17-Apr-2021

Software as a service (SaaS) allows users to connect to and use cloud-based apps over the Internet. Common examples are email, calendaring and office tools (such as Microsoft Office 365). SaaS provides a complete software solution which you purchase on a pay-as-you-go basis from a cloud service provider

Platform as a service (PaaS) is a complete development and deployment environment in the cloud, with resources that enable you to deliver everything from simple cloud-based apps to sophisticated, cloud-enabled enterprise applications.

Azure Virtual Machines are the Azure infrastructure as a service (IaaS) used to deploy persistent VMs with nearly any server workload that you want. They are image service instances that provide on-demand and scalable computing resources with usage-based pricing.

Azure developer exam AZ-204 – Notes

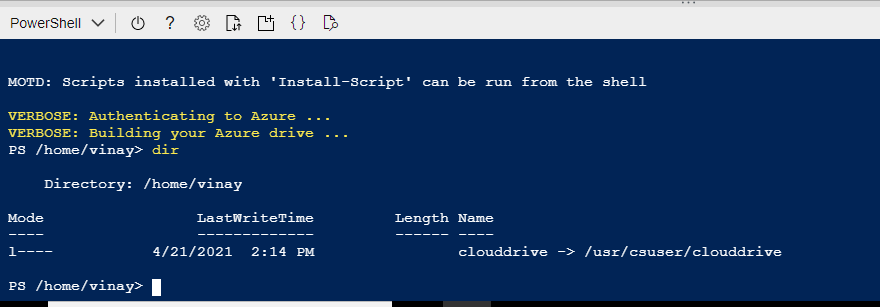
At its core, Azure is a public cloud computing platform—with solutions including **Infrastructure as a Service (IaaS)**, **Platform as a Service (PaaS)**, and **Software as a Service (SaaS)** that can be used for services such as analytics, virtual computing, storage, networking, and much more.

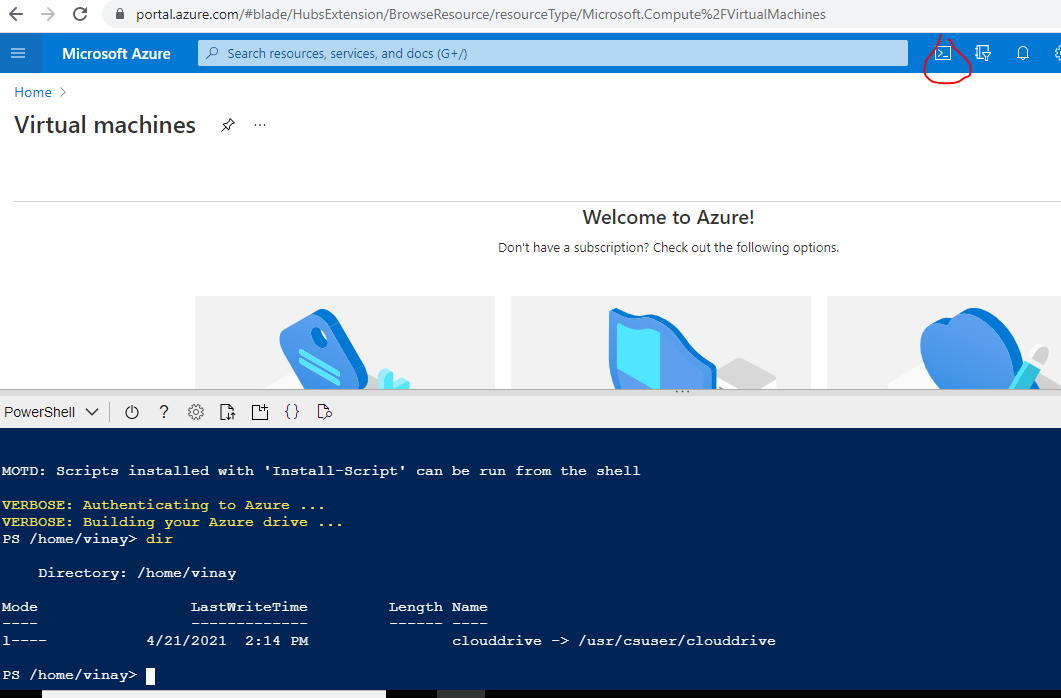
<https://portal.azure.com/#home>

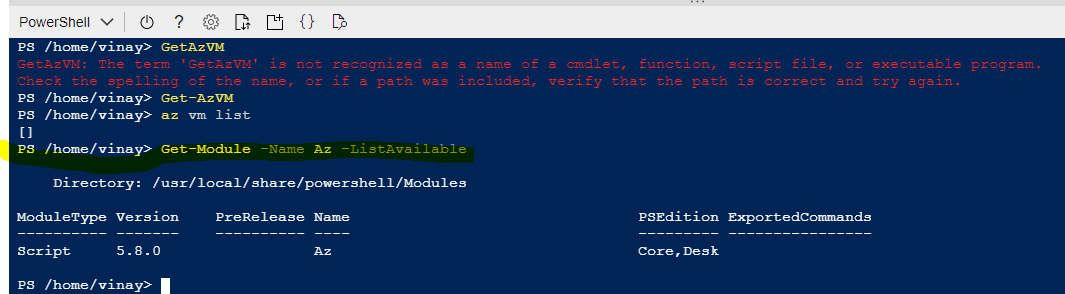
<https://docs.microsoft.com/en-us/learn/certifications/exams/az-204#two-ways-to-prepare>

<https://azure.microsoft.com/en-us/resources/samples/?sort=0>

**Azure Cloud Shell** is a browser-accessible, interactive **shell** for managing the **Azure** resources. It gives you the flexibility to access the **shell** based on the area you are working. ... You can access the **Cloud shell** on your browser or through the **Azure** portal.



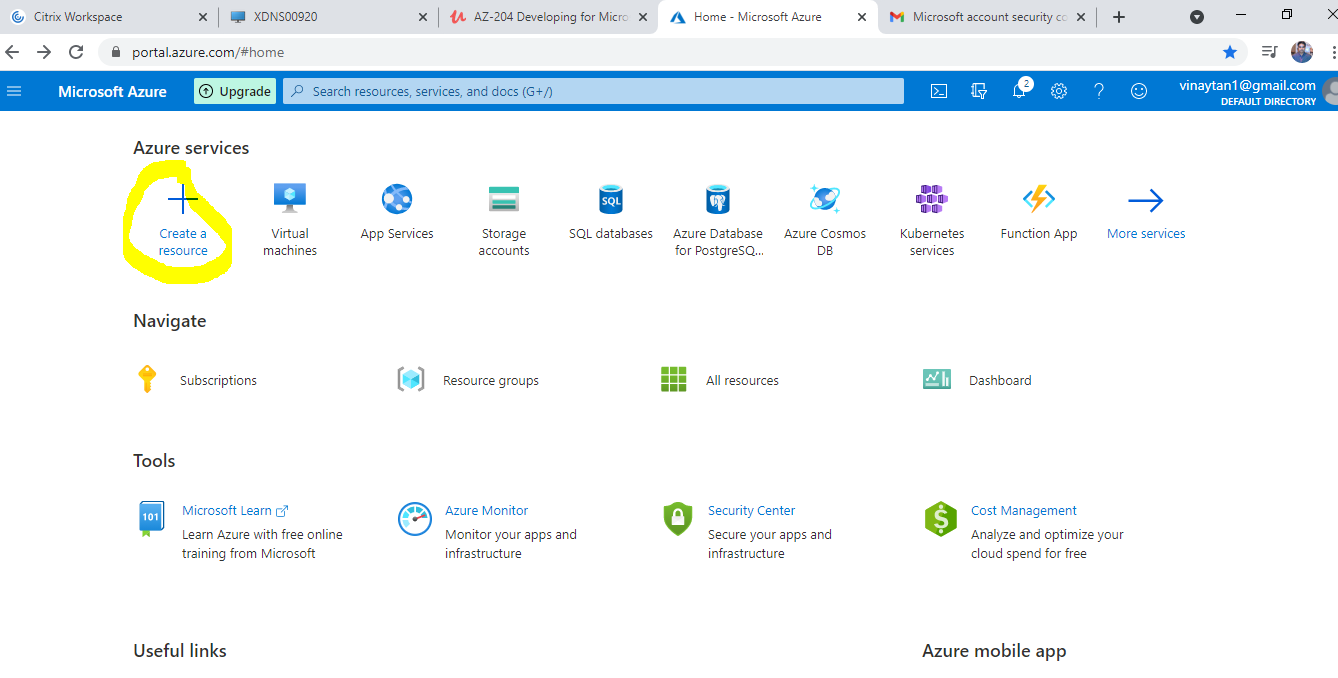




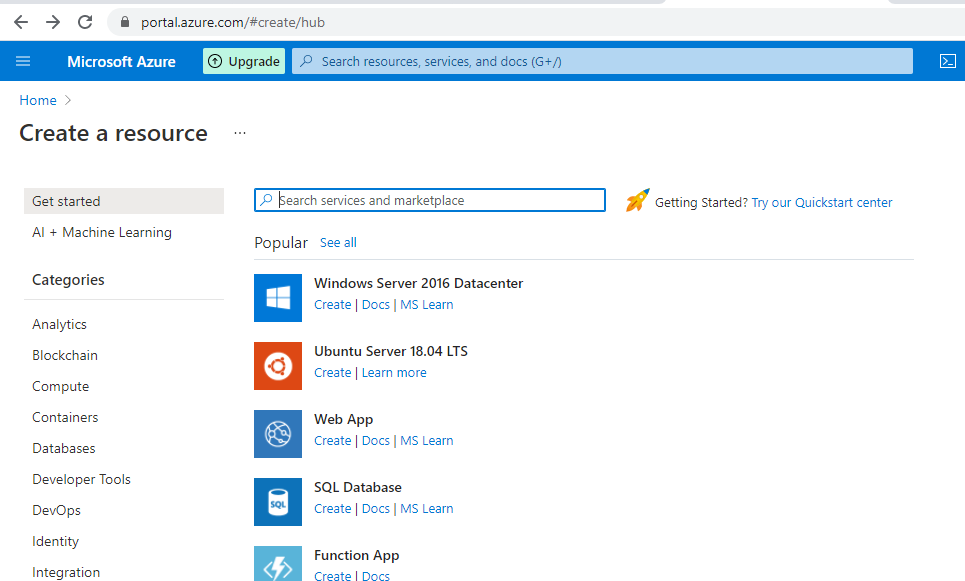
**Section 2: AZ-204 Virtual Machines**

27-Apr-2021

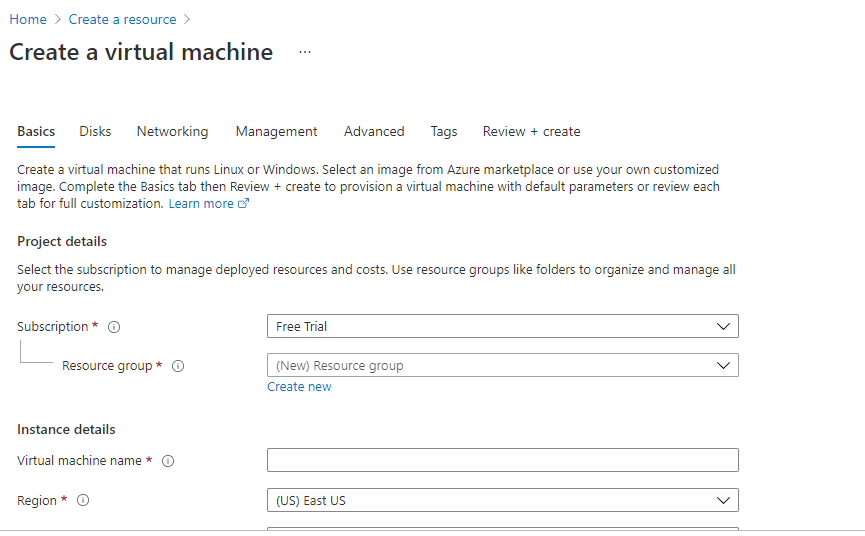
Create Virtual Machine



Click on create a resource and get below page

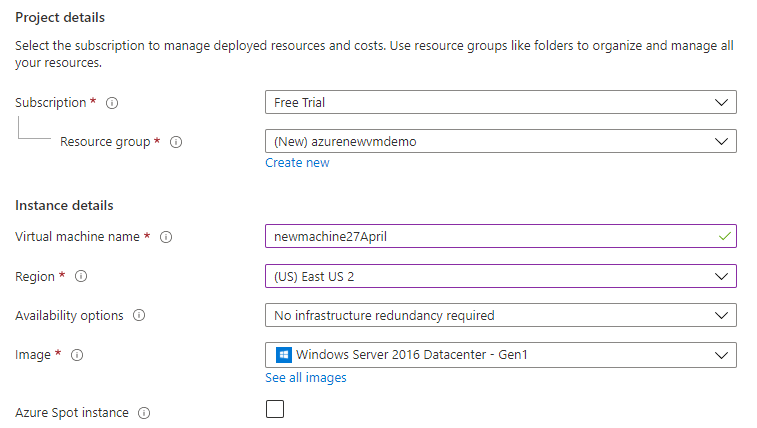


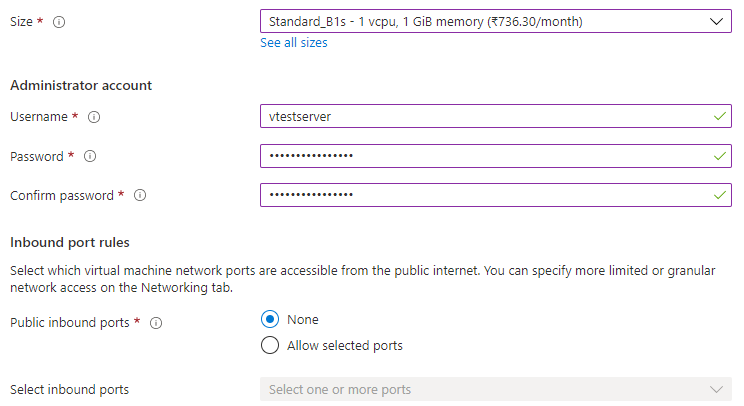
Selected Windows Server 2016 Datacenter option and get below page

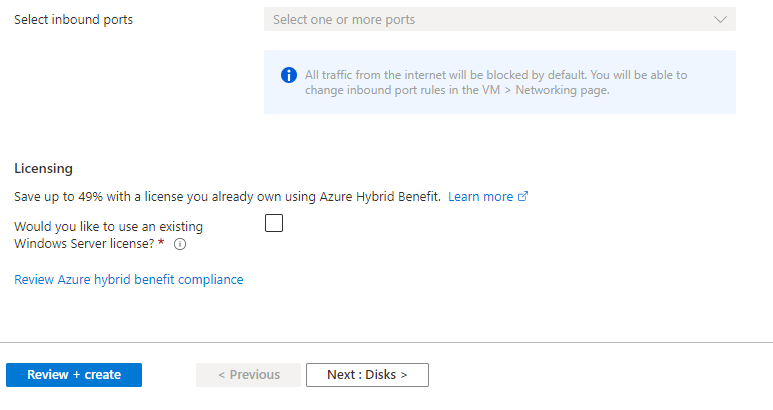


U- vtestserver

P- Vservertest@2021





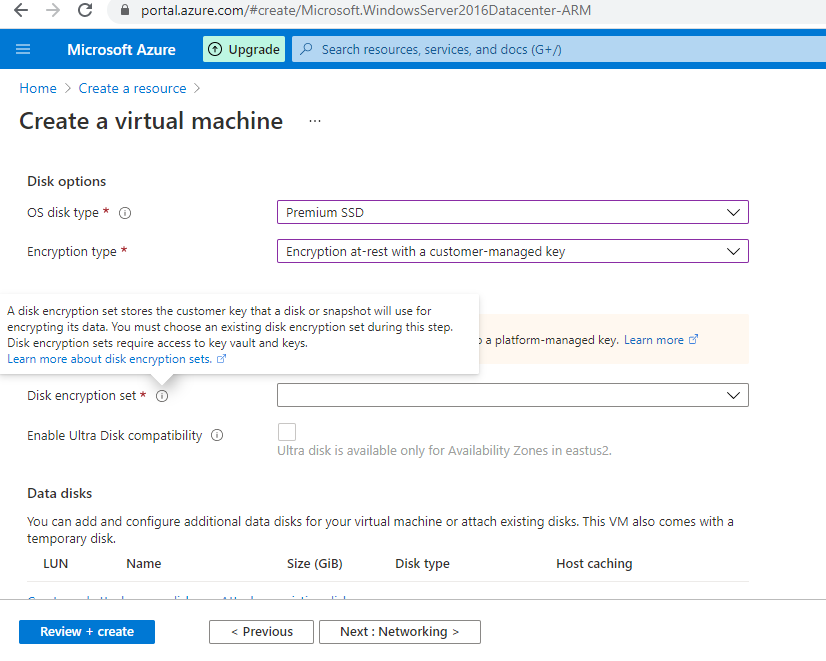


Click on Next:Disks button and get below page

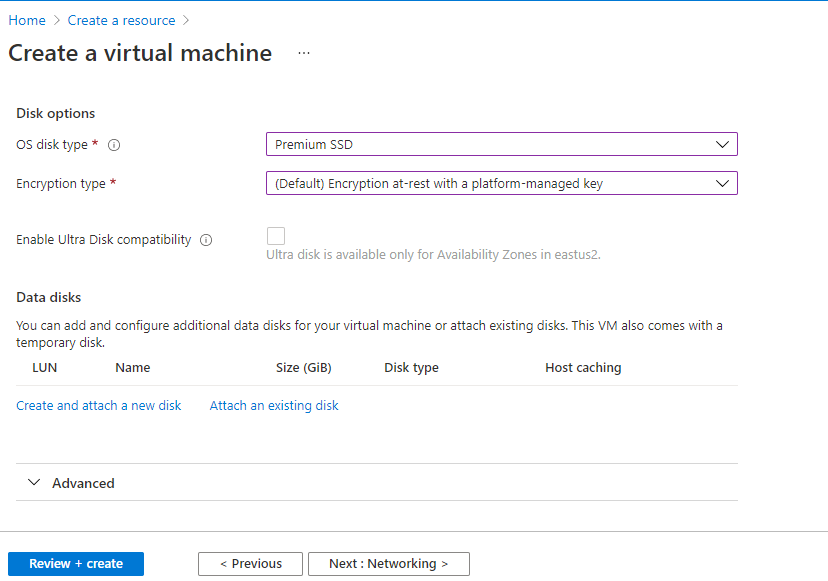
Premium SSD – Premium Solid State Disk is a recommend approach

If you want to go physical spinning disk then choose Standard HDD (Hard disk drive)

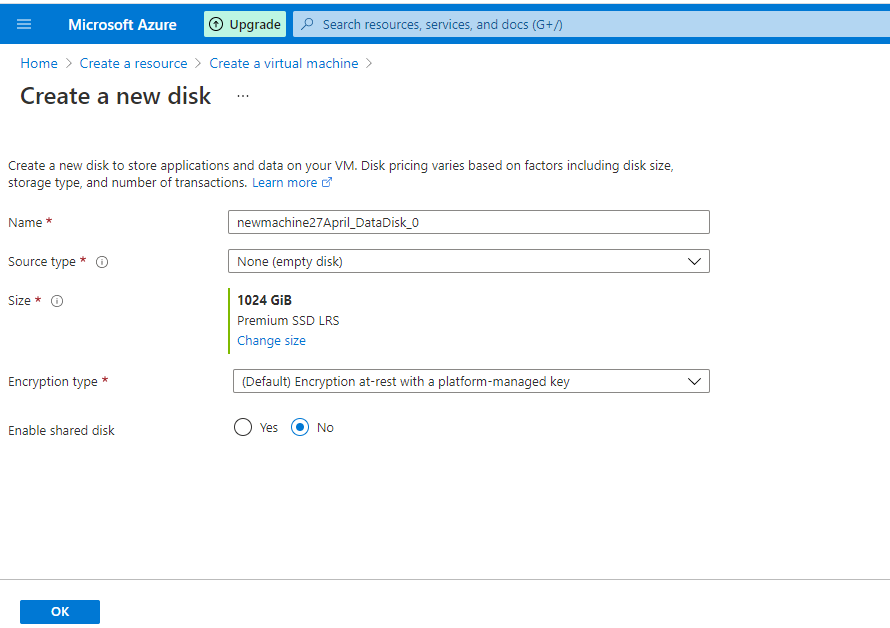
First disk option is for Operating system

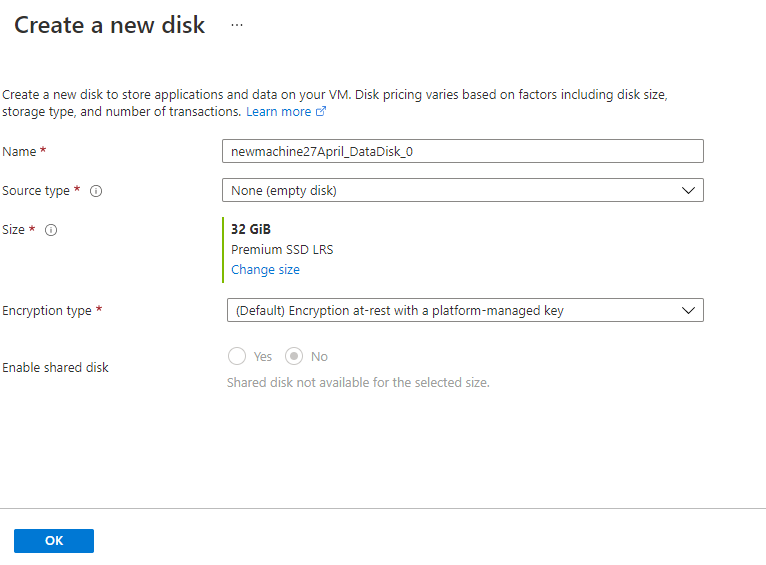


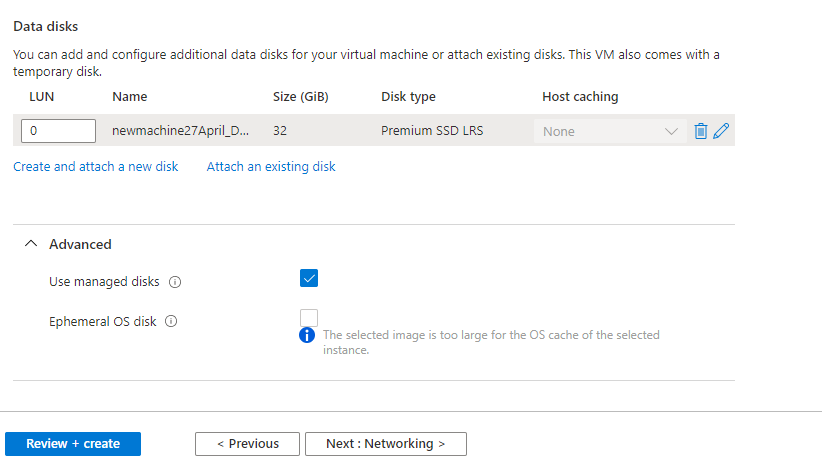
Data disks are optional additional disk you want to store. It depends upon the VM size.



If you click on Create and attach a new disk to VM below page display. You can add as many disk to your VM and you can also detached with your VM depending on your limit of virtual machine.



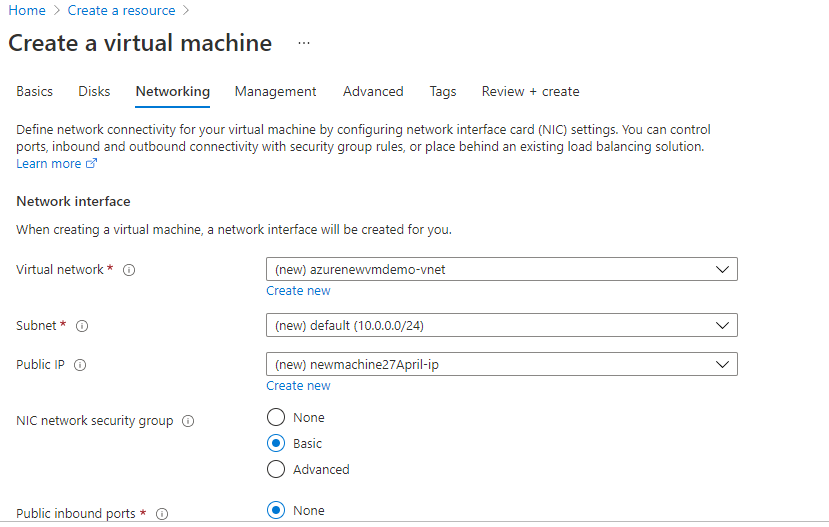


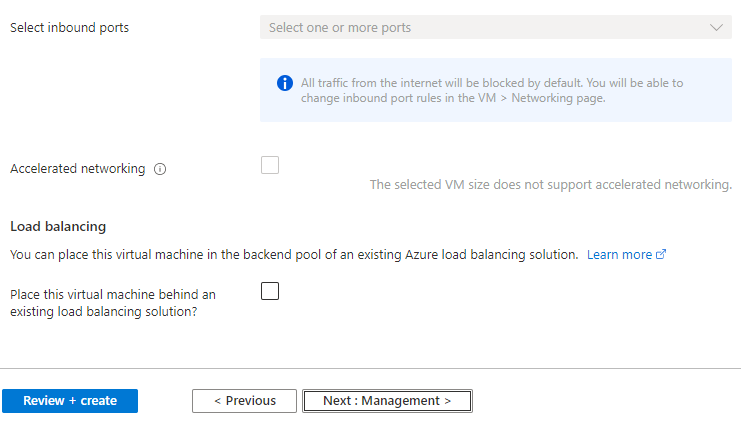


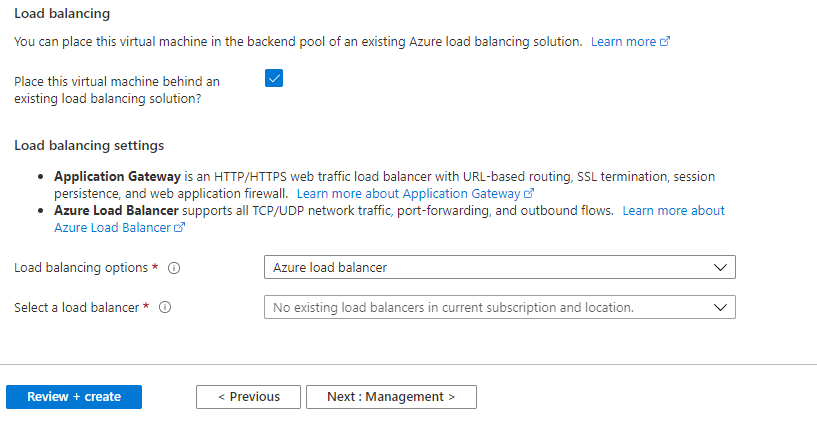
In Advanced Use managed disk option selected by default it is manged by Microsoft.

But if you select uncheck the managed disk option you have to managed yourself and all disk associated with VM.

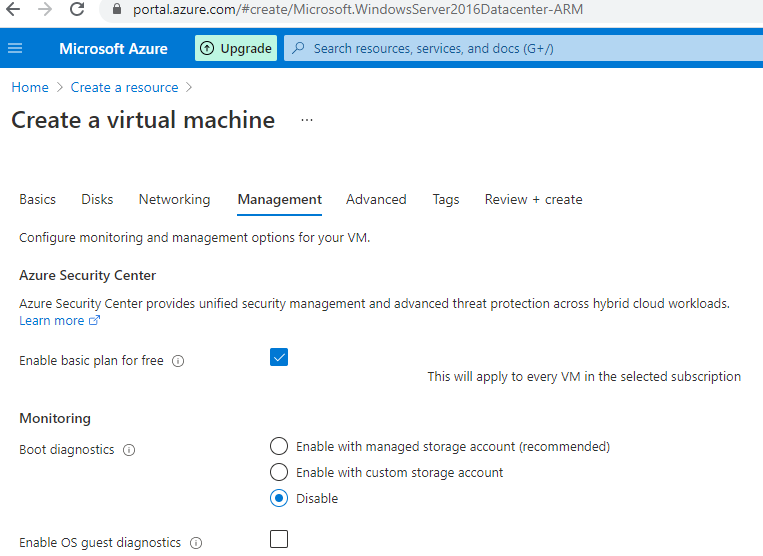
Click on Networking to see below page.

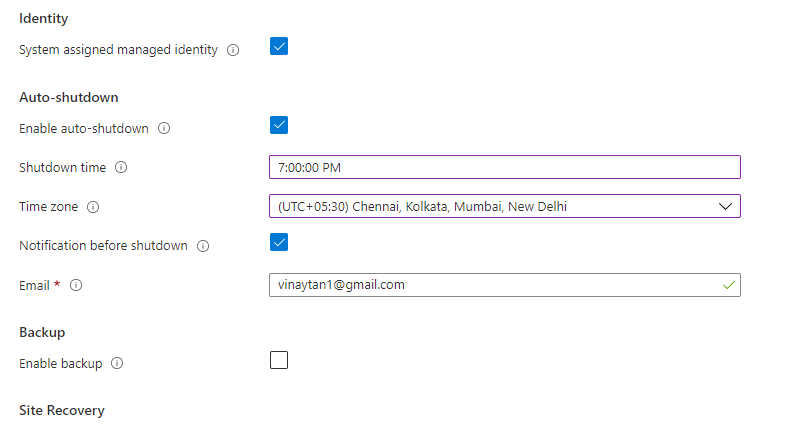


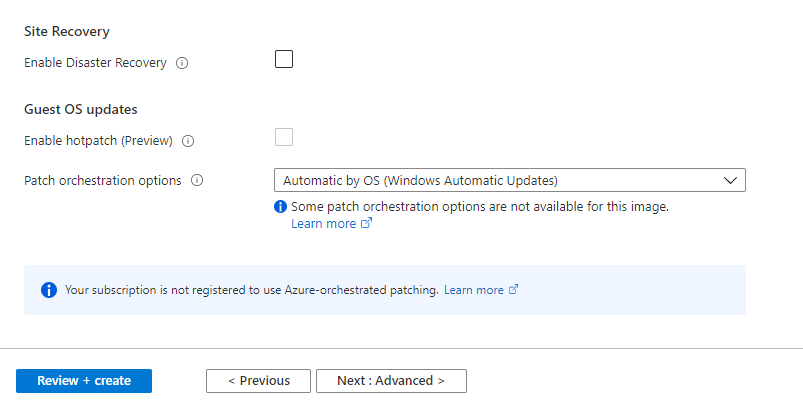


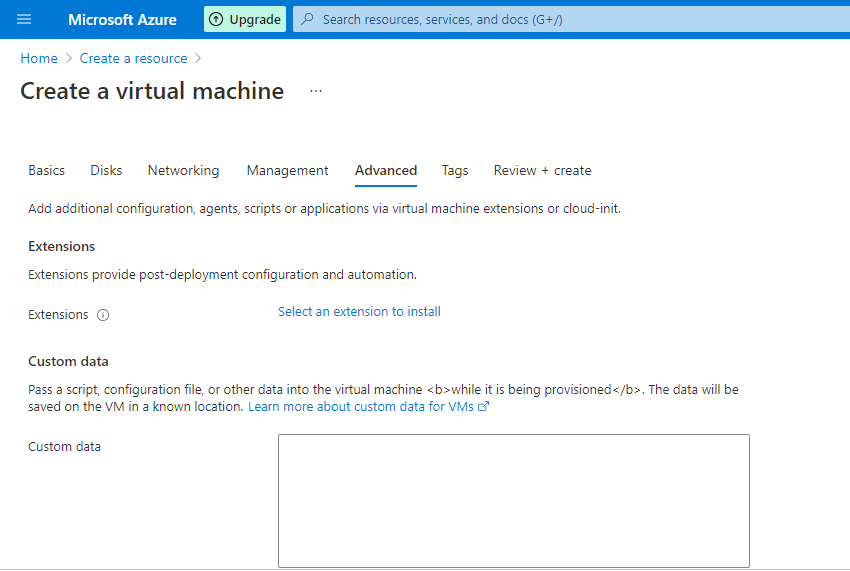


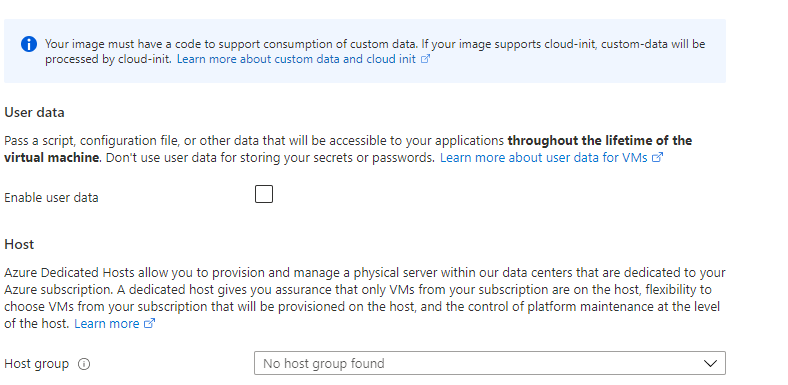
Accelerated networking is available only for large VMs.

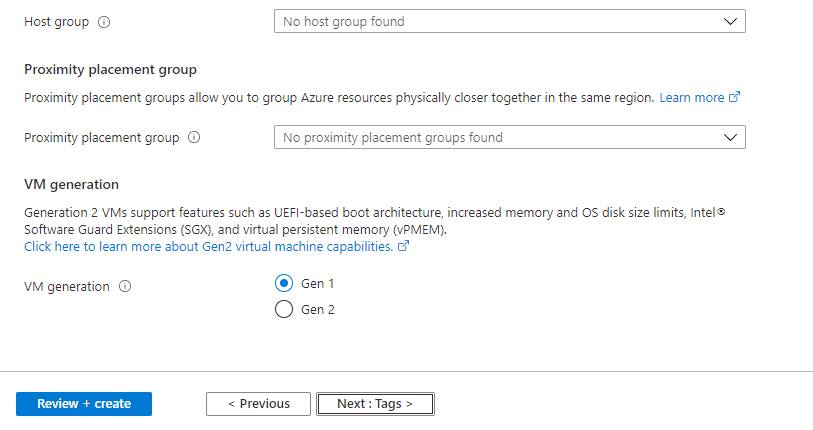






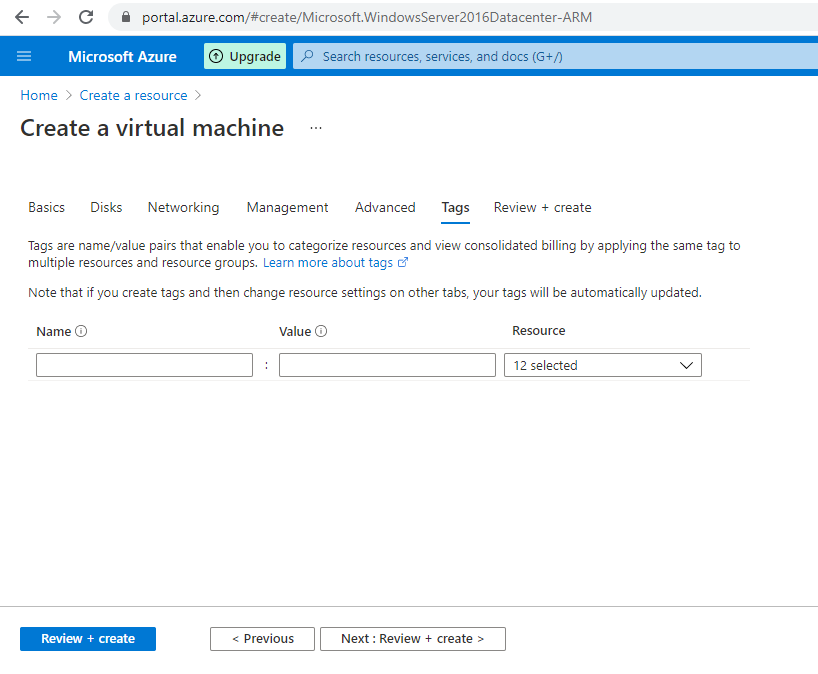


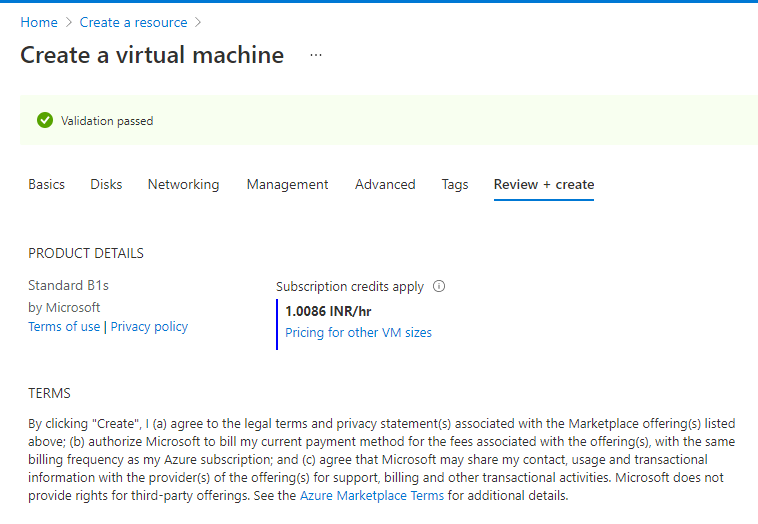


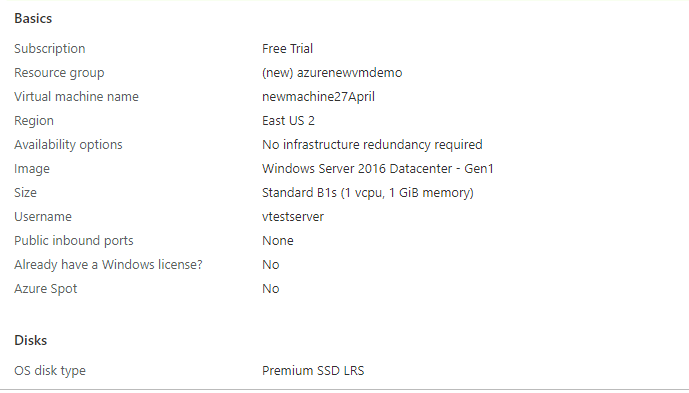


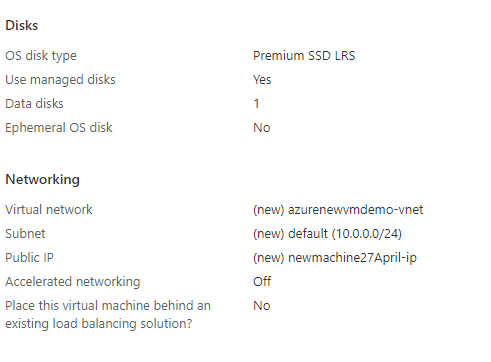
Extensions option is used to run powershell script on startup of VM.

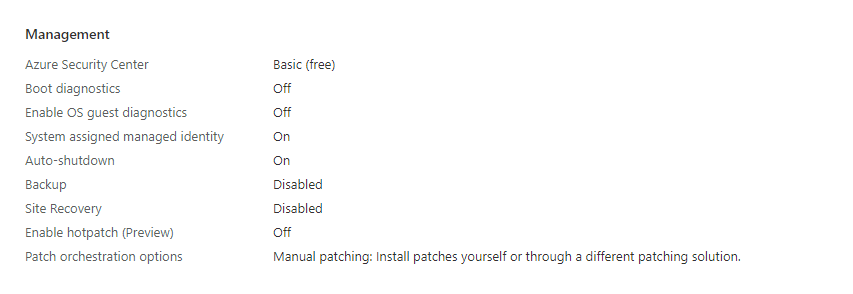
**cloud**-**init** is a widely used approach to customize a Linux VM as it boots for the first time. You can use **cloud**-**init** to install packages and write files, or to configure users and security

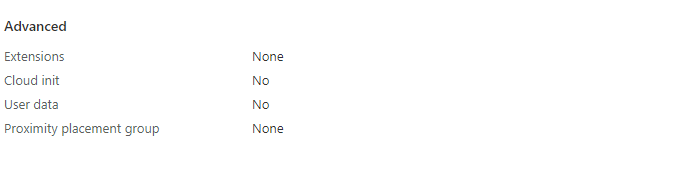




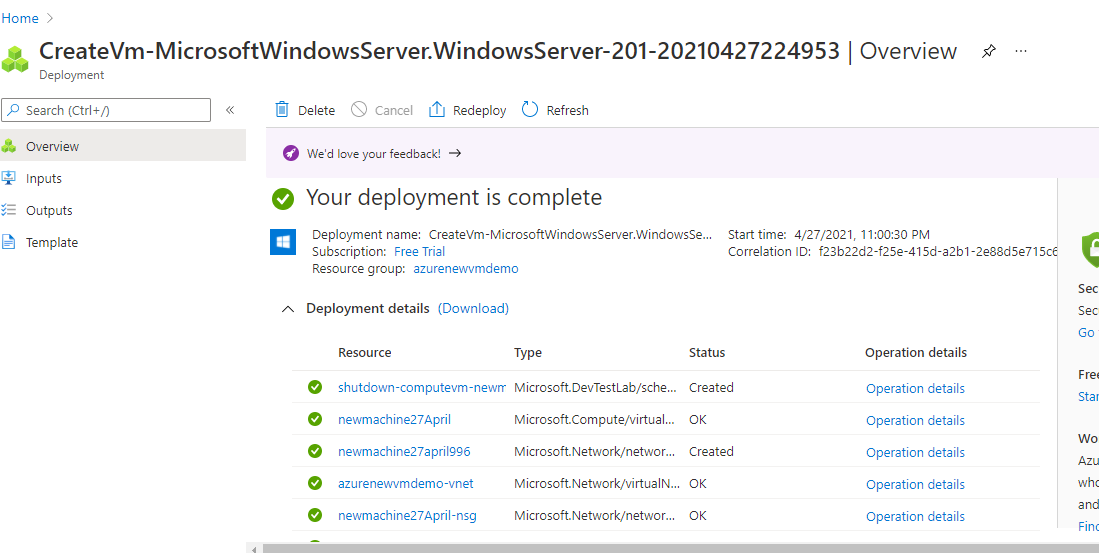


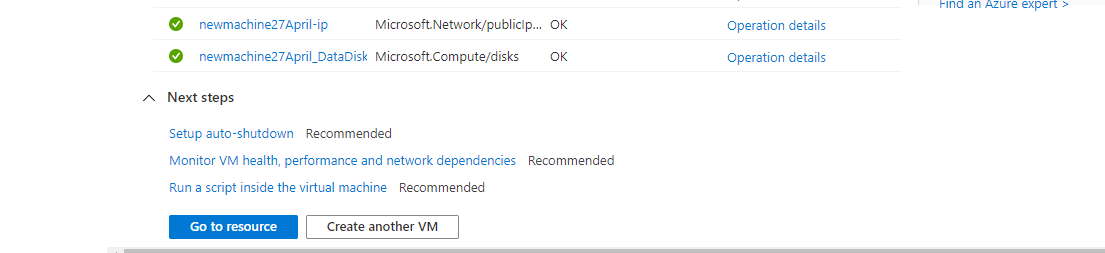




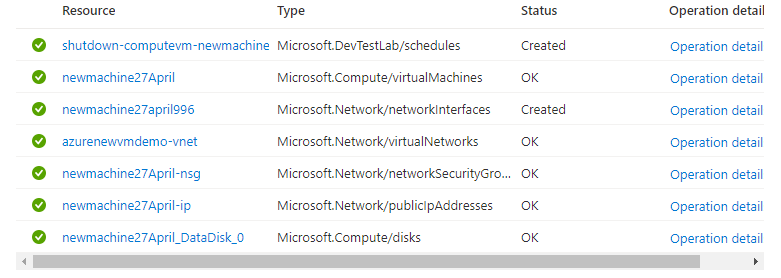


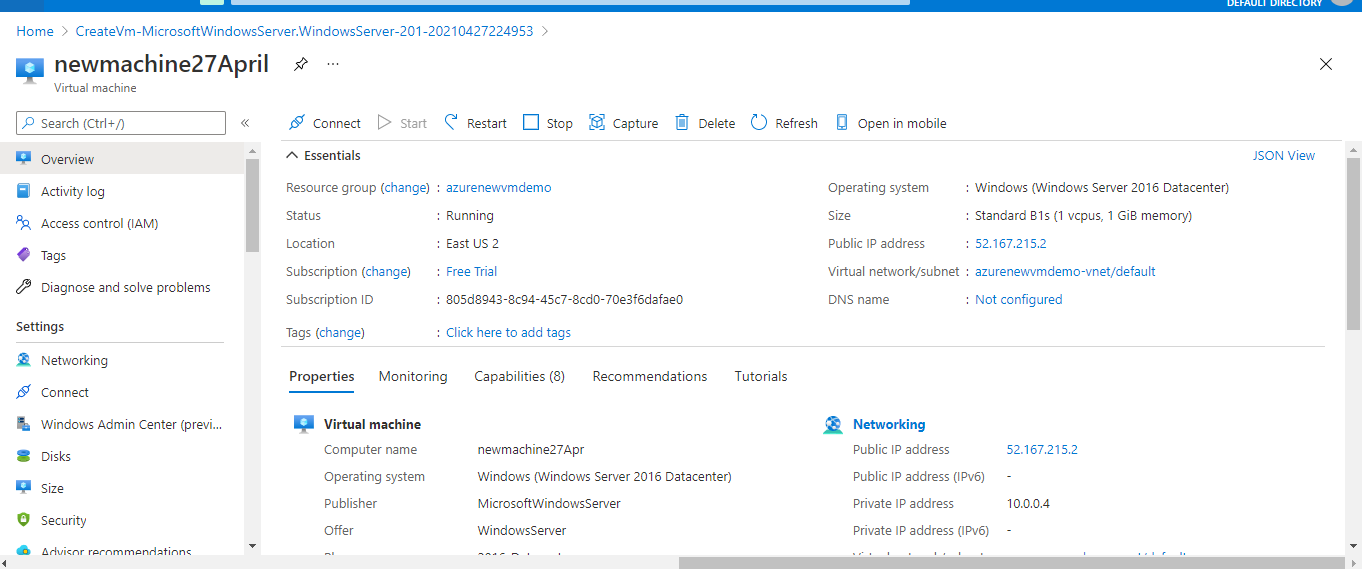
New VM created





Each Virtual machine is made up of with number of resources.





**ARM – Azure Resource Model**

When you create virtual machine at last page there is template and parameter file which when you download you can create machine from that template.

Template and parameter are json files.

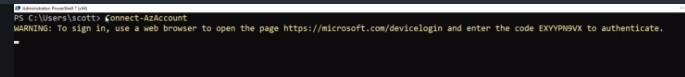
When you load template in azure it loaded with blank parameters so you have to fill with parameter file Admin password not stored in parameter file so you have to give it.

From template when you load parameter file it can load resource group so you have to give it explicitly.

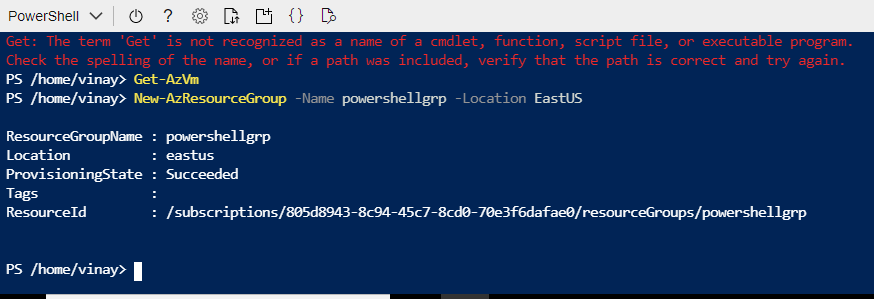
**Creating Virtual Machine using PowerShell Script**

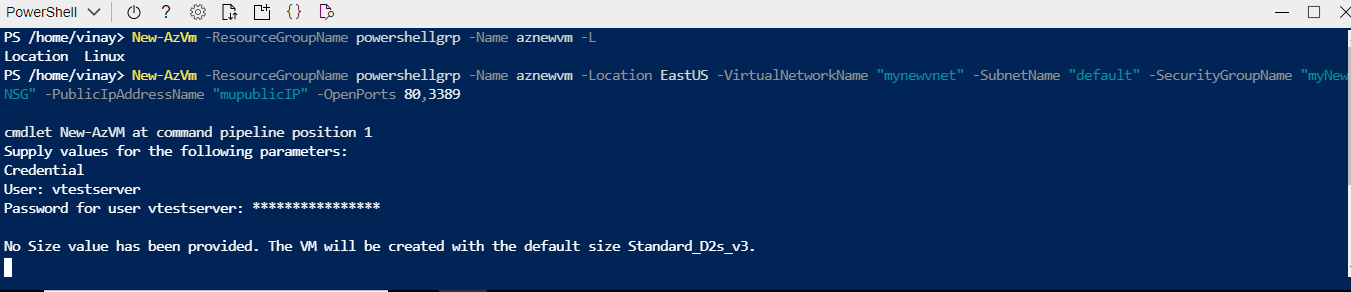
To connect PowerShell in local machine use below command

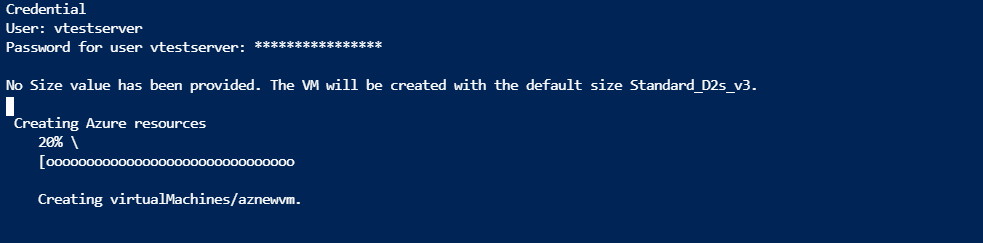




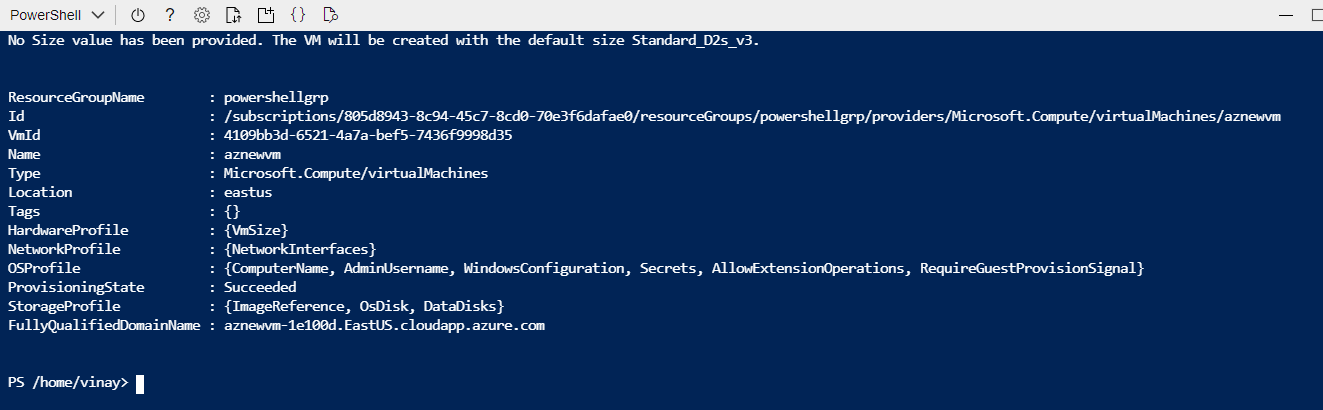
First creating New Resource group by using below powershell command



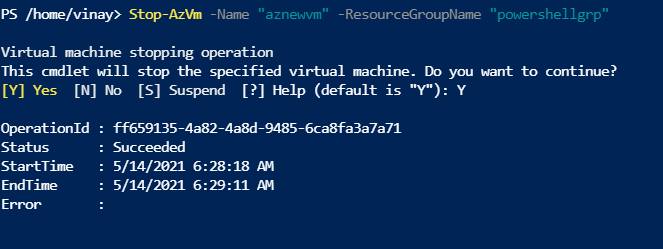




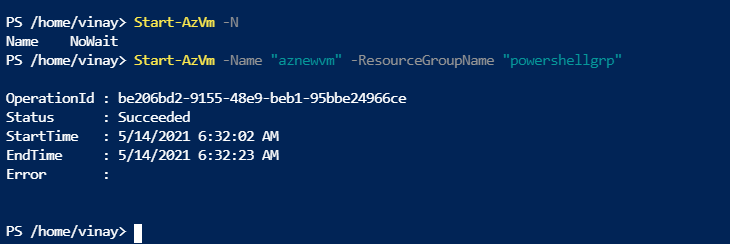
After New VM created you will get below message



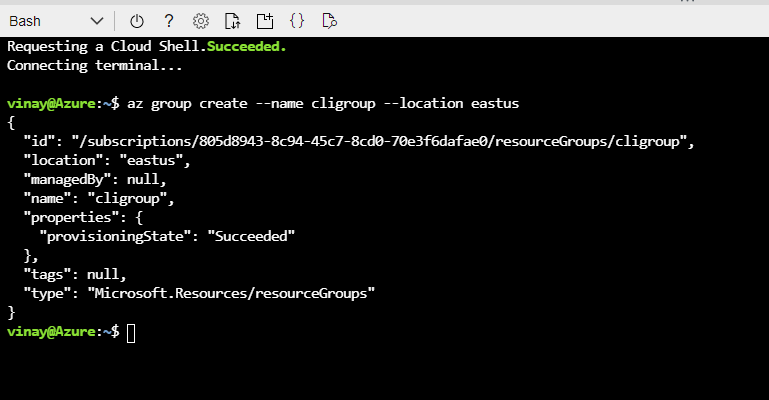
Use below Powershell script to stop VM



Use below Powershell script to Start VM



Create New resource group using Bash script or cli command



Create new virtual machines using below bashor cli script with below mentioned password

Password- CliTestUser@2021



Virtual machine are known as infrastructure as a service.

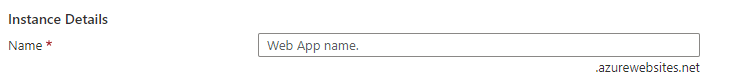
**SECTION 3: AZ-204 Azure App Service**

App service no access to VM it is known as platform as service. Build your code and publish it in azure then azure run as it app service.

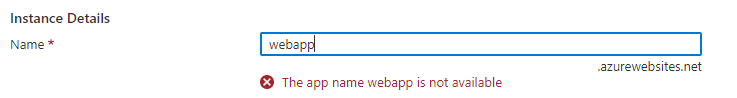
App service is integrated with Visual Studio & Git Hub

Home->Create Resource-> Web App

WebApp Name comes with .azurewebsites.net extension fully qualified domain and it is unique across all the name.

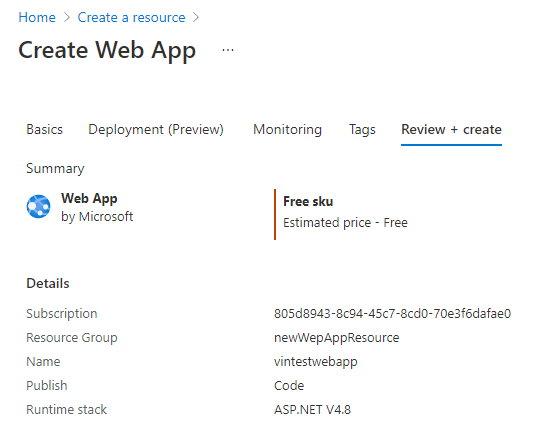


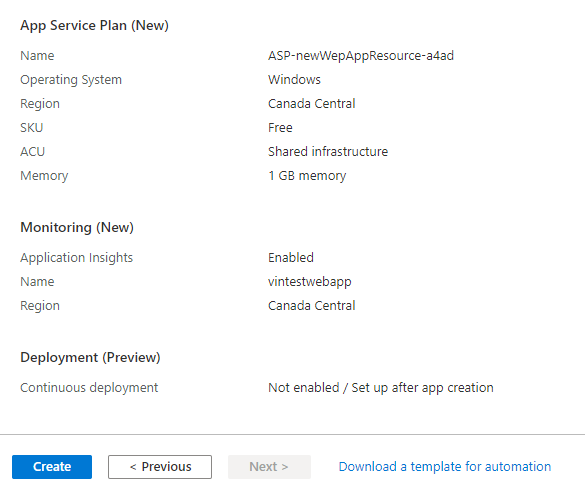
If I entered any name which some one already taken I get below message.

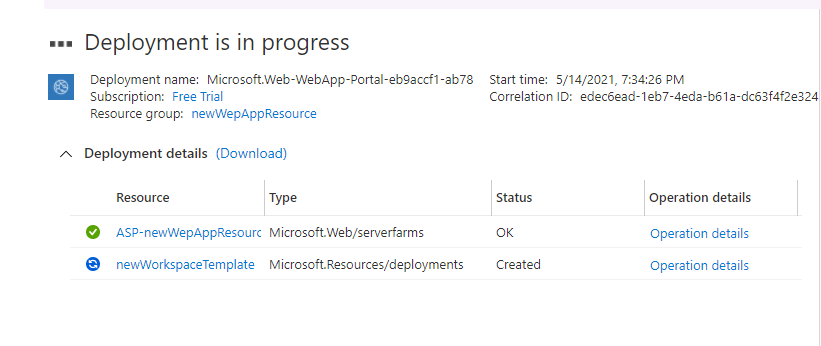


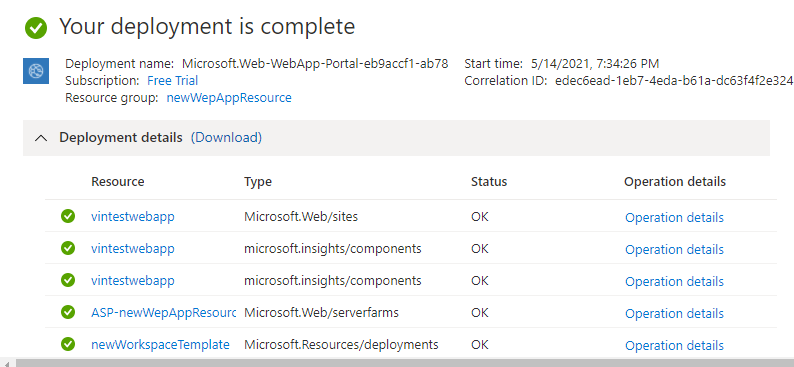
App service plan is basically your hosting plan.

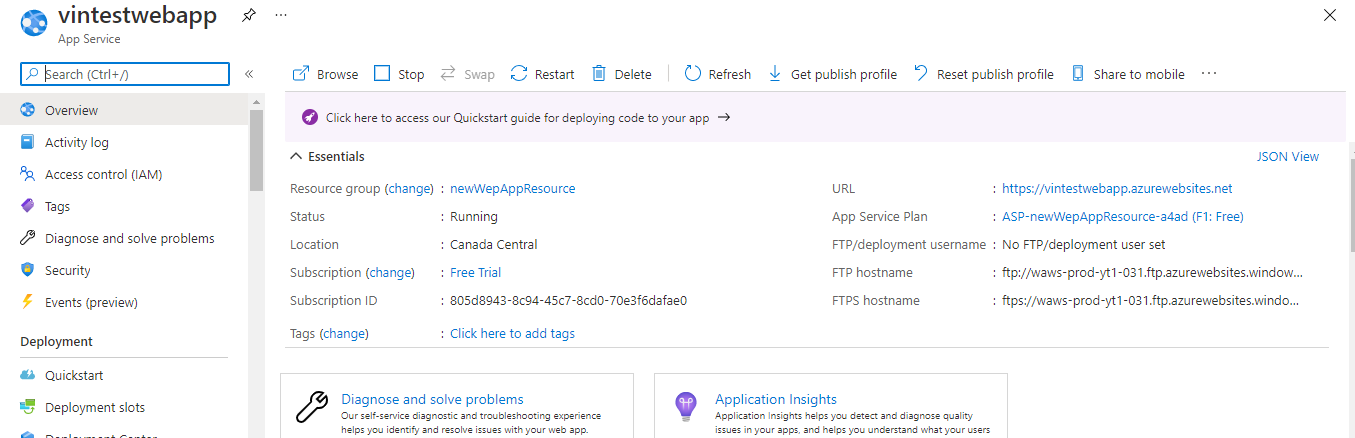
Read this URL for exam - <https://azure.microsoft.com/en-us/pricing/details/app-service/windows/>



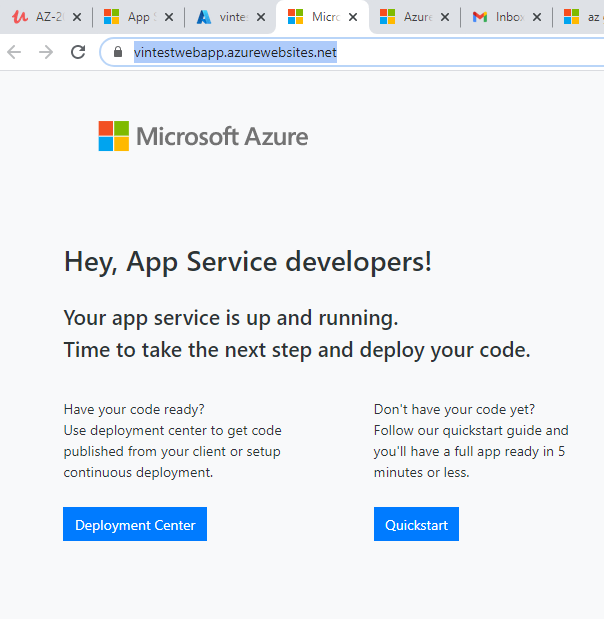






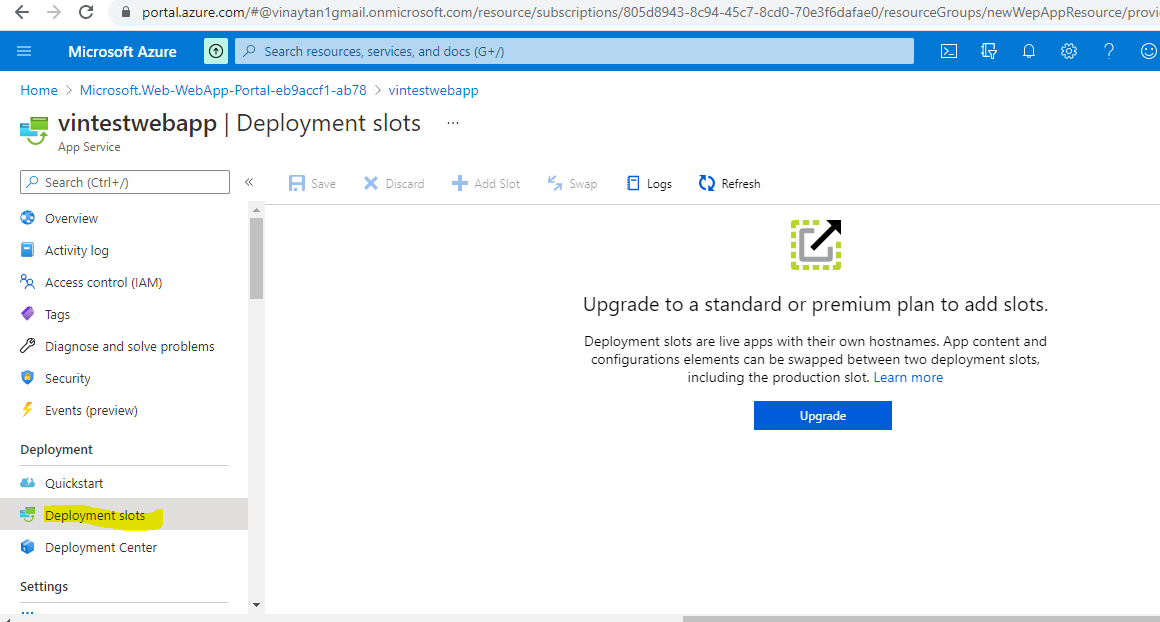


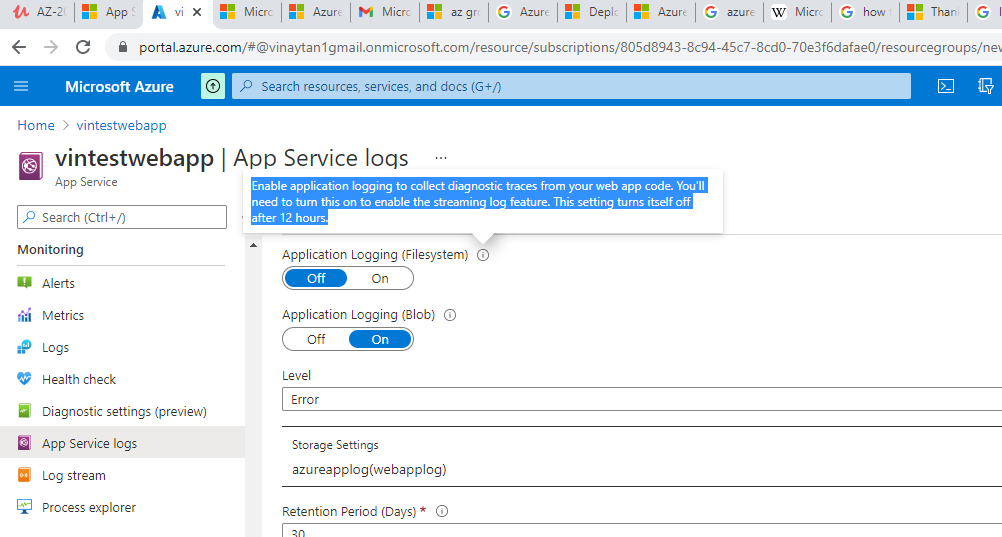
When you click on above url (<https://vintestwebapp.azurewebsites.net/>)

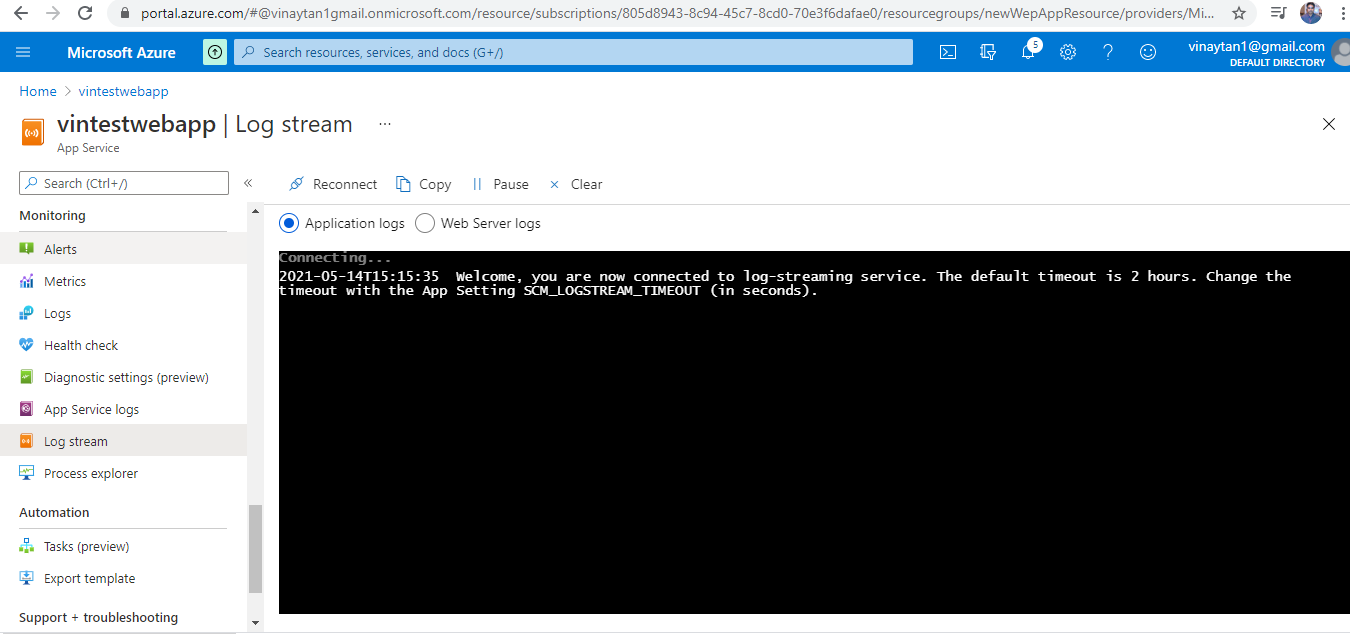


Now a Web Job is a background task that is attached to a web app. So if you think about having a web app like we just created, you can actually have a piece of code that runs every five minutes, every hour, once per day, as a background job that's attached to that web app.

Deployment slot is use to same site but different urls like one is prod, staging, uat etc



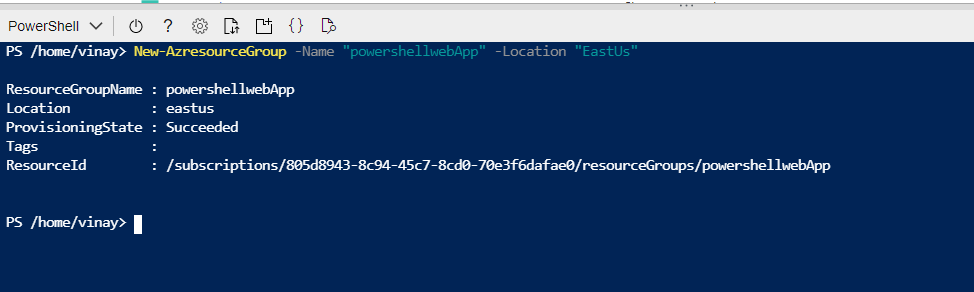


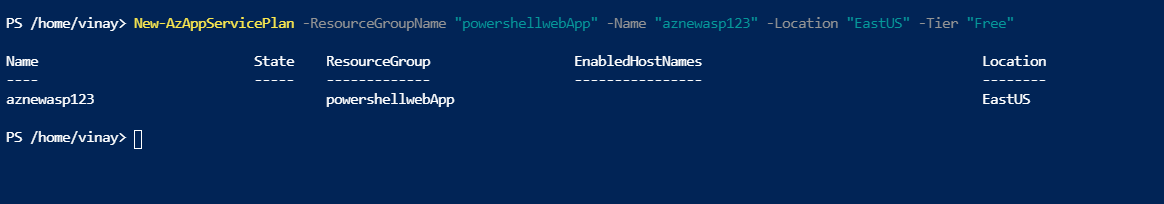


Get command

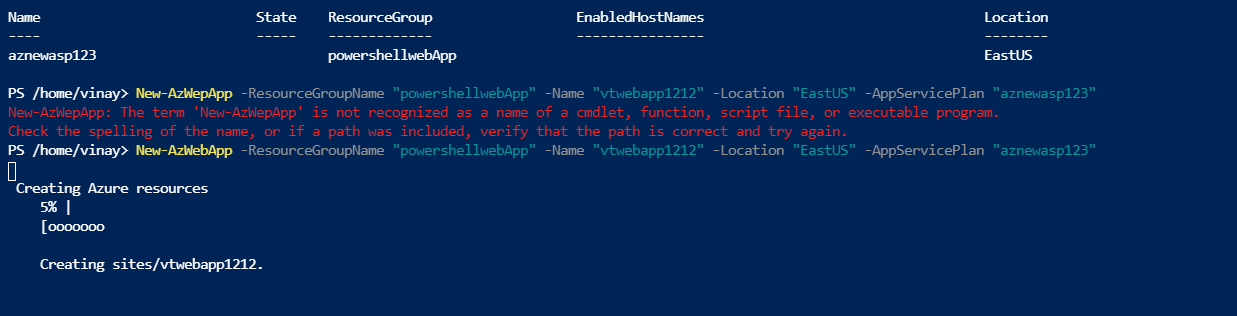
Get-command \*AzWebApp

Powershell command to create webApp resource

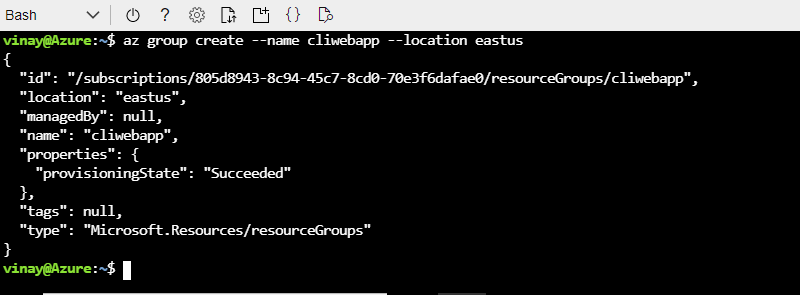




Creating new WebApp



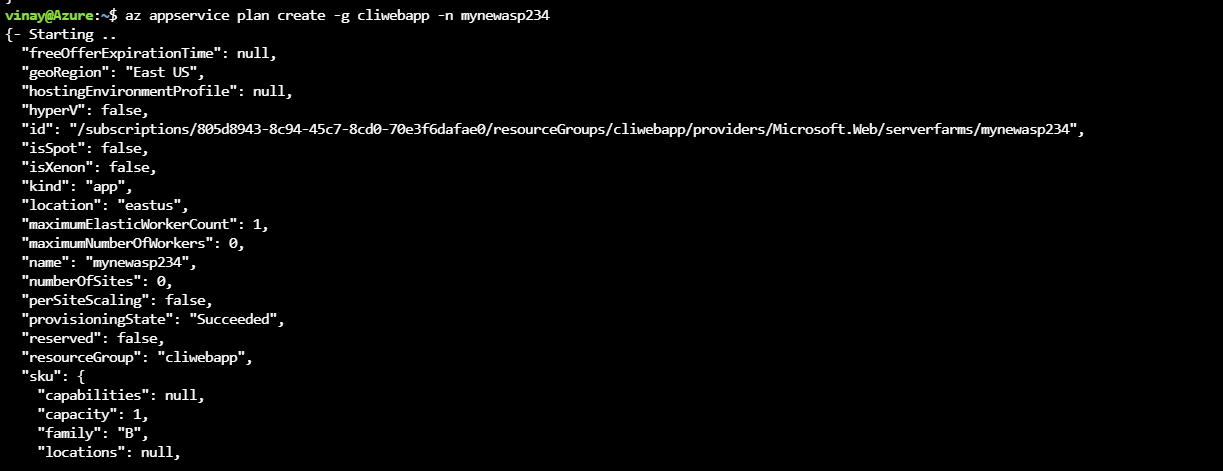
Create new webApp using cli command



Create new resource group using cli command

-g = -resourcegroup

-n=-name

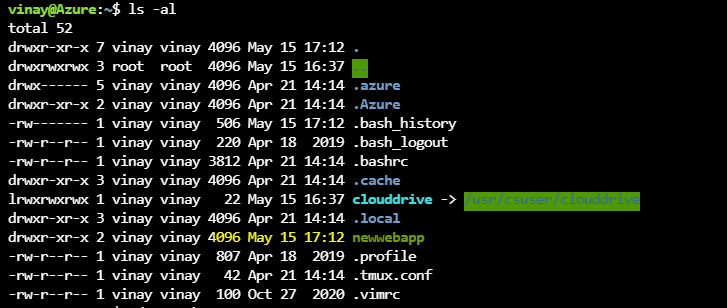




Create new directory using cli command



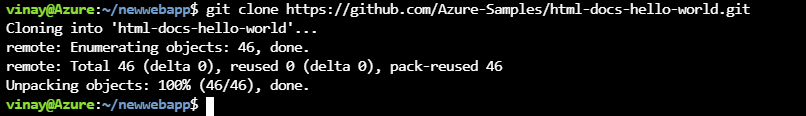
Check the list of directories

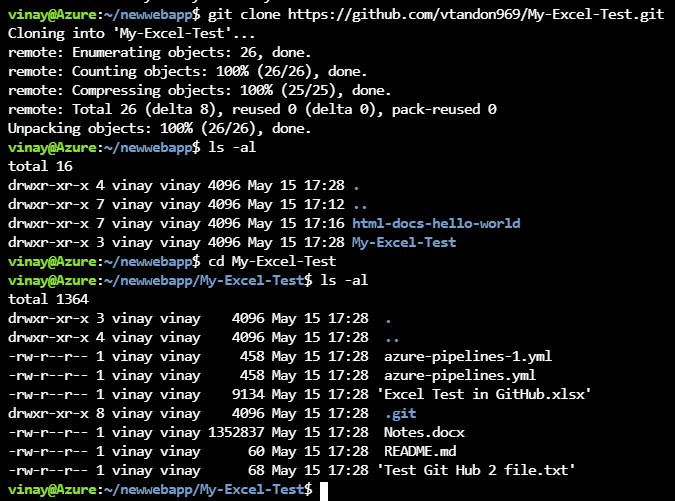


Go inside any directory

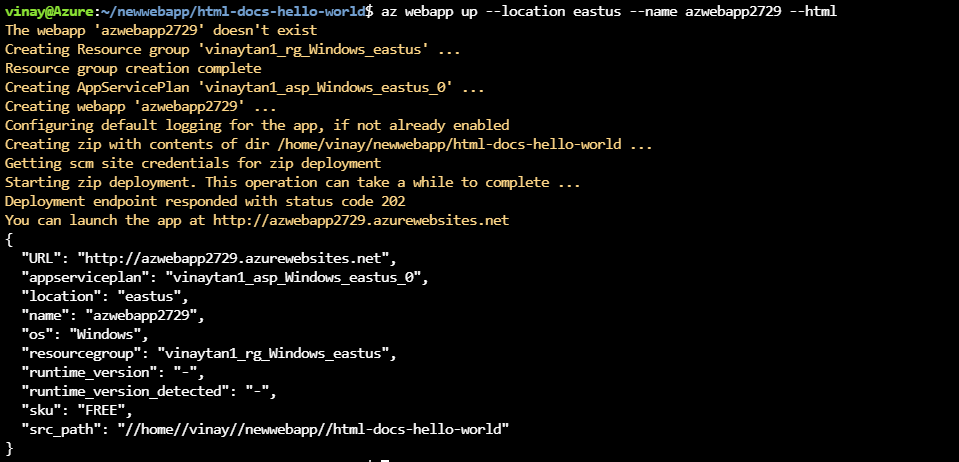


Cloning the code from github using cli command into newwebapp directory



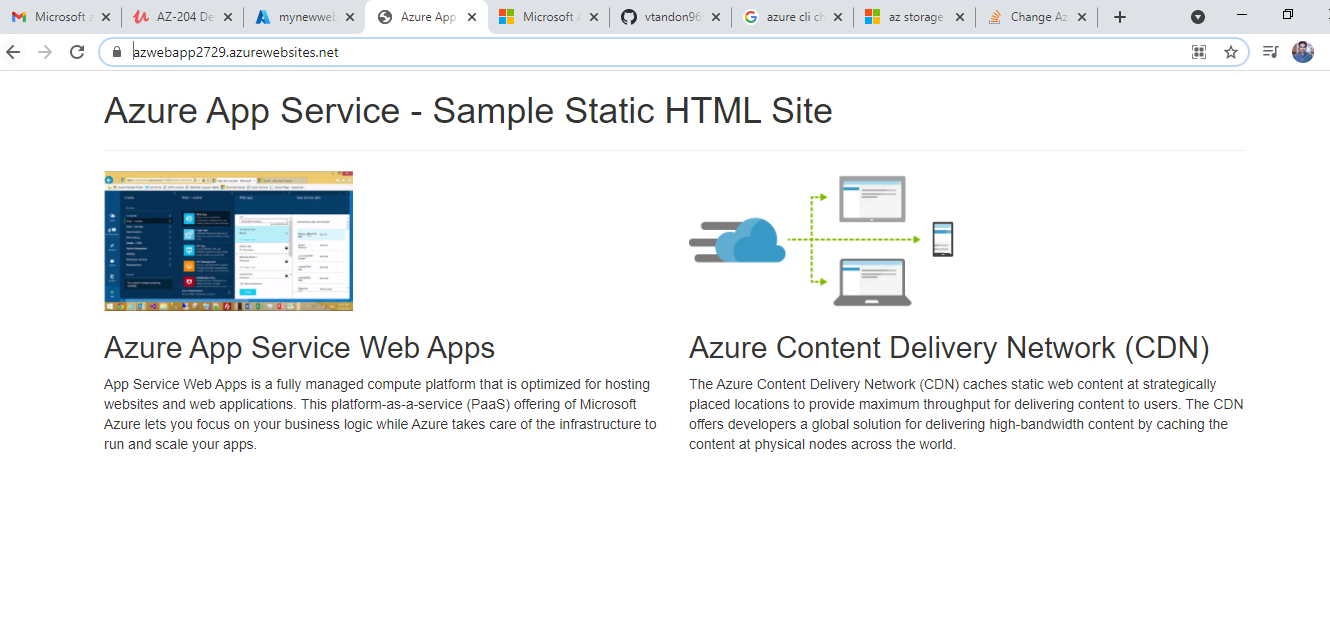


Creating web app using clone github code using below cli command

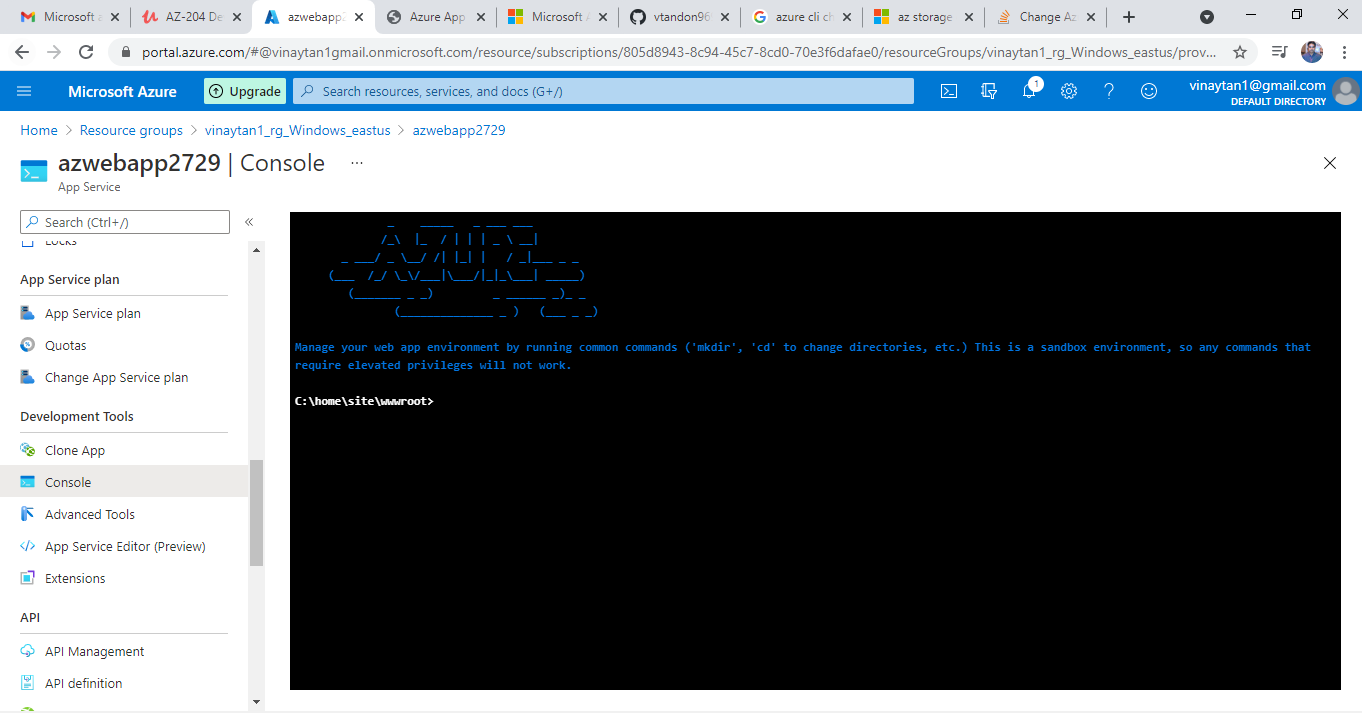


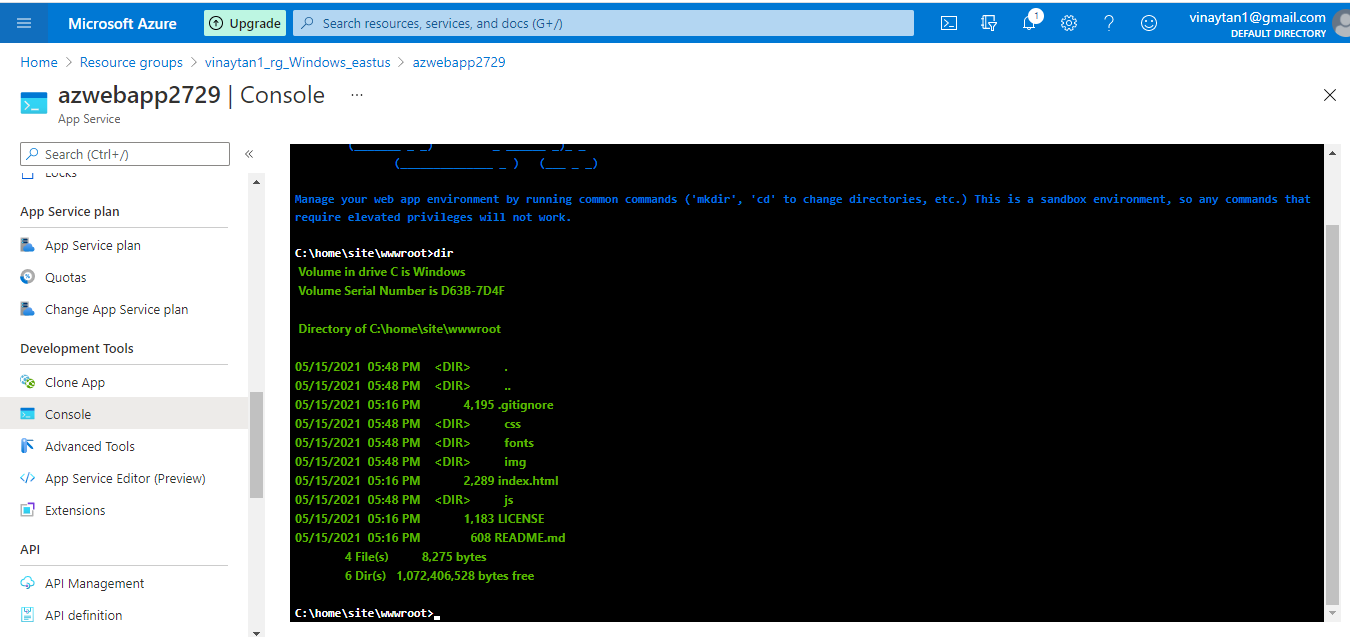
And site is published in azure with above command url is

<https://azwebapp2729.azurewebsites.net/>

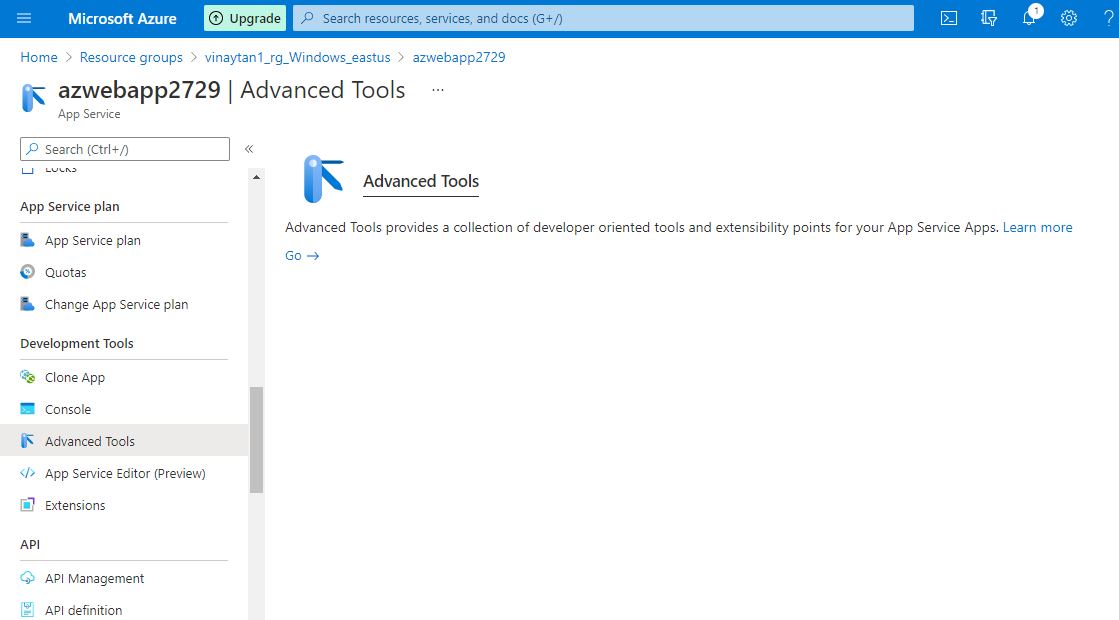


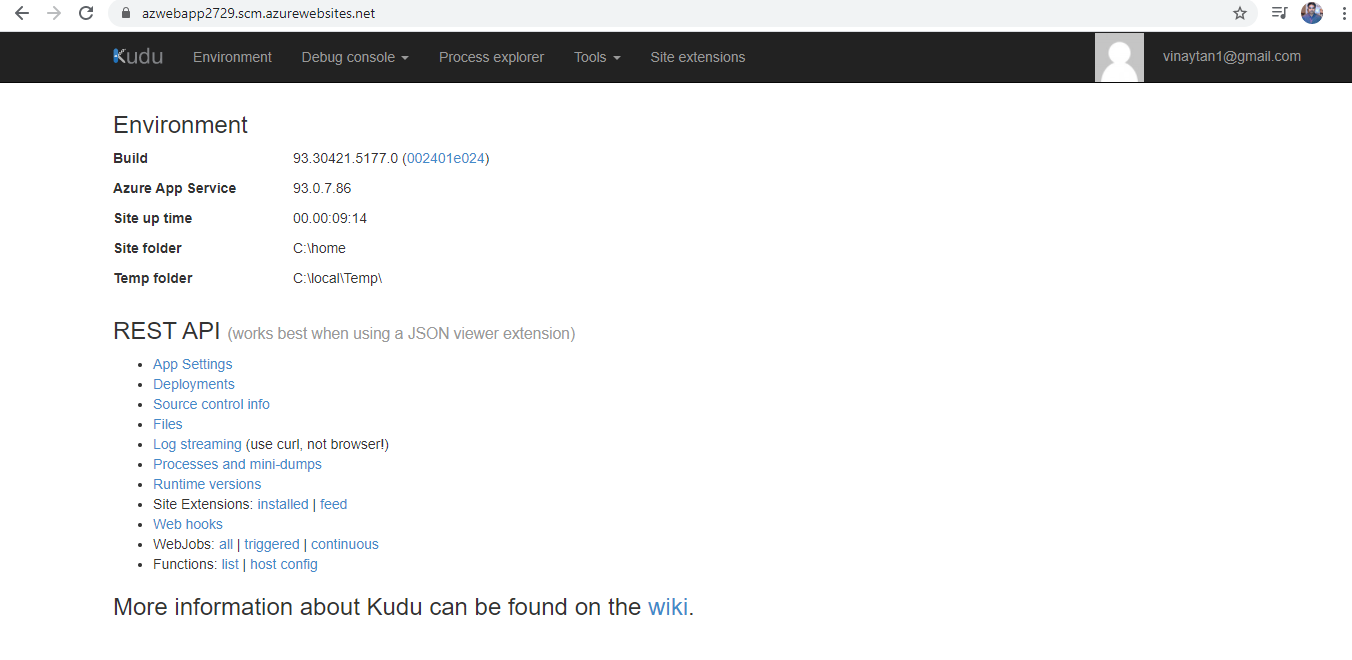
WebApp console feature is use to check problem of deployment of site



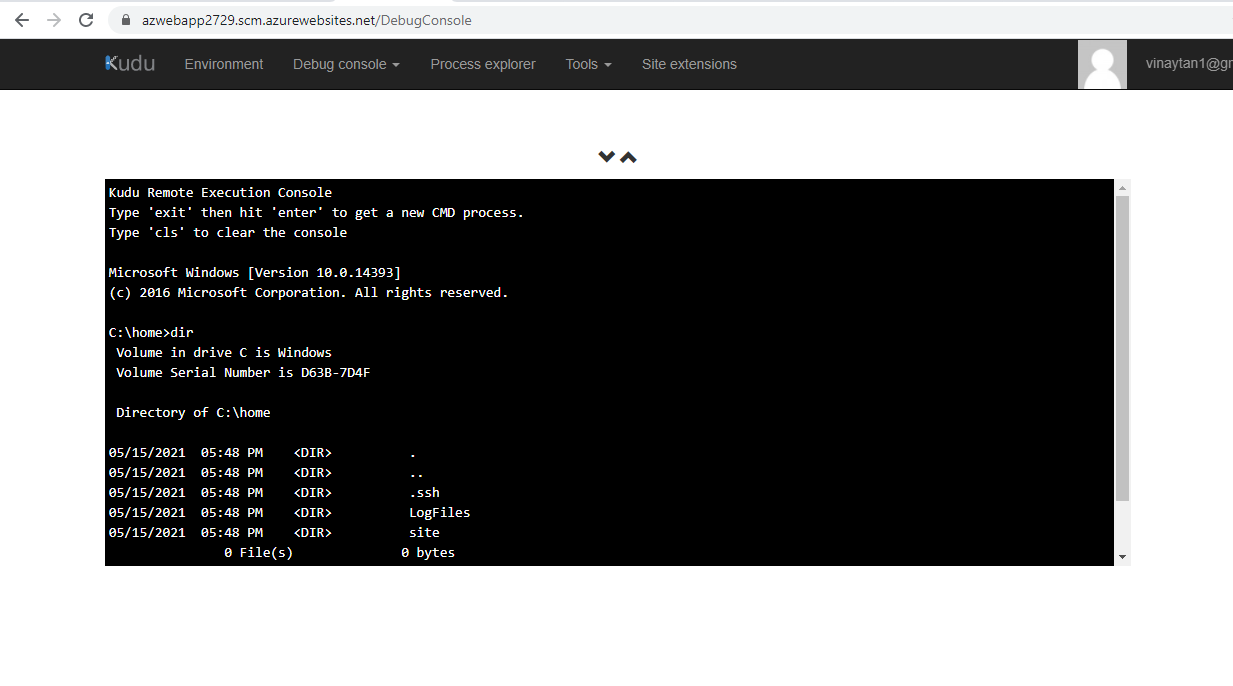


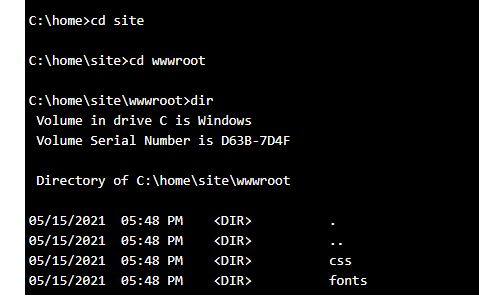
In Advance tool there is option go when you click on this it gives site information like 2nd below snap shot

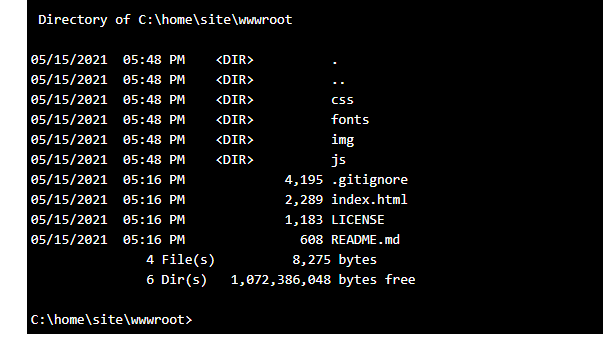




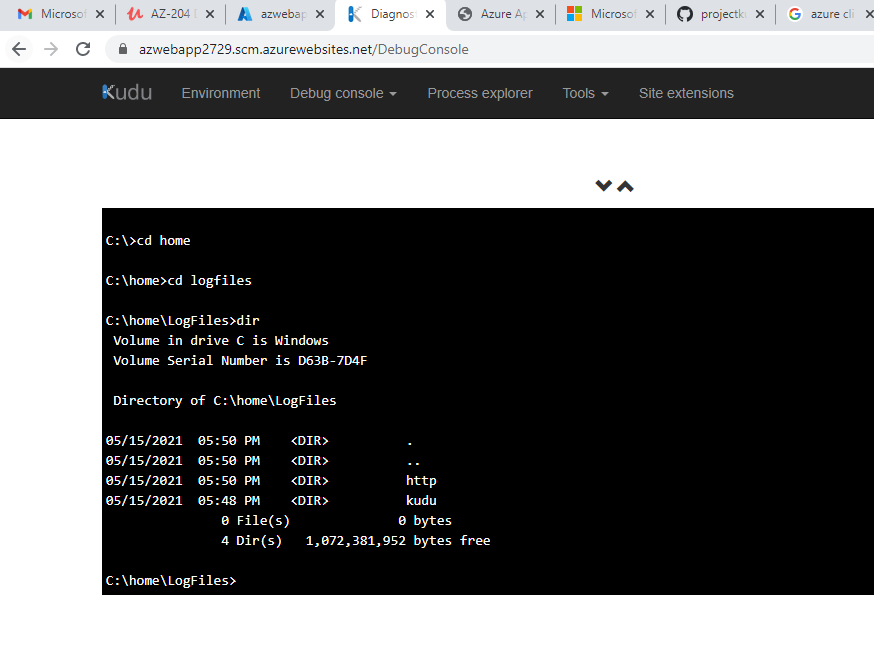
Select cmd option in debug console menu



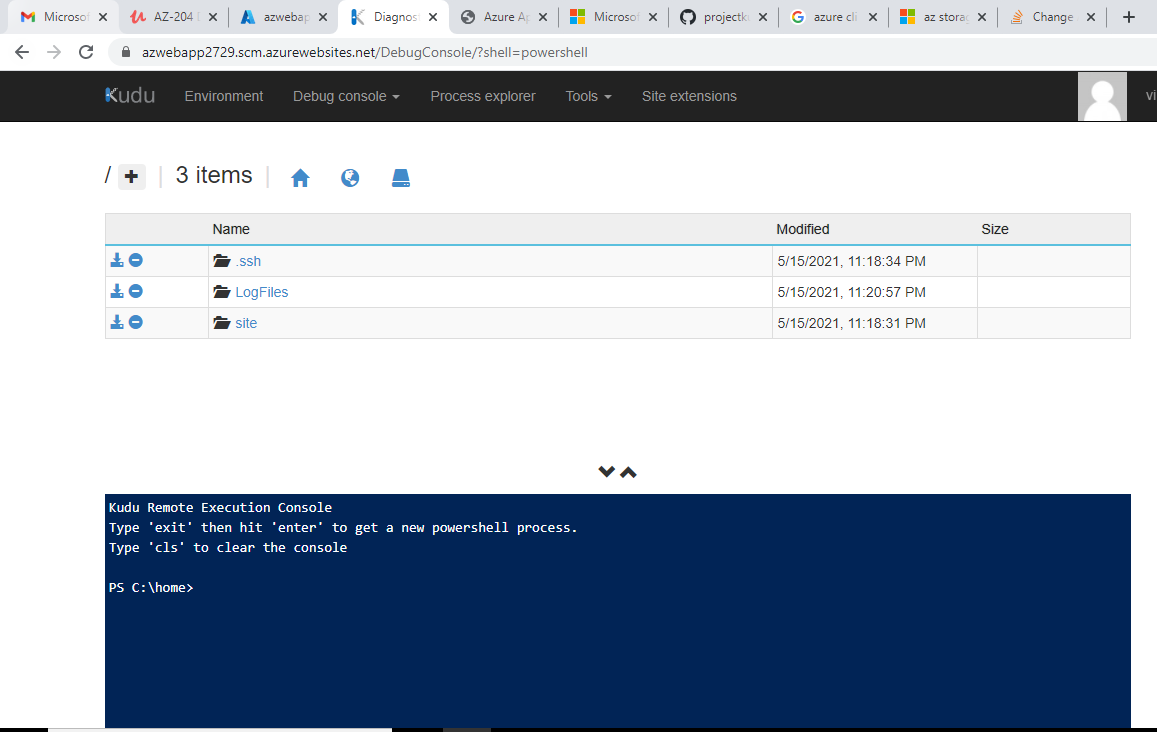


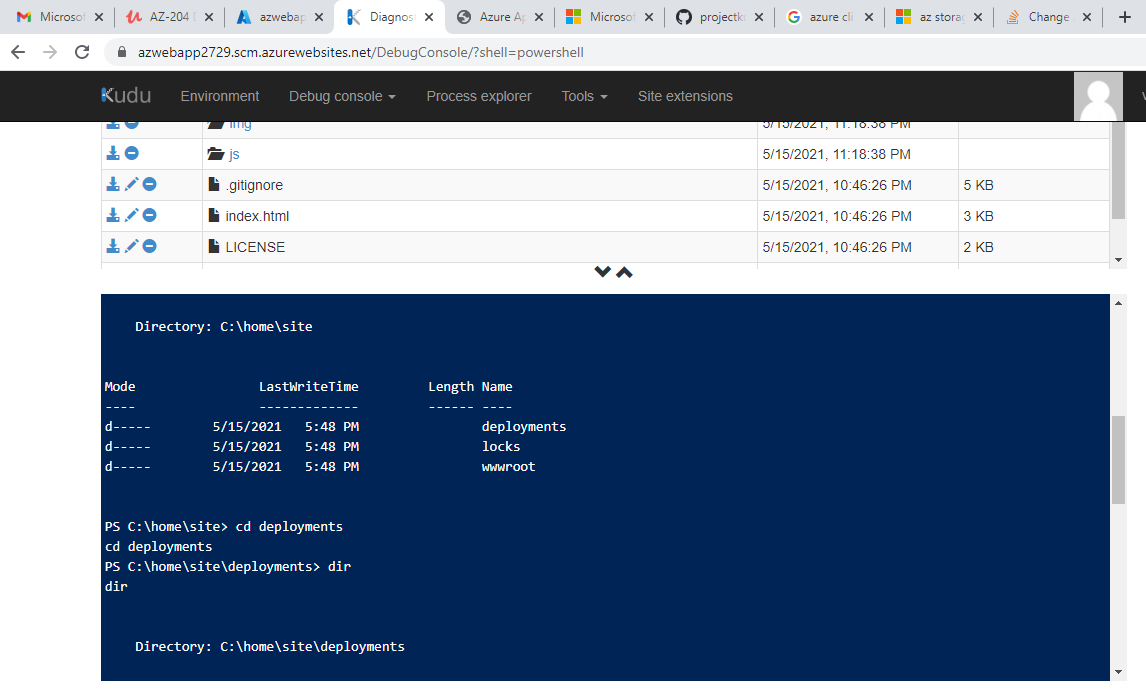


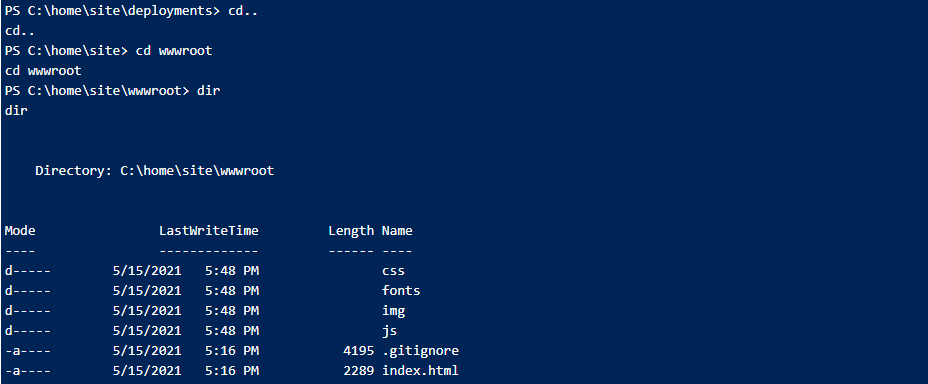
To see log of web app use below commands

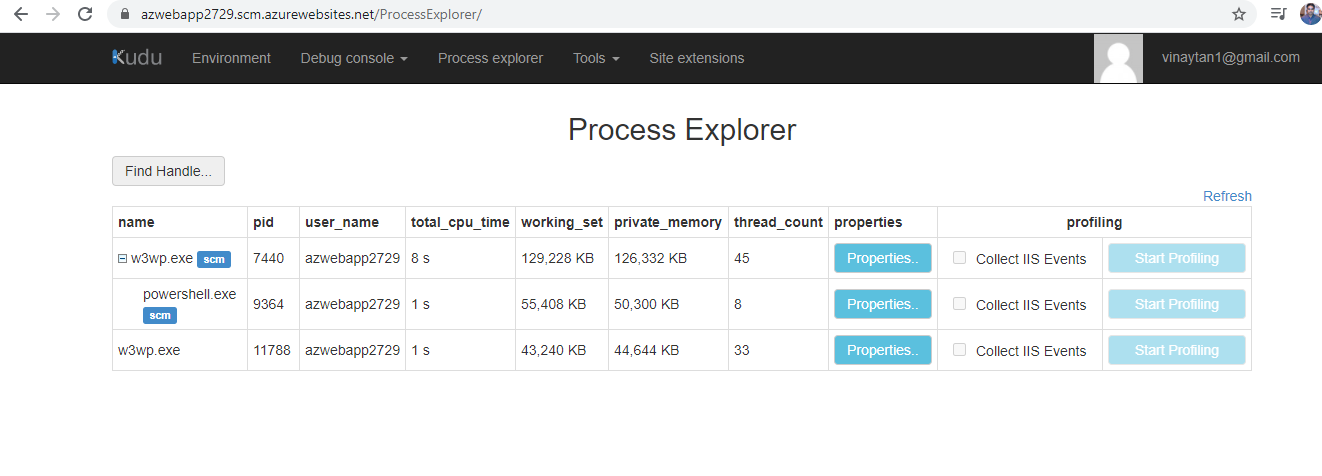


To go poweshell in kudu

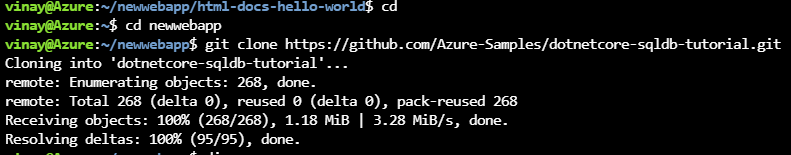


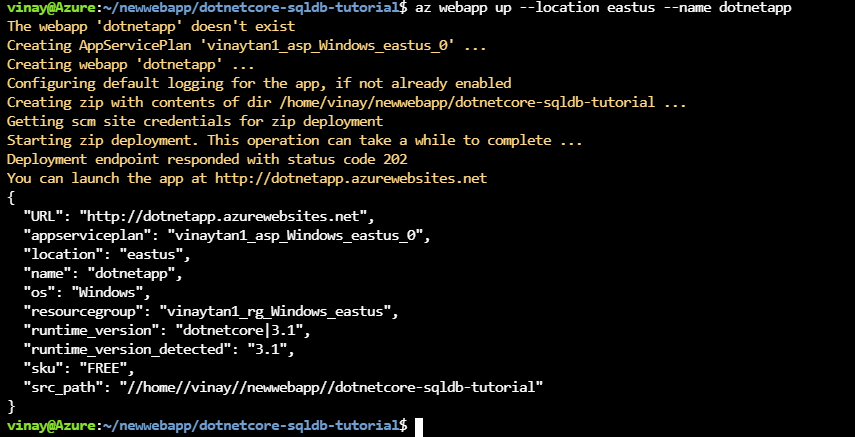






Cloning another gitup repository





<https://dotnetapp.azurewebsites.net/>

