**PROJECT 1**

**AZURE VM START/STOP AUTOMATION USING SHELL SCRIPT AND AZ CLI**

**SUBMITTED BY**

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**PROJECT OBJECTIVES**: To automate the **startup and shutdown of Azure Virtual Machines** using a **Shell Script** with **Azure CLI (AZ CLI)**.  
The automation should intelligently check the **current status** of the VM before attempting to start or stop it, helping optimize costs by avoiding unnecessary operations and scheduling off-hours shutdowns.

**1. Resource Group and VM Setup**

* Ensure you have an existing **Resource Group** and at least one **Virtual Machine (VM)** deployed in Azure.
* The VM should be in a **running** state for testing shutdown and start operations.

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Fig: Successfully created a Linux VM and its in the running state

**2. Azure CLI Setup**

* Use either:
  + **Azure CLI locally installed**, or
  + **Azure Cloud Shell** (recommended for browser-based access)

Login to Azure CLI:  
  
**az login –use-device-code**

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Fig: successfully login to azure account

**3. Shell Script: Start VM**

Inside VS Code, create a file named **start-vm.sh**

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Fig: created a file named start-vm.sh, and replaced my resourcegroup name and vm name there

Make the script executable:

**chmod +x start-vm.sh**

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Fig: it works successfully

We can see the VM is in running state

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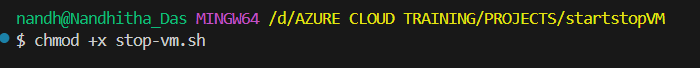
**4. Shell Script: Stop VM**

Create a second script file named stop-vm.sh:

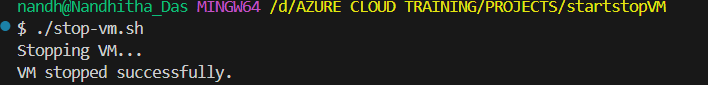
A computer screen shot of a program code

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Make this file executable:



Then I stopped the VM



**5. Scheduling (Optional for Daily Use)**

**Since Task Scheduler runs .bat easily, create two wrapper files in the same folder:**

**start-vm.bat**

bash "D:/AZURE CLOUD TRAINING/PROJECTS/startstopVM/start-vm.sh"

**stop-vm.bat**

bash "D:/AZURE CLOUD TRAINING/PROJECTS/startstopVM/stop-vm.sh"

You can schedule the above scripts to run automatically at specific times using a scheduler:

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For create stop task

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We can verify

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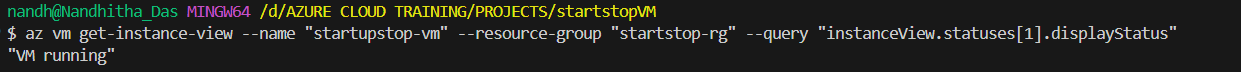
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Now Windows PC+ vs code+ task scheduler controls the vm in azure automatically

**6.Testing and Verification**

* Run each script manually first to confirm:
  + If VM is already running/stopped, the script exits without unnecessary actions.
  + If VM is stopped/running, it performs the operation successfully.
* Use the following command to check status**:**

**az vm get-instance-view --name "** **startupstop-vm" --resource-group "** **startstop-rg" --query instanceView.statuses[1].displayStatus**

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**Fig: VM is in the running status**

Creating a github repository

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Initialize Git in your folder

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Add files and commit

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GITHUB LINK: