# Azure Managed Disks Fundamentals 101

Azure Managed Disks Introduction

- ❑ Azure managed disks are block-level storage volumes that are managed by Azure and used with Azure VMs

- ❑ What is Azure Managed Disks ?
  - ❑ Azure will manage the storage account for you that will store the *.VHD file

Disks

- ❑ You only need to specify the disk size, the disk type and provision the disk

- ❑ Options: Standard HDD/SSD, Premium SSD, Ultra Disks

Azure Disk Roles

- In Azure, there are currently three main disk roles:
  - OS disk (Windows, Linux)
  - Temporary disk
  - Data disk

- OS disk – pre-installed OS
- Temporary disk – short-term storage
  - Data persists a VM reboot
  - Power off – data is lost
- Data disk – Persistent data

OS

Temp

Data
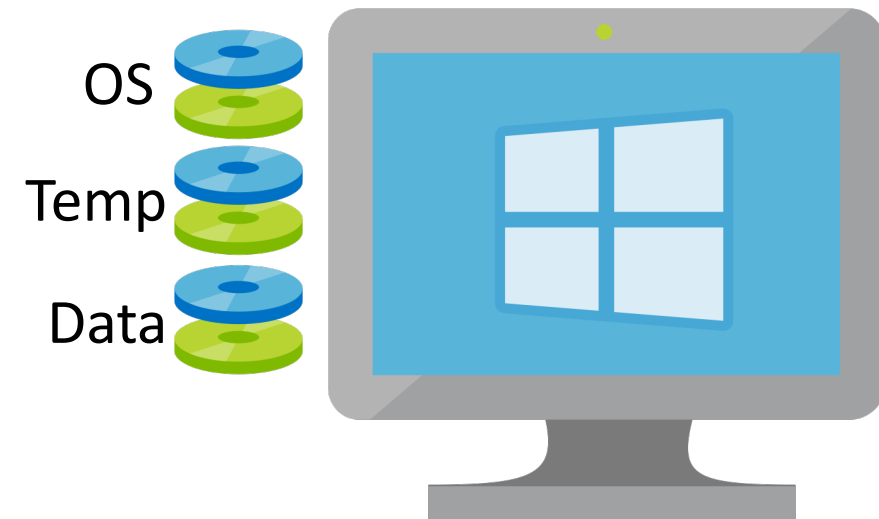
Managed Disks' Benefits

- ❑ Highly durable and Highly available
  - ❑ 99,999% availability
  - ❑ 99.999999999% (11 9's) -> Locally Redundant Storage
  - ❑ 99.9999999999999% (16 9's) -> Geo-ZRS

- ❑ Deploy VMs simple and highly scalable
  - ❑ 50,000 VM disks of a type in a subscription per region

- ❑ Fully integrated with availability sets
  - ❑ Disks are isolated from each other to avoid a single point of failure (SPOF)

Managed Disks' Benefits

- ❑ Fully integrated with availability zones
  - ❑ Disks are isolated from each other, protects you from datacenter failures

- ❑ Granular access control
  - ❑ Assign specific permissions for a managed disk to one or more users

Azure Disks Hands-on Lab

Microsoft Azure Fundamentals
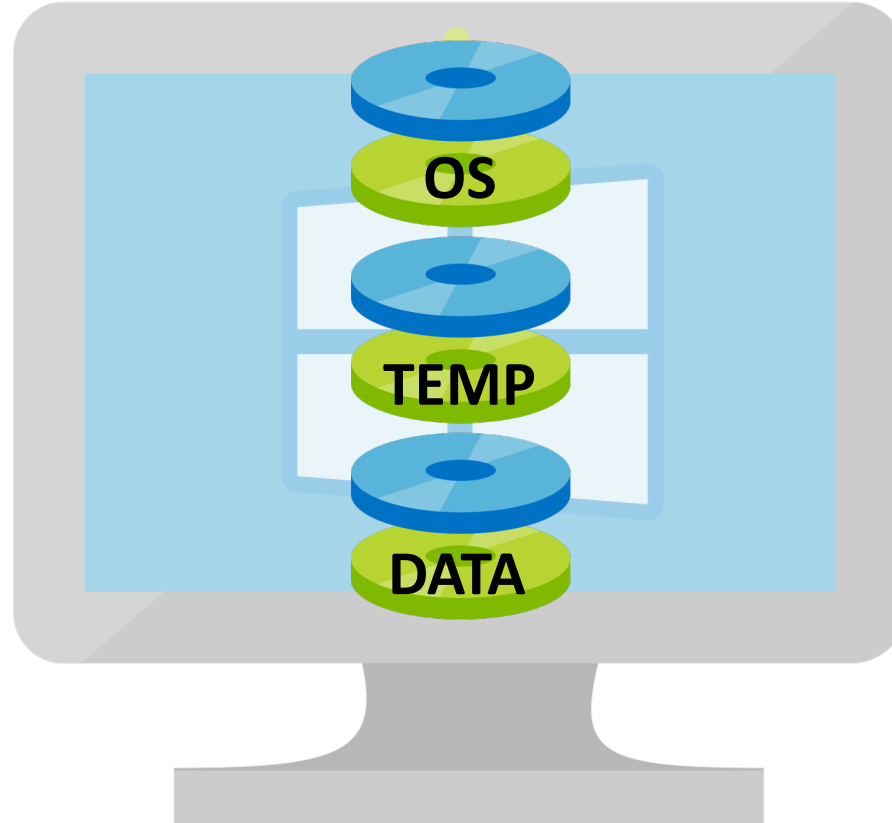
Microsoft Azure Fundamentals
Training Bootcamp

Thank you