Setting up a Development Environment

Jared Rhodes

INDEPENDENT CONSULTANT

@qimata www.jaredrhodes.com

Overview

Virtual machines

Containers

Source control

Management

Provisioning an Environment

Provisioning an Environment

Virtual machines

Setting up

Virtual machine types

Containers

Azure Virtual Machines

Azure Virtual Machines are image service instances that provide on-demand and scalable computing resources with usage-based pricing.
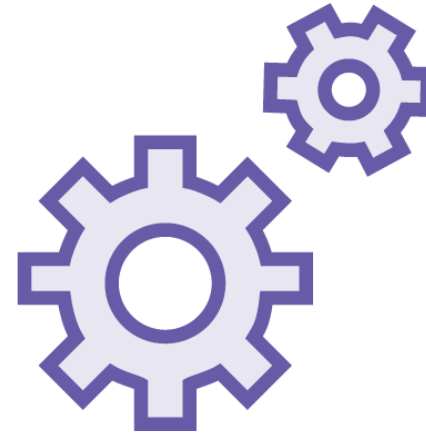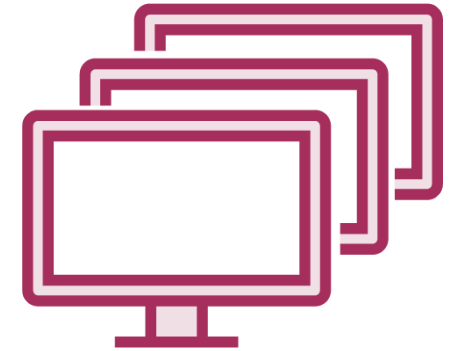
Variations

Operating Systems

Storage Options

Configurations

Sizing

vCPU

vCPU stands for virtual central processing unit. A vCPU is a share of a physical CPU that is assigned to a virtual machine. An Azure VM can contain one or more vCPUs.
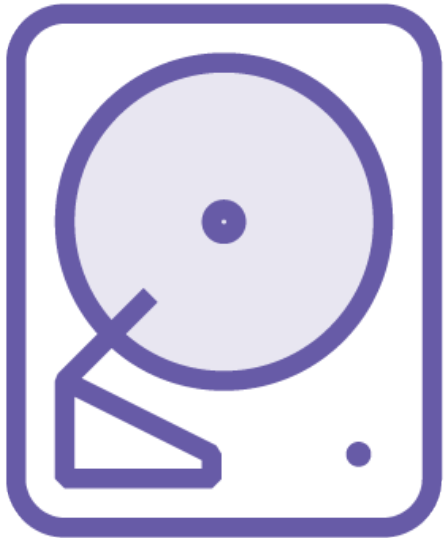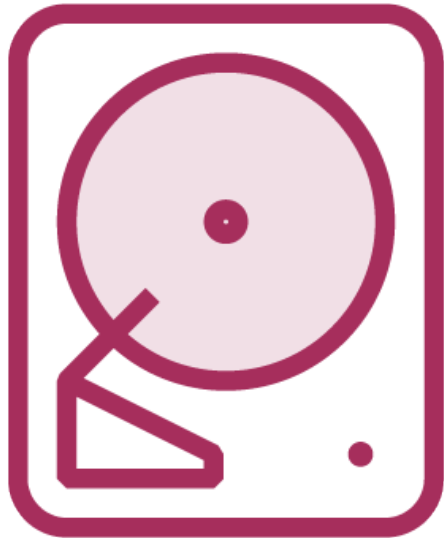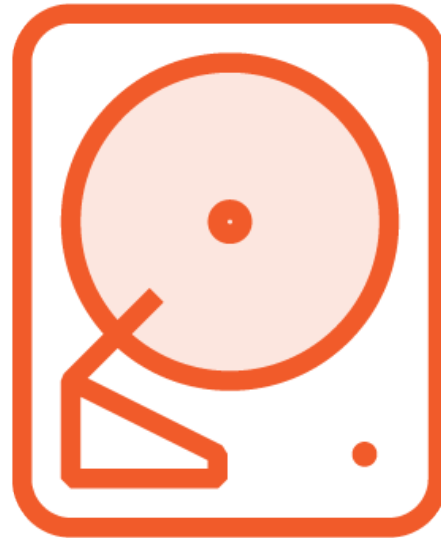
Operation Systems
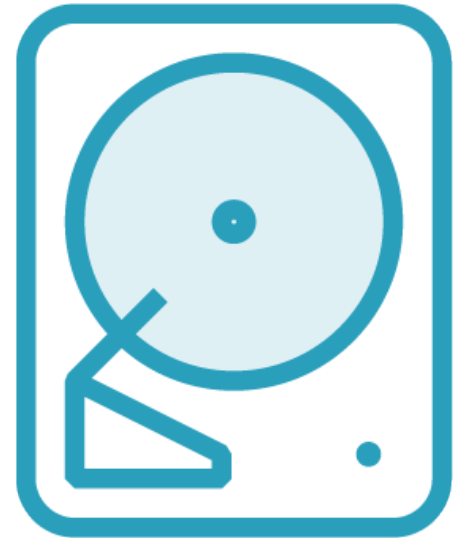
Windows

Linux

Storage Options

Standard HDD   **Standard SSD**   **Premium SSD**   **Ultra Disk**

Third Party Configurations

- Elasticsearch
- Red Hat Openshift
- Minecraft server
- Cloudera
- DataStax
- Splunk
- Couchbase
- Starburst Presto

Configuring Machines

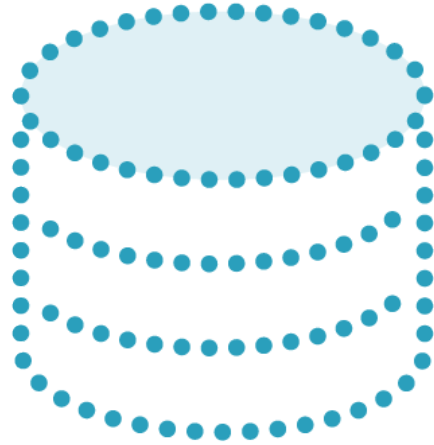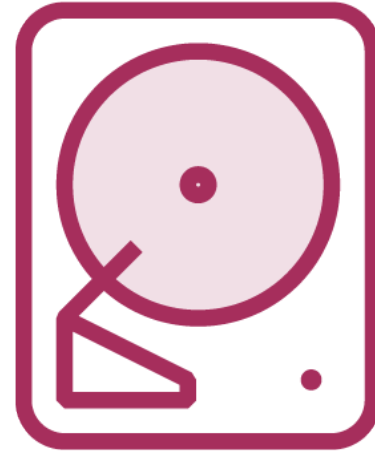|		
Where	**What**	**Storage**
Network	**Management**	**DSC**

Virtual Machine Sizing

Compute   **Memory**   **Storage**   **More**

A-Series

B-Series

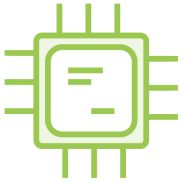D-Series

DC-series

E-Series

F-Series

G-Series

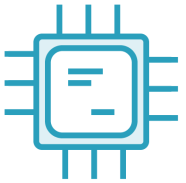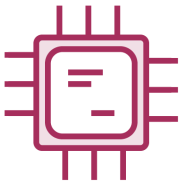H-Series

Ls-Series

M-Series

N-Series
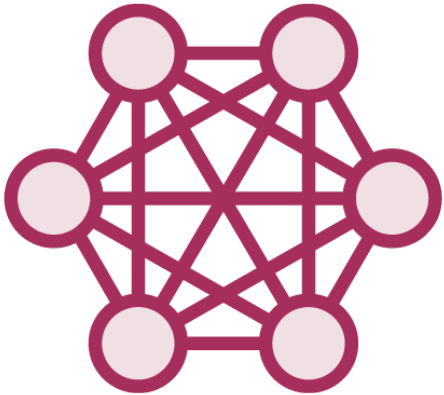
GPU Optimized Virtual Machines

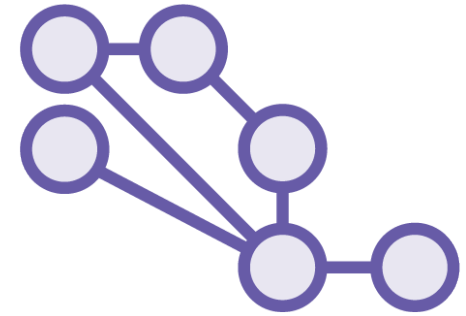NC, NCv2, NCv3

ND and NDv2

NV and NVv3

Containers

Azure Kubernetes Service

App Service

Container Instances

Service Fabric

Mark Heath

Microsoft Azure Developer: Deploying and Managing Containers

Demo

Create an Azure Data Science Virtual Machine

Explore the machine

Scale the instance

Version Management

Version Control

Version control is a system that records changes to a file or set of files over time so that you can recall specific versions later.
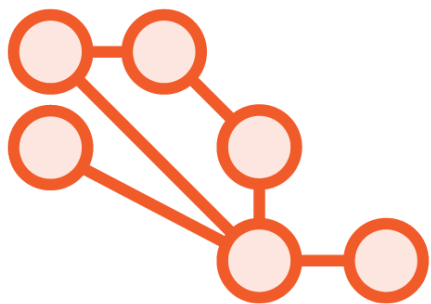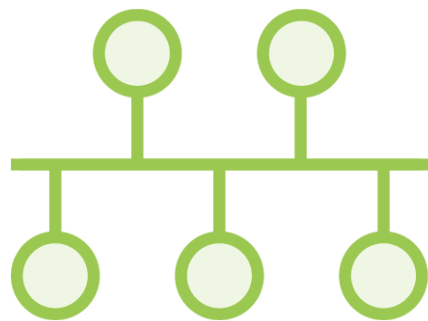
Version Control

Git

Azure DevOps

Git

Branching **Distributed** **Pull Requests** **Community**

Azure DevOps

Boards

Test Plans

Artifacts

Pipelines

Repos

Marcel de Vries

Continuous Delivery and DevOps with Azure DevOps: Source Control with Git

Environment Management

Virtual Machines

Scaling

Backup

Validating

Virtual Machine Scale Sets

Azure virtual machine scale sets let you create and manage a group of identical, load balanced VMs. The number of VM instances can automatically increase or decrease in response to demand or a defined schedule.
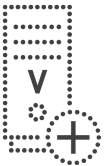
Virtual Machine Scale Sets

Large-scale

High availability

Automation

Multiple VMs

Backup

Azure Backup

Always-on Availability Groups

Source Control

Validation

Test Backups

Configuration Scripts

Pipeline

Review

Virtual machines

Containers

Source control

Management