Azure Fundamentals

Assignment 1

1. What is Serverless computing?
   Serverless computing enables app developers /users to deploy applications rapidly with no need to manage Infrastructure. Cloud service provider manages the whole infrastructure required to run the code.
   Serverless computing offers many benefits: No Infrastructure management, efficient and faster use of resource, Time management ,improve organization performance.

2. Explain Azure subscriptions, management groups and resources.
   Management group- normally help organization or individual users manage subscriptions effectively. In case if org have multiple subscriptions then users need to find effective way to handle access, policies and compliance for subscriptions.
   Azure subscriptions- assist to effectively use azure resources and determine how users will be billed based on . Every subscription can have different billing/payment option.
   Resources – services we create which falls under resource group , some one resources are Virtual machines, storage, databases etc.

3. Explain Azure regions, availability zones, and region pairs.
   Azure regions: Microsoft Azure available over 60 + regions all over the world – its always better to pick closest azure region when deploying any cloud resource just to have better latency, high availability .
   Azure availability zones: Physical separate locations within every region is azure availability zone Each zone within azure region is separate data center technically designed in a way every region will have 3 available zones.
   In case of technical failure, one zone affected- services and high availability are supported by other 2 zones.
   Region pair: combining regions to provide business continuity and disaster recovery. With in Same zone we have regional pairs to ensure business continuity /disaster recovery (seen below)
   India- Central India, South India
   US -East US, West US

4. Explain Azure Resource Manager, Azure subscription and management group.
   Management group- normally help organization or individual users manage subscriptions effectively. In case if org have multiple subscriptions then users need to find effective way to handle access, policies and compliance for subscriptions.
   Azure subscriptions- assist to effectively use azure resources and determine how users will be billed based on . Every subscription can have different billing/payment option.
   Azure resource manager: Enables users to create , update and delete resources in azure account.

   5. Provide overview of Azure Compute Services.
   Azure offers various compute services required for hosting / running application workloads

Few of compute services incl: Azure virtual machines, App services, Container instances, Kubernetes services, Batch, Cloud services etc.

6.What is an Azure virtual machine and when to opt for an Azure virtual machine?

Azure virtual machine: Virtual machines are more of virtual computers within physical servers (server in cloud infrastructure) and works same way as normal desktop Pcs /laptops – which also has CPU/memory and can be connected to internet

Virtual machines can be opted /used for below reasons

- Building/deploying apps to the cloud
- Backing up existing OS
- Running diff OS on different virtual m/cs
- Advantages: cost savings, scalability,lowered down time etc.