Cloud Engineer Assignment Report

Name: Mayank Sharma | Course: BCA | Assignment: Cloud Engineer – Assignment 1

**Task 1: Azure Active Directory (AAD)**

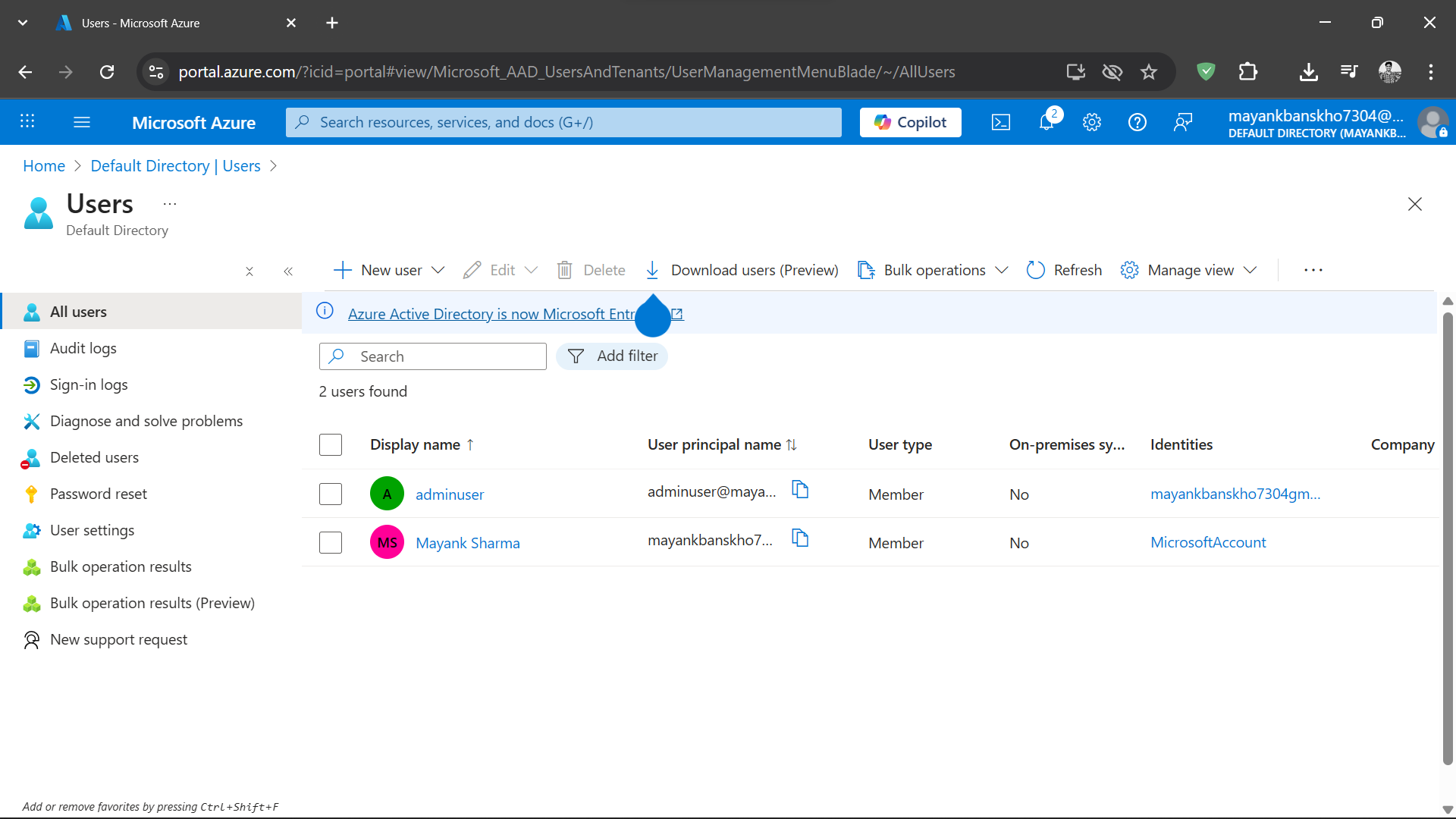
Objective: Create an Azure Active Directory, add users, assign roles, and enable Multi-Factor Authentication (MFA).

Steps Performed: 1. Logged in to Azure Portal. 2. Navigated to Azure Active Directory → Users → New User. 3. Created multiple users with necessary details. 4. Assigned roles to users: Global Administrator and User Administrator. 5. Enabled Multi-Factor Authentication (MFA) for all users. 6. Verified login credentials for one user account.

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| --- | --- | --- | --- |
| **User Name** | **Email** | **Role** | **MFA Enabled** |

|  |  |  |  |
| --- | --- | --- | --- |
| Mayank | Mynk@pucloud12345.onmicrosoft.com | Global Admin | Yes |

|  |  |  |  |
| --- | --- | --- | --- |
| Adminuser | Adminuser@pucloud12345.onmicrosoft.com | User Admin | Yes |

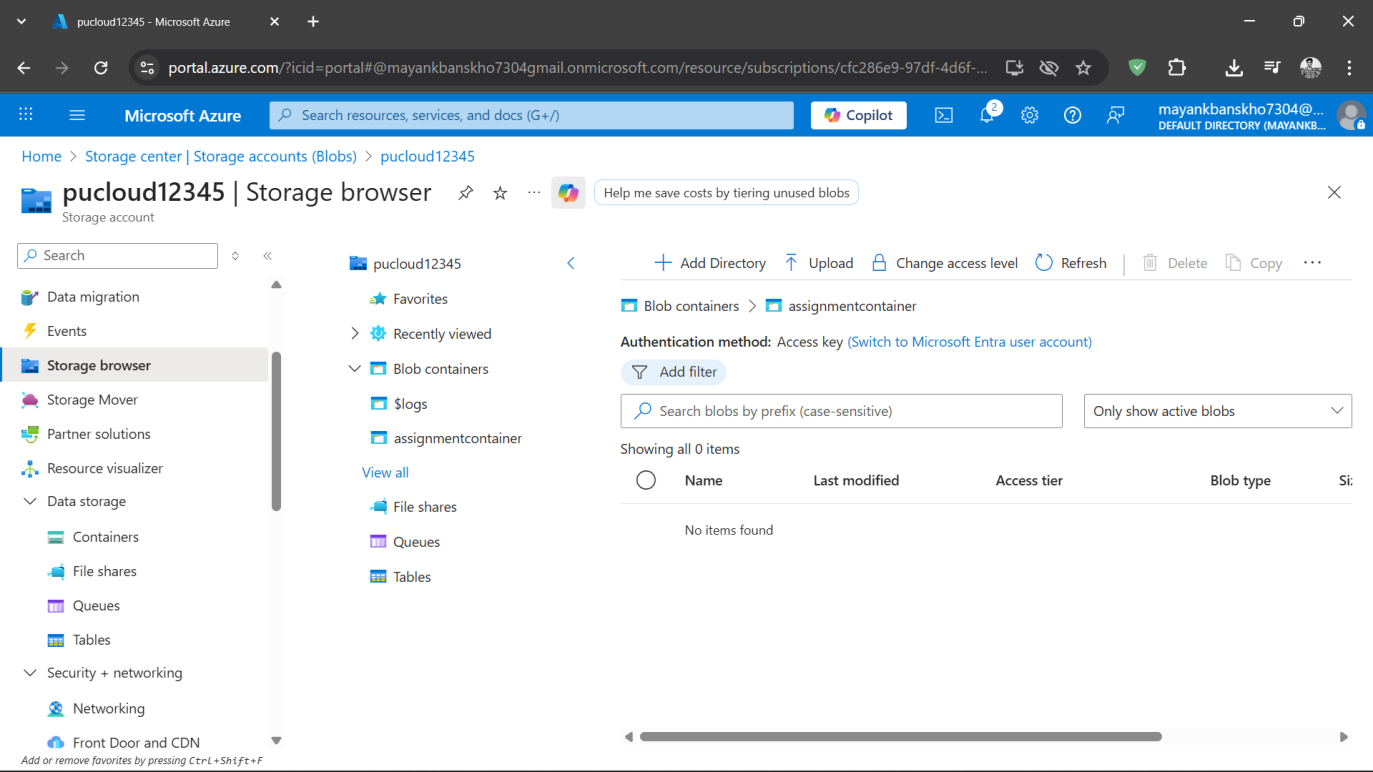


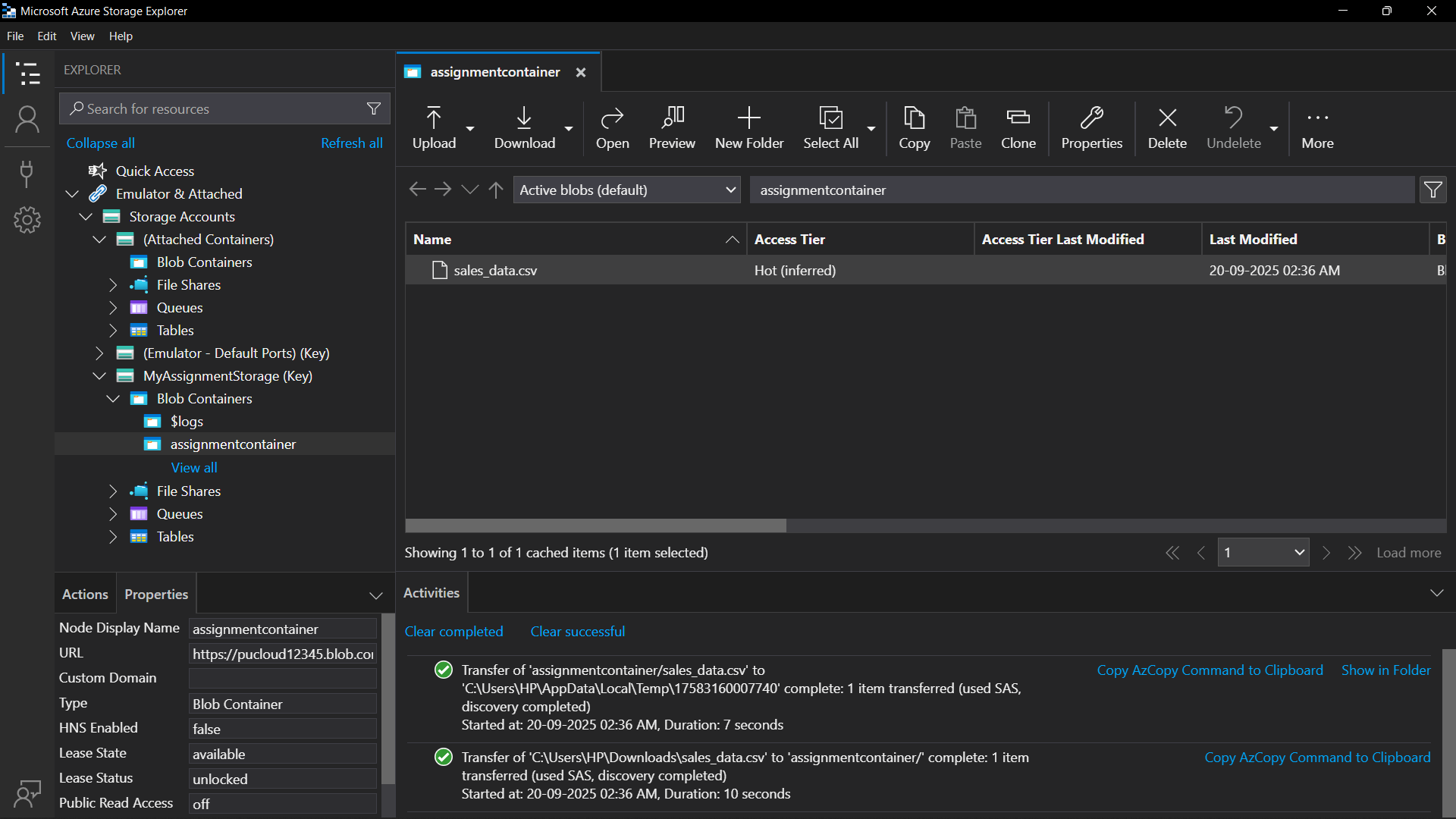
**Task 2: Azure Blob Storage Mapping**

Objective: Create Blob Storage in Azure and map it as a drive on the laptop.

Steps Performed: 1. Created Storage Account: Name: pucloud12345, Region: Central India, Performance: Standard, Replication: LRS. 2. Created Blob Container: Name: assignmentcontainer, Public access: Private. 3. Obtained Access Key: Key1 copied from Storage Account → Security + Networking → Access Keys. 4. Mapped as Drive using Azure Storage Explorer: Installed Azure Storage Explorer, added Storage Account using Account Name + Key, connected to container, uploaded sample file (sample.csv).

Notes: - File upload and access successful via Storage Explorer. - Explorer provides a drive-like interface to access Blob Storage.





**Task 3: Microsoft 365 Platform Study**

Objective: Study Microsoft 365 (M365) licenses and understand Business Basics, Standard, and Enterprise options.

Microsoft 365 has different license plans that companies choose based on their needs. The **Business Basic** plan is made for small companies and mainly includes online apps like Teams, Exchange, OneDrive, and email hosting.  
  
The **Business Standard** plan has all the features of Basic but also adds desktop apps like Word, Excel, and PowerPoint, which makes it useful for small and medium-sized businesses. For large organizations,   
there are **Enterprise plans (E1, E3, E5)** that provide advanced security, compliance tools, analytics, Microsoft Defender, and Power BI Pro (in E5). In simple words, Business plans are cost-effective for small companies, while Enterprise plans give powerful solutions for big organizations.

Conclusion: -   
Task 1: Successfully created Azure Active Directory, users, assigned roles, and enabled MFA. - Task 2: Azure Blob Storage created, mapped as drive via Storage Explorer, file upload tested. - Task 3: Microsoft 365 licenses studied with clear differentiation between Business and Enterprise options

**Cloud Engineer – Assignment 2**

**Task 1: Create 2 Linux Servers and Setup Webpages**

I created 2 Linux VMs in Azure.

VM1 IP: 135.235.192.134

VM2 IP: 20.244.1.79

Installed Apache web server on both VMs and started the service.

Commands I Used:

sudo apt update

sudo apt install apache2 -y

sudo systemctl start apache2

VM1 webpage:

echo "<h1>Welcome to Linux VM1 - Mayank</h1>" | sudo tee /var/www/html/index.html

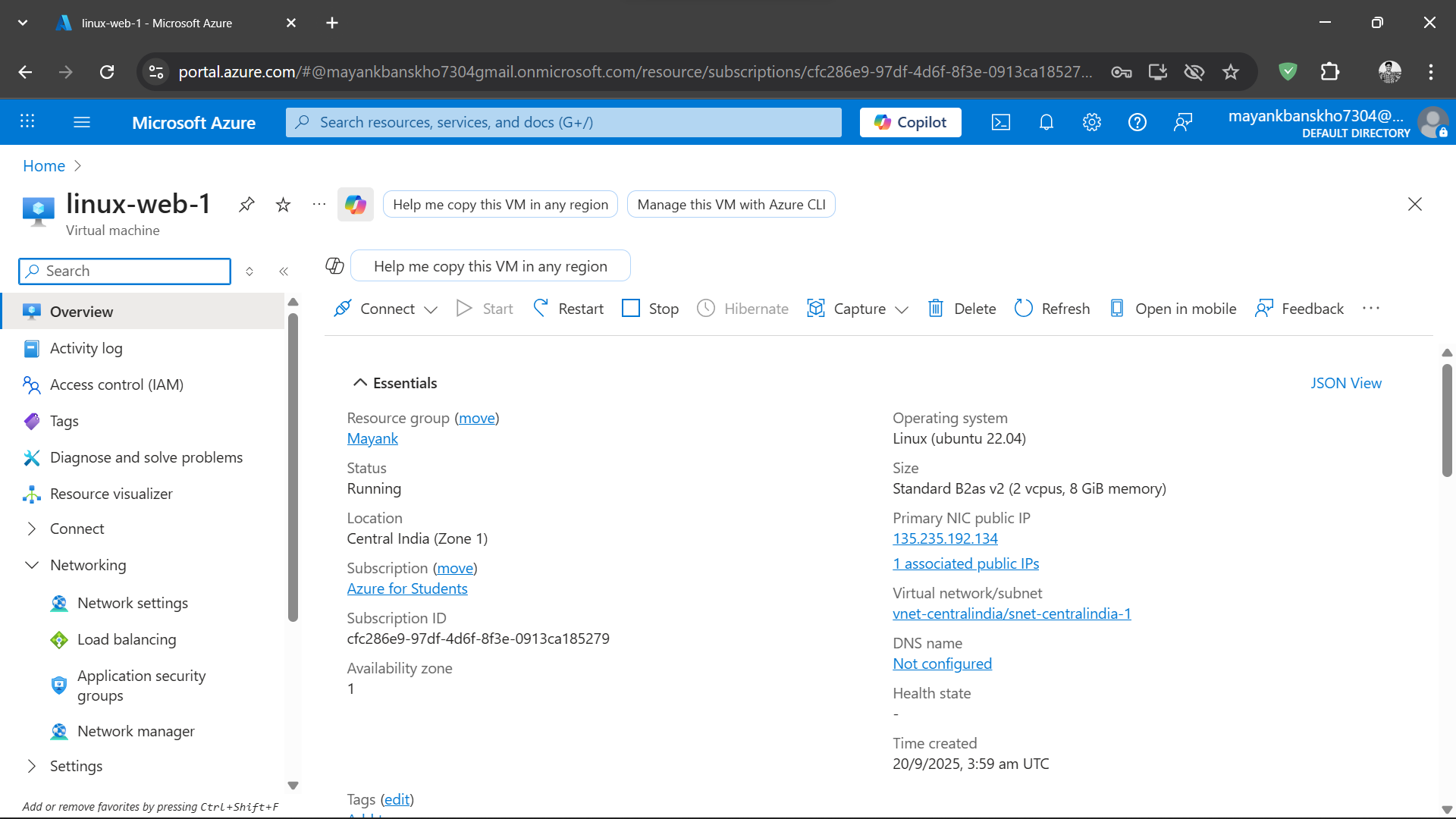
VM2 webpage:

echo "<h1>Welcome to Linux VM2 - Mayank</h1>" | sudo tee /var/www/html/index.html

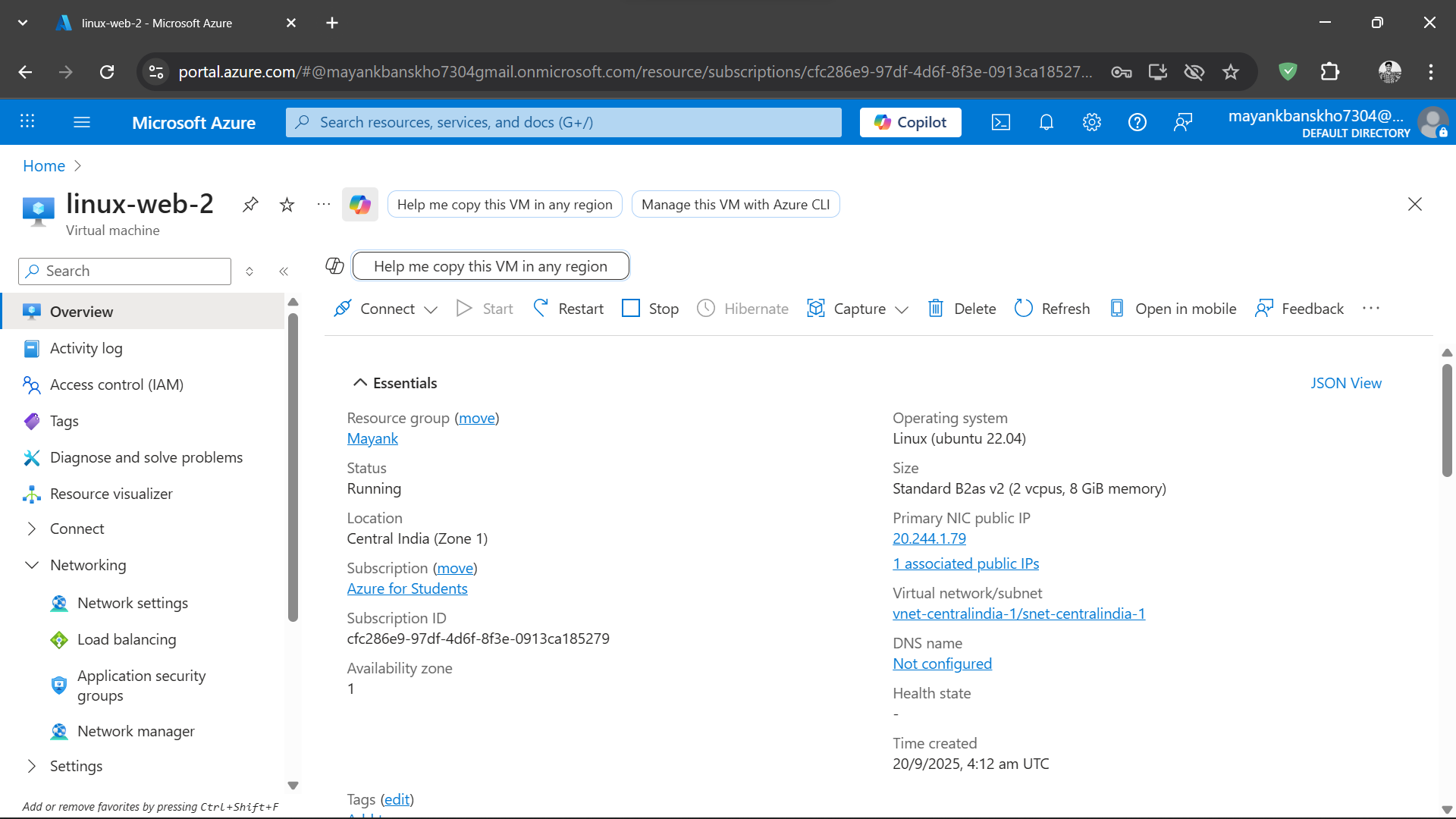
**Result:**

Both VMs are successfully created, and their webpages are visible in the browser.

VM 1

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Vm 2

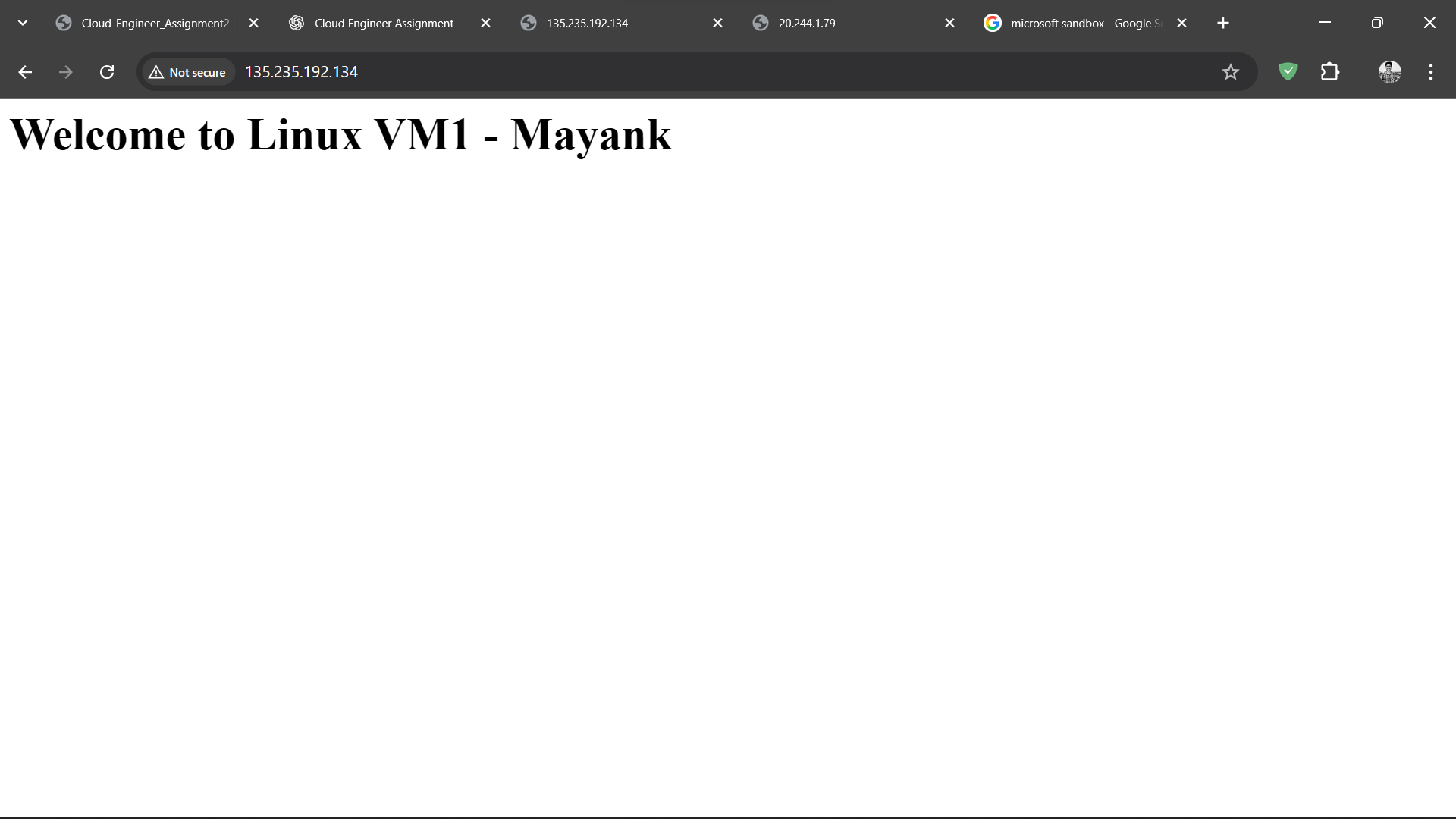


**Task 2: Access Webpages from Windows**

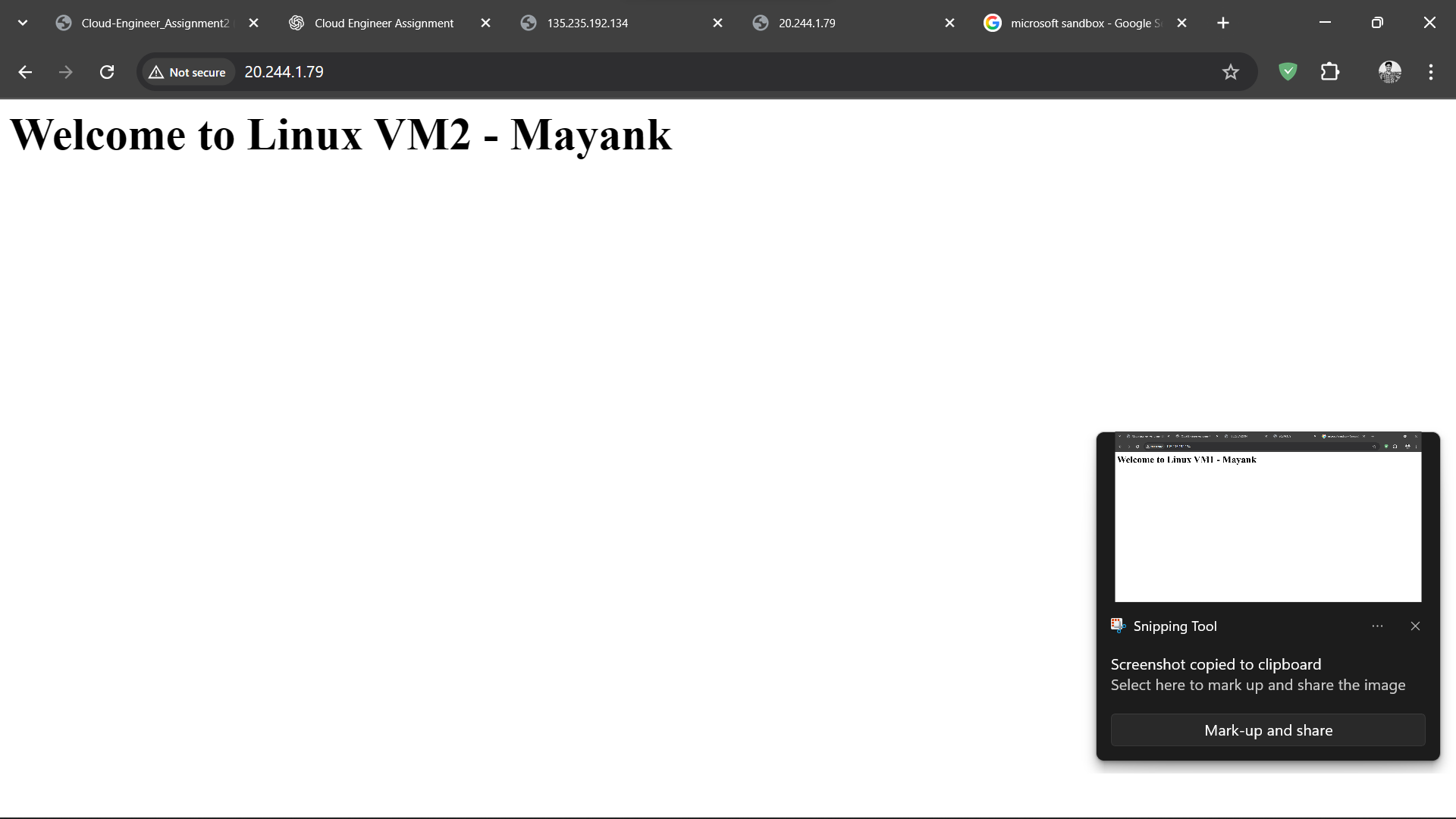
Paid Windows VM was not available due to subscription limits. Then I used my local Windows laptop to access the webpages. **Webpages successfully opened and verified.**

**Webpages Accessed:**

**VM1: http://135.235.192.134 → “Welcome to Linux VM1 - Mayank”**

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**VM2: http://20.244.1.79 → “Welcome to Linux VM2 - Mayank”**

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**Task 3: Active Directory Demo**

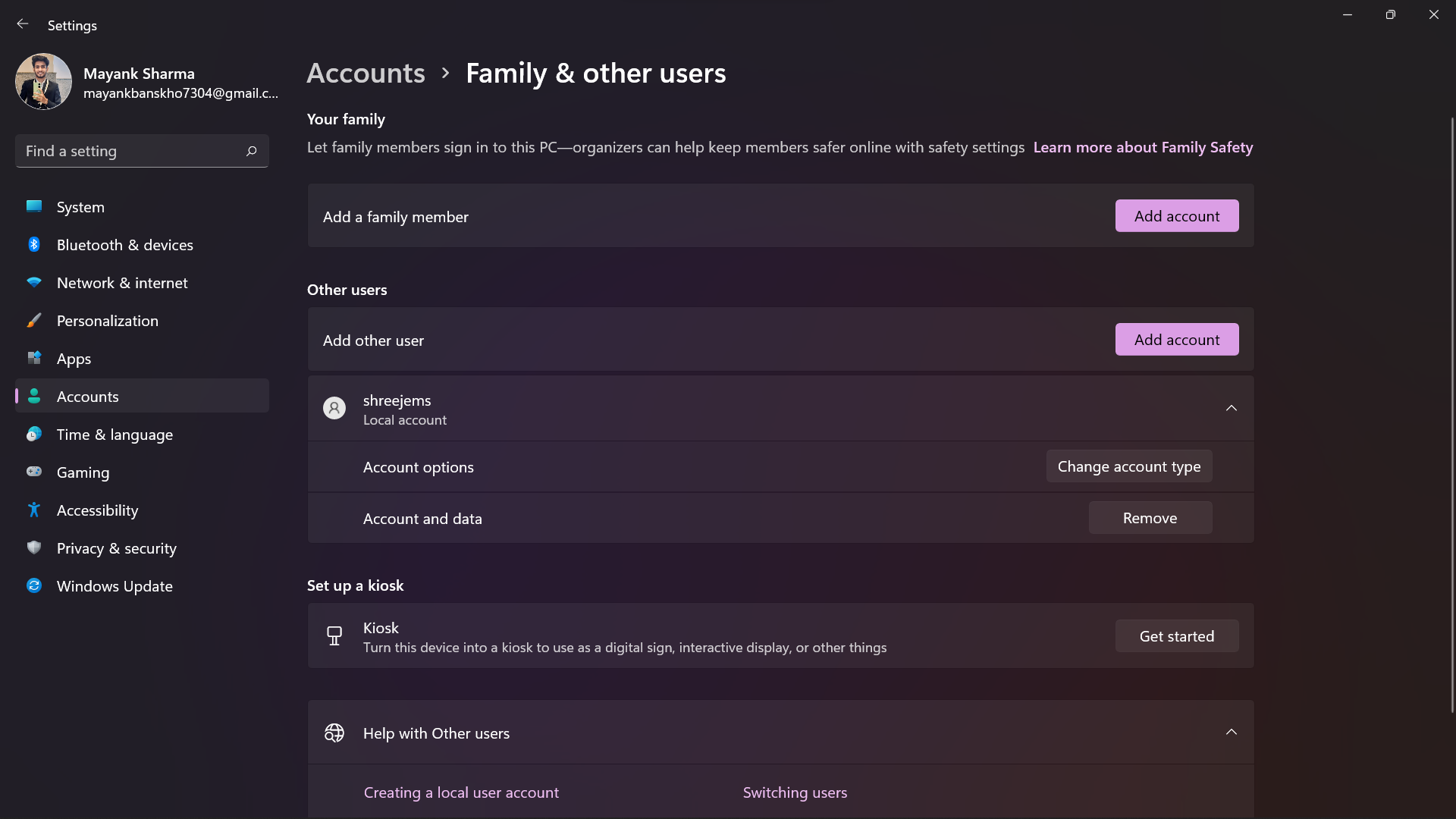
Paid Windows Server VM was unavailable, so I used my local Windows machine.

Created a new user:

Username: shreejems

Password: Mayank@787800

Simulated joining the client machine to a domain for demo purpose.

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Local user shreejems created successfully,Domain join simulated successfully.

**Note for assignment: “Paid Windows Server VM unavailable; demo done using local Windows machine.”**

**Conclusion**

**Created 2 Linux VMs and configured unique webpages on both.**

**Accessed Linux webpages from Windows successfully, even without Windows VM.**

**Completed Active Directory demo using local Windows machine.**

**Learning:**

**Learned Azure VM creation and Apache server setup.**

**Learned how to solve subscription issues using local machine.**

**Learned basic Active Directory setup and client join simulation.**

Thanks Regards   
 Mayank sharma