What is Application pool

An application pool defines a group of one or more worker processes, configured with common settings that serve requests to one or more applications that are assigned to that application pool. ... Each worker process represents work being done for a Web site, Web application, or Web service.

what is elastic pool

Elastic Pool is a collection of databases with a shared set of resources managed via a SQL Database Server. The benefit of using an Elastic Pool in Azure SQL Server database is that using it, a single database can be moved in and out of an elastic pool, which gives us flexibility.

what is use of active directory

The main function of Active Directory is to enable administrators to manage permissions and control access to network resources. In Active Directory, data is stored as objects, which include users, groups, applications, and devices, and these objects are categorized according to their name and attributes.

what is use of nsg? How to provide security for application?

Azure network security group filter network traffic to and from Azure resources in an Azure virtual network.

A network security group contains security rules that allow or deny inbound network traffic to, or outbound network traffic from, several types of Azure resources. For each rule, you can specify source and destination, port, and protocol.

what is repository in devops

Azure DevOps repos are a set of repositories that allow you to version control and manage your project code. It helps to work and coordinate code changes across your team. It will allow you to monitor code, solutions, builds, commits, pushes, PR's (Pull requests) and branching information about projects.

What is health probe

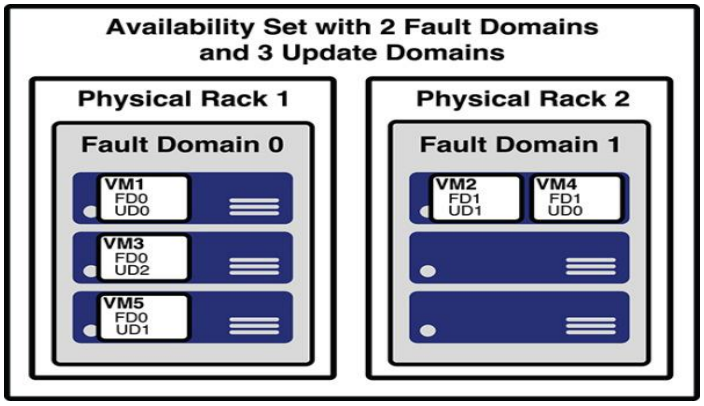
Health probes are used to check if the back end pools are working correctly. We can test different ports or even http. Health probes are features designed to give you more control and increase your application availability.

You can configure health probes to monitor a TCP endpoint, or if you want more control, you can configure a probe against an HTTP endpoint.

Difference between fault domain and updated domain

In Fault domain, resources are assigned in physically different servers/racks.

Update Domain is used to logically group resources to make sure a group of resources is updated (security patch or other updates) together instead of updating resources randomly.



Difference between firewall and nsg

The Azure Firewall service and network security group, together they provide better "defense-in-depth" network security.

- Network security groups provide distributed network layer traffic filtering to limit traffic to resources within virtual networks in each subscription.
- Azure Firewall is a fully stateful, centralized network firewall as-a-service, which provides network- and application-level protection across different subscriptions and virtual networks.

Difference between azure active directory and windows active directory

The most fundamental difference between the two technologies is that Active Directory originally lived in on-premises datacenters while Azure Active Directory was designed for the Microsoft cloud.

Active Directory generally lives on special on-prem computers called **domain controllers (DCs)**. You purchase these machines, you install the Windows Server operating system on each of them, you configure them, and you are responsible for their care and feeding. DCs host the AD directory and run the AD services.

Azure AD lives on Microsoft servers in Microsoft datacenters. You don't have to purchase them, configure them, ensure they have the proper temperature and humidity, or protect them from intruders and natural disasters. If your organization subscribes to any Microsoft Online business service such as Office 365 (now called Microsoft 365), you have Azure AD.

difference between availability set and scale set

Base Of Difference	Azure Scale Sets	Azure Availability Sets
Definition	This is a group of identical configured VMs which are spread across multiple fault domains.	This is a group of discreate configured VMs which spread across various fault domains.
Count of VM	Here we can increased and decreased based on demand or any of pre-defined schedule.	Here we can add VM to availability set only ate time of set's creation.
Default Domain	Here we have 5 Fault Domains and update domains by default	Here we have 3 Fault domains and 5 Update domains.
Style Distribution	Here VM scale sets be distributed across multiple data centers or within a single data center.	Here VM are automatically distributed in a data center.
Type of Workload	Here we used when we have some unpredictable workloads which require the feature of auto scalability.	It is oppposite of Azure Scale Sets here these are used when we have predictable workload requirements.
Style of Configuration	Here VMs are configured and created in same manner from the same image.	Here VMs are created by making use of different images and configurations.

what is the difference between private end point and public end point

Azure Private Link (Private Endpoint) allows you to access Azure PaaS services over Private IP address within the VNet. It gets a new private IP on your VNet. When you send traffic to PaaS resource, it will always ensure traffic stays within your VNet.

Azure Service Endpoint provides secure and direct connectivity to Azure PaaS services over an optimized route over the Azure backbone network. Traffic still left your VNet and hit the public endpoint of PaaS service.

what are the vnet uses

Azure Virtual Network (VNet) is the fundamental building block for your private network in Azure. VNet enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other, the internet, and on-premises networks.

VNet **peering connection between virtual networks enables you to route traffic between them privately through IPv4 addresses.**

what are the use of azure

Low ongoing cost : **pay-as-you-go with no up-front expenses or long term commitments.**

Instant capacity : **(scalling up & down) Eliminate guessing on your infrastructure capacity needs.**

Speed & Agility : **Develop & deploy applications faster instead of waiting weeks or months for hardware to arrive and get installed.**

Apps not Ops : **Focus on project. Let you shift resources away from data center investments and operations and move them to innovative new projects.**

Global Reach : **Take your Applications to global in minuits.**

Open & Flexible : **You choose the development platform or programming model that makes the most sense for your business.**

Secure : **Allows your applications to take advantages of multiple layers of operational and physical security in the Azure data centers to ensure the integrity and safety of your data.**

uses of deployment slots

There are a number of advantages to using deployment slots. The following scenarios describe common uses for slots:

- Different environments for different purposes: Using different slots gives you the opportunity to differentiate app instances before swapping to production or a staging slot.
- Prewarming: Deploying to a slot instead of directly to production allows the app to warm up before going live. Additionally, using slots reduces latency for HTTP-triggered workloads. Instances are warmed up before deployment, which reduces the cold start for newly deployed functions.
- Easy fallbacks: After a swap with production, the slot with a previously staged app now has the previous production app. If the changes swapped into the production slot aren't as you expect, you can immediately reverse the swap to get your "last known good instance" back.

how can able to backup in azure

Azure offers various features for backing up your VMs and data, for on-premise as well as cloud resources.

Backup on-premise machines

- Use Microsoft Azure Recovery Services (MARS) agent—can back up any local Windows machines directly into the Azure cloud. Linux systems are not supported.
- Use System Center Data Protection Manager (DPM) and Microsoft Azure Backup Server (MABS)—for backing up servers. Then you can replicate your backup server into a Recovery Services Vault.

Backup Azure virtual machines

- Directly backup Azure VMs—Azure Backup installs backup extensions on the Azure Virtual Machine agent running on every virtual machine. This extension lets you backup the entire virtual machine.
- Backup specific files and folders—located on an Azure VM by running a MARS agent.
- Backup Azure VMs to an Azure-based MABS server—and then replicate MABS into a Recovery Services Vault.

what is subnet how to set it

A **subnetwork** or **subnet** is a logical subdivision of an IP network. The practice of dividing a network into two or more networks is called **subnetting**.

Subnets **are** created by extending the network ID portion of an address by taking some bits from the host portion to create a subnet portion. **The remaining bits can be used for host addresses within the subnet. The number of subnets that can be created from an m-bits long subnet address is 2^m.**

what is repos

Azure Repos is **a set of version control tools that you can use to manage your code**. ... Use version control to save your work and coordinate code changes across your team. Even if you're just a single developer, version control helps you stay organized as you fix bugs and develop new features.

what is purpose of yaml code

One of the most common uses for YAML is **to create configuration files**. It's recommended that configuration files be written in YAML rather than JSON, even though they can be used interchangeably in most cases, because YAML has better readability and is more user-friendly.

what are the steps to deploy applications in devops

Steps 1 and 2: Assess where you are and where you need to go

Step 3: Define a DevOps organization. ...
Step 4: Define a DevOps process. ...
Step 5: Define your target cloud platform. ...
Step 6: Select the tools for cloud and on-premise. ...
Step 7: Define security and governance. ...
Step 8: Test DevOps. ...
Step 9: Define monitoring and metrics.
Step 10: Continuously improve

how can able to test code using devops

Automate test cases in your test plans and run them directly from **Azure Test Plans** . Automated tests provide you with the following benefits:

- A user-friendly process for testers who may not be well versed with running tests in Build or Release workflows.
- The flexibility to run selected tests on demand, rather than scheduled testing in Build or Release workflows where all tests meeting the filter criteria are run.
- The ability to rerun a few tests that failed due to test infrastructure issues, or you have a new build that includes fixes for failed tests.