Creating Azure Virtual Machine

An Azure Virtual Machine (VM) is a scalable, on-demand computing resource provided by Microsoft Azure. It allows you to run an operating system (such as Windows or Linux) and applications in the cloud, just as you would on a physical server. Azure VMs are part of Azure's Infrastructure-as-a-Service (IaaS) offering, enabling you to create and manage virtualized computing environments without the need to own or maintain physical hardware. They provide flexibility in terms of storage, networking, and computing power, allowing you to scale resources based on demand.

Use Cases of Azure Virtual Machine

Web Hosting: Azure VMs can host websites and web applications, providing flexibility in configuring the environment to meet performance and scalability requirements.

Development and Testing: VMs are often used in development and testing environments to create isolated, customizable instances for building, testing, and debugging applications.

Enterprise Applications: Azure VMs are used to host legacy enterprise applications (e.g., ERP, CRM) that require specific configurations or operating systems, ensuring business continuity without the need for on-premises infrastructure.

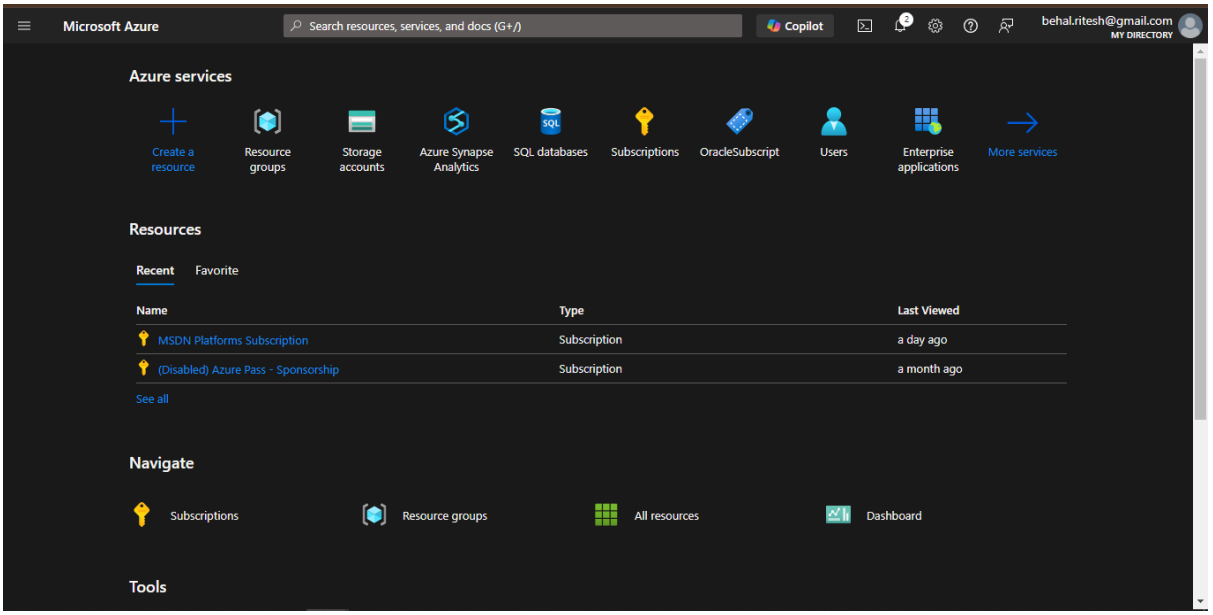
Disaster Recovery: VMs are an essential part of disaster recovery strategies, enabling replication of on-premises systems to the cloud. In case of failure, these VMs can be used to restore services quickly.

Big Data and Analytics: Azure VMs are used for running big data processing applications and complex analytics workloads, including machine learning, data science, and real-time data streaming.

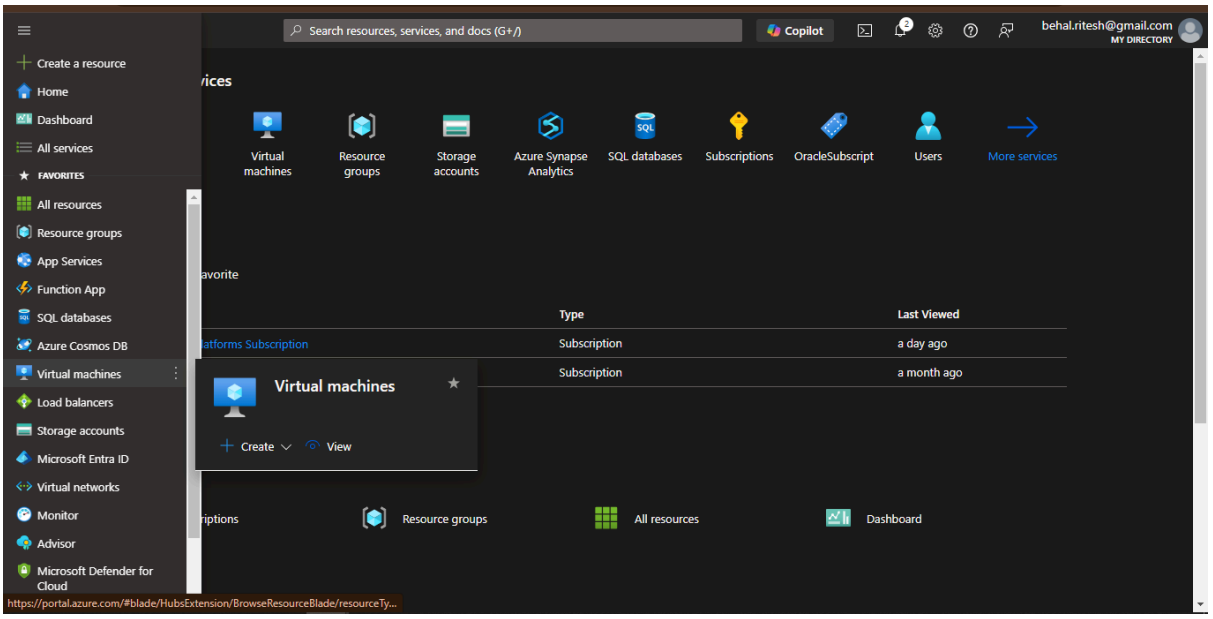
The end goal of this lab is to successfully deploy a virtual machine (VM) on the Azure platform. This involves creating a new VM in the Azure portal by selecting a resource group, naming the VM, and choosing an appropriate location and operating system (Windows Server 2022). The VM is configured with a suitable size (Standard_D2s_v3), admin credentials, and open port 80 for web traffic. Once all configurations are reviewed, the deployment process begins, and within a few minutes, the VM is ready for use, allowing you to host applications or services on the cloud.

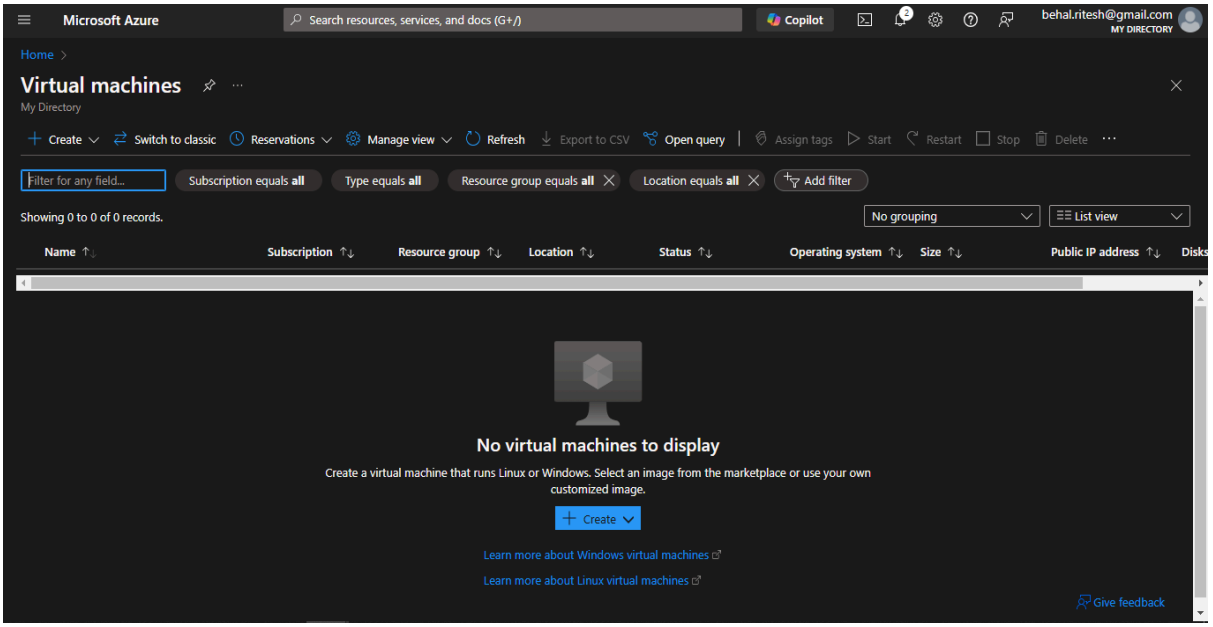
To begin with the lab

1. Open the Azure portal as part of your Azure account.

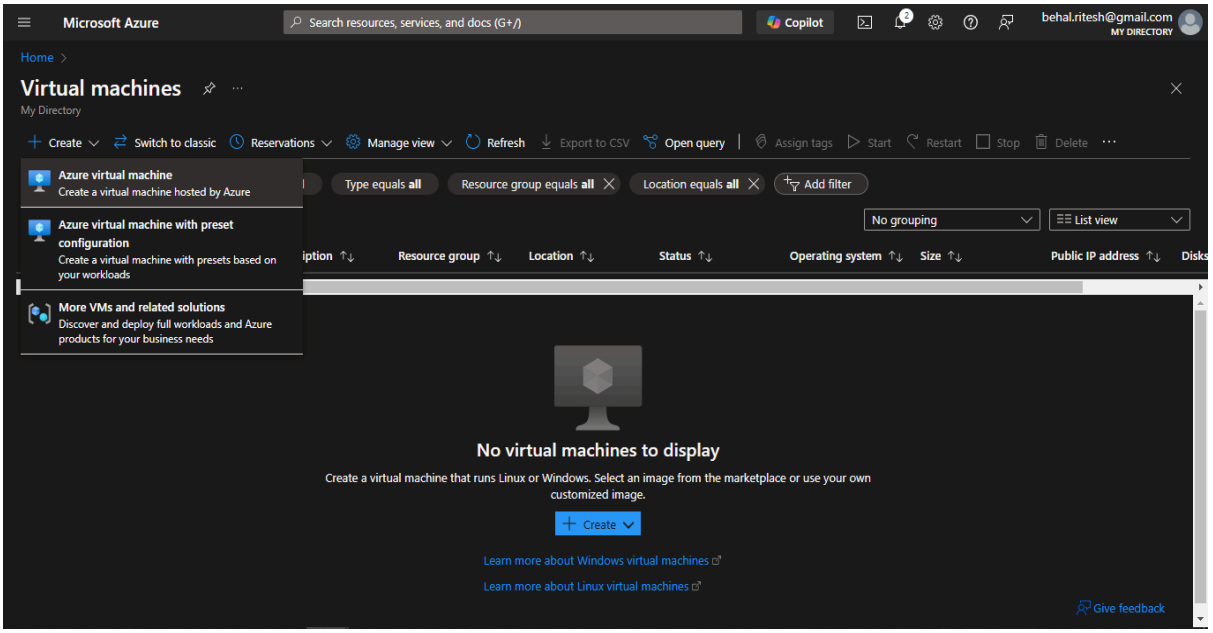


2. Go to the Virtual Machine section in the Azure portal.

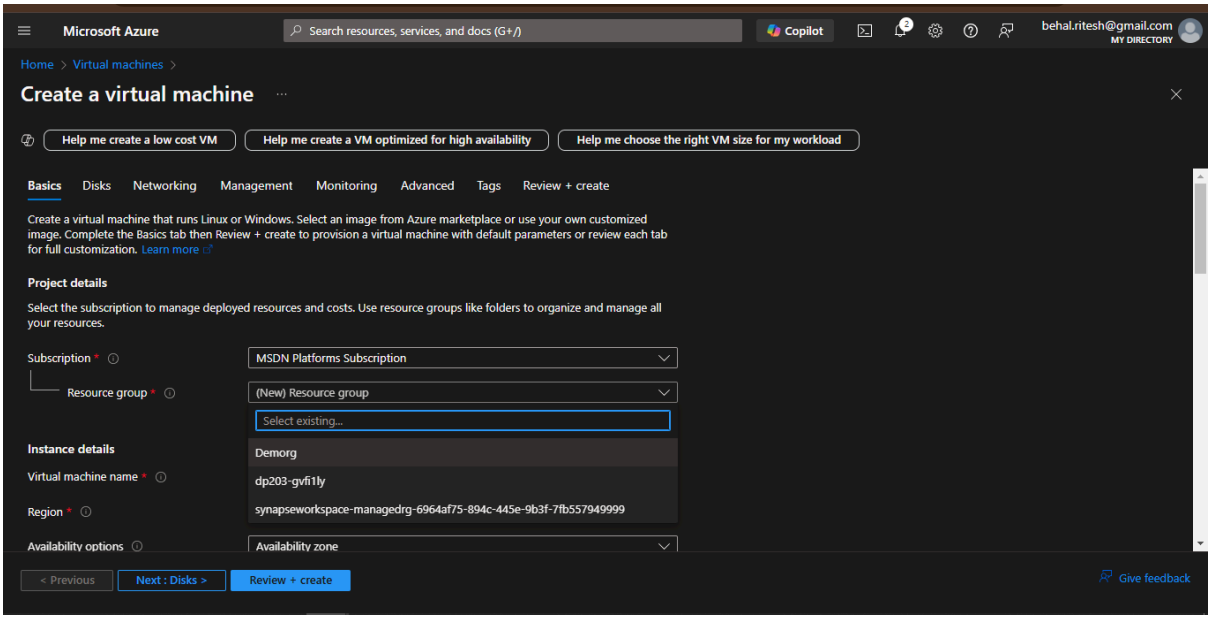




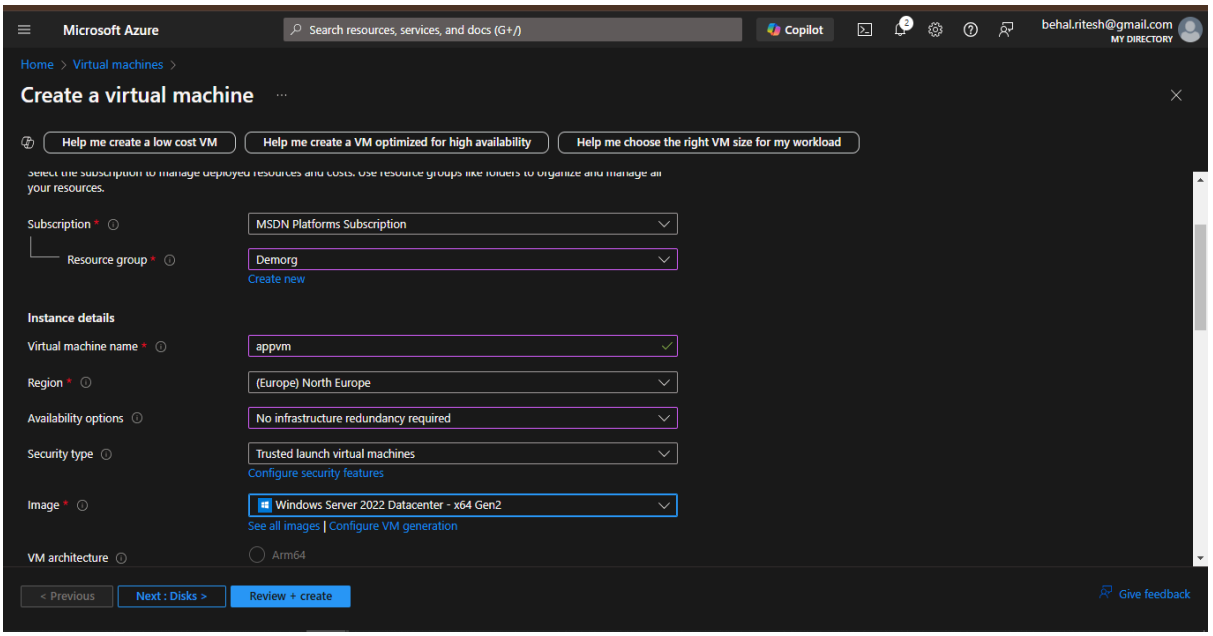
3. Click Create to set up a new Azure VM.



4. Choose an existing resource group or create a new one by clicking Create new.

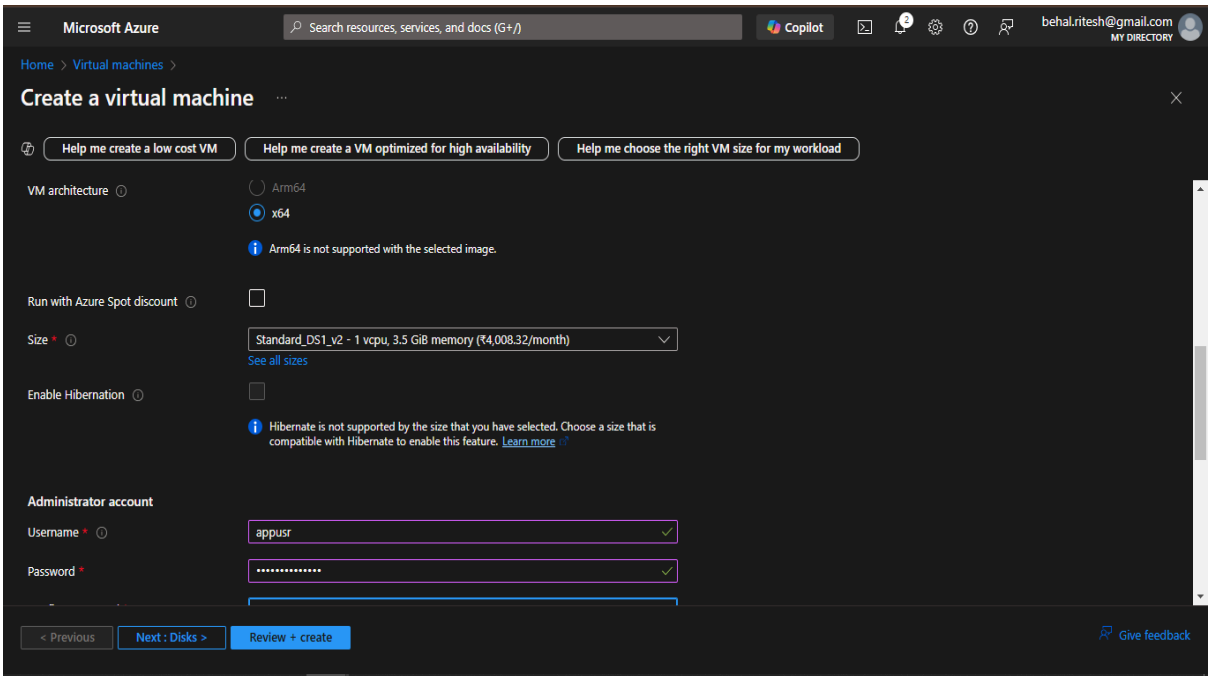


5. Provide a name for your virtual machine.
6. Select the location for the VM, e.g., North Europe. Choose a region that's closest to your users for optimal performance.
7. Choose No infrastructure redundancy required for availability options (if high availability is not needed).
8. Choose Windows Server 2022 Data Center x64 Gen2 as the operating system image.

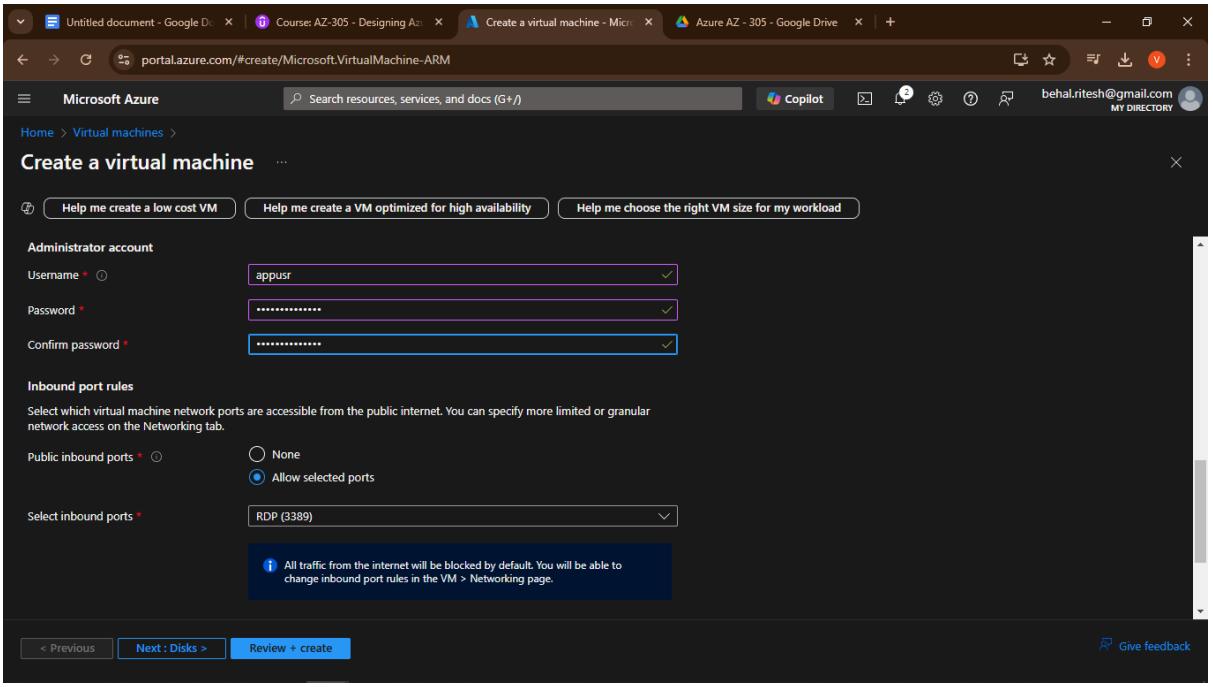


9. Choose Standard_D2s_v3 (2 virtual CPUs, 8 GB RAM) for a balance of performance and cost.

10. The portal shows the indicative pricing for the VM, but remember that you are billed based on usage, not the full price upfront.

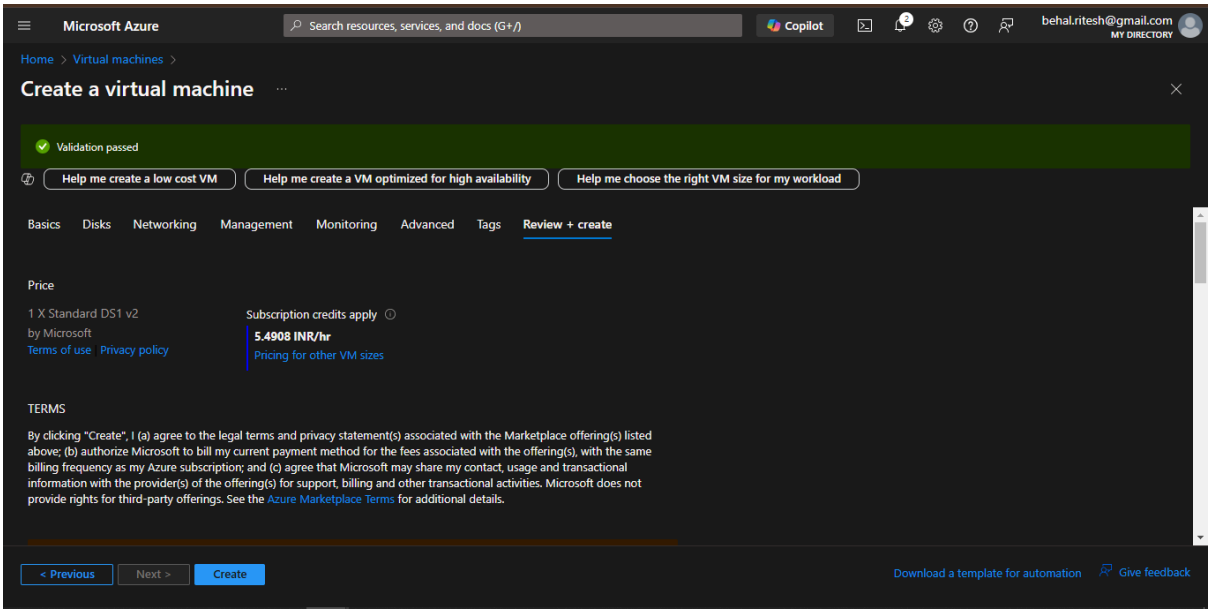


11. Provide a username and password for the administrator account to log into the VM.



12. Open Port 80 to allow web traffic, since you will be deploying a web application (web server) on this VM.
13. Leave the disk settings as default unless specific custom configurations are needed.
14. The wizard automatically creates a virtual network and a public IP address for the VM if not already configured.
15. Skip enabling monitoring for now. You will revisit this later.

16. After reviewing all settings, click Review + Create and then click Create to start the deployment process.



17. The deployment will take 3-4 minutes to complete. Once done, the VM will be ready for setup.