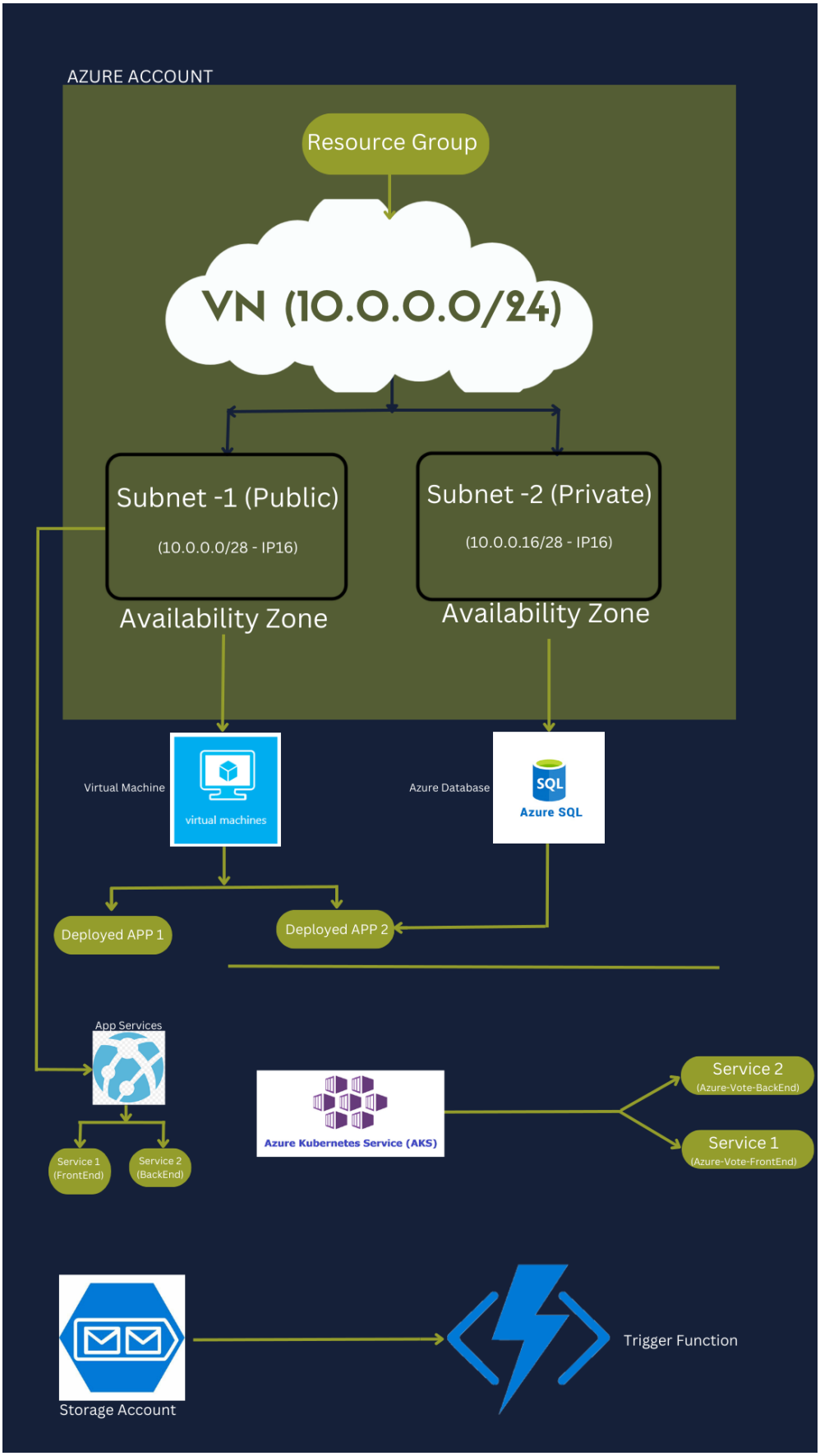
Azure Assignment

Architecture Diagram



Azure Virtual Network:

Azure Virtual Network (VNet) is a fundamental building block in Azure networking. It is a logically isolated network infrastructure provided by Azure that allows you to securely connect and control your Azure resources.

Azure Subnet:

A subnet, short for subnetwork, is a range of IP addresses within the address space of a VNet. It helps in further segmenting the network and allows you to organize and isolate resources within the VNet.

Virtual Machine:

In Azure, a virtual machine (VM) is a computing resource that runs an operating system and applications just like a physical computer. It provides a scalable and flexible way to deploy and manage your workloads in the cloud. Azure virtual machines are commonly referred to as Azure VMs.

AKS Cluster:

AKS (Azure Kubernetes Service) is a managed container orchestration service provided by Azure. It simplifies the deployment, management, and scaling of containerized applications using Kubernetes.

Azure App service:

Azure App Service is a fully managed platform-as-a-service (PaaS) offering from Azure that allows you to build, deploy, and scale web applications, mobile backends, and RESTful APIs quickly and easily.

Azure Blob Storage:

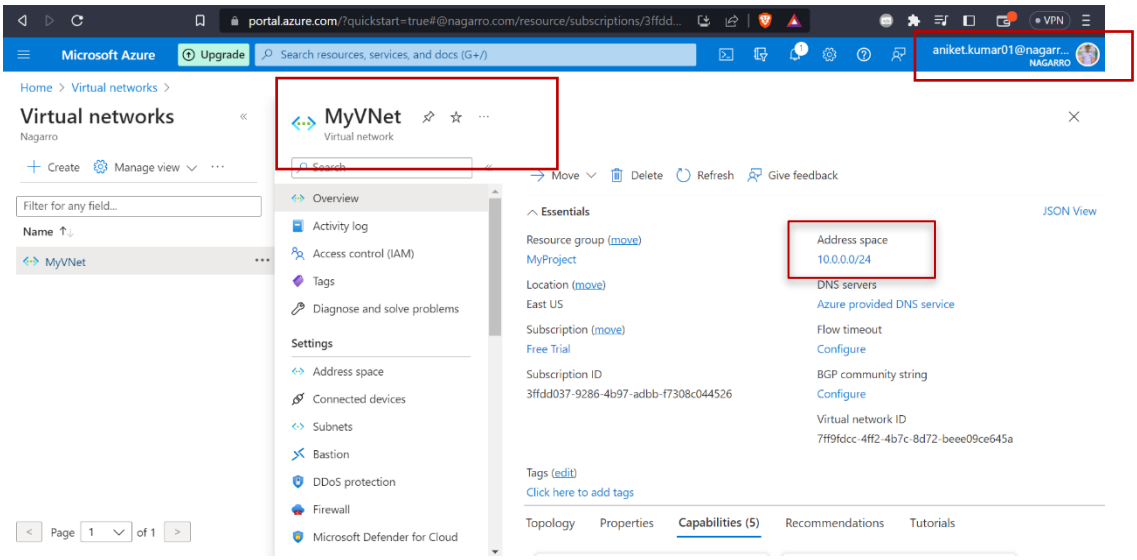
Azure Blob storage is a cloud-based object storage service that allows you to store and retrieve large amounts of unstructured data, such as text files, images, videos, and binary files.

Azure Function App:

Azure Function app is a serverless computer service that allows you to run small pieces of code, called functions, in the cloud.

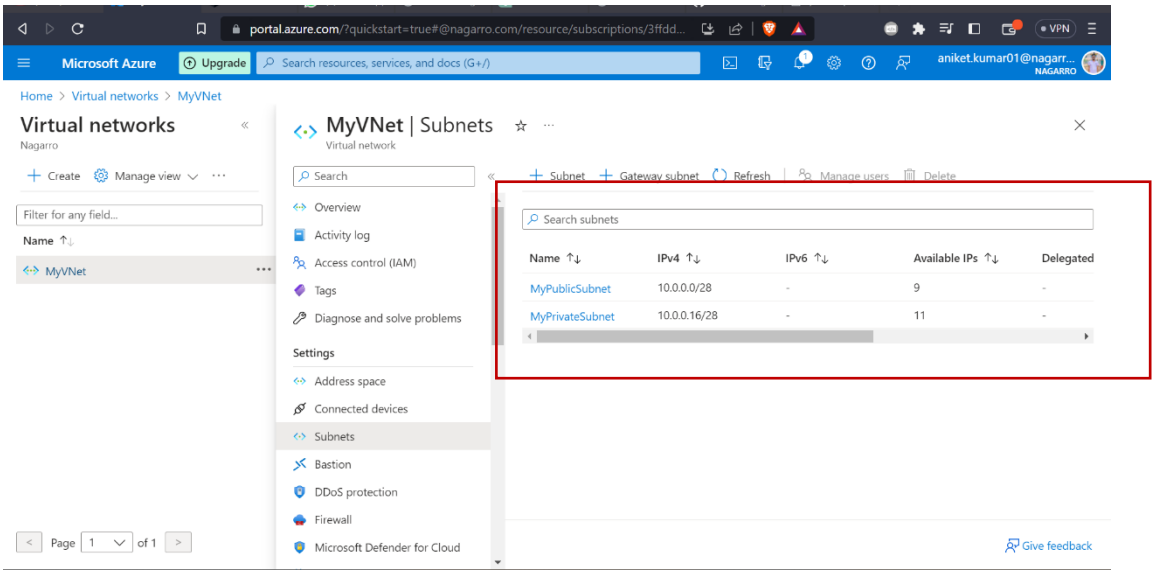
Project Screenshots

1. Virtual Network screenshots:

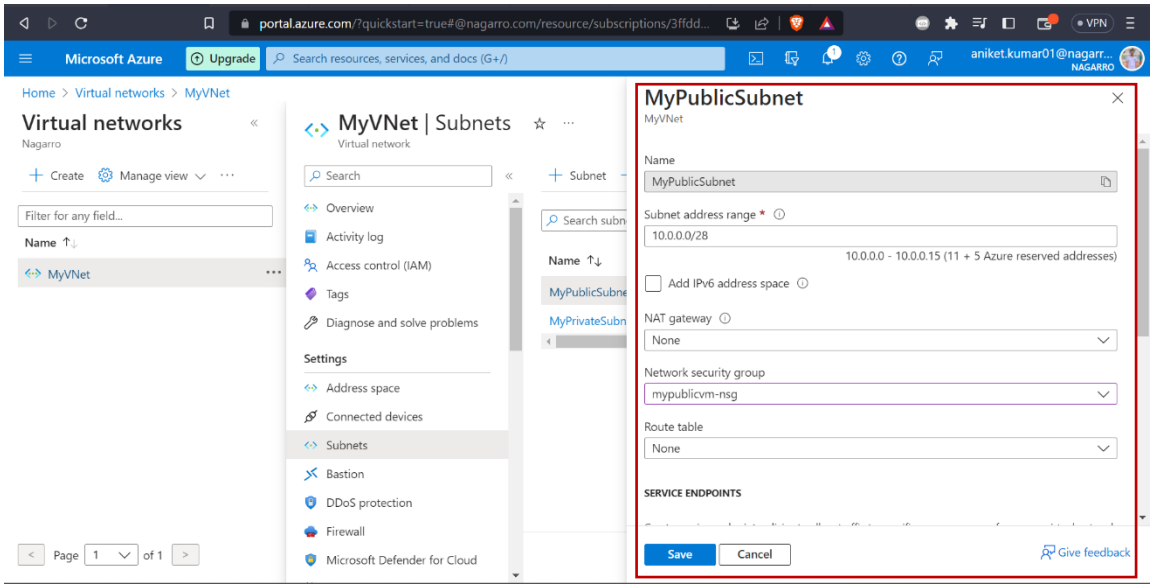


The screenshot is of Vnet that I have created.

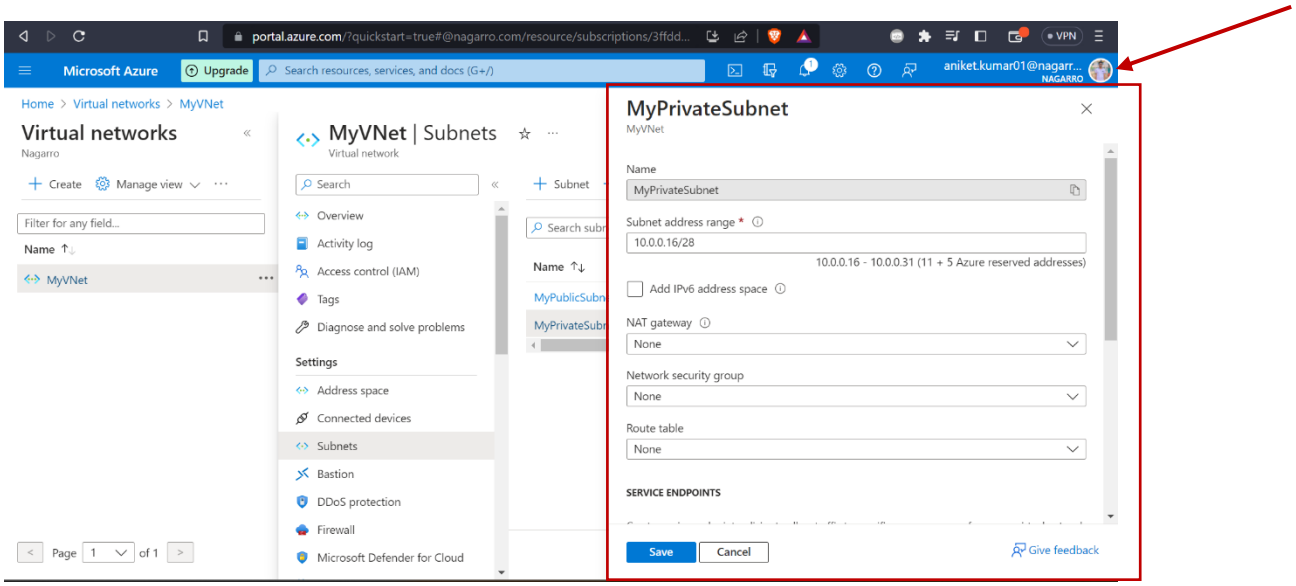
2. Subnets:



I created two subnets, Private and Public subnets. The private subnet is for databases and the public subnet is for deploying applications.

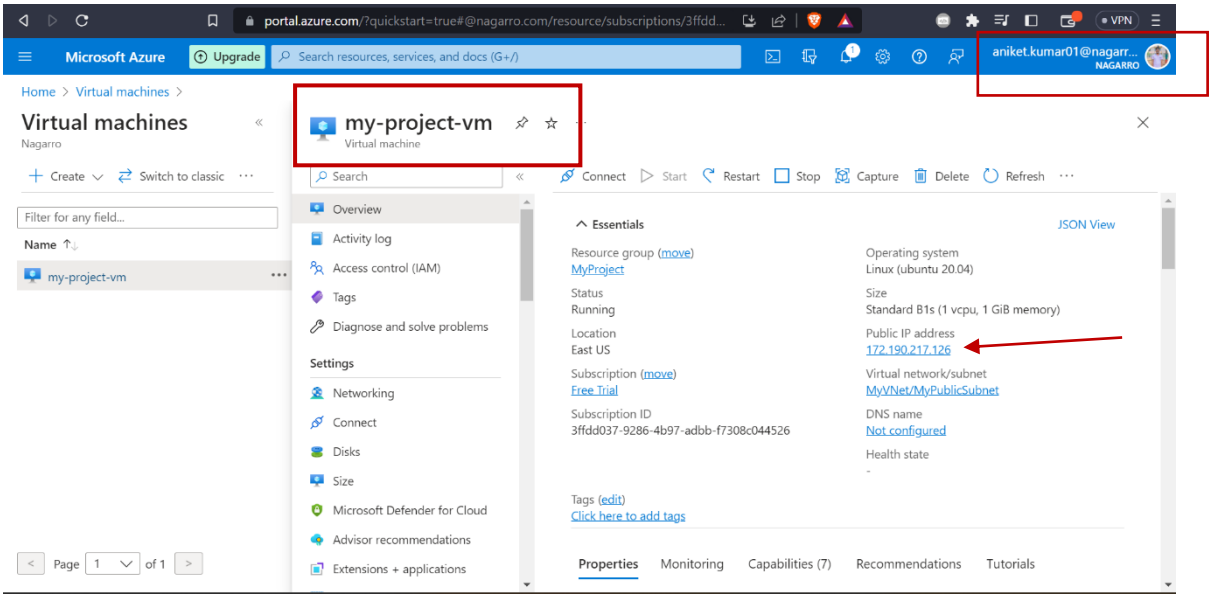


The screenshot is of a public subnet.

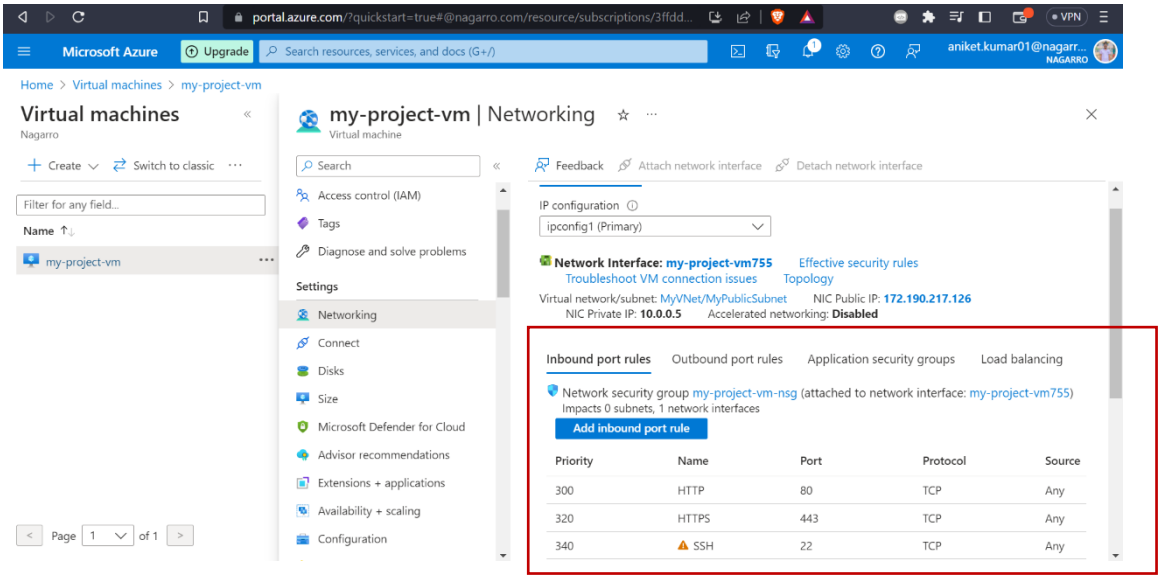


This screenshot describes a private subnet.

Virtual Machine Screenshots:

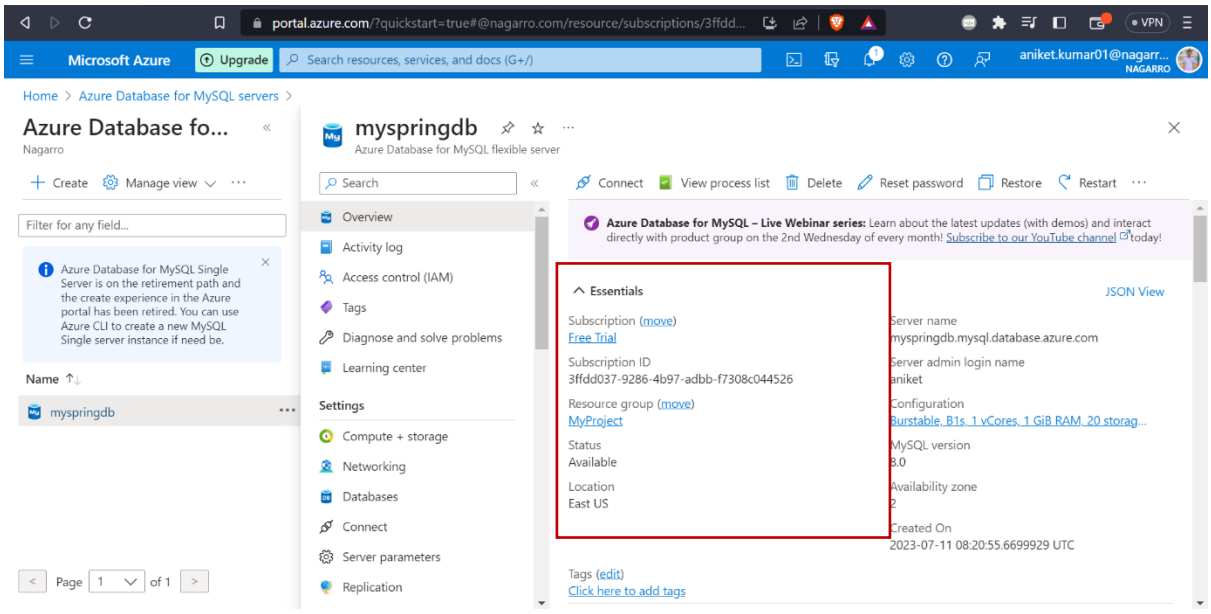


This screenshot describes the virtual machine I created. Here We can see that I created this virtual machine in my custom vnet and in public subnet.

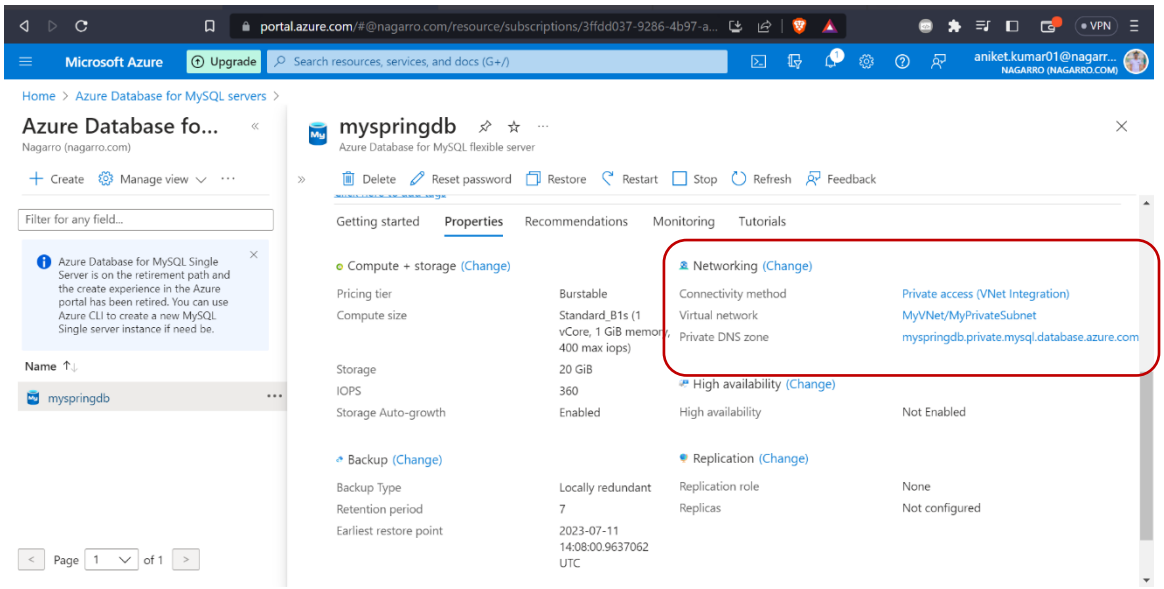


This screenshot is of inbound rules of Virtual machine.

Databases screenshots:



I have connected this database with my backend application.



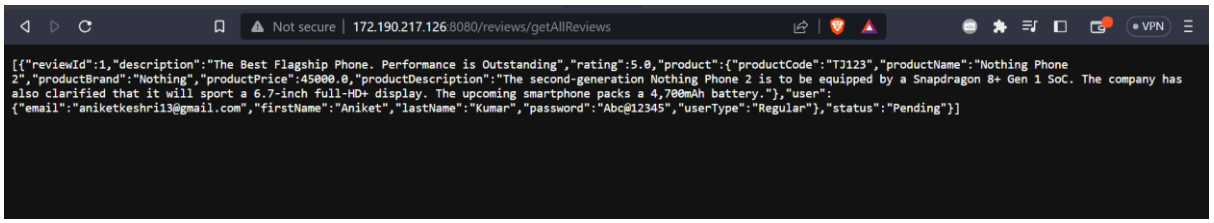
I have created this database in a private subnet of my custom virtual network.

App working on Virtual machine Screenshots:

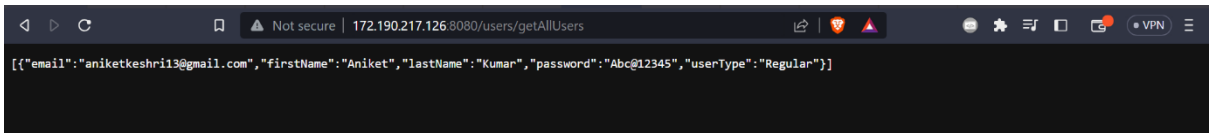
Backend:

The screenshot shows all the product list in the database.

This screenshot shows working of Backend application on the public Ip of Virtual machine.

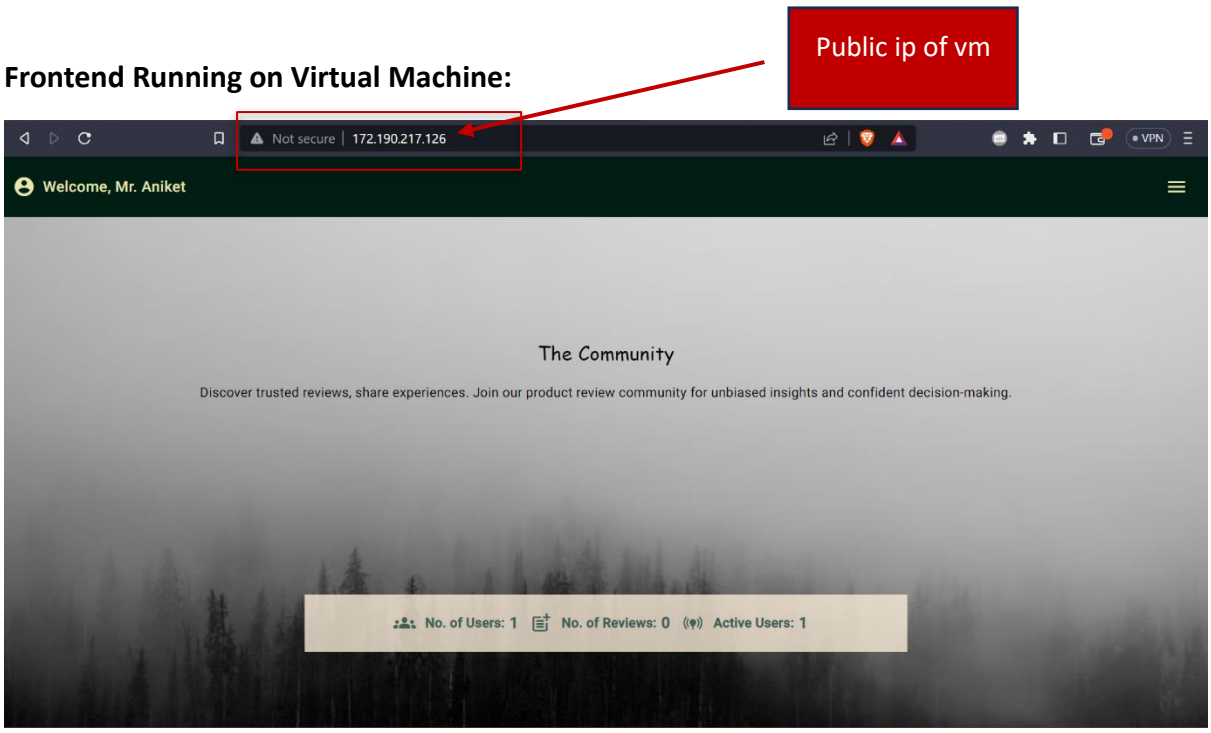


This screenshot shows all the list of review present in the database.

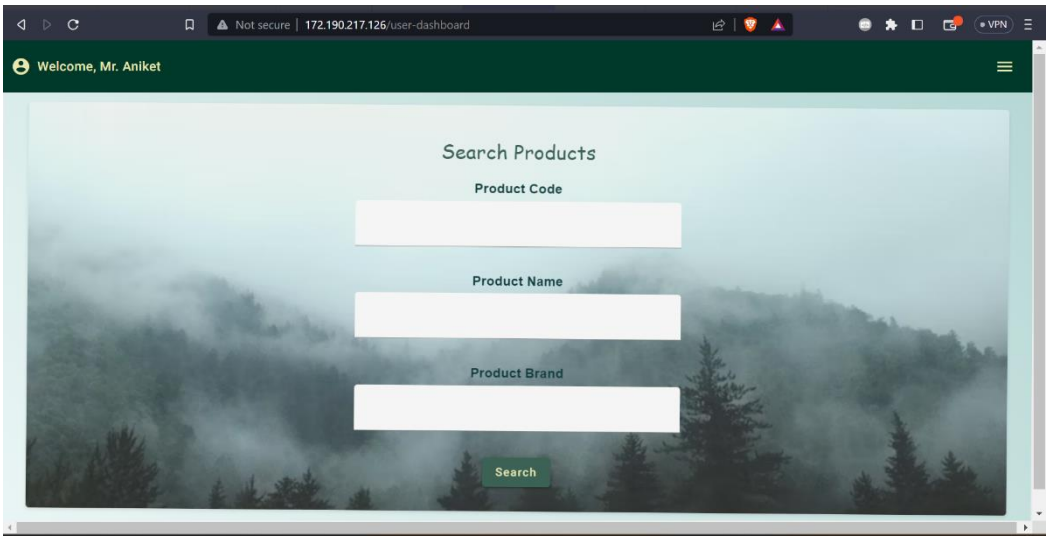


This screenshot shows the registered user.

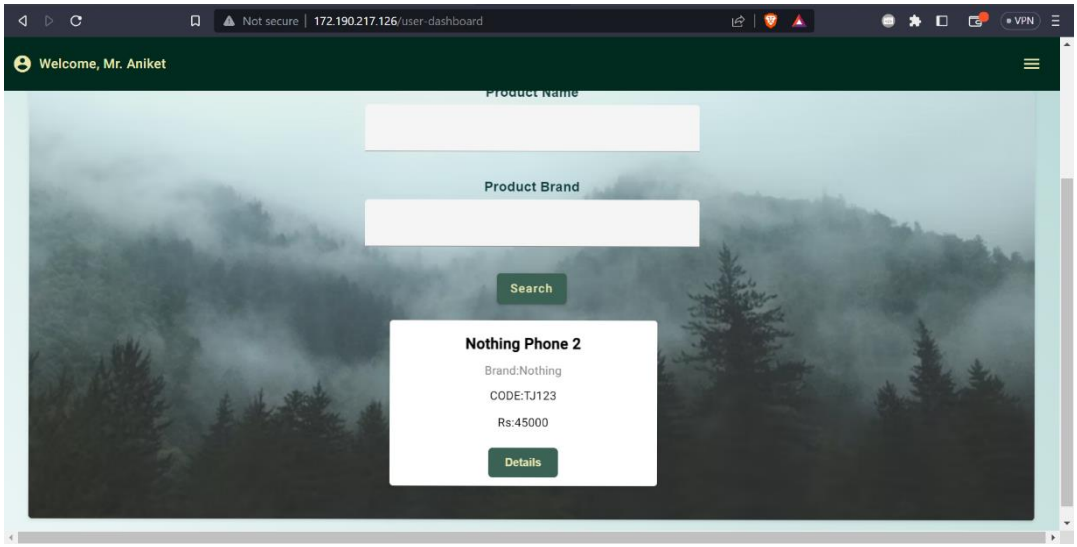
Frontend Running on Virtual Machine:



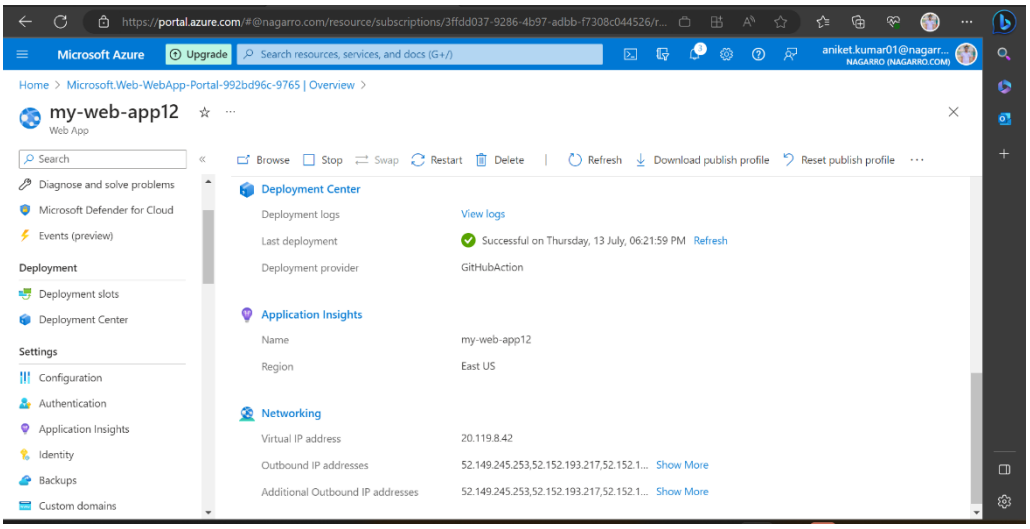
This is the home page.



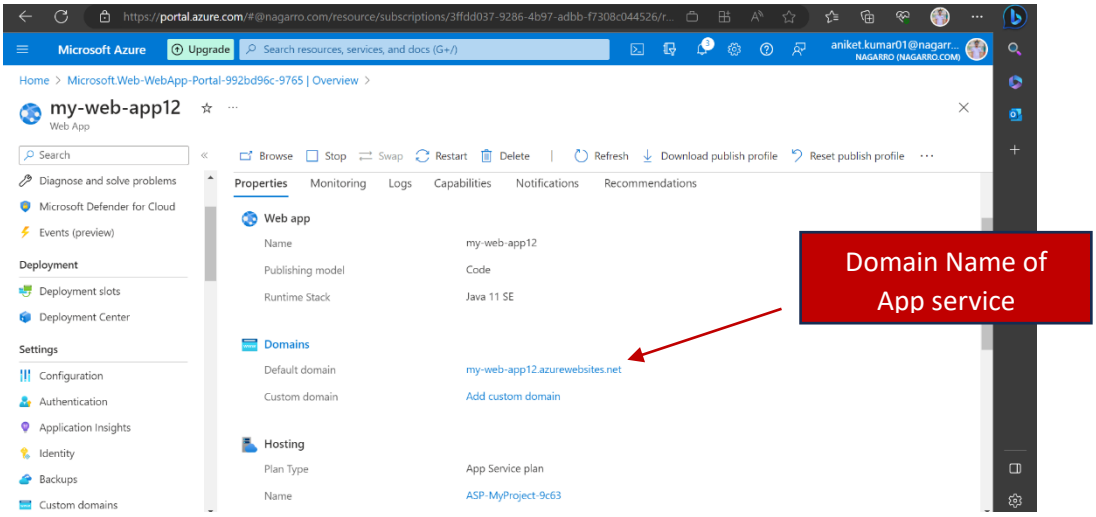
This is the user dashboard page.

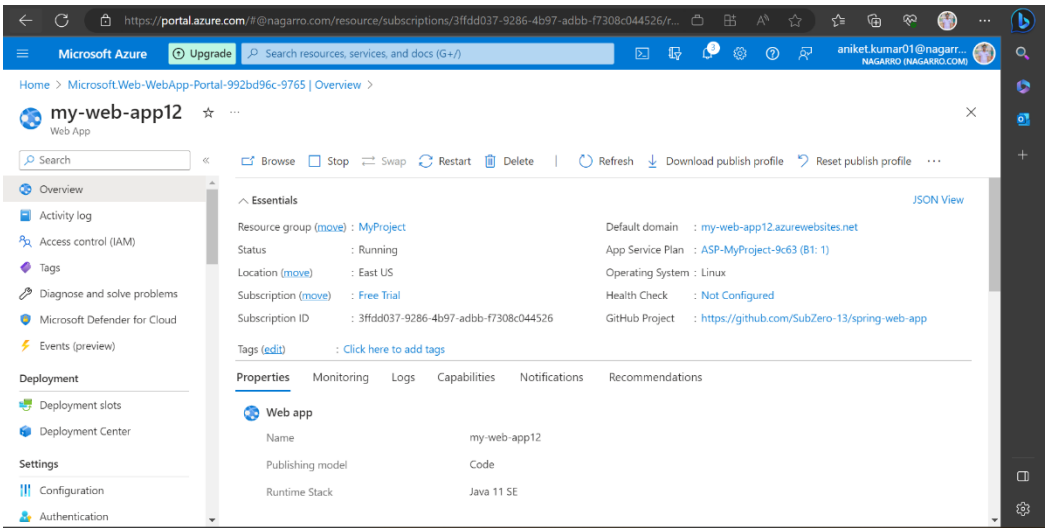


App service screenshots:



The screenshot shows the deployed backend on App service

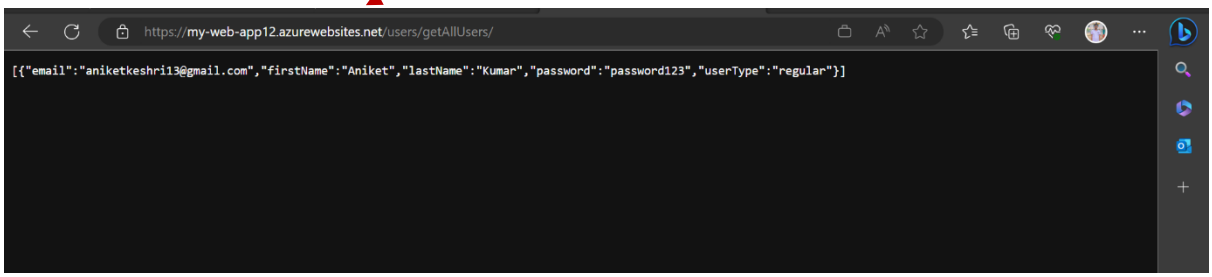


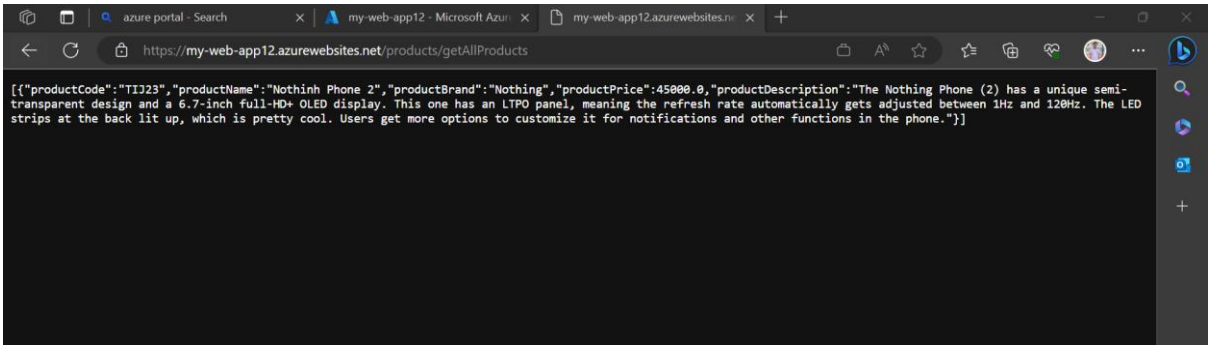


App Running on App service:

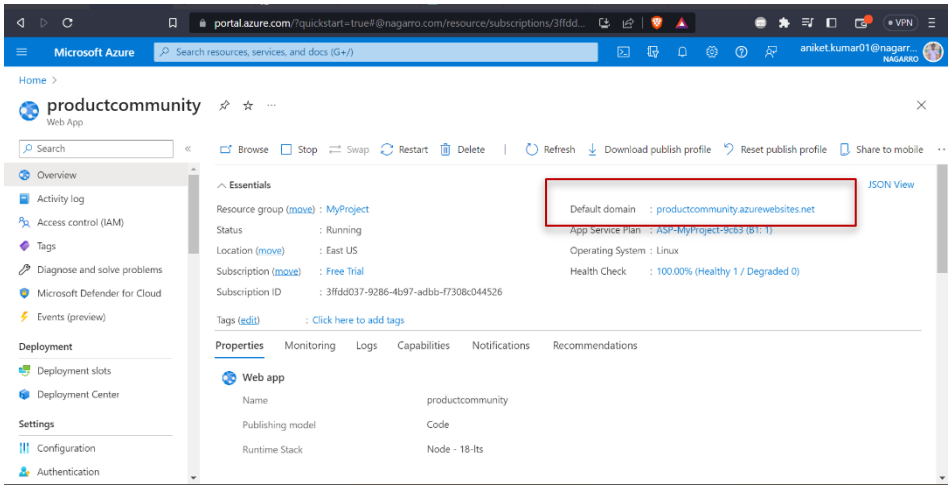
Domain name of App service

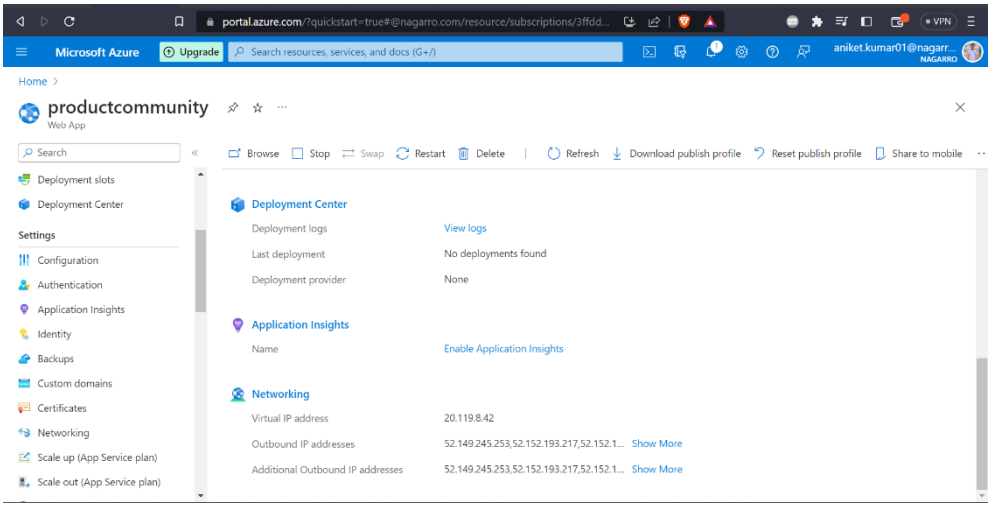
Backend:





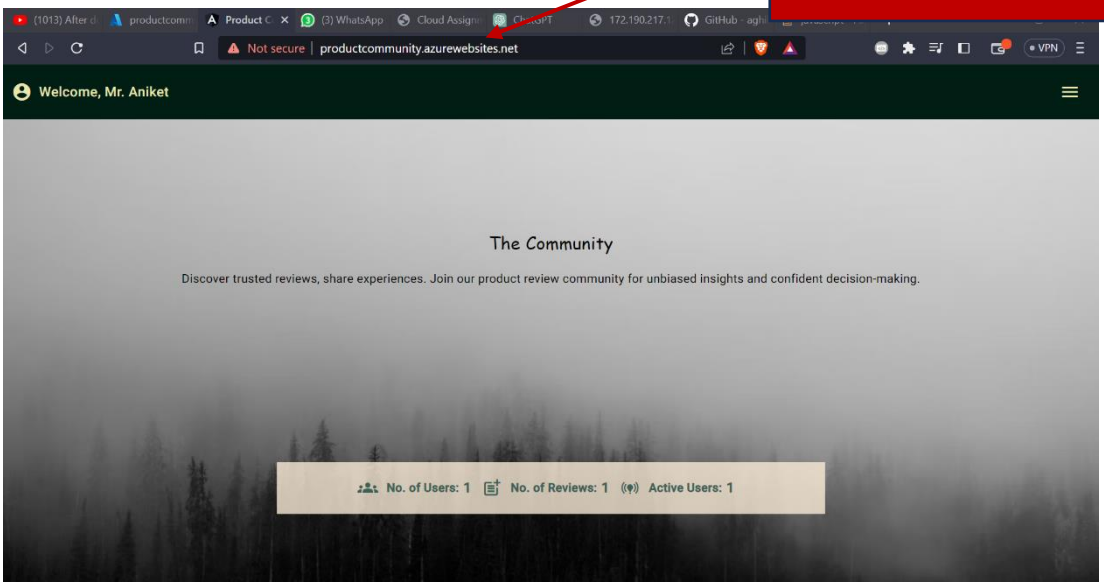
Frontend app on App service:

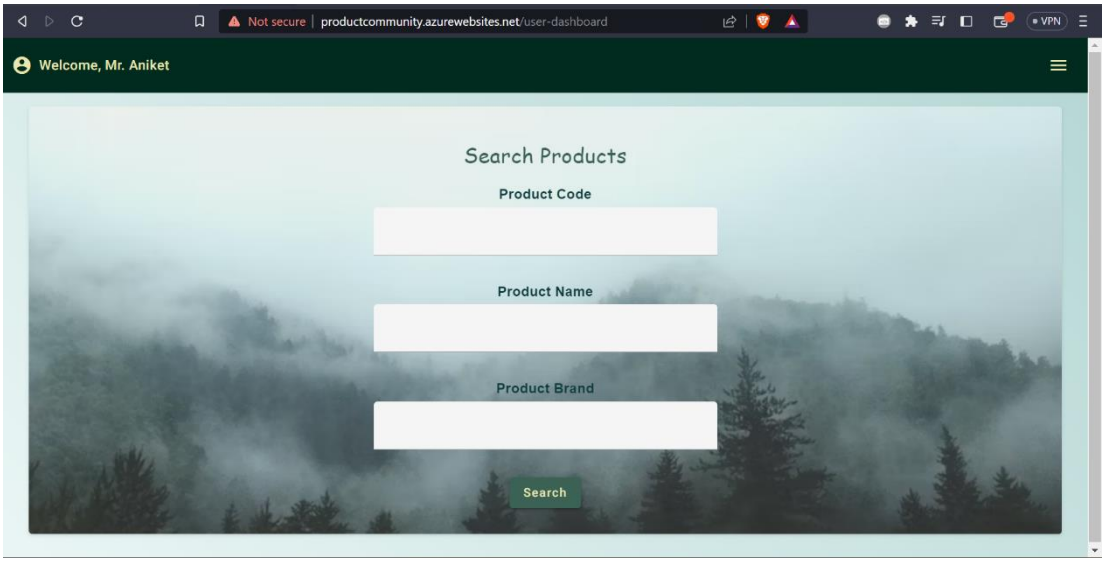


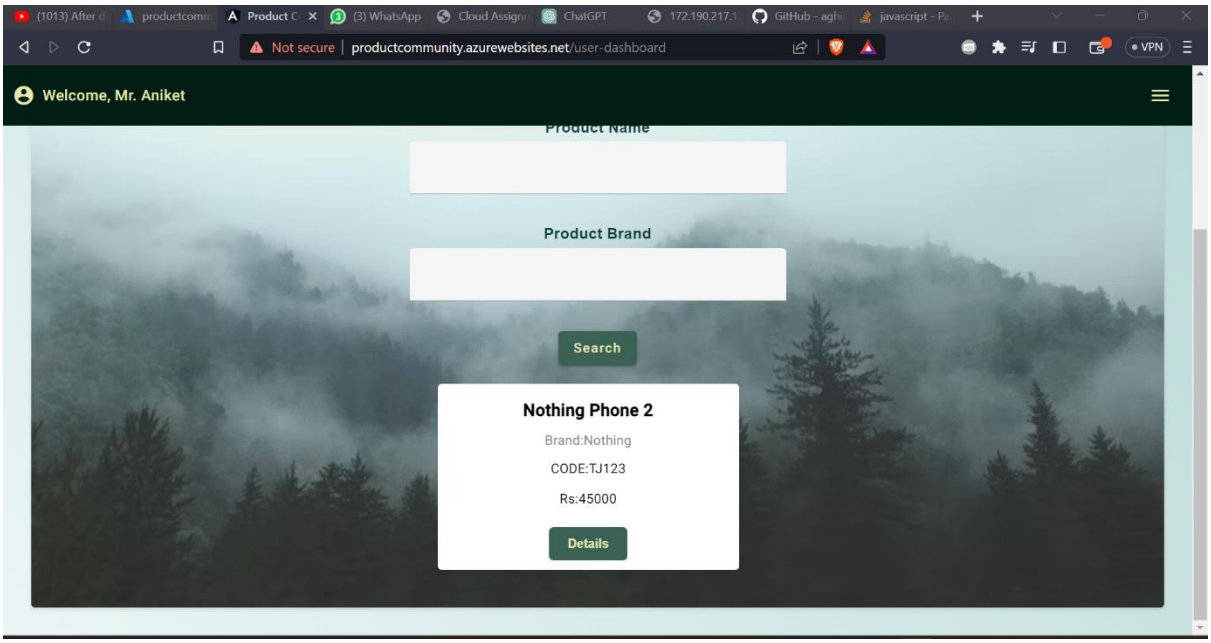


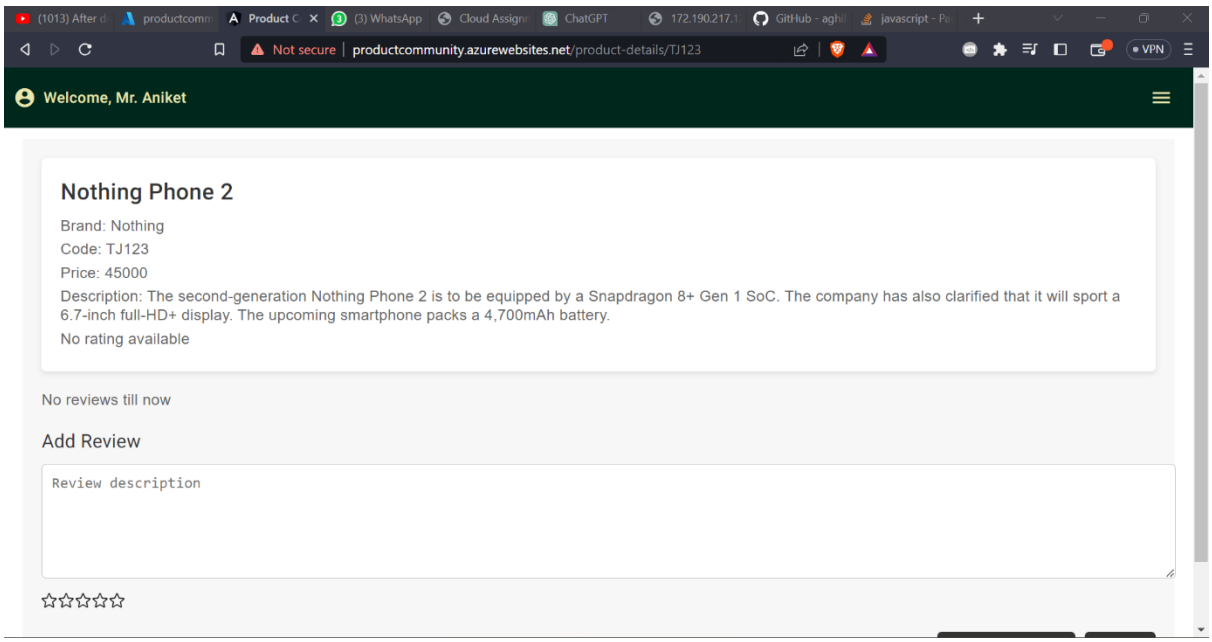
Frontend app running on App service:

Domain name of frontend app service

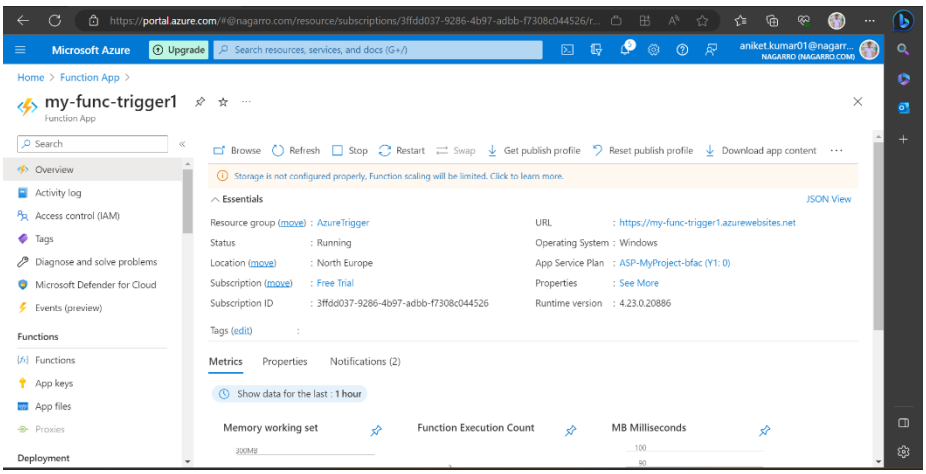


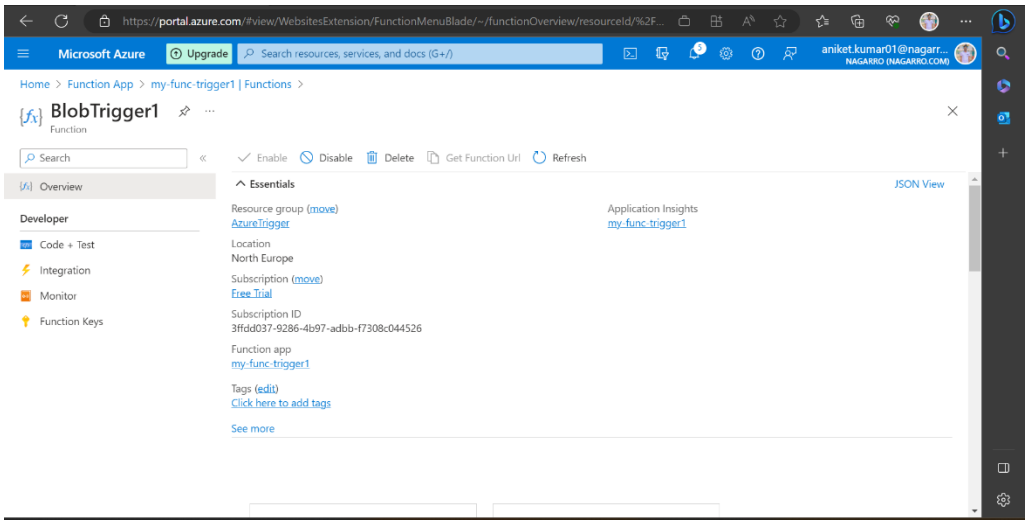






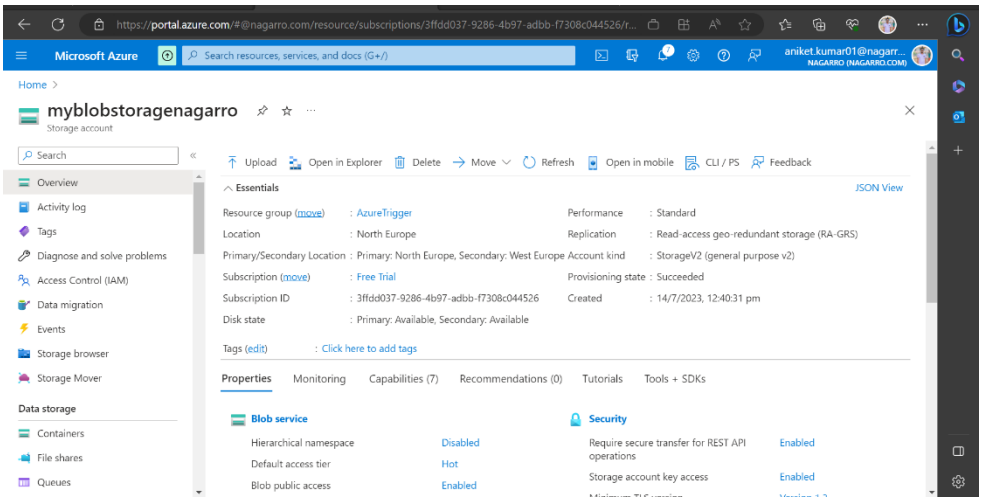
Azure Function:

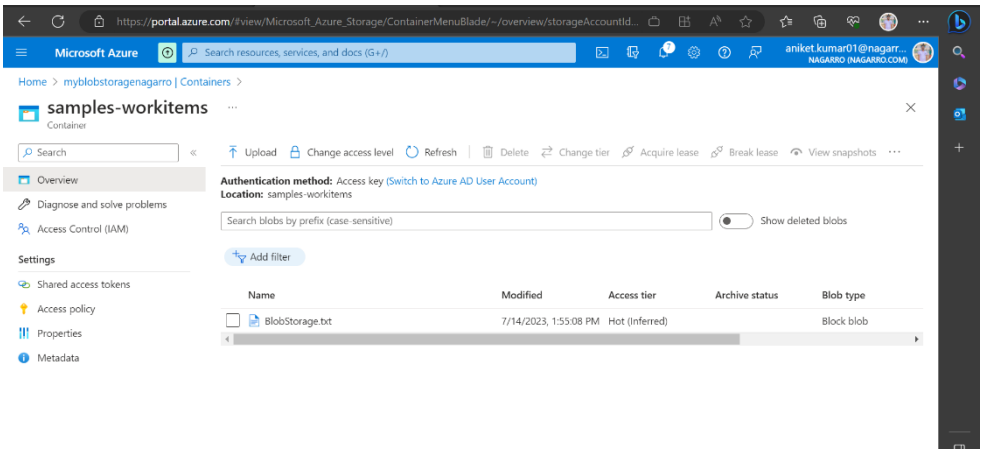




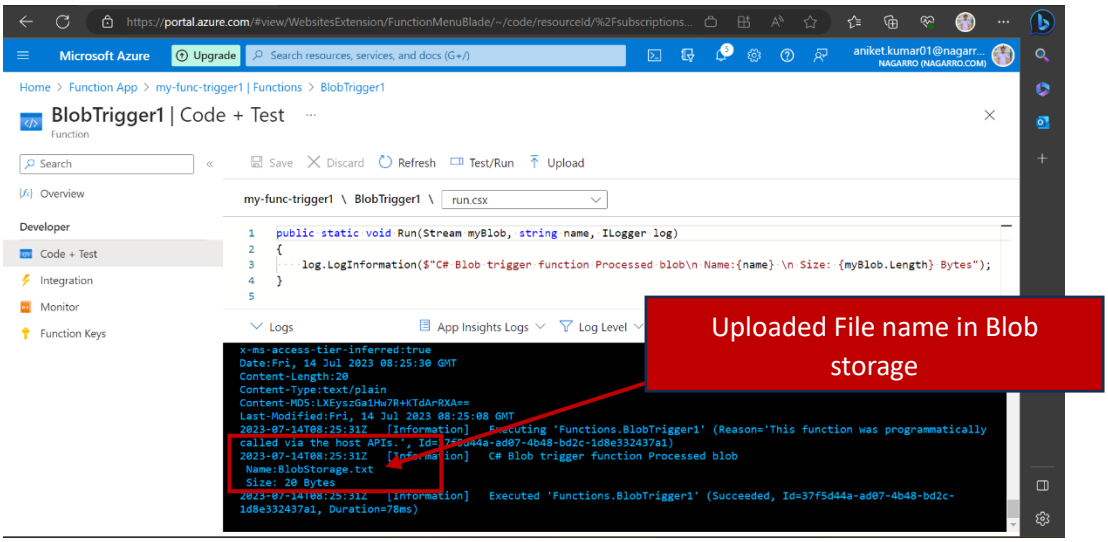
These screenshot shows the created azure function

Blob Storage:



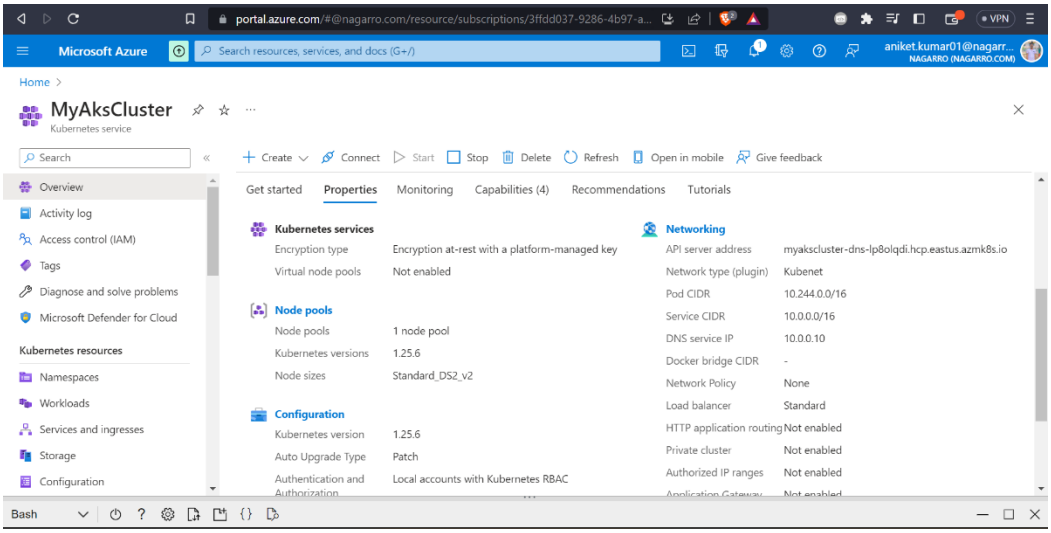


These screenshots show created Blob storage where I uploaded the file.

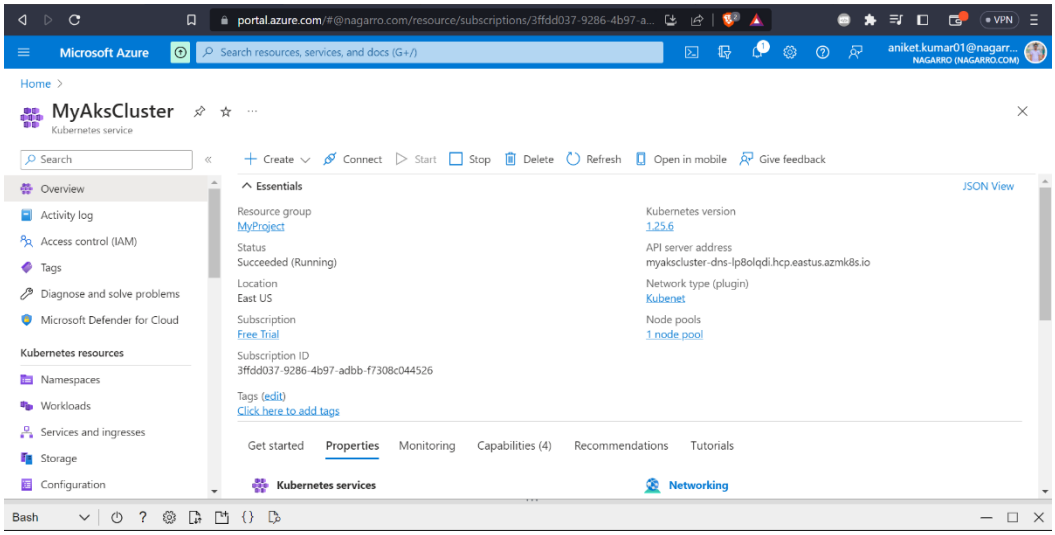


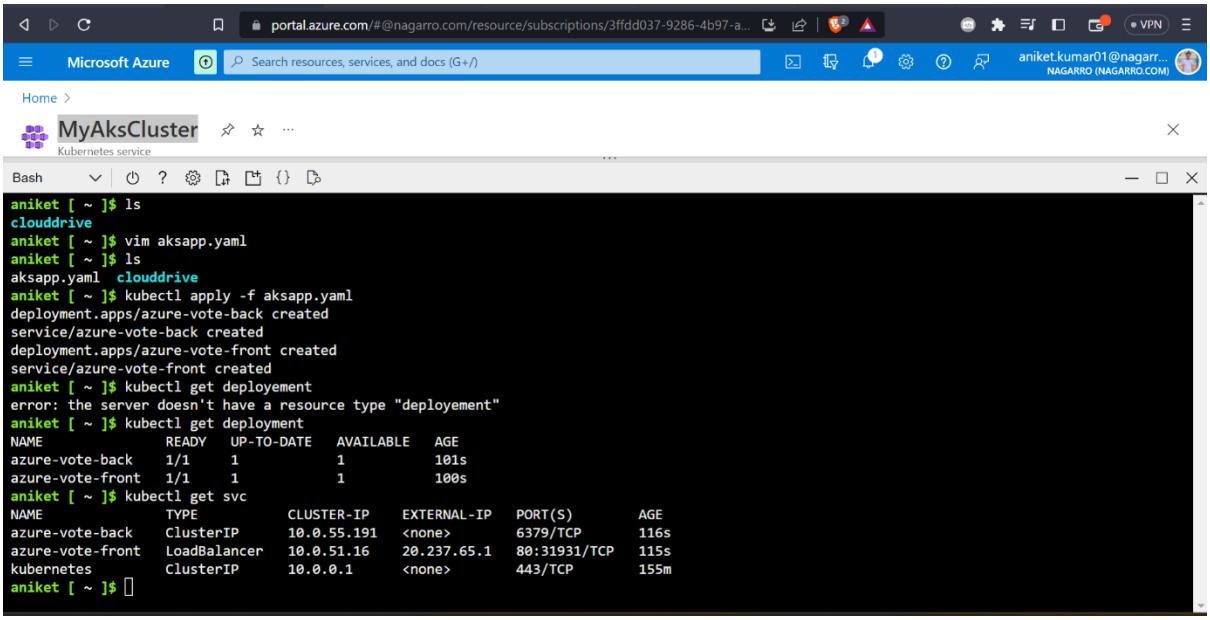
In this screenshot we can see the name of uploaded txt file

AKS Cluster:

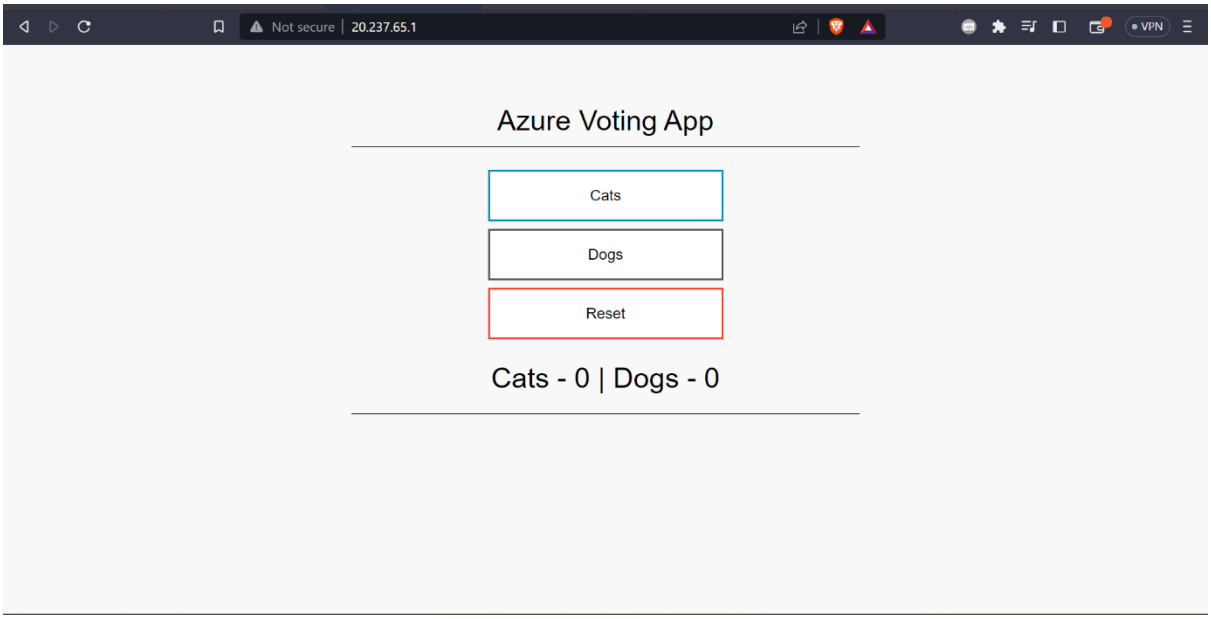


This screenshot shows the created aks cluster.





This screenshot shows the process of How We can Deploy our services.



This screenshot shows the deployed Service on AKS Cluster