

Azure 101:Kicking the Tires in Azure

WITHOUT BREAKING THE BANK 😊



Michael Teske

AUTHOR EVANGELIST-CLOUD PLURALSIGHT

@teskemj



Summary



Where do I start?

What do I get with my free Azure account?

Azure 101

- Azure Assets
- Cost saving tips
- Azure Portal
- Azure PowerShell Module

Deploying a VM in Azure

- UI
- PowerShell

Q/A





Where do I start?

Without losing my mind...*again*.






"Just cause you got the
monkey off your back
doesn't mean the circus has
left town."


-George Carlin





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 [Azure Application Architecture Guide](#)

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Get started with Azure




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Azure Architecture Center

- Azure Architecture Center
 - > Cloud Fundamentals
 - > Example Scenarios
 - > Reference Architectures
 - > Design Guides
 - > Design Review Framework
 - > Enterprise Cloud Adoption




Azure Application Architecture Guide

A guide to designing scalable, resilient, and highly available applications, based on proven practices that we have learned from customer engagements.



Reference Architectures

A set of recommended architectures for Azure. Each architecture includes best practices, prescriptive steps, and a deployable solution.



Enterprise Cloud Adoption

This guide outlines a process for creating an organization-wide cloud adoption strategy. It focuses on organizational readiness, governance, and infrastructure.



Demo




Azure Docs




Where do I start?

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[Home](#) > [All Subjects](#) > [Computer Science](#) > [Microsoft Azure Storage](#)



Microsoft Azure Storage

Explore Azure Storage and how it makes possible the storing and processing of hundreds of terabytes of data required to support big data scenarios but can then scale down to meet the needs of a small business website.



Self-Paced

Enroll Now

☐ I would like to receive email from Microsoft and learn about other offerings related to Microsoft Azure Storage.

About this course

This course focuses on Azure Storage as a service that scales to meet the data storage demand, allows data access anywhere at any time based on an internet connection, provides a platform for building internet-scale applications, and can store structured and non-structured data in the appropriate format in the cloud.

You'll be introduced to managing storage through Azure Storage accounts as well as the different types of accounts a storage account can contain.

Explore the different tools that let you examine storage account content without having to write custom code.

You'll also get an introduction to implementing storage backup and recovery, including deployment of site recovery and replication of Hyper-V virtual machines to Azure.

🕒 Length:	6 weeks
🕒 Effort:	2 to 4 hours per week
💰 Price:	FREE Add a Verified Certificate for \$99 USD
🏛️ Institution:	Microsoft
🎓 Subject:	Computer Science
⚙️ Level:	Intermediate
💬 Language:	English
📺 Video Transcripts:	English



Where do I start?

The screenshot shows the edX website for a course titled "Microsoft Azure Storage". The page is divided into several sections. On the left, there is a navigation bar with the edX logo and links to "Courses" and "Programs & Degrees". Below this, a breadcrumb trail reads "Home > All Subjects > Computer Science > Microsoft Azure Storage". A large image shows two people working on a computer. To the right of the image is a blue cloud icon. The main content area is titled "About this course" and contains text describing the course focus on Azure Storage, data access, and building internet-scale applications. A central overlay box displays course details: Length (6 weeks), Effort (2 to 4 hours per week), Price (FREE, with an option to add a Verified Certificate for \$99 USD), Institution (Microsoft), Subject (Computer Science), Level (Intermediate), Language (English), and Video Transcripts (English). On the right side of the page, there is a "Self-Paced" section with a green "Enroll Now" button. Below this, there is a section for email sign-up and a list of course details.

Course Details:

- Length:** 6 weeks
- Effort:** 2 to 4 hours per week
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Add a Verified Certificate for \$99 USD
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Where do



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Learn Azure in a Month of Lunches

Iain Foulds
August 2018 · ISBN 9781617295171 · 384 pages · printed in black & white

“A great way to understand the breadth of Azure offerings by following a concise, activity-focused approach.”
Dave Corun, Avanade

Microsoft recommends this book as a high-quality resource for learning Microsoft Azure.

You don't need to learn everything about Azure to do some incredible stuff. Learn Azure in a Month of Lunches gets you started by breaking down the most important concepts and tasks into 21 bite-sized lessons, complete with examples, exercises, and labs. You'll be productive immediately, and when you finish you'll be well on the way to Azure mastery!



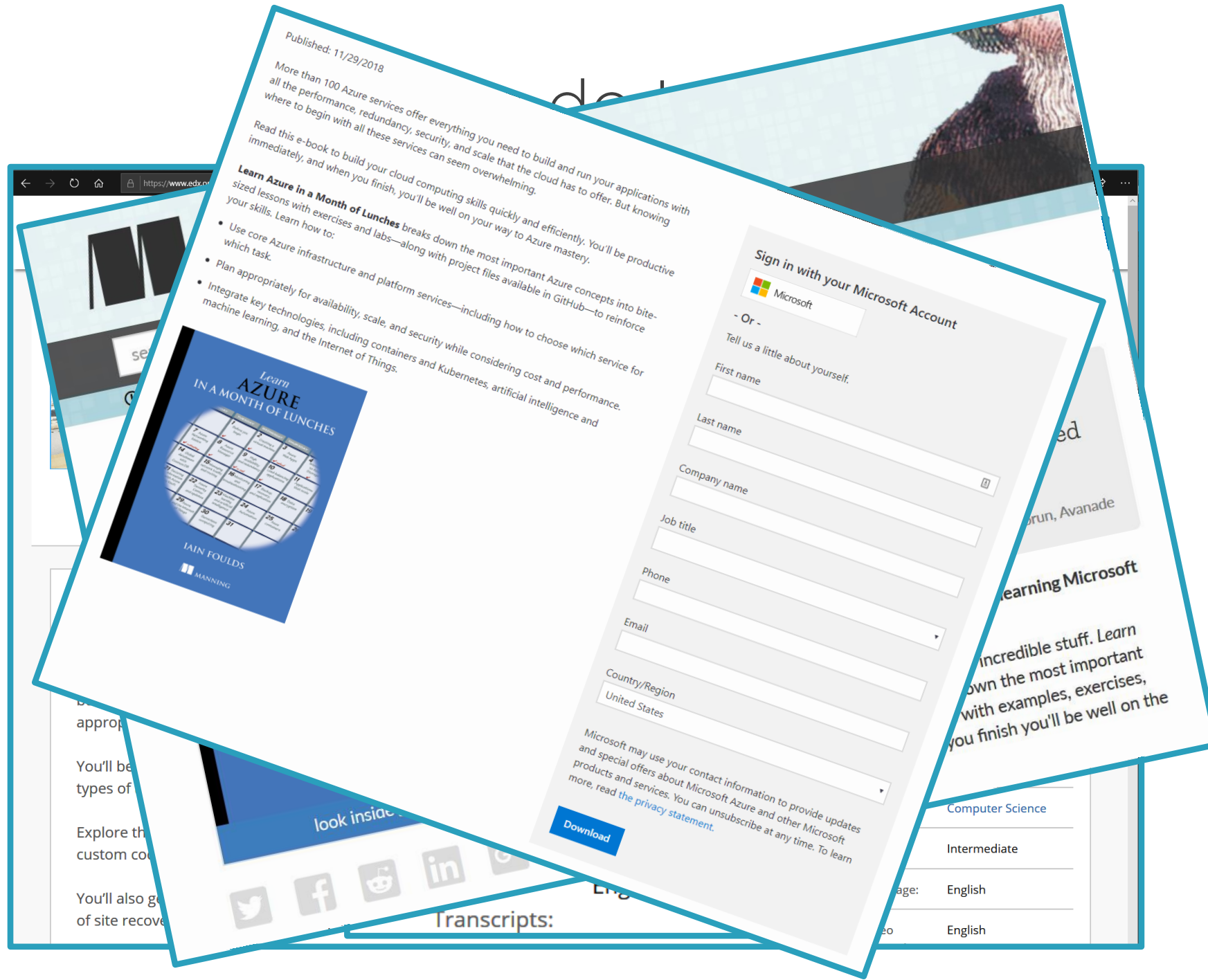
look inside

English

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Computer Science
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PLURALSIGHT

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michael-teske@pluralsight.com

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Assessing and Planning Microsoft Azure Migration

by Michael Teske

This course teaches you the tools and resources necessary to assess your on-premises workloads to determine whether or not they're ready to migrate to Microsoft Azure.

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Table of contents

Description

Transcript

Exercise files

Discussion

Learning Check

Recommended

Course Overview

Preparing for Assessment

Assess VMware Workloads for Migration to Microsoft Azure

Course author

Michael Teske

Michael Teske is an Author Evangelist with Pluralsight helping people build their skills toolkit. Michael has 20+ years of experience in the IT Ops industry including 17 of those years as an IT...

Course info

Level

Intermediate

Rating

★★★★★ (11)

My rating

★★★★★

Duration

1h 13m

Released

11 Sep 2018

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What do I get with my Free Azure Account?



\$200 credit for 30 days, Azure Pass, MSDN, Dreamspark, Bizspark



12 months (after the first 30 days)→ popular services (VMs, Storage, DBs, etc)



Always free→25+ free services (Active Directory, Azure DevOps, Automation, Virtual Networks, etc)



Beyond free? Azure service calculator.



Demo



Free Stuff



Azure 101



Common Azure Assets/Tools



Resource Groups



Storage



Virtual Networks



Network Security
Groups

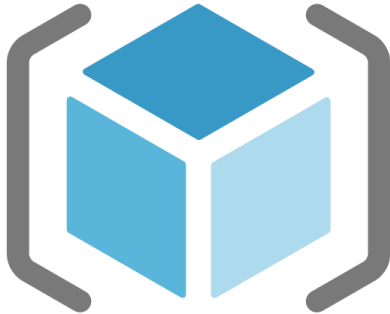


Azure VMs



Azure CLI/PowerShell
Module





Resource groups~Grouping of resources 😊

Resources do not have to reside in the same region as RG

The metadata for those resources are stored in the region where the RG is created

Can interact with resources in other RGs

Deleting the RG deletes the resources within the RG*





Secure. All storage is encrypted.

Scalable

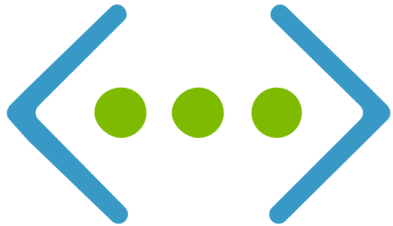
Can create/manage storage account using:

- Azure CLI
- Portal storage
- PowerShell CLI

Cloud shell creates an account for you

- Free account for non-persistent storage





Can specify a custom private IP address space

- Azure by default will assign a private IP

Can segment vNet into subnets

Azure will provide name resolution or you can roll your own.

- It's 🙌 always 🙌 DNS 🙌 🙌 🙌 🙌 🙌 🙌





Allows you to filter traffic by creating security rules (in/out)

- Think Windows Firewall

Can identify service tags which represents a group of IP prefixes to minimize security rule creation

All outside Azure traffic is blocked

- Must tell VM to allow RDP (or whatever service) through





Provides a variety of images from the Marketplace

Default Windows VM is 2016

- Core UI if done through portal
 - Can select other options
- In PowerShell, you'll have the desktop by default
 - Defaults to a higher level tier as well
- "Free" template prevents you from mistakenly choosing non-free compute/disks etc.
 - Always search for Free Services in the portal while you can.

Azure VM

Virtual machines





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All resource groups All types

4 items

<input type="checkbox"/>	NAME <small>↑↓</small>	TYPE <small>↑↓</small>	STATUS
<input type="checkbox"/>	 demo1	Virtual machine	Stopped (deallocated)
<input type="checkbox"/>	 demo2	Virtual machine	Stopped (deallocated)
<input type="checkbox"/>	 teske1	Virtual machine	Stopped (deallocated)
<input type="checkbox"/>	 teske2	Virtual machine	Stopped (deallocated)



```
Get-AzVM -ResourceGroupName demo-rg | Stop-AzVM -force
```

Azure VMs

The above commands stops the VM's from the RG (optional).

-force “deallocates” the VMs

Deallocated VMs do not add per/minute charges to Azure \$\$.
Releases reservations (public IP) and resources.





Azure Cloud shell

- Bash
- PowerShell
- Both leverage Azure CLI

AzureRM module is being replaced by the new AZ module

-Enable-AzureRMAlias to enable AzureRM compatibility mode until scripts are refactored

Your shell anywhere, anytime on any device





Azure Cloud shell

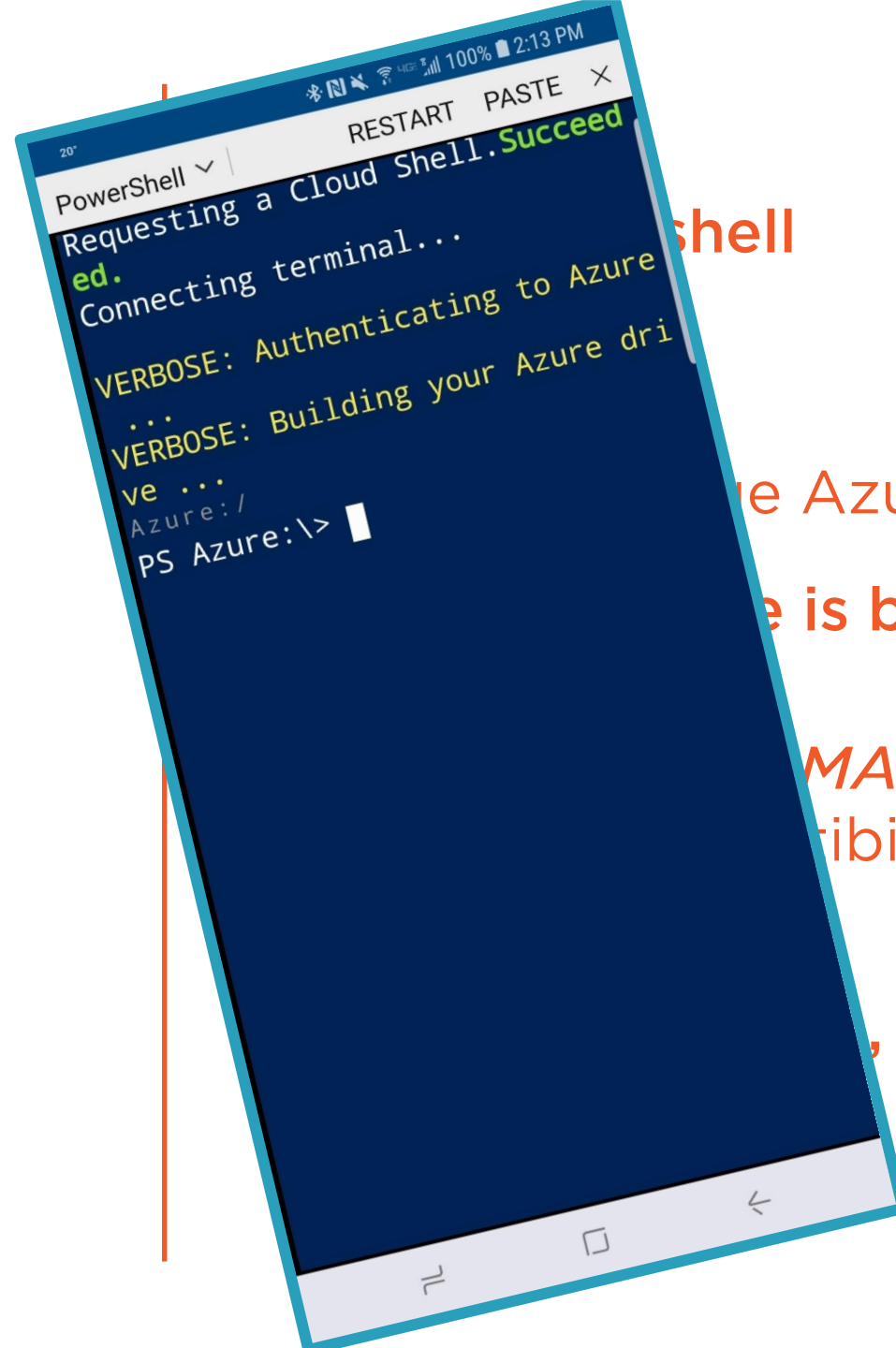
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Your shell anywhere, anytime on any device





Shell

the Azure CLI

is being replaced by the

MAlias to enable
interactivity mode until scripts

, anytime on any device



Demo



Let's play!



Thank you RTPSUG!

Special thanks to
@mikekanakos for inviting
me!

