeOOeubGLTV5ji+pWmDYHaY8Bap9tboKoXjasLGb8TOue6OAhlz6Qu4qCVSf9+AStKkAMOQ==`""

# Mount the drive

New-PSDrive -Name Z -PSProvider FileSystem -Root "\\orhankahyaoglus.file.core.windows.net\dosyalarim" -Persist

} else {

Write-Error -Message "Unable to reach the Azure storage account via port 445. Check to make sure your organization or ISP is not blocking port 445, or use Azure P2S VPN, Azure S2S VPN, or Express Route to tunnel SMB traffic over a different port."

}

# Mount the drive

New-PSDrive -Name Z -PSProvider FileSystem -Root "\\ilkayarslanoglurgdiag.file.core.windows.net\ilkayarslanoglufs" -Persist

} else {

Write-Error -Message "Unable to reach the Azure storage account via port 445. Check to make sure your organization or ISP is not blocking port 445, or use Azure P2S VPN, Azure S2S VPN, or Express Route to tunnel SMB traffic over a different port."

}

- On my local PC, I also mapped the file share as a network drive (Z:) using the same script.

This allowed me to easily transfer files between my PC and the VM.

### 7. Problems Encountered and Solutions

| ****Problem**** | ****Solution**** |
| --- | --- |
| RDP connection failed | I resolved the RDP issue by enabling an inbound security rule for port 3389 in the Network Security Group (NSG) associated with the virtual machine. This allowed remote desktop connections to be established successfully. |
| SecurityHealthSystray.exe error | This error occurred on startup. I fixed it by running Windows Update and ensuring that the .NET Framework was installed and updated properly on the virtual machine. |
| PowerShell mapping command failed | Initially, the PowerShell script to map the Azure File Share did not work. I corrected this by copying the accurate storage access key from the Azure portal and updating the script with the correct credentials. |