# Deploying a Highly Available Virtual Machine



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# Overview

#### **Availability sets**

- Planning for VM uptime

#### **VM** deployment

- Windows Server, Linux



# Availability Sets

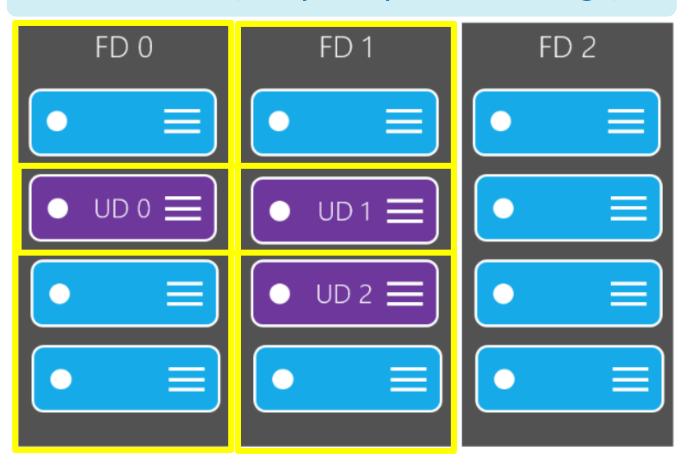


# Fault and Update Domains

99.95% SLA (except for premium storage)

Fault domains are VMs that share the same power source and switch

3 fault domains available



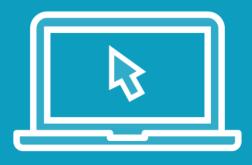
Update
domains are
VMs that share
the same
hardware host

5-20 update domains available

Place VMs of each app tier into their own availability sets



### Demo



1

Create an availability set

Add two VMs into the set

Add an already-created VM into the set by using a community script



# VM Deployment



# VM Deployment Methods

**Azure Portal** 

**PowerShell** 

**Azure CLI** 

**ARM templates** 

**Azure SDK** 



# Best Practices to Keep in Mind

#### Virtual Network

Create before deployment

#### **Availability Set**

Associate during deployment

#### NSG

Create before deployment

#### **Naming Convention**

Develop and use one

**Deployment Script** 

Save it



## Demo



2

Show a previously created virtual network

**Create an NSG** 

Deploy a new VM into the network/use NSG

Review stop/deallocation workflow



# Summary



#### asdf

Next module: Implementing
Configuration Management and Disaster
Recovery

