Class notes 9/5-9/7

hierarchy of resource groups

management groups

subscriptions

hierarchy

review of last class…

what azure subscriptions

environment- set up separate environments

organizational structures

billing

what is a resource group→ if i create a resource all resources should be in a resource group

can one VM be in multiple resource groups → no it cannot → you cannot put a resource in multiple resource groups only in the one

what is a container is more light weight system. self contained, no operating system needed in the container

Azure virtual desktop

lift and shift- data migration (first step for moving to a cloud environment)

cloud environment shifting from on-prem to a more cloud base database

Azure app service:

platform as a service → customizing

not saas→ you cannot create an end point, still has to create an endpoint→ clock or calendar→ no customizations

HTTP based hosting for web applications , REST APIs, mobile back ends (iot device→apply watch)

What is an API ?

backend applications

enable integration between different systems and devices

two programs can communicate with each other

APIs give access to the data it is not a DATABASE

converts data into another form of data, does not store the data.

Webjobs

you can run a program(.exe, java or a script in the same context as a web app. webjobs are often used to run background task as part of your application logic. a batch file. maintenance jobs

PaaS→ needs to do the customizations

most applications now a days are PaaS. Bc of customization.

little to no customizations is SaaS.

Azure virtual networks

networks provide the following key networking capabilities:

isolation and segmentation→create mulitple isolated virtual networks by defining a private IP addresses by using either public or private IP address ranges

ip addresses only exist within the virtual network.

internet communications→ can be serviced by assigning a public ip address

communicate btwn azure resources

communicate with on-prem

Azure virtual Networks

networking supports both public and private

Describe Virtual Private Networks

(VPN) uses an ecrypted tunnel within another network, VPNs are typically deployed to connect two or more trusted private networks to one another over an untrusted network (typically the public internet). traffic is encrypted while travelling over untrusted network to prevent eavsdropping or other attacks. VPNs can enable networks to safely

VPN gatewayss

is a type of virtual network gateway. Azure VPN Gateway instances are deployed ina dedicated subner of the virtual networks and enavle the following connectivity

connect on-prem datacenter

Active

Express route failover

another high-avaliability option is to configure a VPN gateway as a secure failover path for ExpressRoute connections. ExpressRoute circuits have resiliency built in. However, they arent immune

module 3

Total cost of ownership

compare (TCO) vs pricing calculator

calculator that helps understand Azure expenses

these two calculators have very different purposes

Pricing calculator

is designed to give an estimated cost for provisoning resources in azure

helps get an estimated for individual resources, built out solution or use an example scenerio to see an estimate of the azure spend

the pricing calculator focuses on the cost of provisioned resources in Azure

Provisioned cost

1. compute..bandwidth is difficult/market trend→ bandwidth consumption→data backup→where to store the data →security measures→compute powerr
2. storage
3. associated network cost can be calculated

TCO

Is designrd to 4help compare the cost for running an on-premise infrastructure to an azure cloud infrastructuer. current infrastructure config including servers

can set department quota alerts

budget alerts