














































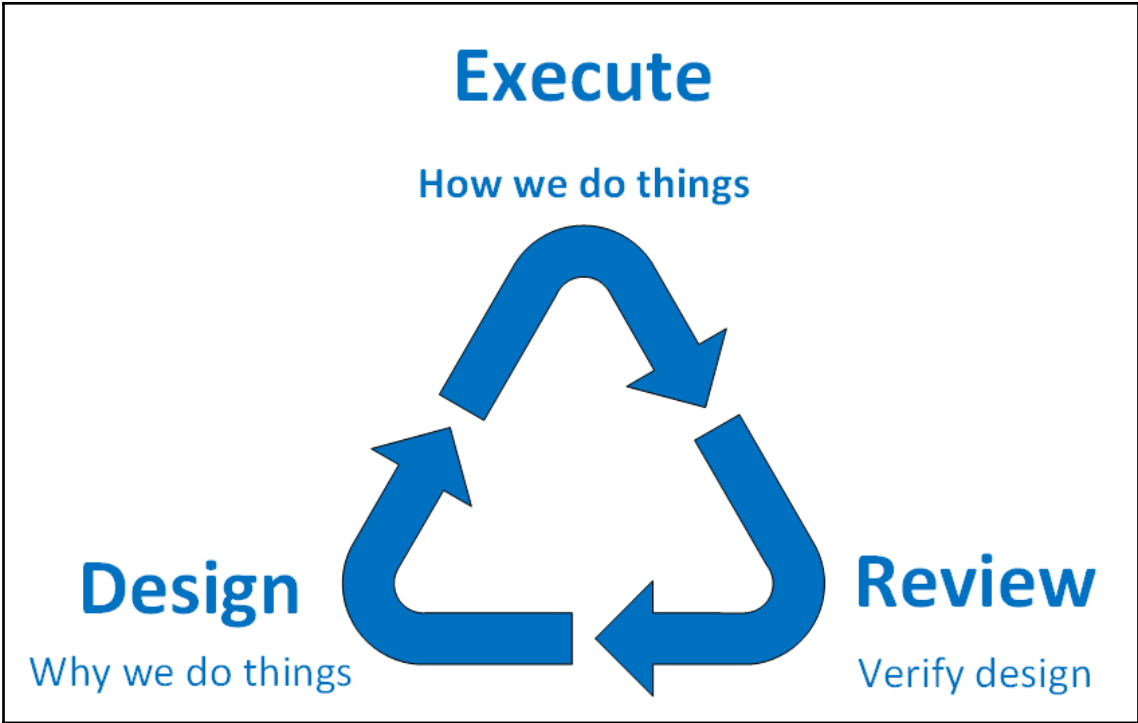
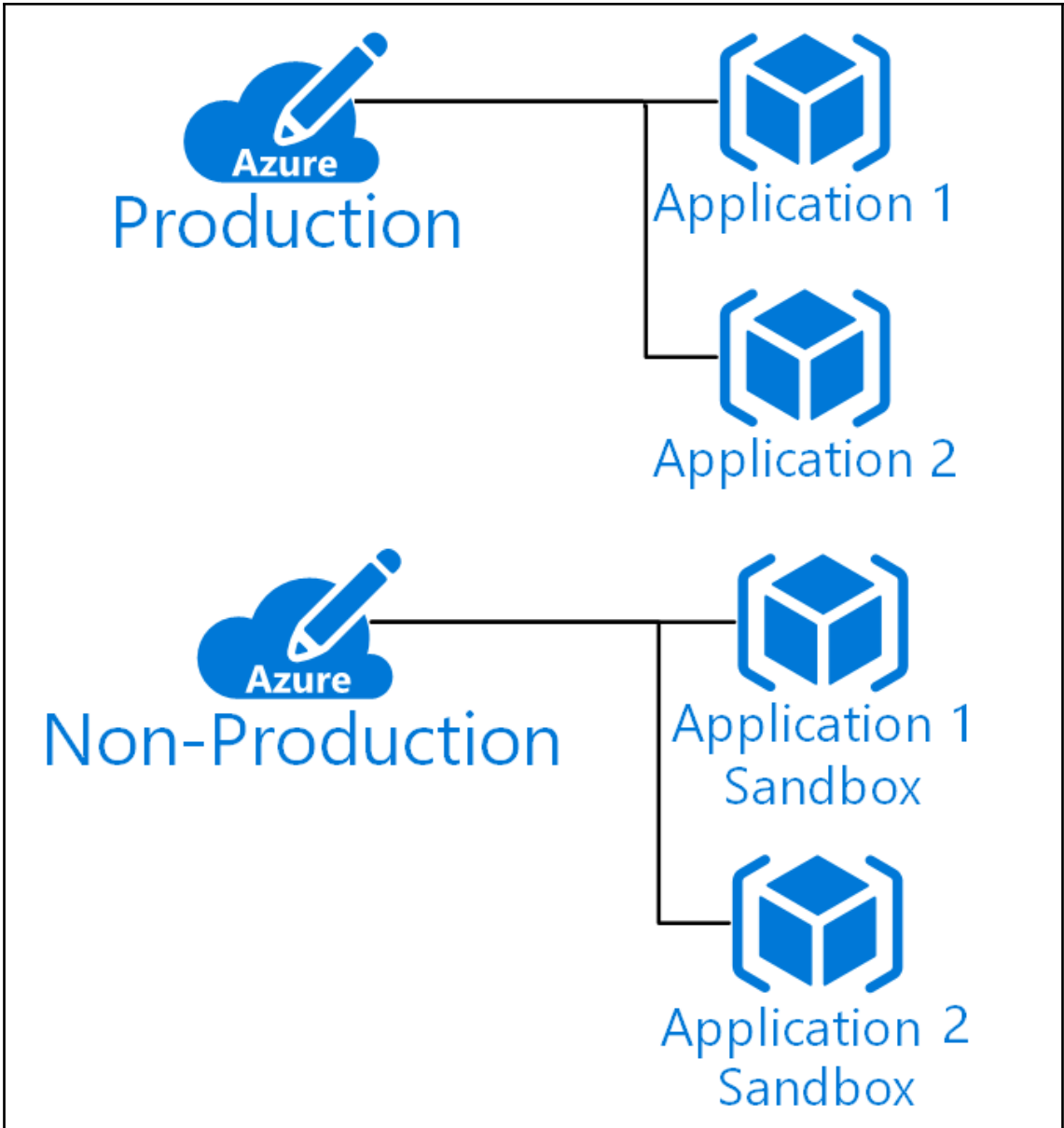
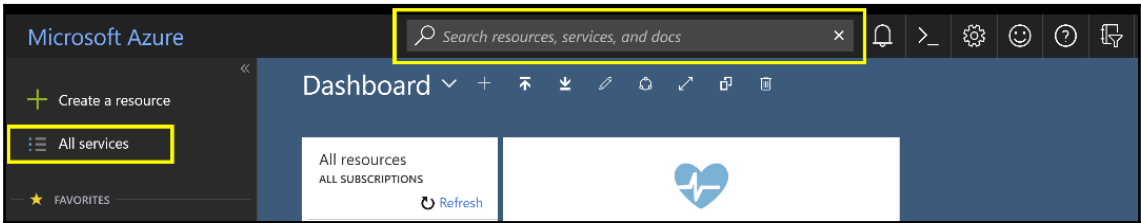
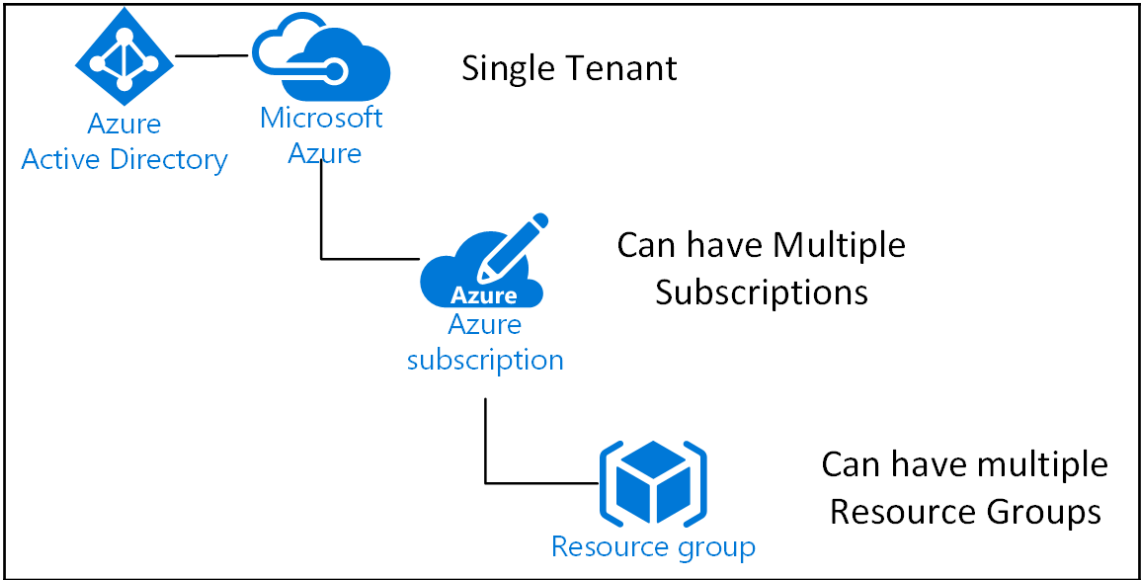


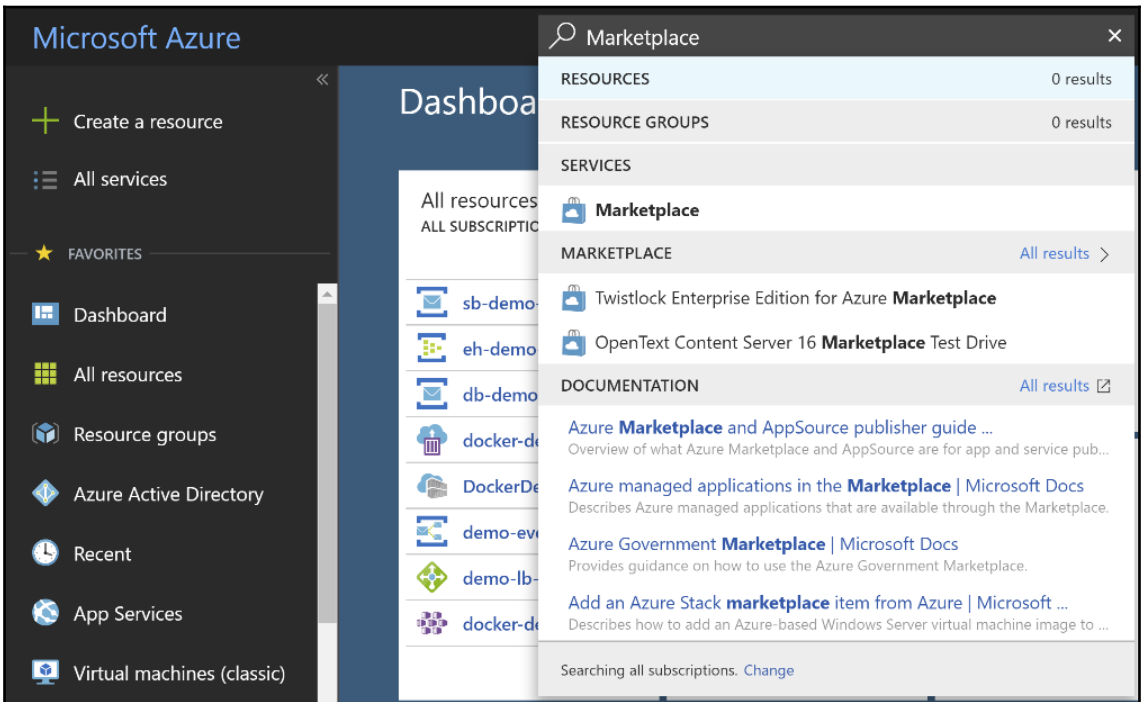
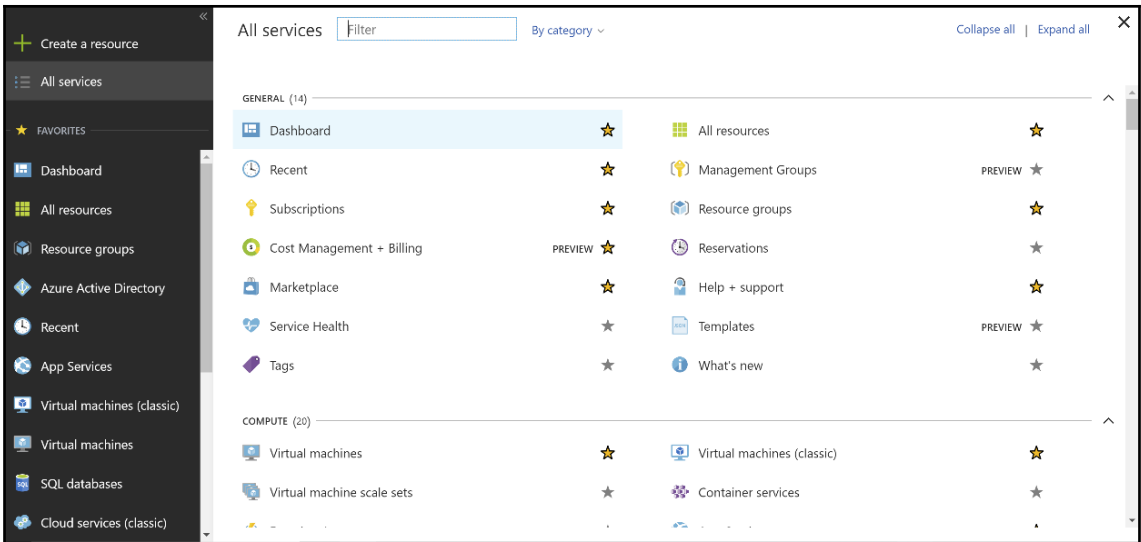
Chapter 1: Getting Started with Azure

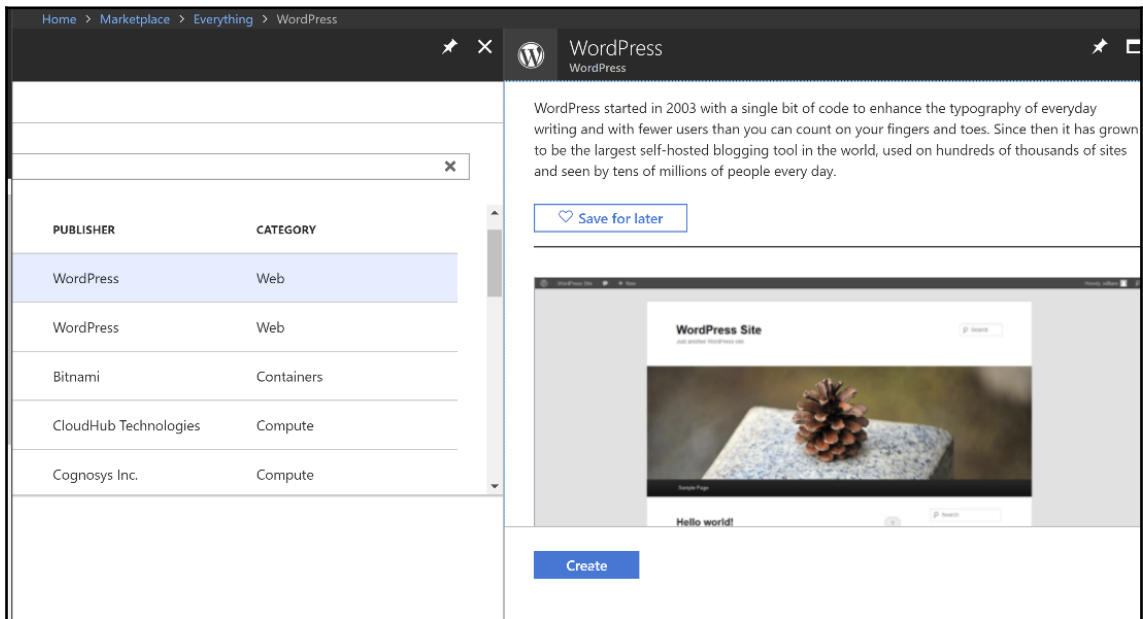
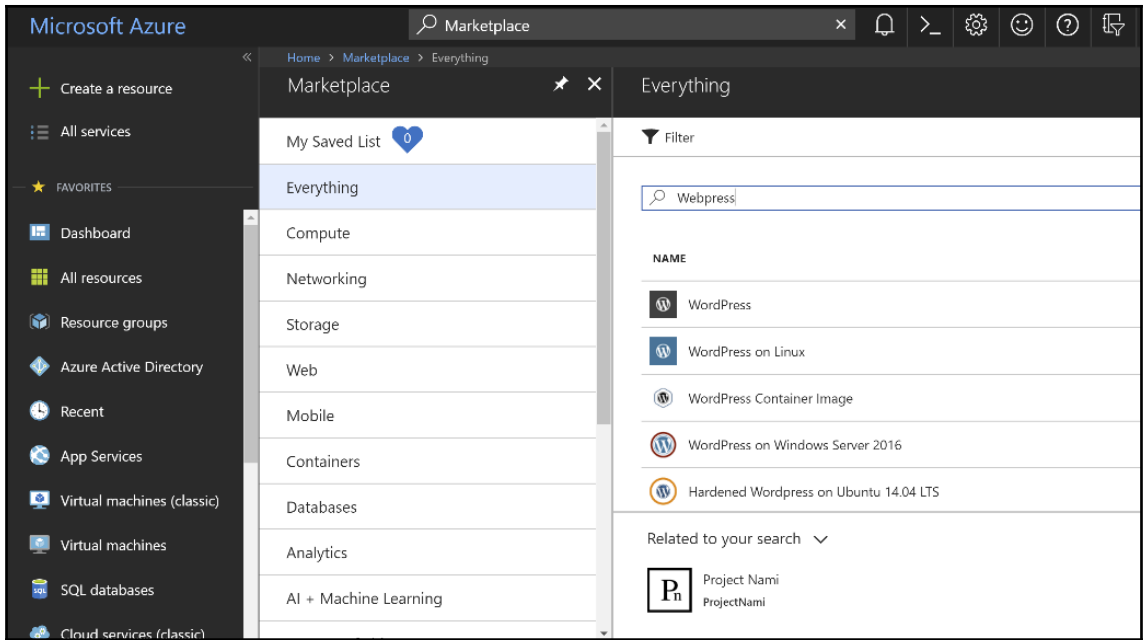
	On-prem	IaaS	PaaS	Serverless	SaaS
Physical Security					
Host Infrastructure					
Operating System					
Network Controls					
Identity & Access Management					
Logistical Application Server					
Application Logic					
Client Endpoints					
Data Classification					
	Client Owned		Microsoft Owned		











Home > Marketplace > Everything > WordPress > WordPress

WordPress

Create

* App name
demo-site-01 ✓
.azurewebsites.net

* Subscription
Microsoft Azure Sponsorship ▾

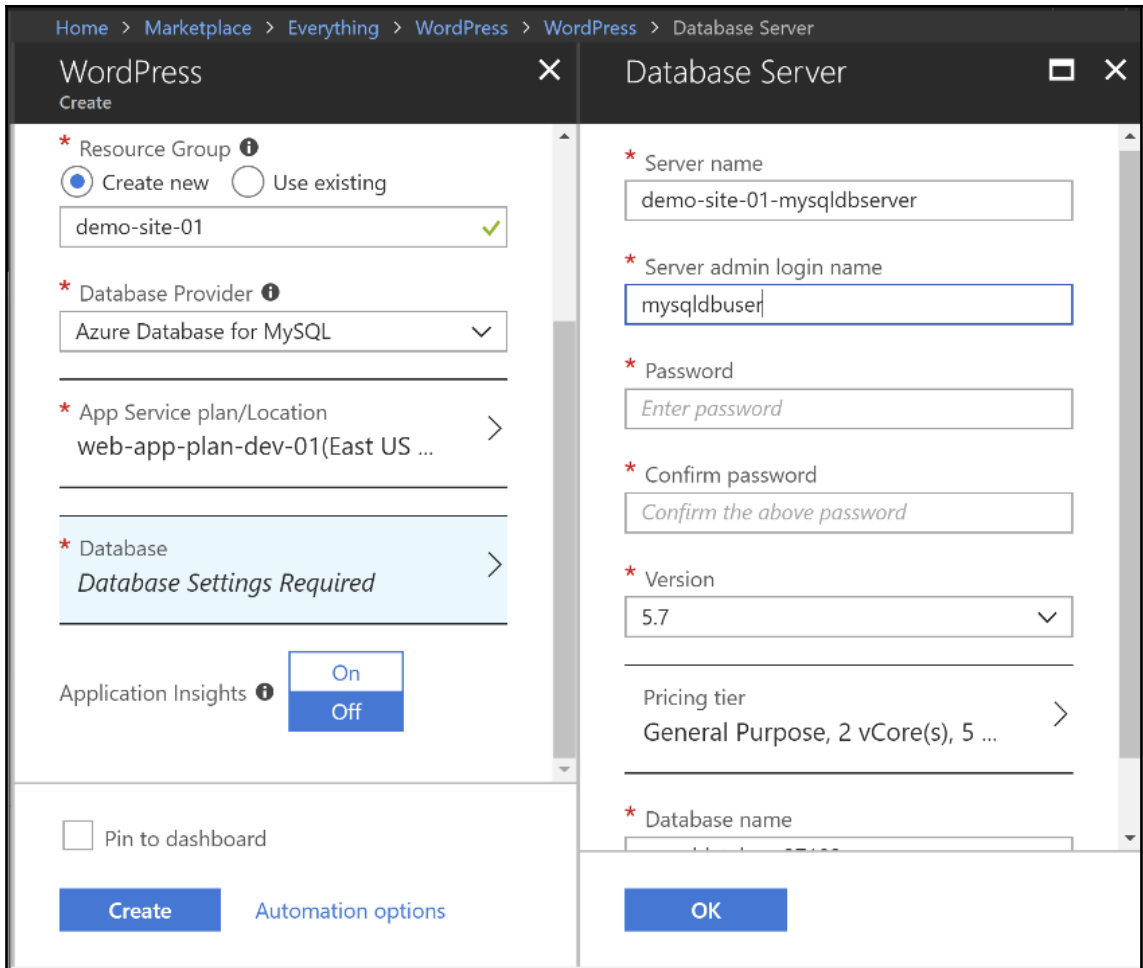
* Resource Group ⓘ
 Create new Use existing
demo-site-01 ✓

* Database Provider ⓘ
Azure Database for MySQL ▾

* App Service plan/Location
web-app-plan-dev-01(East US ... >

Pin to dashboard

[Create](#) [Automation options](#)



booking-demo-app-dev-01 - Custom domains

App Service

Search (Ctrl+/)

Deployment slots

Deployment options

Deployment Center (Preview)

Settings

Application settings

Authentication / Authorizati...

Application Insights

Managed service identity

Backups

Custom domains

SSL settings

Networking

Scale up (App Service plan)

Scale out (App Service plan)

Refresh ? FAQs

Custom Hostnames

Configure and manage custom hostnames assigned to your app


[Learn more](#)

IP address: 52.234.209.94

HTTPS Only: Off On

+ Add hostname

HOSTNAMES ASSIGNED TO SITE	SSL BINDING
booking-demo-app-dev-01.azurewebsites.net	

 This subscription is not eligible to purchase App Service Domains

Bindings

Private Certificates (.pfx)

Public Certificates (.cer)



Protocol Settings

Protocol settings are global and apply to all bindings defined by your app.

HTTPS Only: ⓘ

Off

On

Minimum TLS Version ⓘ

1.0

1.1

1.2

Incoming client certificates ⓘ

Off

On

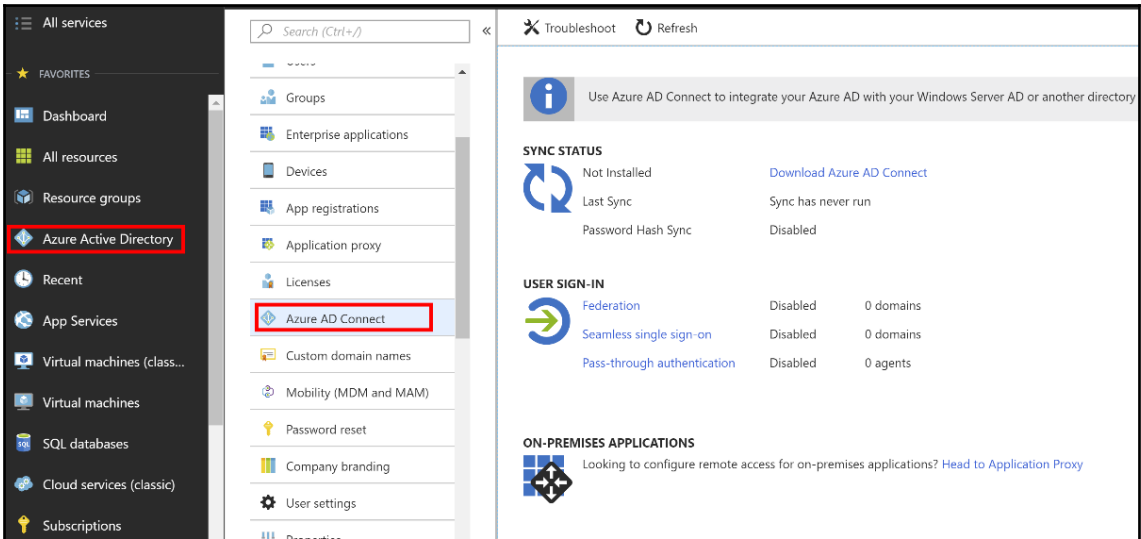
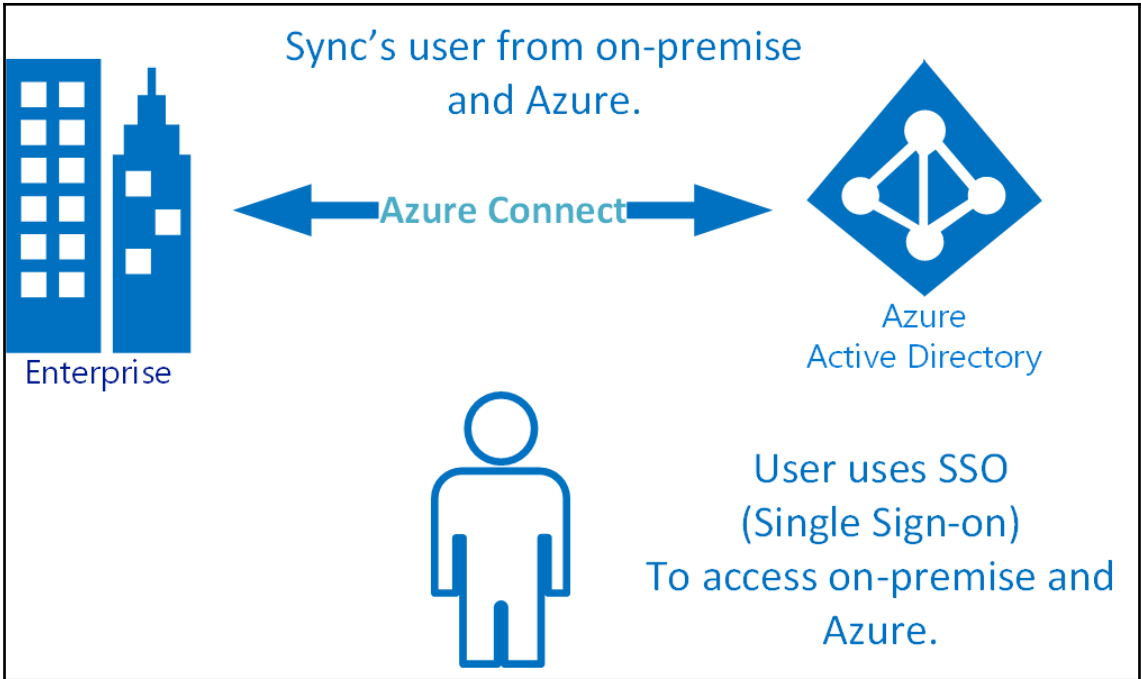


SSL bindings

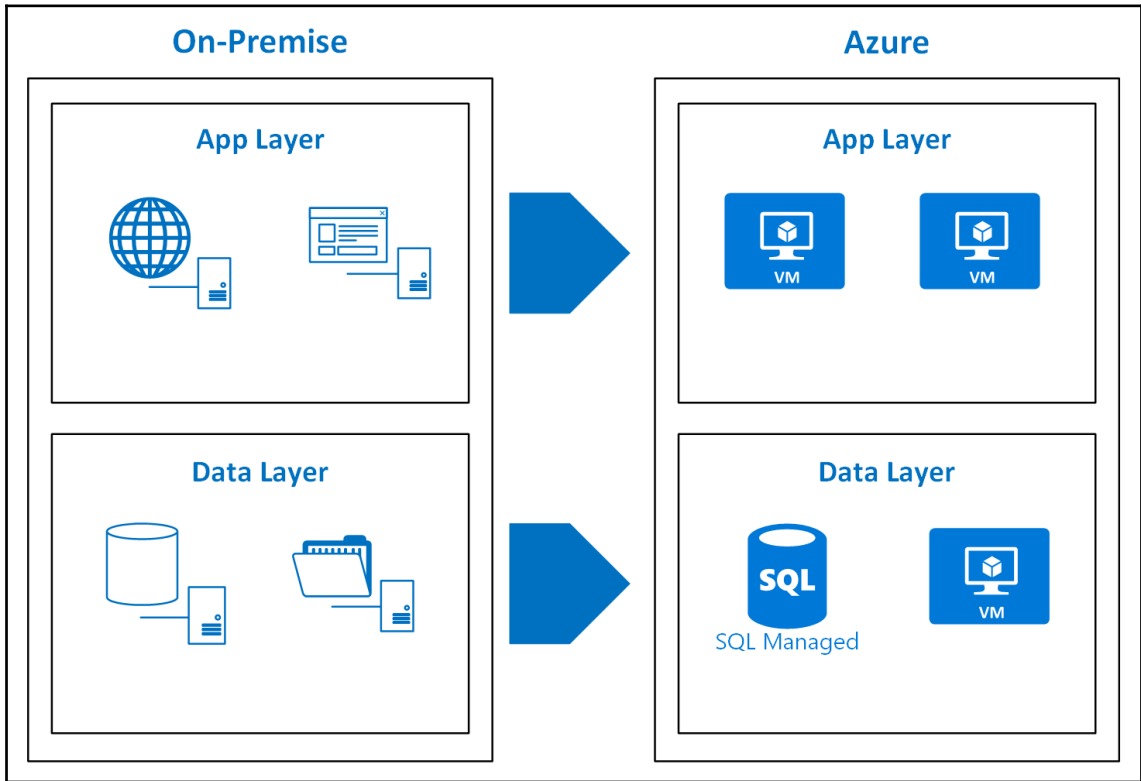
Bindings let you specify which certificate to use when responding to requests to a specific hostname over HTTPS. SSL Binding requires valid private certificate (.pfx) issued for the specific hostname. [Learn more](#)

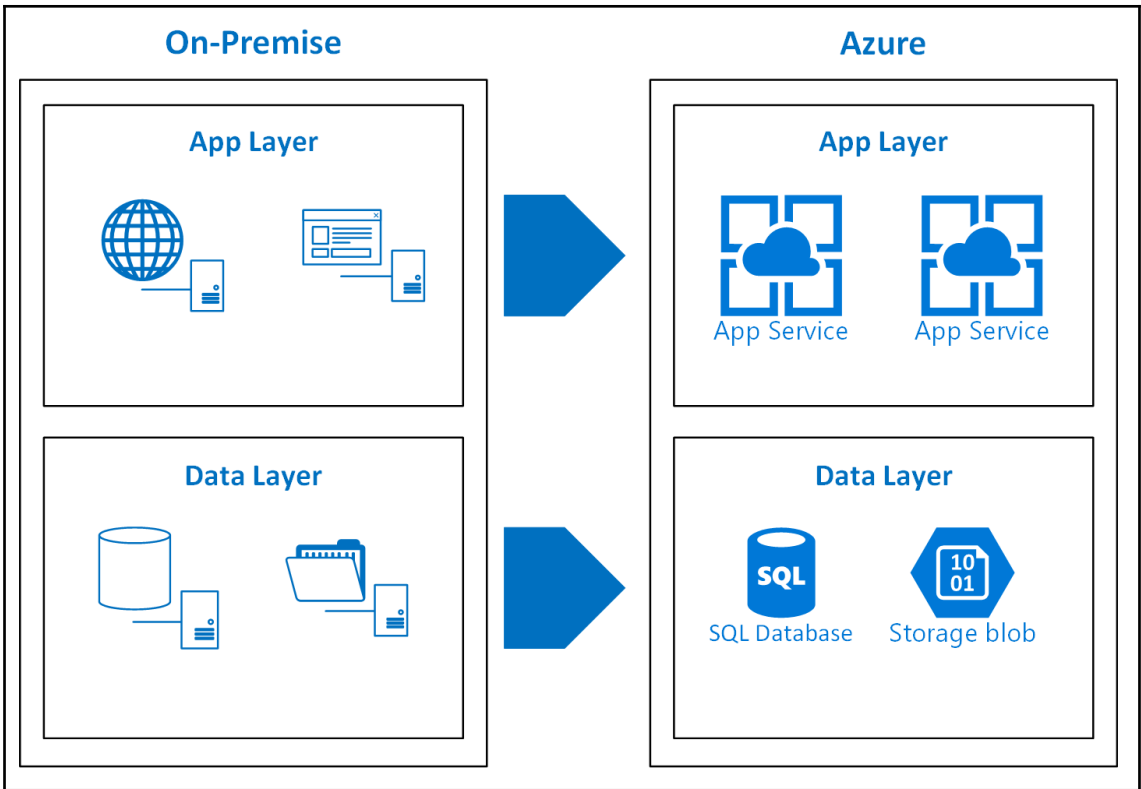


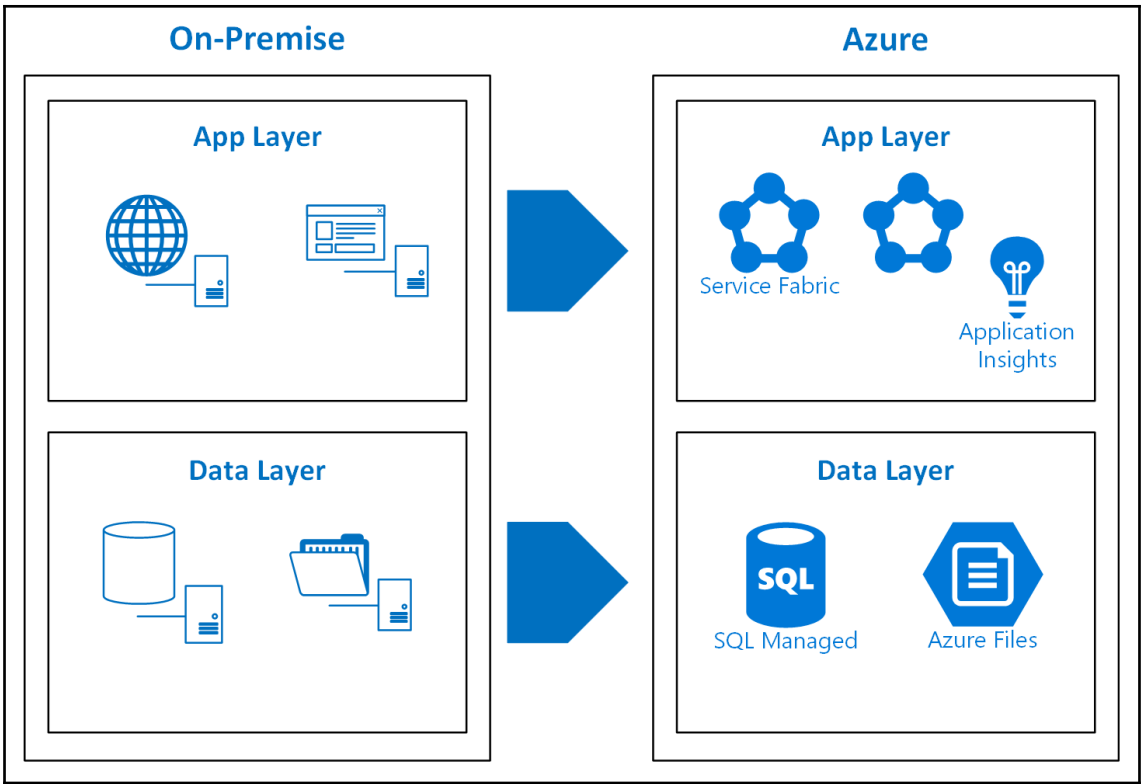
Add SSL Binding



Chapter 2: Moving Existing Apps to Azure

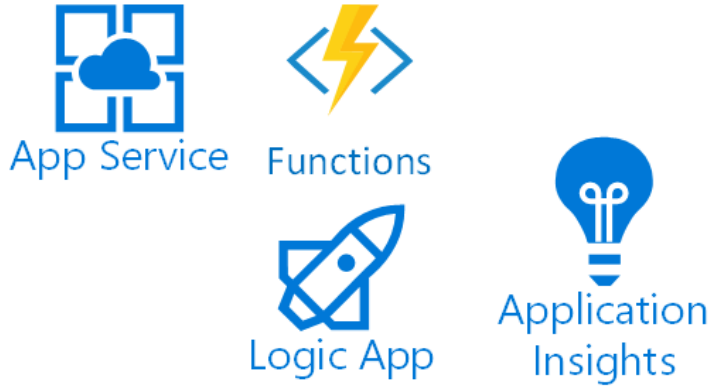






Azure

App Layer



Data Layer



Home > Resource groups > web-vm-rg-01 - Automation script

web-vm-rg-01 - Automation script

Resource group - PREVIEW

Search (Ctrl+) | Download | Add to library | Deploy

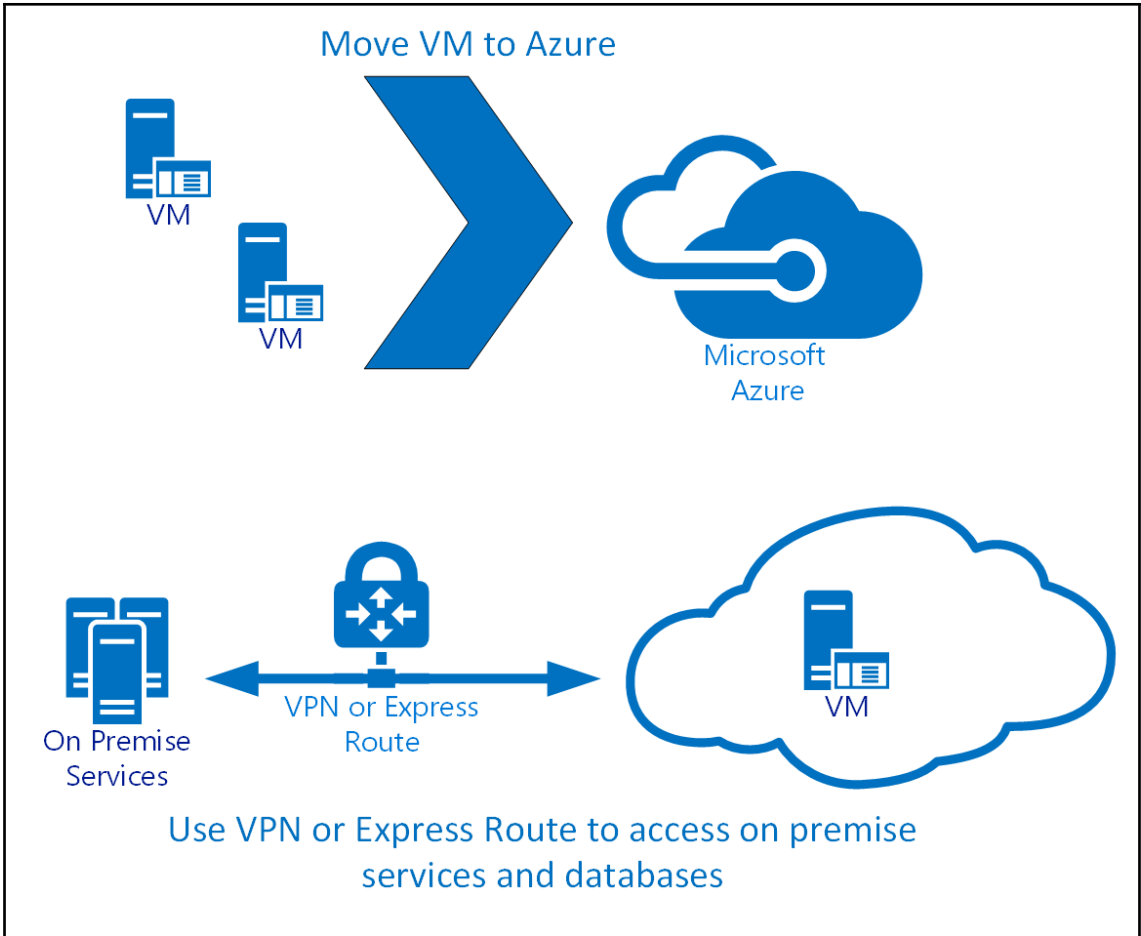
Microsoft.Storage/storageAccounts/managementPolicies cannot be exported yet and is not included in the template. See error details. →

Automate deploying resources with Azure Resource Manager templates in a single, coordinated operation. Define resources and configurable input parameters and deploy with script or code. [Learn more about template deployment.](#)

Template | Parameters | CLI | PowerShell | .NET | Ruby

- Parameters (14)
- Variables (0)
- Resources (13)
 - [parameters(virtualMachines_Web...
 - [parameters(schedules_shutdown...
 - [parameters(networkInterfaces_w...
 - [parameters(networkSecurityGrou...
 - [parameters(publicIPAddresses_W...
 - [parameters(virtualNetworks_web...
 - [parameters(storageAccounts_we...
 - [concat(parameters(VirtualMachin...
 - [concat(parameters(networkSecur...
 - [concat(parameters(networkSecur...
 - [concat(parameters(networkSecur...
 - [concat(parameters(VirtualNetwor...

```
1 {
2   "$schema":
3   "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
4   "contentVersion": "1.0.0.0",
5   "parameters": {
6     "virtualMachines_WebDev_name": {
7       "defaultValue": "WebDev",
8       "type": "String"
9     },
10    "networkInterfaces_webdev170_name": {
11      "defaultValue": "webdev170",
12      "type": "String"
13    },
14    "publicIPAddresses_WebDev_ip_name": {
15      "defaultValue": "WebDev-ip",
16      "type": "String"
17    },
18    "storageAccounts_webvmrg01diag_name": {
```

Modifying — Visual Studio Enterprise 2017 — 15.6.6

Workloads

with C#, VB, JavaScript, or optionally C++.

Desktop development with C++
Build Windows desktop applications using the Microsoft C++ toolset, ATL, or MFC.

Web & Cloud (7)

ASP.NET and web development
Build web applications using ASP.NET, ASP.NET Core, HTML/JavaScript, and Containers including Docker support.

Python development
Editing, debugging, interactive development and source control for Python.

Data storage and processing
Connect, develop, and test data solutions with SQL Server, Azure Data Lake, or Hadoop.

Language packs

Desktop development with C++

Python development

Node.js development

Data science and analytical applications

Installation locations

C#, Visual Basic, and F#.

Installation details

- > Visual Studio core editor
- > ASP.NET and web development
- ✓ Azure development
 - ✓ Azure development prerequisites
 - ✓ .NET Framework 4.6.1 development tools
 - ✓ .NET Core 2.0 development tools
 - ✓ ASP.NET and web development tools
 - ✓ Container development tools
- Optional
 - ✓ .NET Framework 4 – 4.6 development tools
 - ✓ Azure Data Lake and Stream Analytics Tools
 - ✓ Azure Resource Manager tools
 - ✓ Azure Cloud Services tools
 - ✓ Azure Mobile Apps SDK
 - ✓ Service Fabric Tools
 - ✓ Snapshot Debugger
 - ✓ Advanced ASP.NET features
 - ✓ PowerShell tools
 - ✓ Windows Communication Foundation
 - Azure Storage AzCopy
 - ✓ .NET Framework 4.6.2 development tools

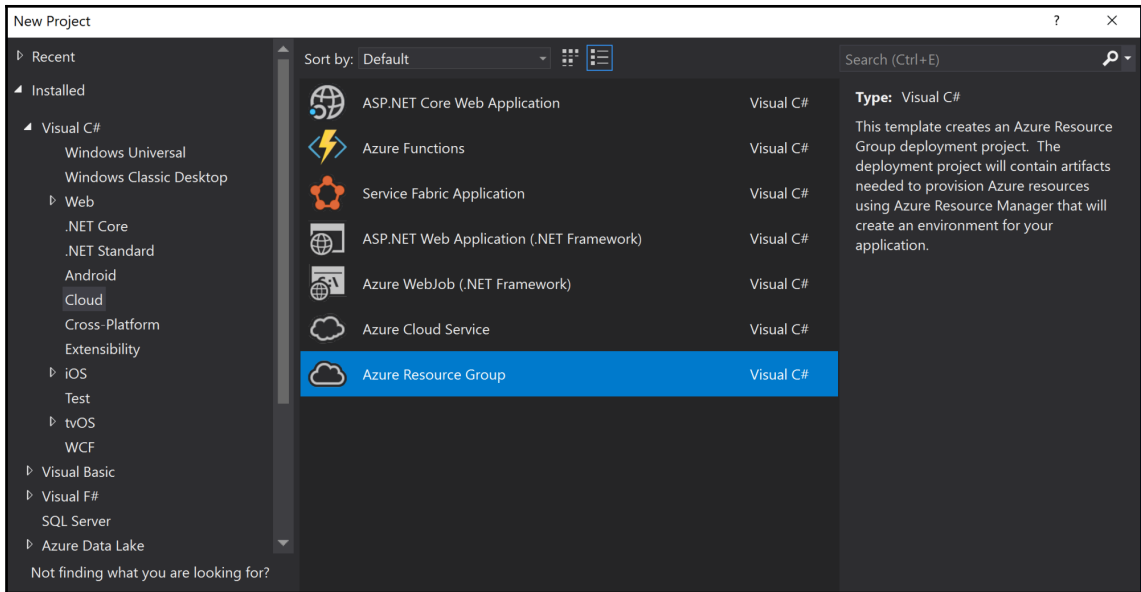
Location
C:\Program Files (x86)\Microsoft Visual Studio\2017\Enterprise [Change...](#)

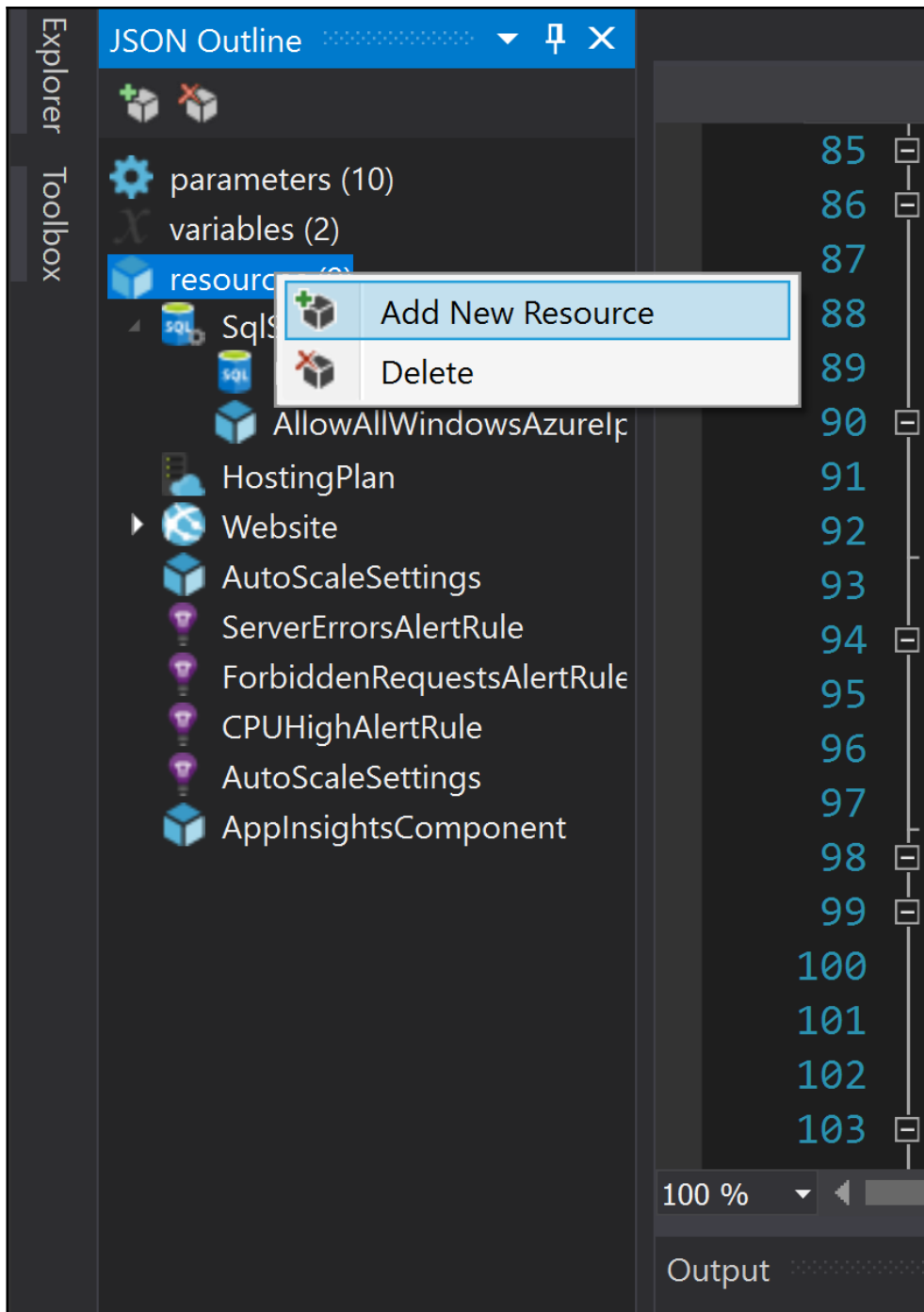
Total space required 45 MB

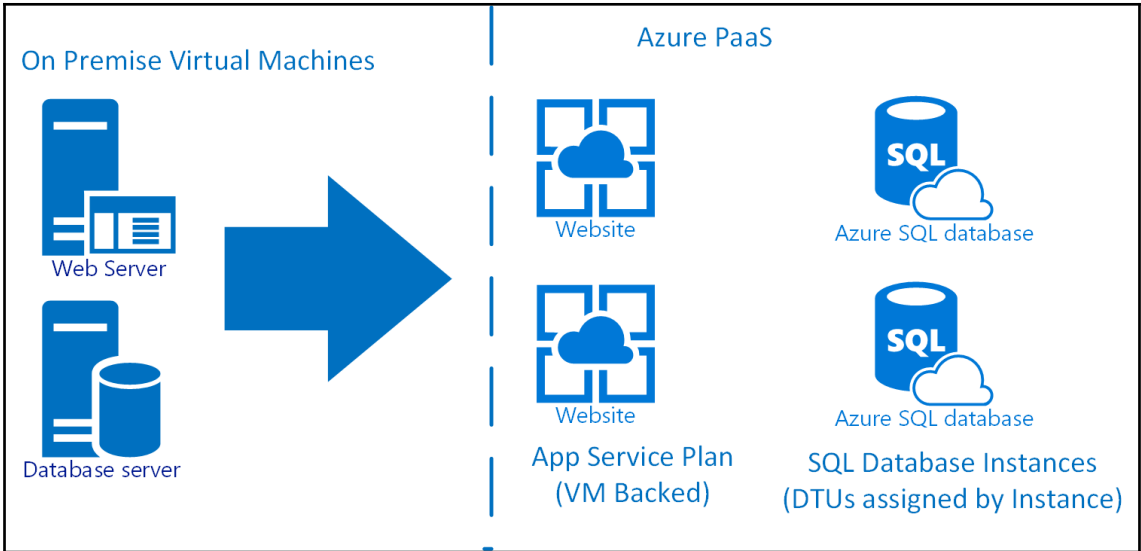
By continuing, you agree to the [license](#) for the Visual Studio edition you selected. We also offer the ability to download other software with Visual Studio. This software is licensed separately, as set out in the [3rd Party Notices](#) or in its accompanying license. By continuing, you also agree to those licenses.

[Modify](#)

Schema	JSON Schema location	Is required
contentVersion	Your version value to track versions (1.0.0.0)	Is required
parameters	Values that are provided during deployment from a parameters file or Parameters in the Azure DevOps deployment pipeline	Not required
variables	Common values provided as JSON fragments	Not required
functions	User-defined functions	Not required
resources	Type of resources being deployed	Is required
outputs	Return values	Not required







Search (Ctrl+) << Save Discard

Authentication / Authorization

Anonymous access is enabled on the App Service app. Users will not be prompted for login.

App Service Authentication
 Off On

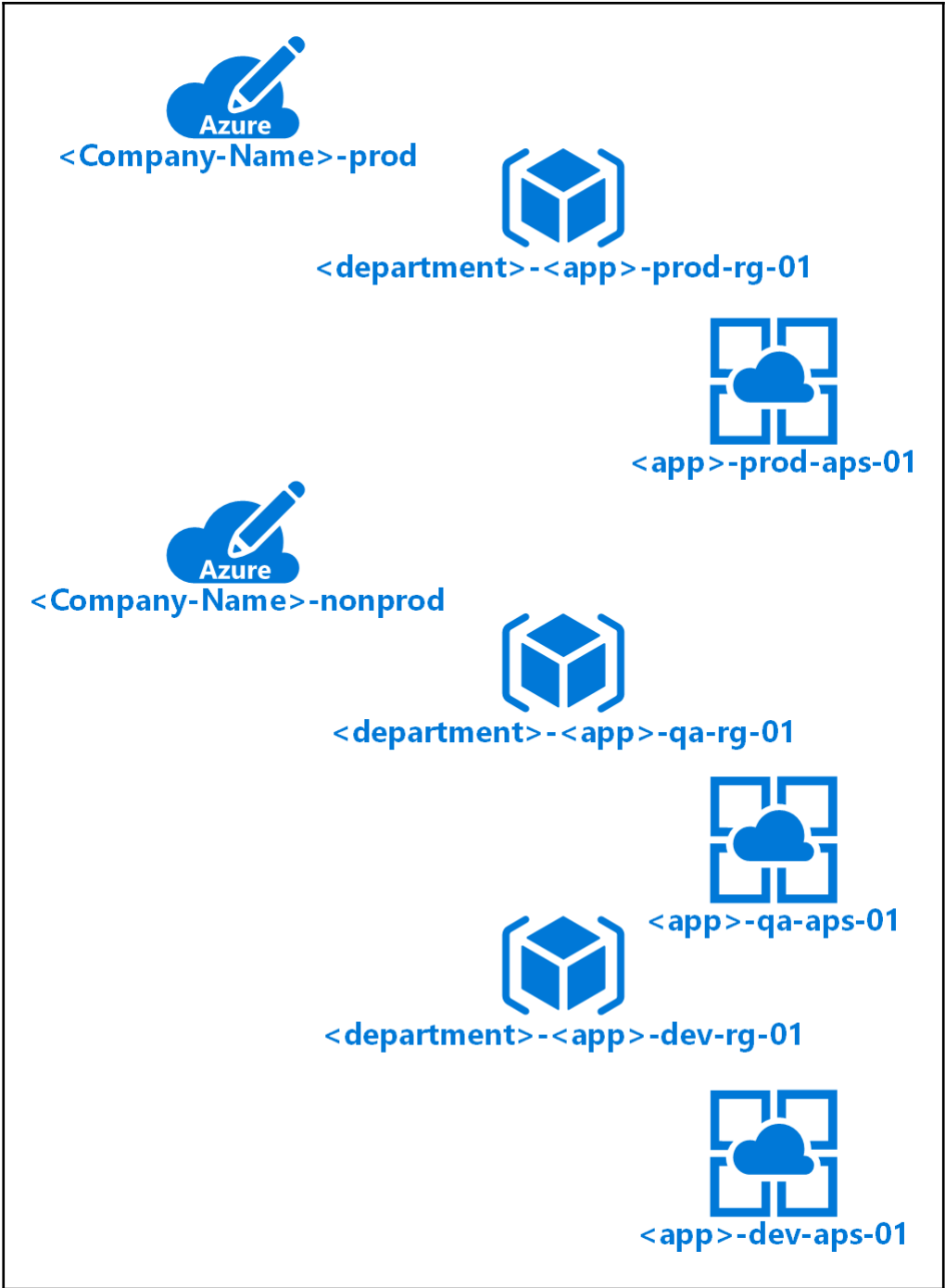
Action to take when request is not authenticated
 Allow Anonymous requests (no action) ▾

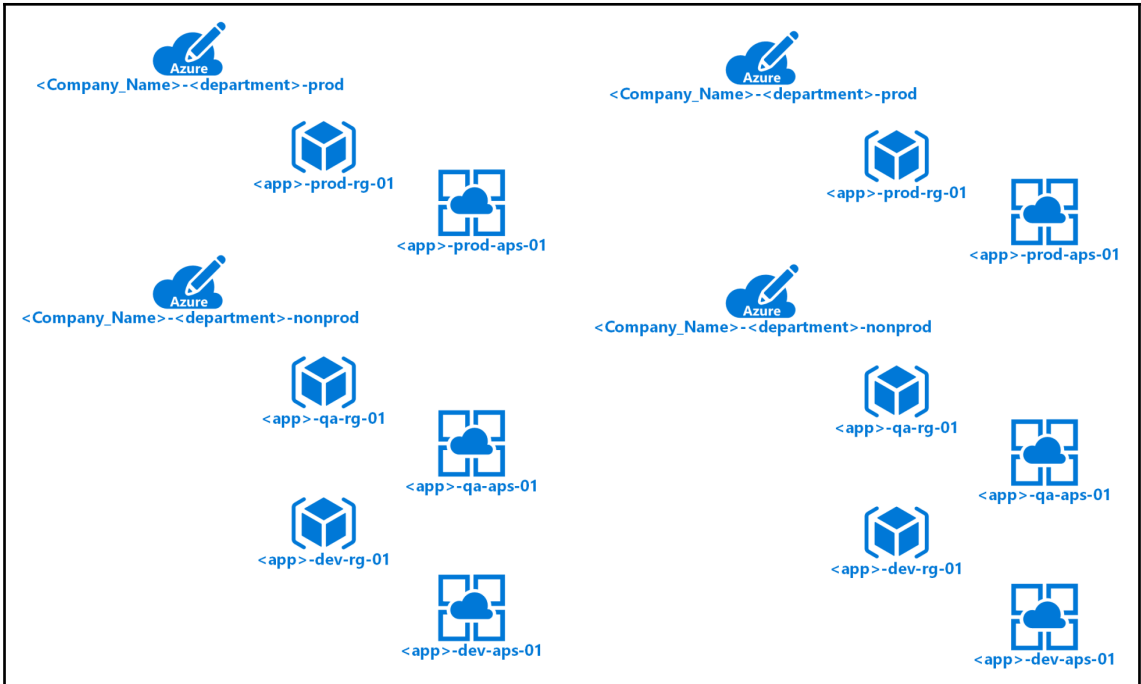
Authentication Providers

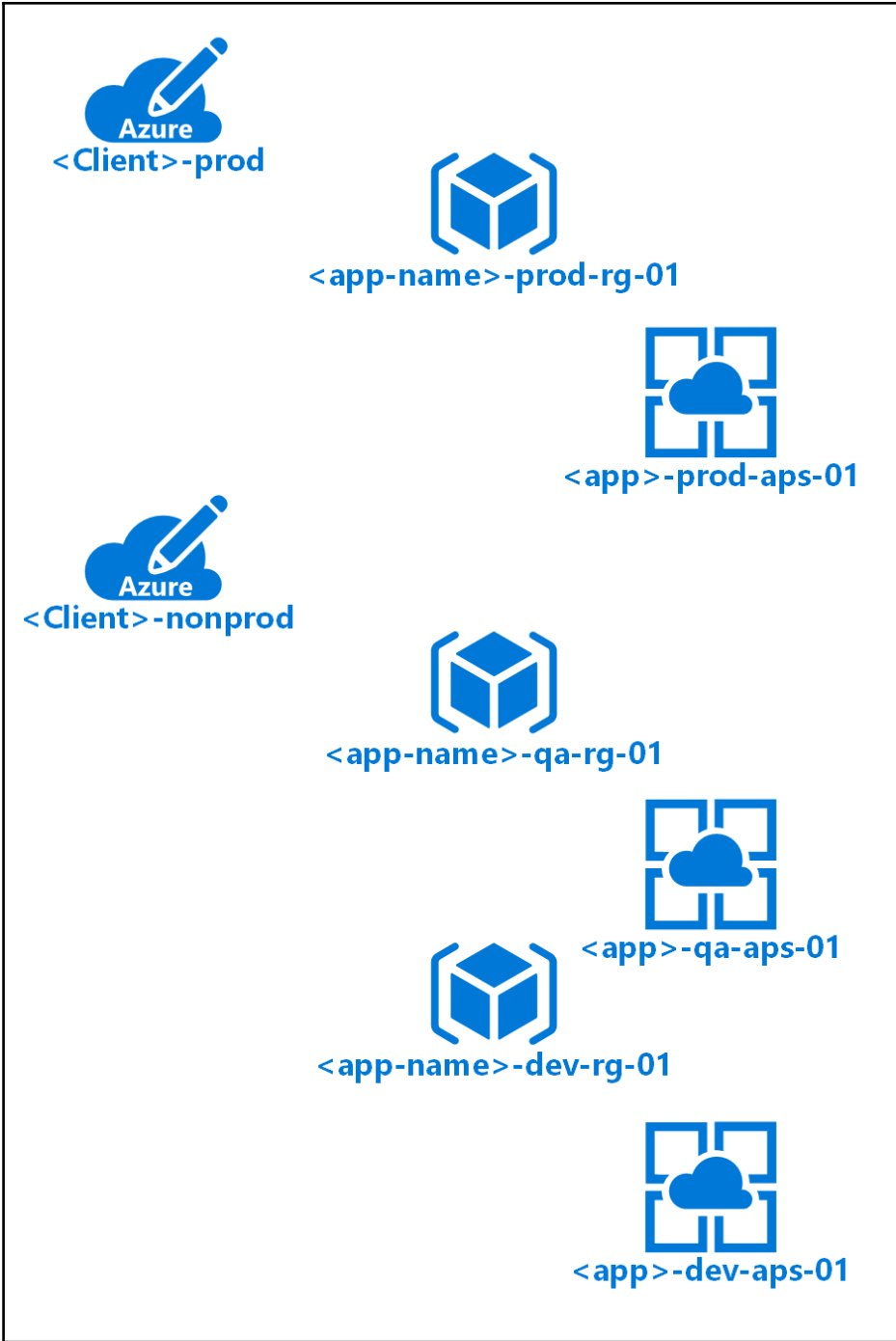
- Azure Active Directory
Not Configured >
- Facebook
Not Configured >
- Google
Not Configured >
- Twitter
Not Configured >
- Microsoft >

Navigation menu (left): Quickstart, Deployment credentials, Deployment slots, Deployment options, Deployment Center (Preview), SETTINGS: Application settings, Authentication / Authorization (selected), Application Insights, Managed service identity (Pr...), Backups, Custom domains, SSL settings.

Chapter 3: Building Solutions in Azure







The image shows a screenshot of the Azure portal's help menu. At the top, there is a dark navigation bar with several icons: a bell, a right arrow, a gear, a smiley face, a question mark, and a document icon. The name 'gleonardo' is visible on the right side of this bar. Below the navigation bar, a dark blue sidebar on the left contains a 'Clone' button with a trash icon. The main content area is white and titled 'Help'. A blue dashed box highlights the 'Help + support' link. Below this, there is a paragraph of text: 'Visit the help and support center to support ticket and monitor health.' A horizontal line separates this from a list of links under the heading 'What's new'. The links are: 'Azure roadmap', 'Launch guided tour', 'Keyboard shortcuts', 'Show diagnostics' (highlighted with a red box), and 'Privacy + terms'. Each link has an external link icon.

gleonardo

Clone

Help

[Help + support](#)

Visit the help and support center to support ticket and monitor health.

What's new

- [Azure roadmap](#)
- [Launch guided tour](#)
- [Keyboard shortcuts](#)
- [Show diagnostics](#)
- [Privacy + terms](#)

```
PS C:\WINDOWS\system32> login-azureraccount
```

```
Account          : gleonardo[REDACTED]  
SubscriptionName : Microsoft Azure Sponsorship  
SubscriptionId   : [REDACTED]  
TenantId        : [REDACTED]  
Environment     : AzureCloud
```

```
PS C:\WINDOWS\system32> get-azurermsubscription
```

```
Name           : Microsoft Azure Sponsorship  
Id             : [REDACTED]  
TenantId      : [REDACTED]  
State         : Enabled
```

```
Name           : Access to Azure Active Directory  
Id             : [REDACTED]  
TenantId      : [REDACTED]  
State         : Enabled
```

```
Name           : Pay-As-You-Go  
Id             : [REDACTED]  
TenantId      : [REDACTED]  
State         : Enabled
```

Pricing tier

pick a pricing tier

A1 Standard



Geo availability

0.03

USD/MONTH (ESTIMATED)

P1 Premium



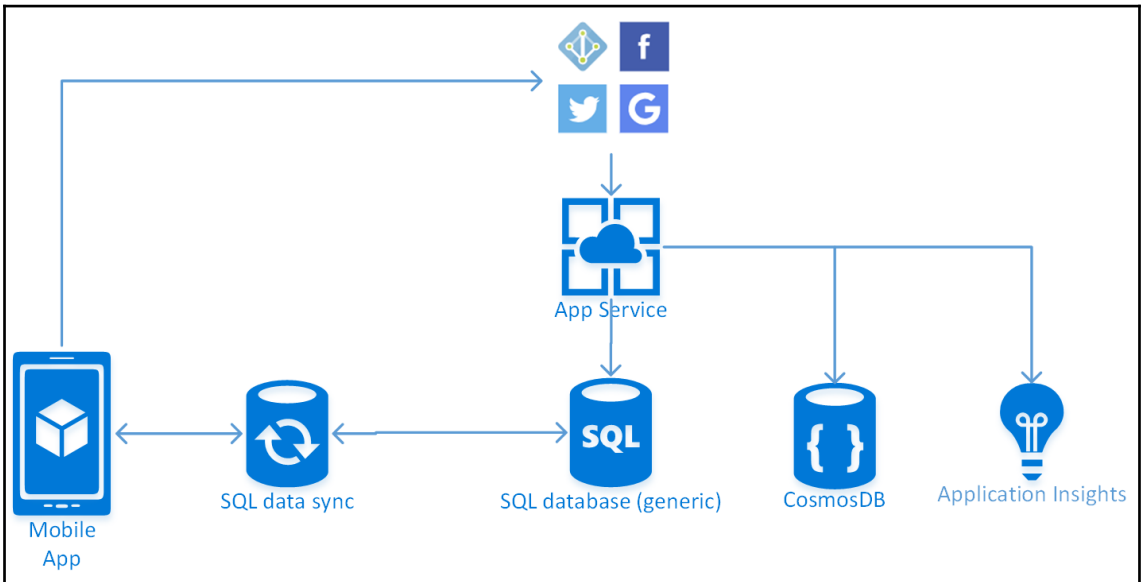
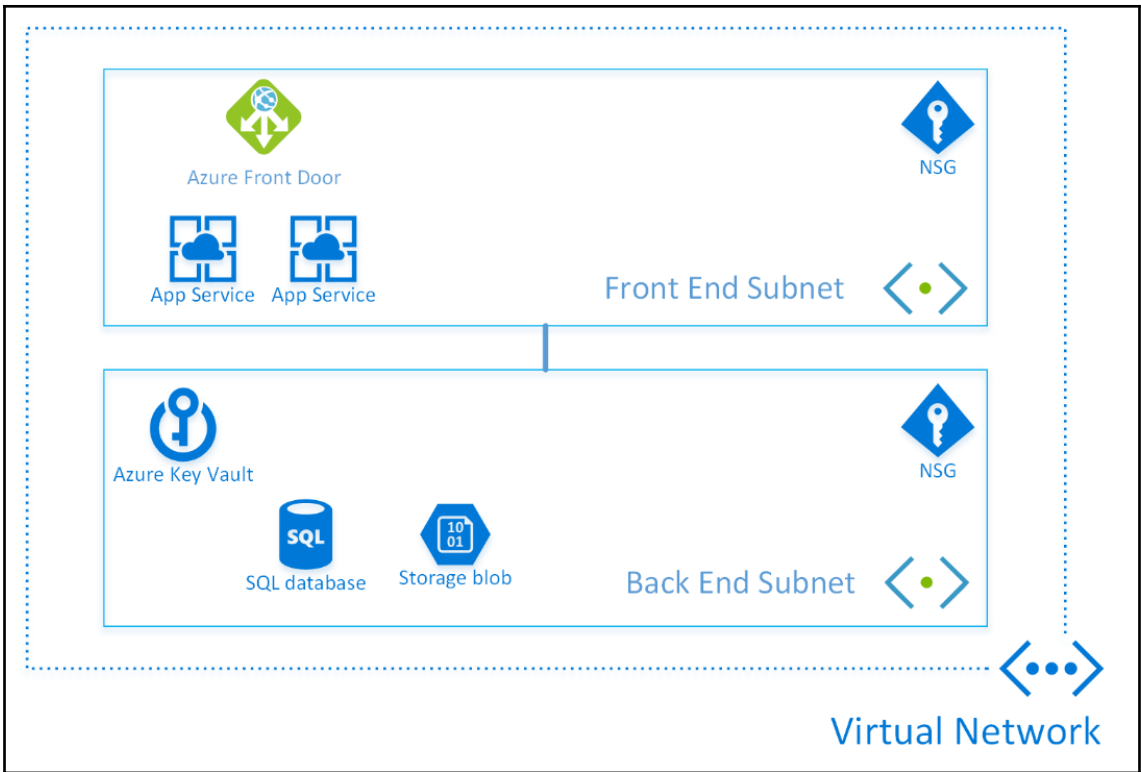
Geo availability



Hsm backed keys

1.03

USD/MONTH (ESTIMATED)



Application Manager

The location where you will find all the applications you create



New Application

Free

Free 7 day trial. No subscription required.

Paid

Price is based on the number of devices you use. [Learn more](#)

Select an application template

Sample Contoso

Get started with a predefined application for a connected device.

Sample Devkits

Want to connect a Raspberry PI or MXChip IoT DevKit? Start with this predefined app and get them connected in minutes.

Custom Application

Start with a blank template and define your application from scratch.

Application Name * ⓘ

Sample Contoso 2om01779ud6

URL * ⓘ


sample-contoso-2om01779ud6


.azureiotcentral.com





Homepage



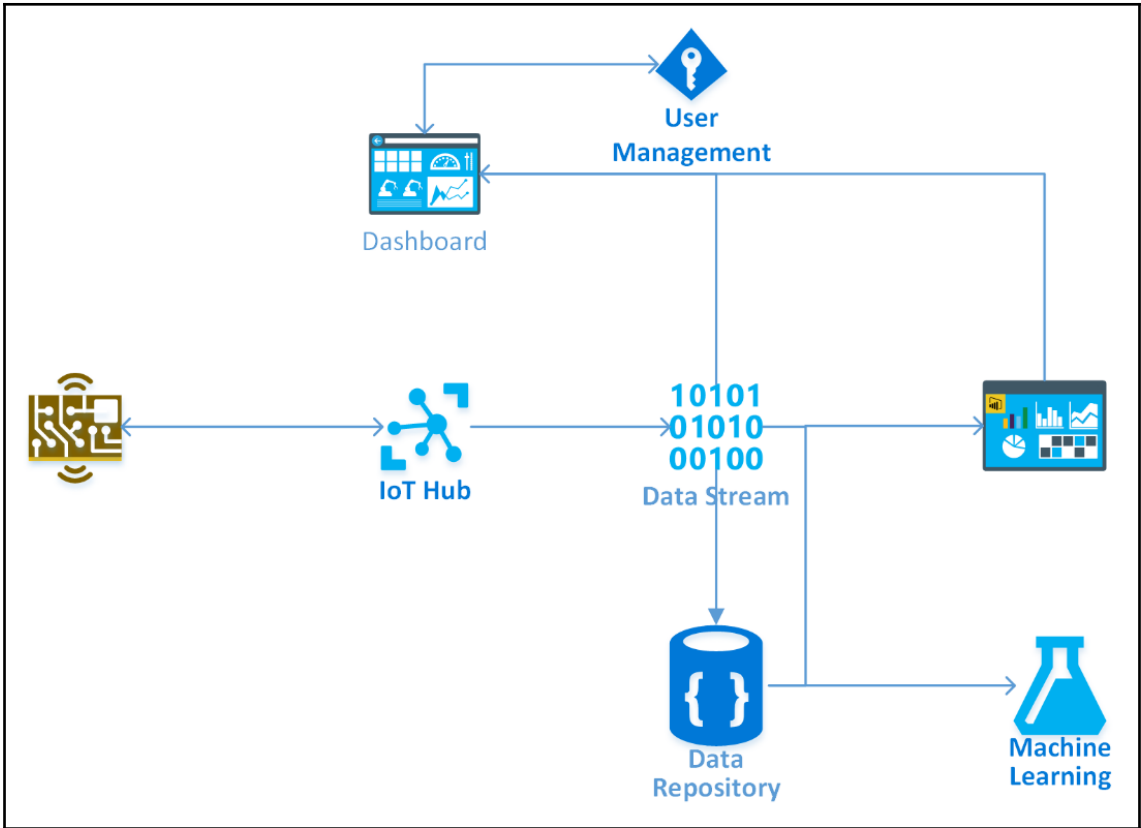

Devices under contract
All devices with active maintenance contract. →


Add Device Set
Group devices into logical groups. →


Devices in Seattle
Sample Device Set with devices located in Seattle.


View all your devices
View all your devices and device templates.

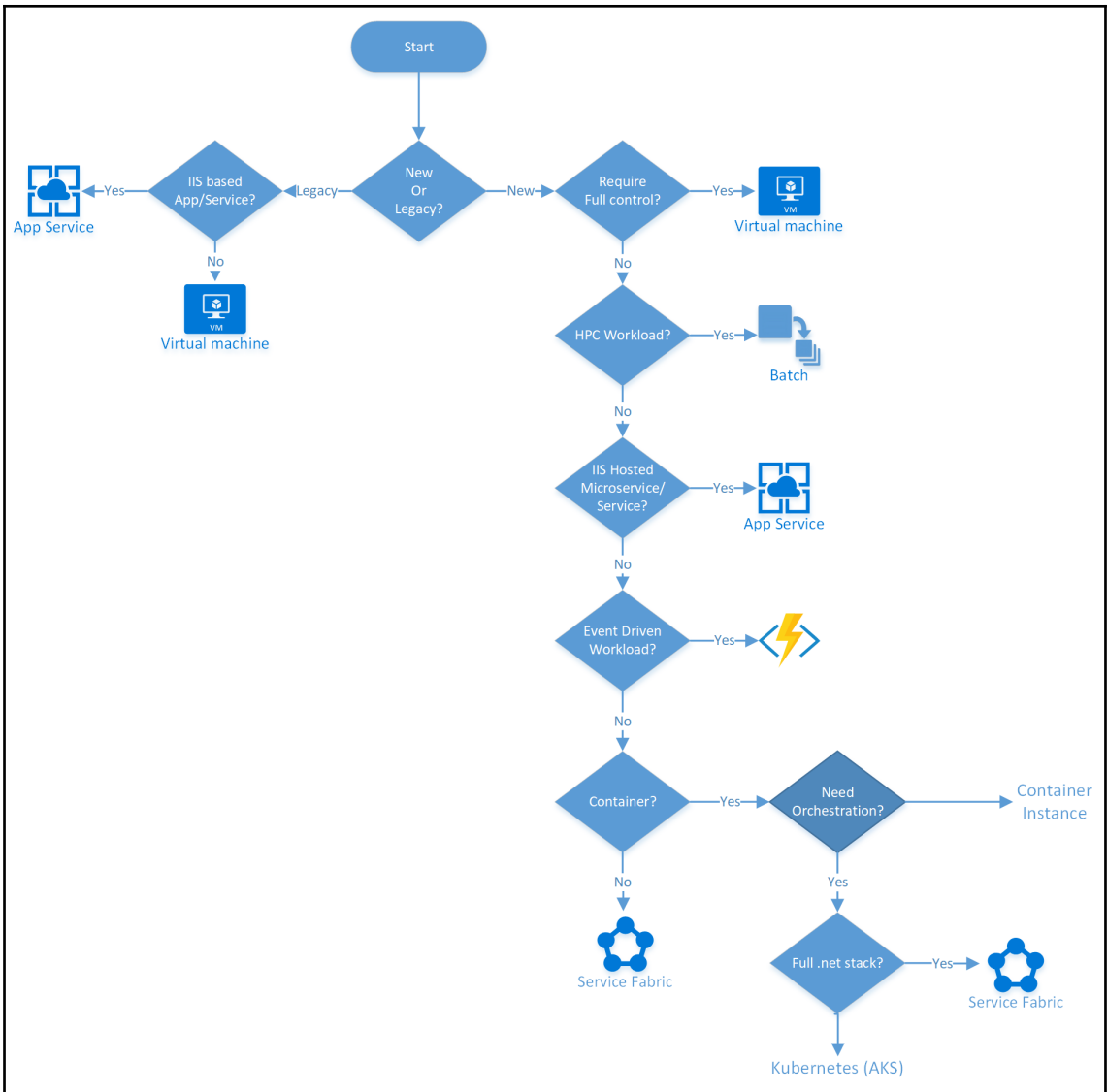




The screenshot displays the Microsoft Cognitive Services portal interface. The left sidebar shows a search bar and a 'Create cognitive services' button. The main content area is titled 'AI + Machine Learning' and features a search bar. Below the search bar, services are categorized into three groups:

- Machine Learning:** Includes Machine Learning service workspace, Data Science Virtual Machine, Machine Learning Studio Workspace, Machine Learning Studio Web, Machine Learning Studio Web, and Data Science Virtual Machine.
- Bot Service:** Includes Web App Bot, Bot Channels Registration, and Functions Bot.
- Cognitive Services:** Includes Bing Autosuggest v7, Bing Custom Search, Bing Entity Search, Bing Search v7, Bing Speech, and Bing Spell Check v7.







Dev / Test

For less demanding workloads

Recommended pricing tiers

F1

Shared infrastructure
1 GB memory
60 minutes/day compute
Free

D1

Shared infrastructure
1 GB memory
240 minutes/day compute
9.67 USD/Month (Estimated)

Dev / Test
For less demanding workloads

Production
For most production workloads

Isolated
Advanced networking and security

Recommended pricing tiers

S1 1x cores 1.75 GB memory A-Series compute 74.40 USD/Month (Estimated)	P1v2 1x cores 3.5 GB memory Dv2-Series compute 148.80 USD/Month (Estimated)	P2v2 2x cores 7 GB memory Dv2-Series compute 297.60 USD/Month (Estimated)	P3v2 4x cores 14 GB memory Dv2-Series compute 595.20 USD/Month (Estimated)
--	--	--	---

^ See only recommended options

Additional pricing tiers

S2 2x cores 3.5 GB memory A-Series compute 148.80 USD/Month (Estimated)	S3 4x cores 7 GB memory A-Series compute 297.60 USD/Month (Estimated)	P1 1x cores 1.75 GB memory A-Series compute 223.20 USD/Month (Estimated)	P2 2x cores 3.5 GB memory A-Series compute 446.40 USD/Month (Estimated)
P3 4x cores 7 GB memory A-Series compute 892.80 USD/Month (Estimated)			

Included features


Every app hosted on this App Service plan will have access to these features:

- Custom domains / SSL**
Configure and purchase custom domains with SNI and IP SSL bindings
- Auto scale**
Up to 10 instances. Subject to availability.
- Staging slots**
Up to 5 staging slots to use for testing and deployments before swapping them into production.
- Daily backups**
Backup your app 10 times daily.
- Traffic manager**
Improve performance and availability by routing traffic between multiple instances of your app.


Included hardware

Every instance of your App Service plan will include the following hardware configuration:


- CPU**
Dedicated A-series compute resources used to run applications deployed in the App Service Plan. [Learn more](#)
- Memory**
Memory per instance available to run applications deployed and running in the App Service plan.
- Storage**
50 GB disk storage shared by all apps deployed in the App Service plan.



Dev / Test
For less demanding workloads



Production
For most production workloads




Isolated
Advanced networking and scale


Recommended pricing tiers


<div style="border: 2px solid orange; padding: 5px;"> <p>I1</p> <p>1x cores 3.5 GB memory Dv2-Series compute 223.20 USD/Month (Estimated)</p> </div>	<div style="border: 2px solid orange; padding: 5px;"> <p>I2</p> <p>2x cores 7 GB memory Dv2-Series compute 446.40 USD/Month (Estimated)</p> </div>	<div style="border: 2px solid orange; padding: 5px;"> <p>I3</p> <p>4x cores 14 GB memory Dv2-Series compute 892.80 USD/Month (Estimated)</p> </div>
---	---	--


Included features


Every app hosted on this App Service plan will have access to these features:

- 

Single tenant system
Take more control over the resources being used by your app.
- 

Isolated network
Runs within your own virtual network.
- 


Private app access
Using an App Service Environment with Internal Load Balancing (ILB).
- 


Scale to a large number of instances
Up to 100 instances. More allowed upon request.
- 


Traffic manager
Improve performance and availability by routing traffic between multiple instances of your app.

Included hardware

Every instance of your App Service plan will include the following hardware configuration:

- 

CPU
Dedicated Dv2-series compute resources used to run applications deployed in the App Service Plan. [Learn more](#)
- 

Memory
Memory per instance available to run applications deployed and running in the App Service plan.
- 

Storage
1 TB disk storage shared by all apps deployed in the App Service plan.

Search (Ctrl+/)

- Application settings
- Authentication / Authorization
- Application Insights
- Managed service identity
- Backups
- Custom domains
- SSL settings
- Networking
- Scale up (App Service plan)
- Scale out (App Service plan)
- WebJobs

Save
Discard
Disable autoscale
Refresh

Configure
Run history
JSON
Notify

Override condition

Instance count

Your autoscale configuration is disabled. To reinstate your configuration, enable autoscale.

Enable autoscale

< Looking for basic, standard, premium?

General Purpose


Scalable compute and storage options

Up to 7,000 IOPS
5-10 ms latency
Starting at 188.37 USD / month

Business Critical

High transaction rate and high resiliency

Up to 200,000 IOPS
1-2 ms latency
Starting at 507.12 USD / month



Compute Generation ⓘ

Gen4 ✓

up to 24 vCores
up to 168 GB memory
187.62 / vCore

Gen5

up to 80 vCores
up to 408 GB memory
187.62 / vCore

Save money

Save up to 55% with a license you already own. Already have a SQL Server license? ⓘ

Yes No

vCores [How do vCores compare with DTUs?](#)

1 vCore

2 4 8 16 24

Max data size ⓘ

32 GB

32 GB 1 TB

ALLOCATED LOG STORAGE 9.6 GB

Cost Summary

Gen4 - General Purpose (GP_Gen4_1)	
Cost per vCore (in USD)	187.62
vCores selected	x 1
Cost per GB (in USD)	0.12
Max storage selected (in GB)	x 41.6
EST. COST PER MONTH	192.41 USD

Click on a location to add or remove regions from your Azure Cosmos DB account.

* Each region is billable based on the throughput and storage for the account. [Learn more](#)



WRITE REGION

East US

GREMLIN API

Scale & Settings

Scale

Storage capacity
Unlimited

Throughput (400 - 10,000 RU/s)
1000

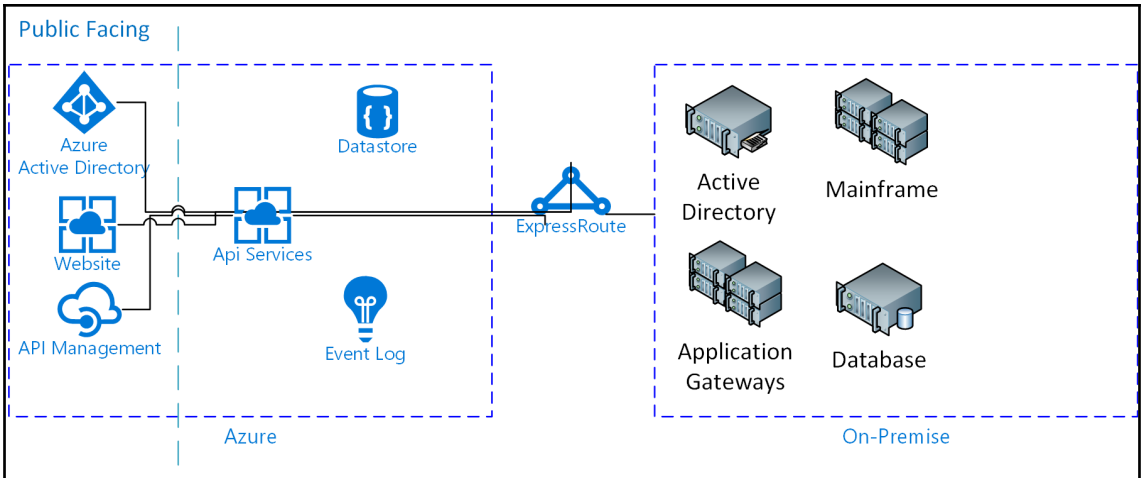
Estimated spend (USD): **\$0.080 hourly / \$1.92 daily.**
Contact support for more than 10,000 RU/s

Settings

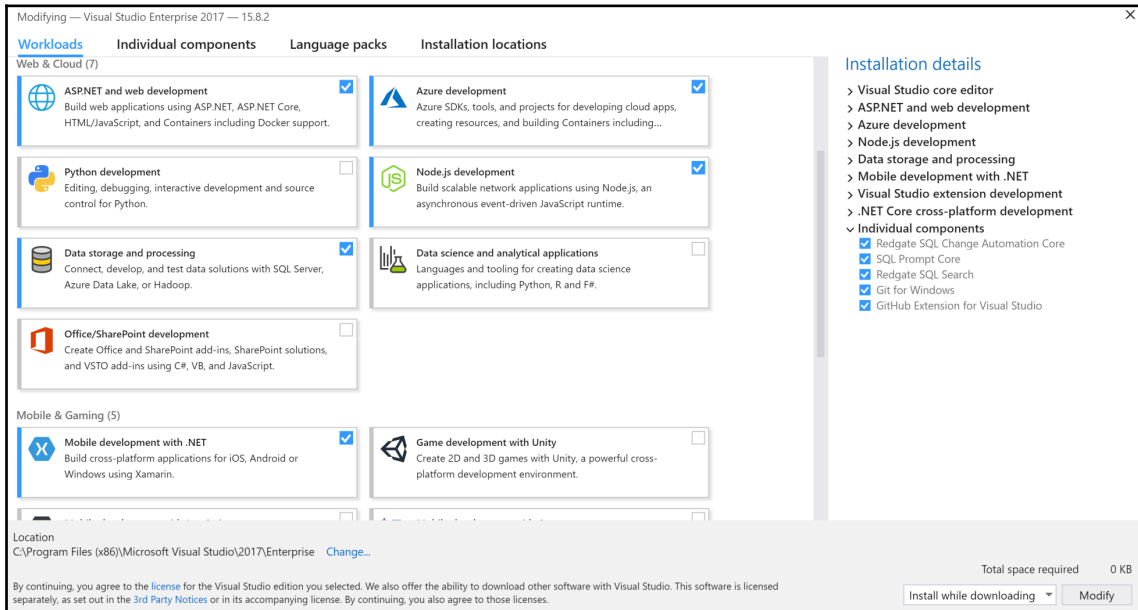
Time to Live
Off On (no default) On

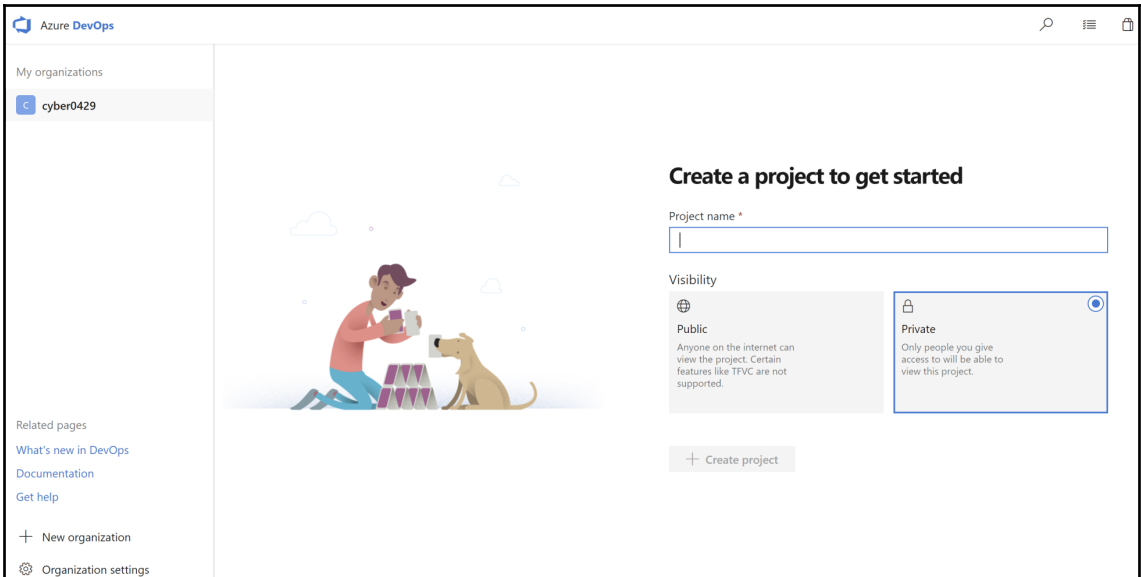
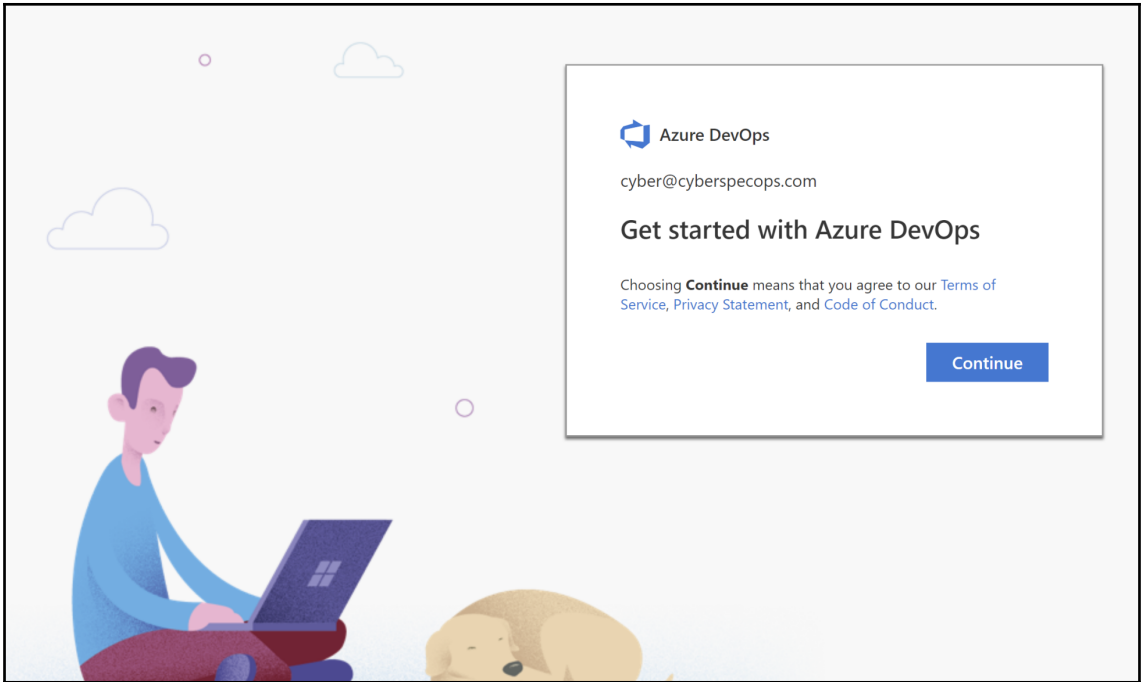
Partition key
/EmployeeID

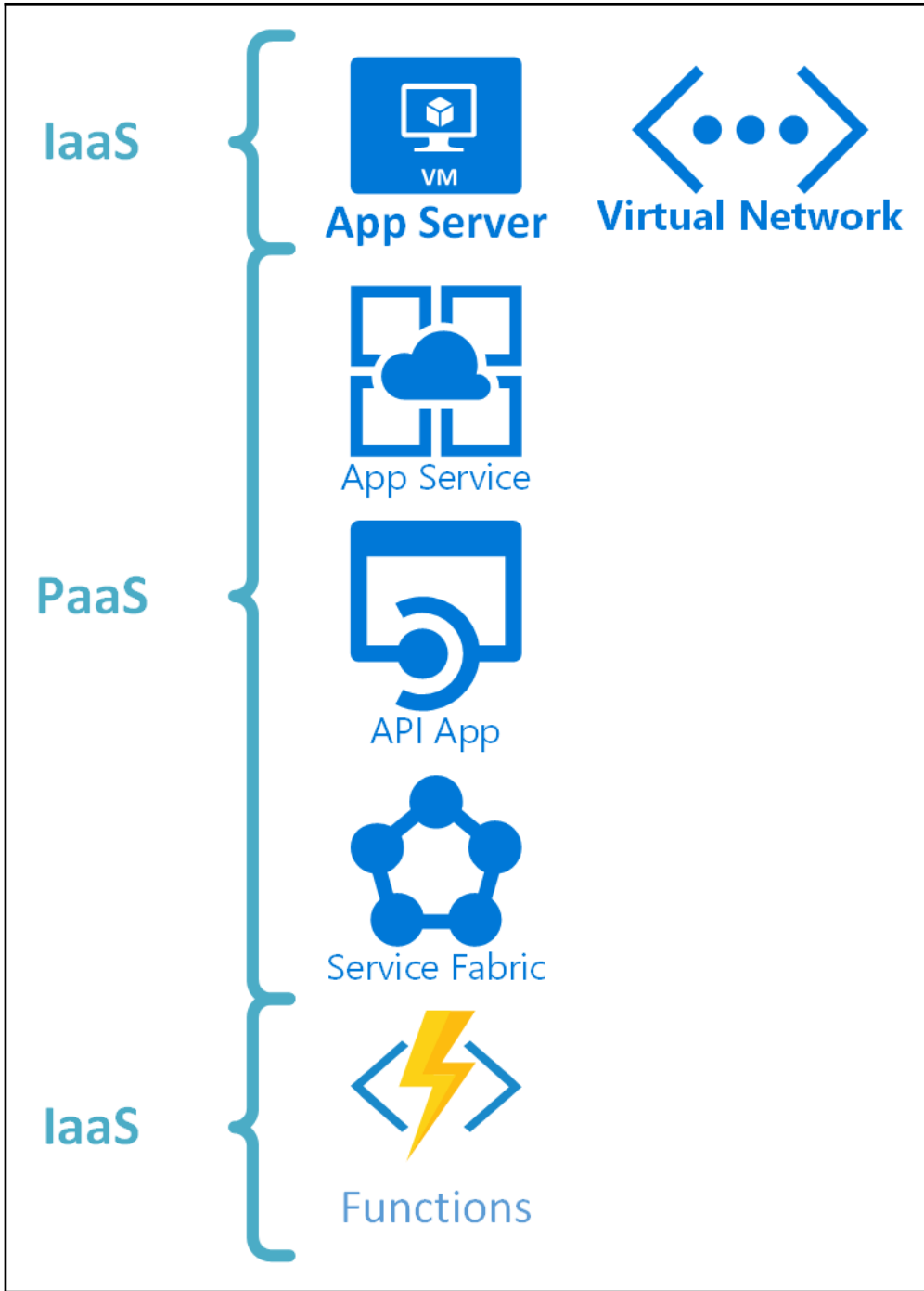
Indexing Policy
1 {



Chapter 4: Understanding the Infrastructure behind Solutions Built in Azure







Pricing calculator

Configure and estimate the costs for Azure products



Products

Estimates

FAQ

Select a product to include in your estimate.

Search products

Featured

Compute

Networking

Storage

Web

Mobile

Containers

Databases

Analytics

Virtual Machines

Provision Windows and Linux virtual machines in seconds

Storage

Durable, highly available, and massively scalable cloud storage

Azure SQL Database

Managed relational SQL Database as a service

App Service

Quickly create powerful cloud apps for web and mobile

Azure Cosmos DB

Globally distributed, multi-model database for any scale

Machine Learning Studio

Easily build, deploy, and manage predictive analytics solutions

Azure Kubernetes Service (AKS)

Simplify the deployment, management, and operations of Kubernetes

Functions

Process events with serverless code

Cognitive Services

Add smart API capabilities to enable contextual interactions

Search (Ctrl+/)

Save

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

DEPLOYMENT

Quickstart

Deployment credentials

Deployment slots

Deployment options

Deployment Center (Preview)

SETTINGS



Tags are name/value pairs that enable you to categorize resources and view consolidated billing by applying the same tag

* Name



Value

App Service Burn : Prod


Microsoft Azure gleonardo


HOME PRICING DOCUMENTATION DOWNLOADS COMMUNITY SUPPORT ACCOUNT


subscriptions marketplace profile **preview features**


 add subscription  explore support options

Click a subscription to view details and usage.

 Developer Program Benefit


 Visual Studio Enterprise


 This subscription has a spending limit on it. [Click here to change this setting.](#)

 This subscription has only \$36.36 credit remaining. [Remove the spending limit.](#)


Microsoft Azure gleonardo | SIGN OUT

HOME PRICING DOCUMENTATION DOWNLOADS COMMUNITY SUPPORT ACCOUNT

subscriptions marketplace profile **preview features** Portal 

 **Billing Alert Service** try it now

Quickly and easily create customized billing alerts that help you monitor and manage billing activity for your Windows Azure accounts.

[LEARN MORE](#) 

Microsoft Azure gleonardo€ | SIGN OUT

HOME PRICING DOCUMENTATION DOWNLOADS COMMUNITY SUPPORT ACCOUNT

subscriptions marketplace profile preview features Portal

Summary for LOB

OVERVIEW BILLING HISTORY ALERTS PREVIEW

This subscription has no spending limit. [Click here to change the spending limit option.](#)

\$50.00

\$0.00 \$50.00

Your monthly credit expires on 9/2/2018. [Pricing calculator](#)

USAGE YOU ARE RESPONSIBLE FOR

0.09 GB \$0.01

CURRENT BALANCE:

\$0.00

DATE PURCHASED
12/3/2015

CURRENT BILLING PERIOD
8/3/2018 - 9/2/2018

OVERVIEW BILLING HISTORY ALERTS PREVIEW

Click add alerts below to be notified when you're nearing the spending limit you set for your account. [Learn more](#)

add alert

You can setup 5 more alerts

Click add alerts below to be notified when you're nearing the spending limit you set for your account. [Learn more](#)

Alert Name

Billing Close to Burn

Alert For

Billing Total

Amount Spent

\$45

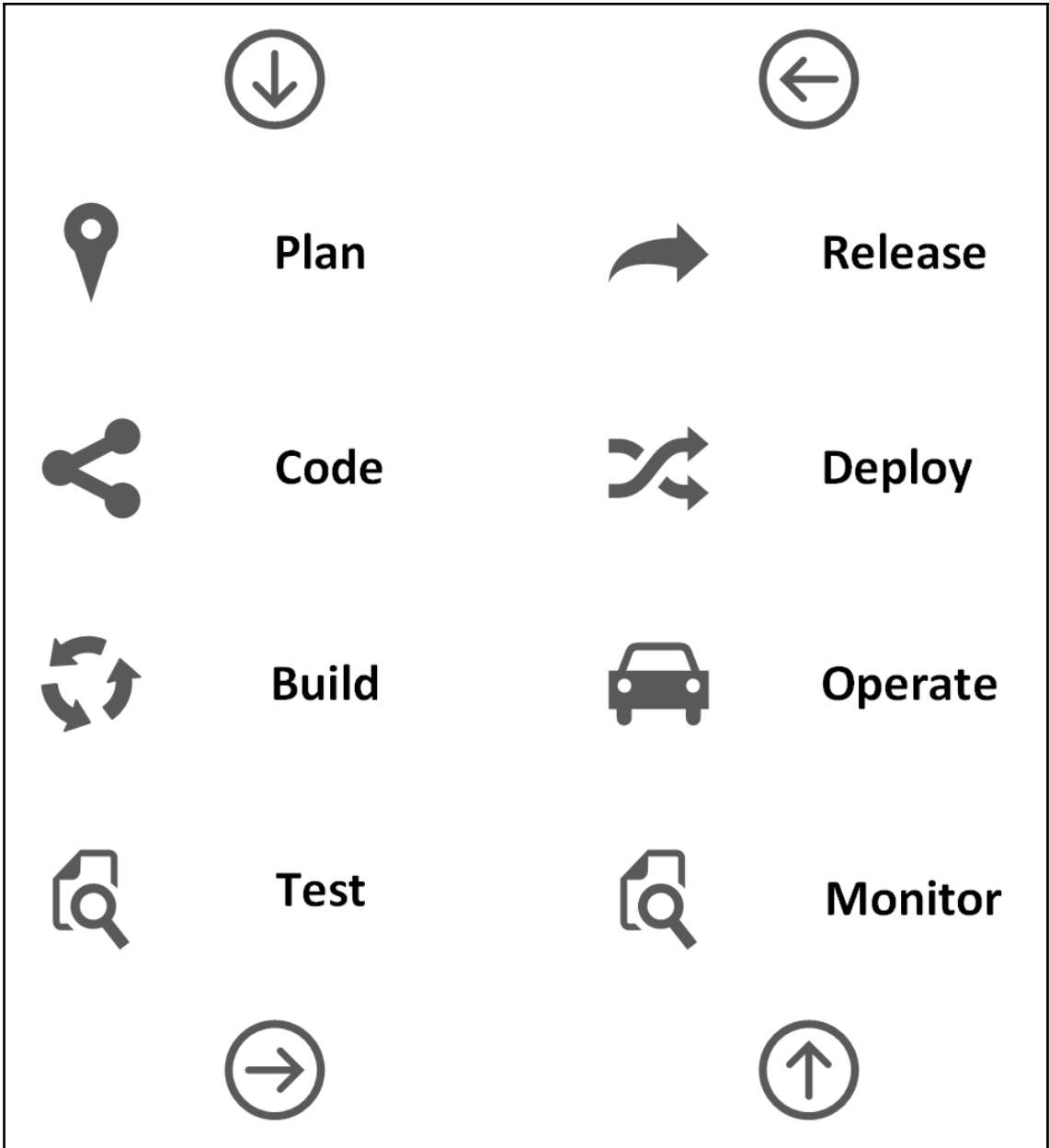
Email Recipient 1

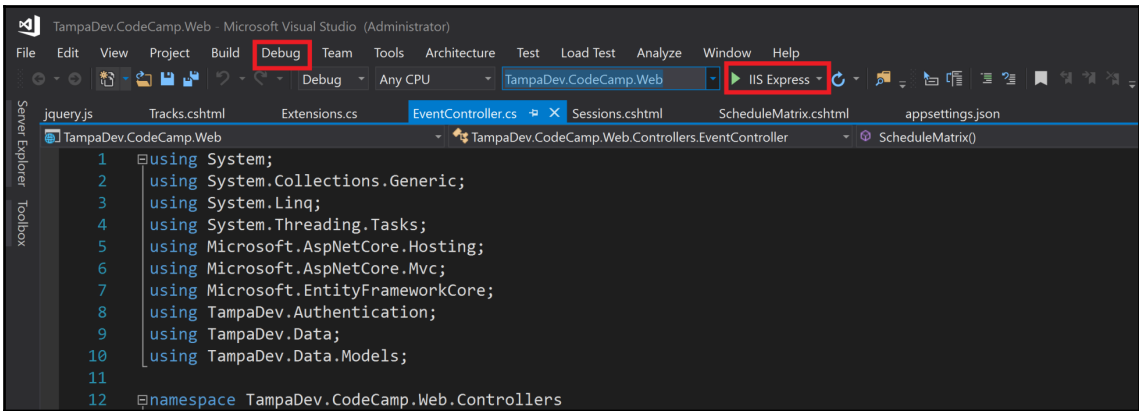
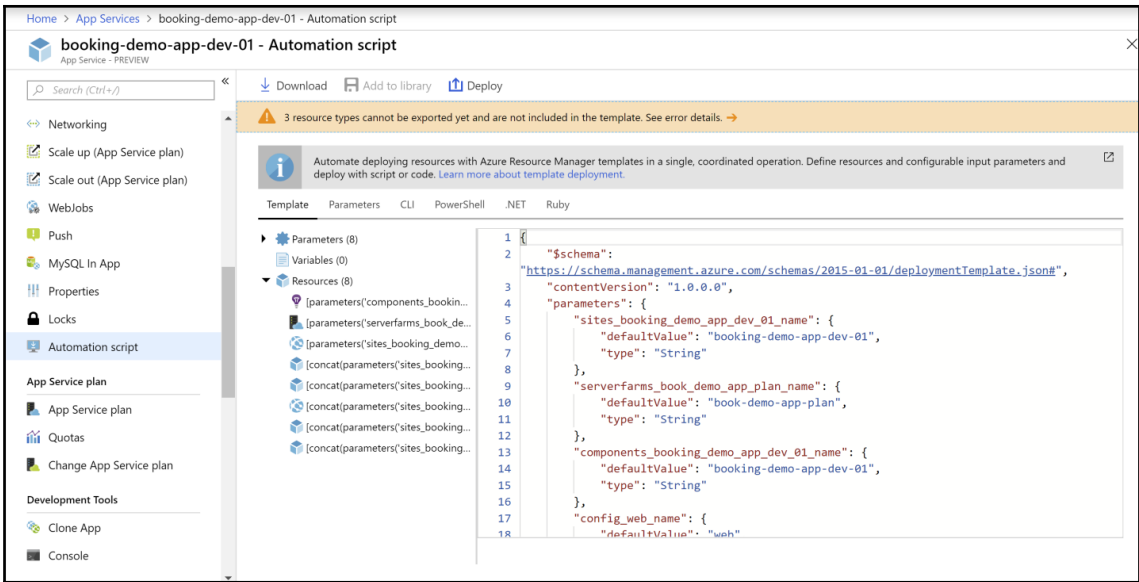
gleonardo@webonology.com

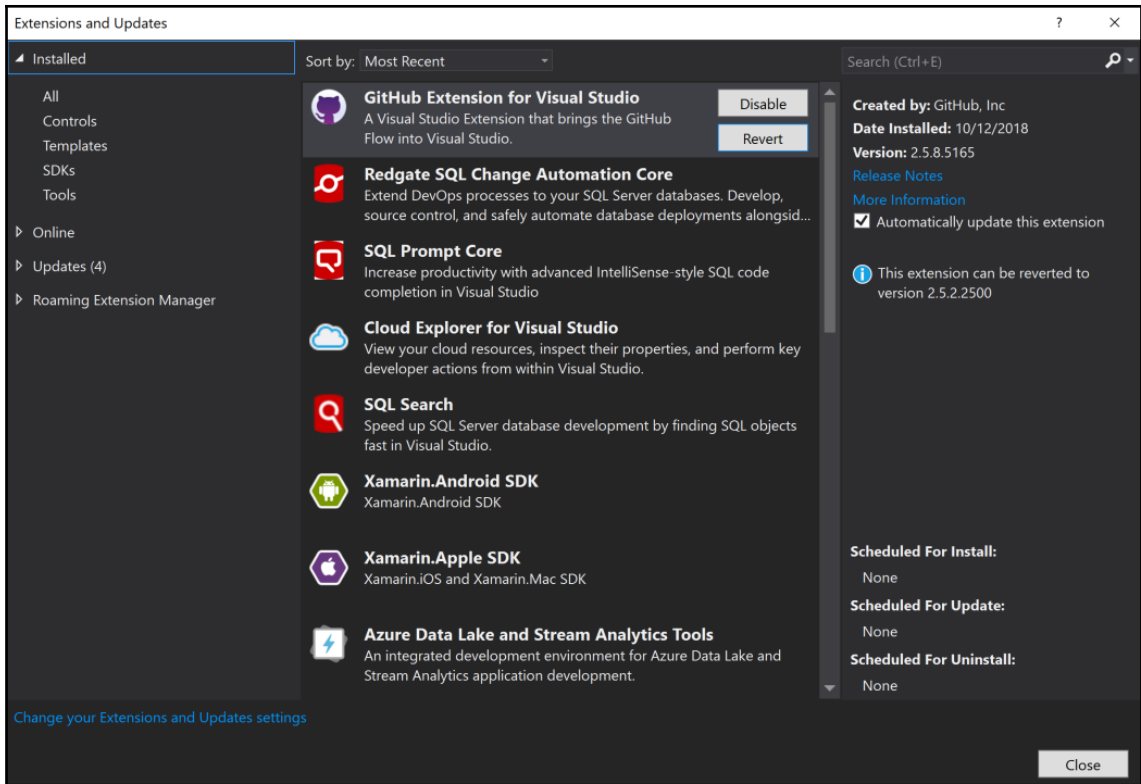
Email Recipient 2 (Optional)

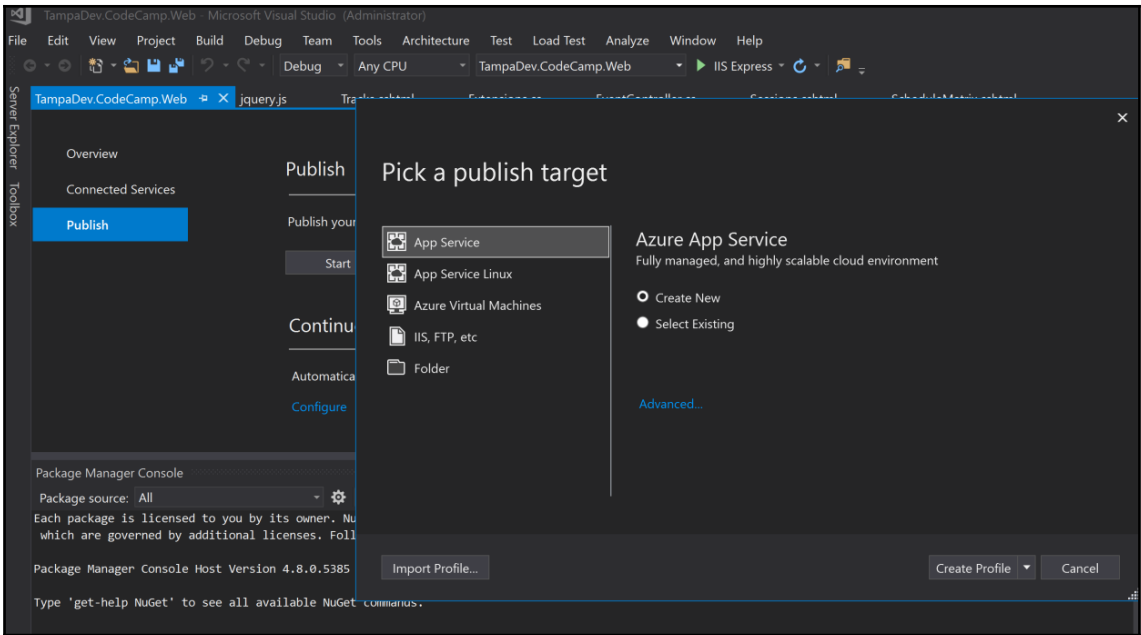
Save

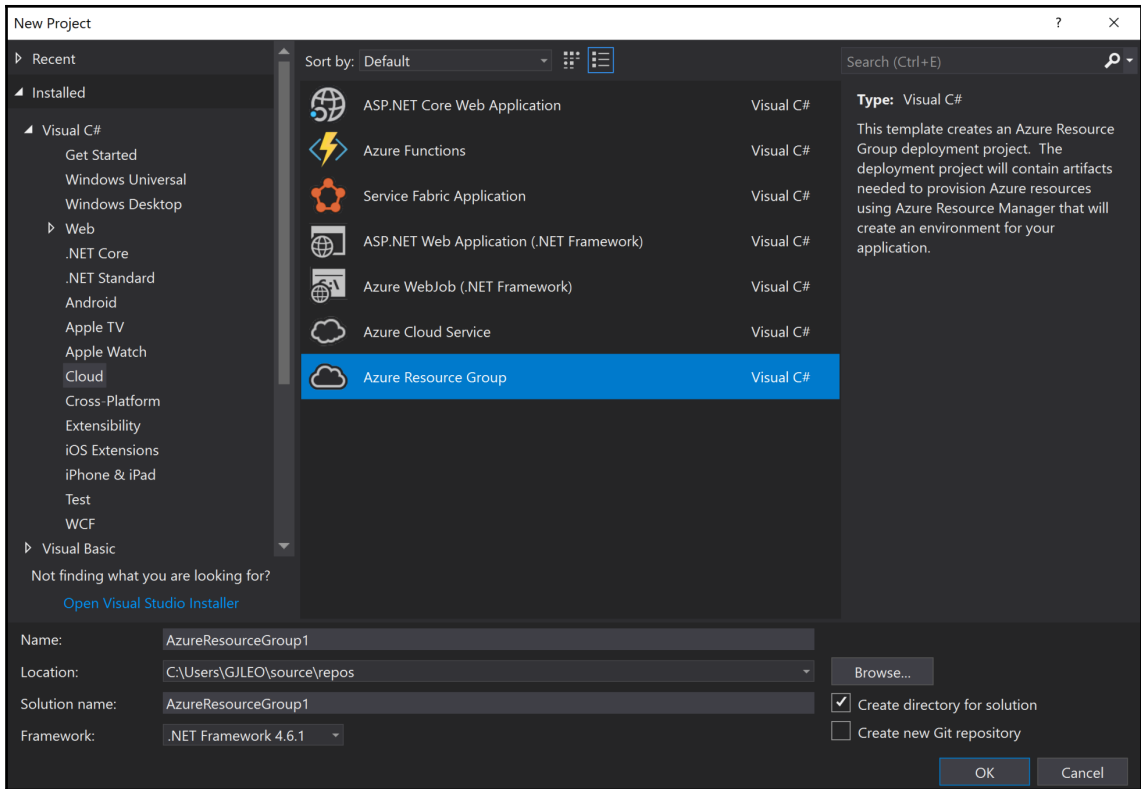
Discard











Chapter 5: Developing Solutions the Right Way in Azure

	Monolithic/ N-Tier	Mobile App Services	Microservices	Messaging Orchestration	High compute
Web Apps	X				
Mobile Apps		X			
Functions			X	X	
Logic Apps				X	
Virtual Machines	X	X		X	X
Kubernetes	X		X		
Service Fabric	X		X		
Container Instance	X		X		
Batch					X

	Relational	Unstructured	Semi-Structured	Queue	Files	High Performance	Large Data	Small Data	Geo Redundancy
SQL	X								
MySQL	X								
CosmosDB		X	X			X	X	X	X
Blob		X					X	X	X
Table			X					X	X
Queue				X				X	X
File					X		X	X	X

Security policy - Pricing tier

Contoso IT - demo

Search (Ctrl+/) Save

Policy Components:

- Data Collection
- Security policy
- Email notifications
- Pricing tier**
- Edit security configurations (Pre...

The Standard tier provides enhanced security. [Learn more >](#)

Free (for Azure resources only)	Standard
✓ Security assessment	✓ Security assessment
✓ Security recommendations	✓ Security recommendations
✓ Basic security policy	✓ Basic security policy
✓ Connected partner solutions	✓ Connected partner solutions
✗ Just in time VM Access	✓ Just in time VM Access
✗ Adaptive application controls	✓ Adaptive application controls
✗ Network threat detection	✓ Network threat detection
✗ VM threat detection	✓ VM threat detection
0.00 USD/NODE/MONTH	15.00 USD/NODE/MONTH

Security Center - Overview

Showing 3 subscriptions

Search (Ctrl+/) Subscriptions

GENERAL

- Overview
- Getting started
- Events
- Search

POLICY & COMPLIANCE

- Coverage
- Security policy

RESOURCE SECURITY HYGIENE

- Recommendations
- Compute & apps
- Networking
- Data & storage
- Identity & access (Preview)
- Security solutions

THREAT PROTECTION

Policy & compliance

Subscription coverage

- 2 TOTAL
- 2 Covered (standard)
- 0 Covered (free)
- 0 Not covered
- 4 Covered resources

Policy compliance

- Overall compliance: N/A
- Least compliant subscriptions: No resources to assess
- Show policy compliance of your environment >

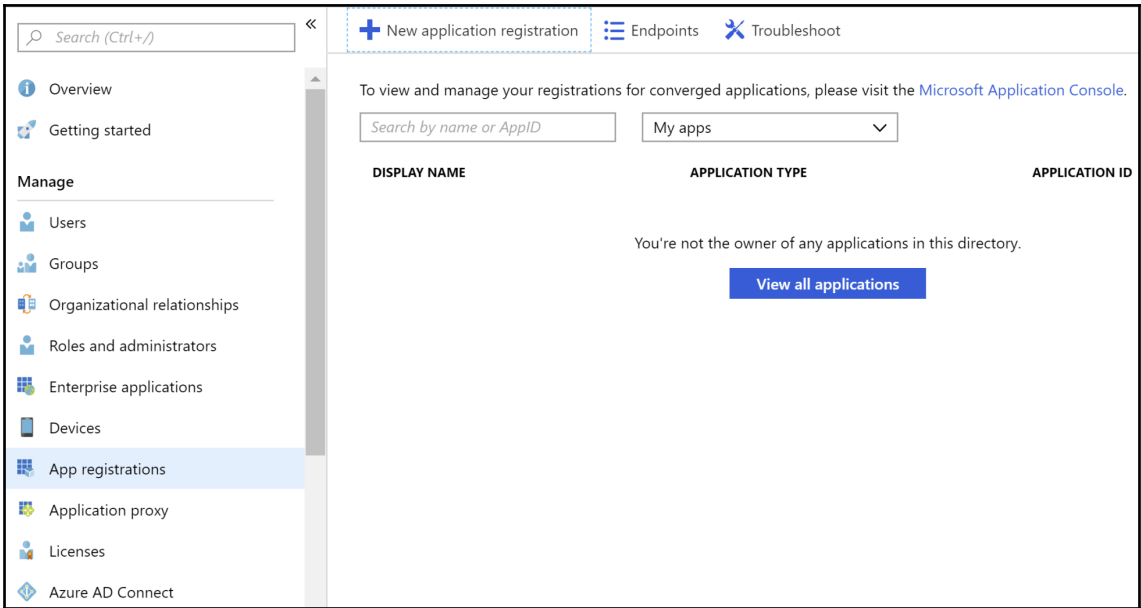
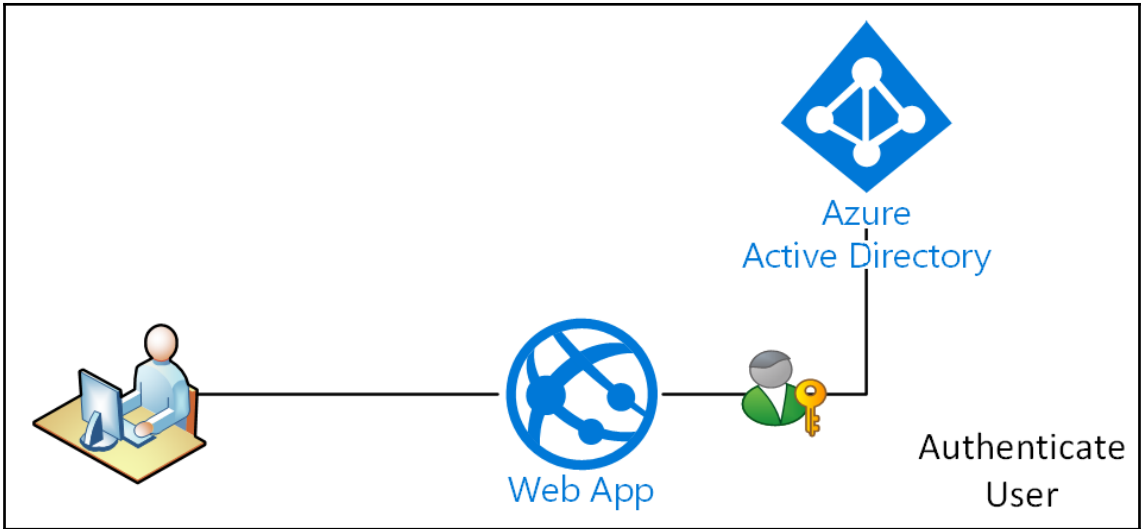
Resource security hygiene

Recommendations

- 6 TOTAL
- 1 High Severity
- 3 Medium Severity
- 2 Low Severity
- 3 Unhealthy resources

Resource health monitoring

- 1 Compute & apps
- 1 Data & storage
- 0 Networking
- 2 Identity & access



Book Demo App 🔖 □ ✕

Registered app

⚙️ Settings
✎ Manifest
🗑️ Delete

<p>Display name Book Demo App</p> <p>Application type Web app / API</p> <p>Home page http://meme.com</p>	<p>Application ID 65cb5357-6207-4b71-be69-47b84ec2ed1c</p> <p>Object ID 6daa2a29-d592-4783-a2f3-5d86f6835bb4</p> <p>Managed application in local directory Book Demo App</p>
---	--

⤴

Settings

- GENERAL
- 📄 Properties >
- 📄 Reply URLs >
- 👤 Owners >
- API ACCESS
- 🔗 Required permissions >
- 🔑 Keys >
- TROUBLESHOOTING + SUPPORT
- ✖ Troubleshoot >
- 👤 New support request >

Keys

💾 Save
✕ Discard
⬆ Upload Public Key

⚠ Copy the key value. You won't be able to retrieve after you leave this blade.

Passwords

DESCRIPTION	EXPIRES	VALUE
Book Demo	12/31/2299	4fY2cbqUgS9cllxkNzmBkiqWWiBsFLx3xyrhkw

Key description

Duration ▼

Value will be displayed on save

Public Keys

THUMBPRINT	START DATE
No results.	

Create a resource

All services

FAVORITES

Dashboard

All resources

Recent

Subscriptions

Resource groups

Azure Active Directory

App Services

SQL databases

Virtual machines

Virtual machines (classic)

Cloud services (classic)

Monitor

New

Azure Marketplace [See all](#) Popular

Get started	Windows Server 2016 VM Quickstart tutorial
Recently created	
Compute	Ubuntu Server 18.04 VM Learn more
Networking	
Storage	Web App Quickstart tutorial
Web	
Mobile	SQL Database Quickstart tutorial
Containers	
Databases	
Analytics	Serverless Function App Quickstart tutorial

Azure Active Directory B2C

Microsoft



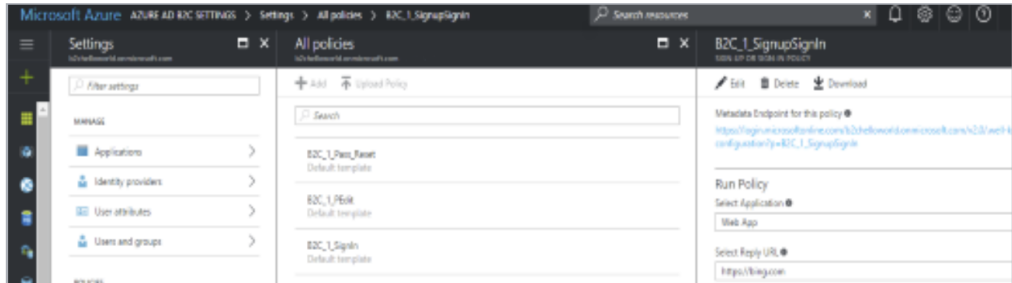
Consumer identity and access management in the cloud

A highly available, global, identity management service for customer-facing applications that scales to hundreds of millions of identities. It can be easily integrated across mobile and web platforms. Your customers can log on to all your applications through fully customizable experiences by using their existing social accounts or by creating new credentials.

- Protect your consumer's identities
- Login with social media accounts
- Customizable user experiences
- Pay only for what you use


Get started today with a free tier up to 50,000 users and 50,000 authentications per month for Pay As You Go Azure subscriptions. A subscription is not required.


 Save for later



Create


Create new B2C Tenant or Link to existing Tenant ☐ ✕

 Create a new Azure AD B2C Tenant ⓘ

 Link an existing Azure AD B2C Tenant to my Azure subscription ⓘ

Azure AD B2C Create Tena... ✕

* Organization name 

bookdemoorg 

* Initial domain name 

bookdemoorg| 

bookdemoorg.onmicrosoft.com


Country or region 

United States 



Directory creation will take about one minute.


Create




Directory + subscription

Global subscription filter

The portal will show data only for these subscriptions.



All subscriptions 

Current directory: webonology.com


[Learn about directories and subscriptions](#) 


Switch directory

Set your default directory


 [Webonology \(webonology.com\)](#) 

Favorites [All Directories](#) [A to Z](#)



bookdemoorg 

bookdemoorg.onmicrosoft.com
7d72d1f2-c6ae-497d-bc68-2a65551c5e7a

Microsoft 

microsoft.onmicrosoft.com
72f988bf-86f1-41af-91ab-2d7cd011db47

	Relational	Unstructured	Semi-Structured	Queue	Files	High Performance	Large Data	Small Data	Geo Redundancy
SQL	X								
MySQL	X								
CosmosDB		X	X			X	X	X	X
Blob		X					X	X	X
Table			X					X	X
Queue				X				X	X
File					X		X	X	X



Blob

Unstructured
Large
Page/Block



Table

Semi-structured
Flexible scheme
Small messages



Queue

Queue
Reliable
MSMQ



File

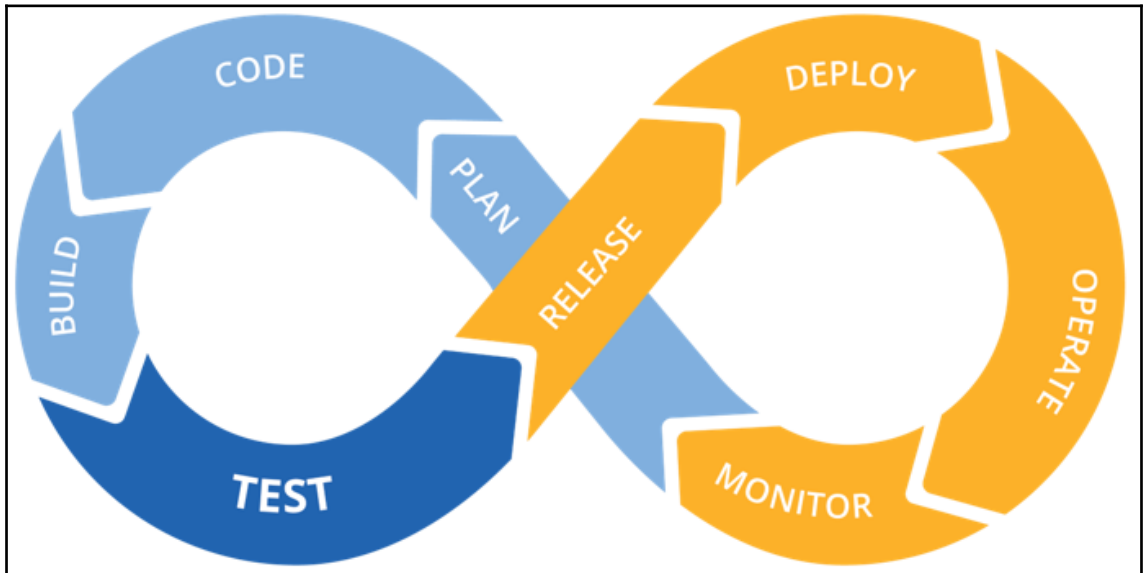
File share
SMB



Disk

Premium High I/O
VM Disks

Chapter 6: Deploying Solutions to Azure

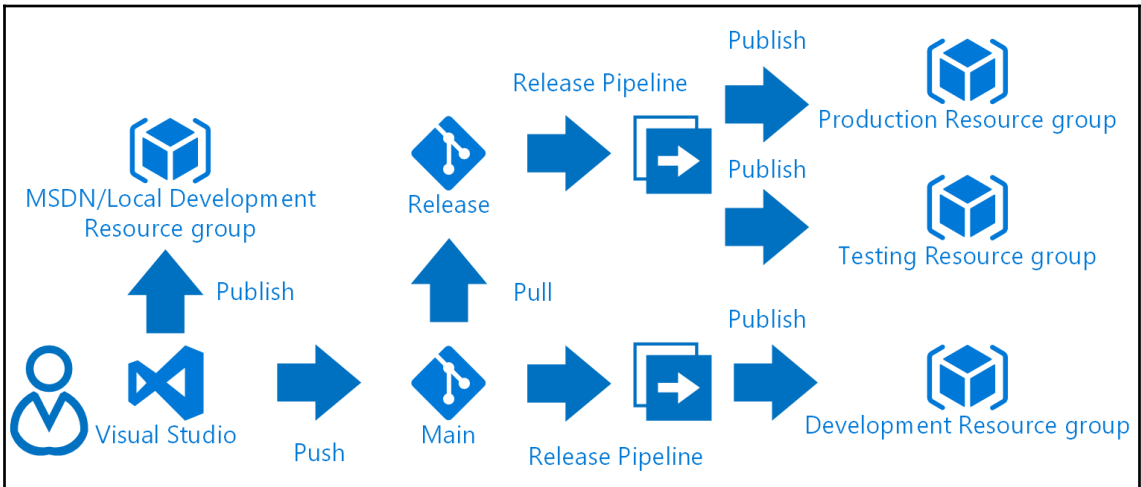
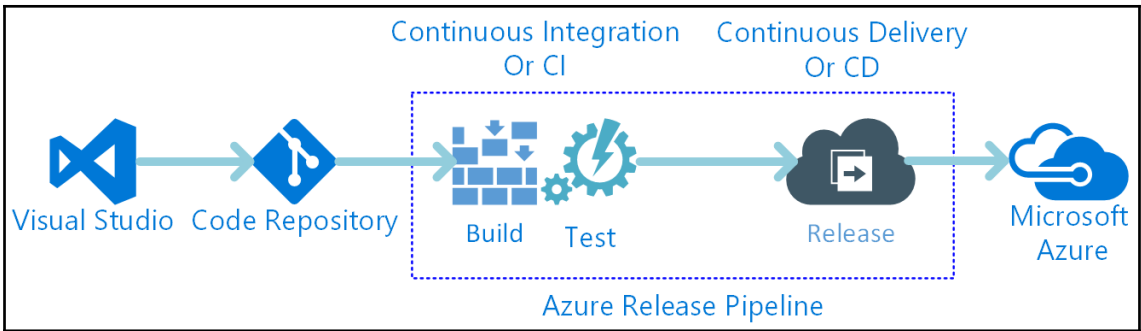


Azure DevOps interface showing the Work Items section for a project named "Book Demo". The breadcrumb navigation is: gleonardo / Book Demo / Boards / Work Items.

The interface includes a sidebar with navigation options: Overview, Boards, Work Items, Boards, Backlogs, Sprints, Queries, Repos, Pipelines, Test Plans, and Artifacts.

The main content area displays a table of Work Items:

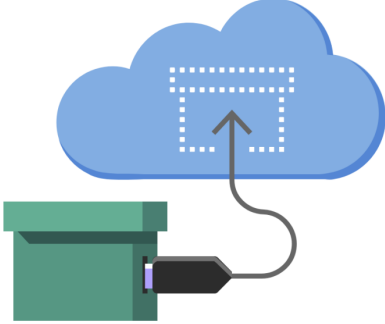
ID	Title	Assigned To	State	Area Path	Tags
3	Consumer Login	Unassigned	New	Book Demo	Security
2	Admin Web Portal	Unassigned	New	Book Demo	
1	Consumer Web Portal	Unassigned	New	Book Demo	



Azure DevOps

gleonardo / Book Demo / Artifacts / Packages

Organization | + New feed | Connect to feed | Recycle Bin



Connect to the feed to get started

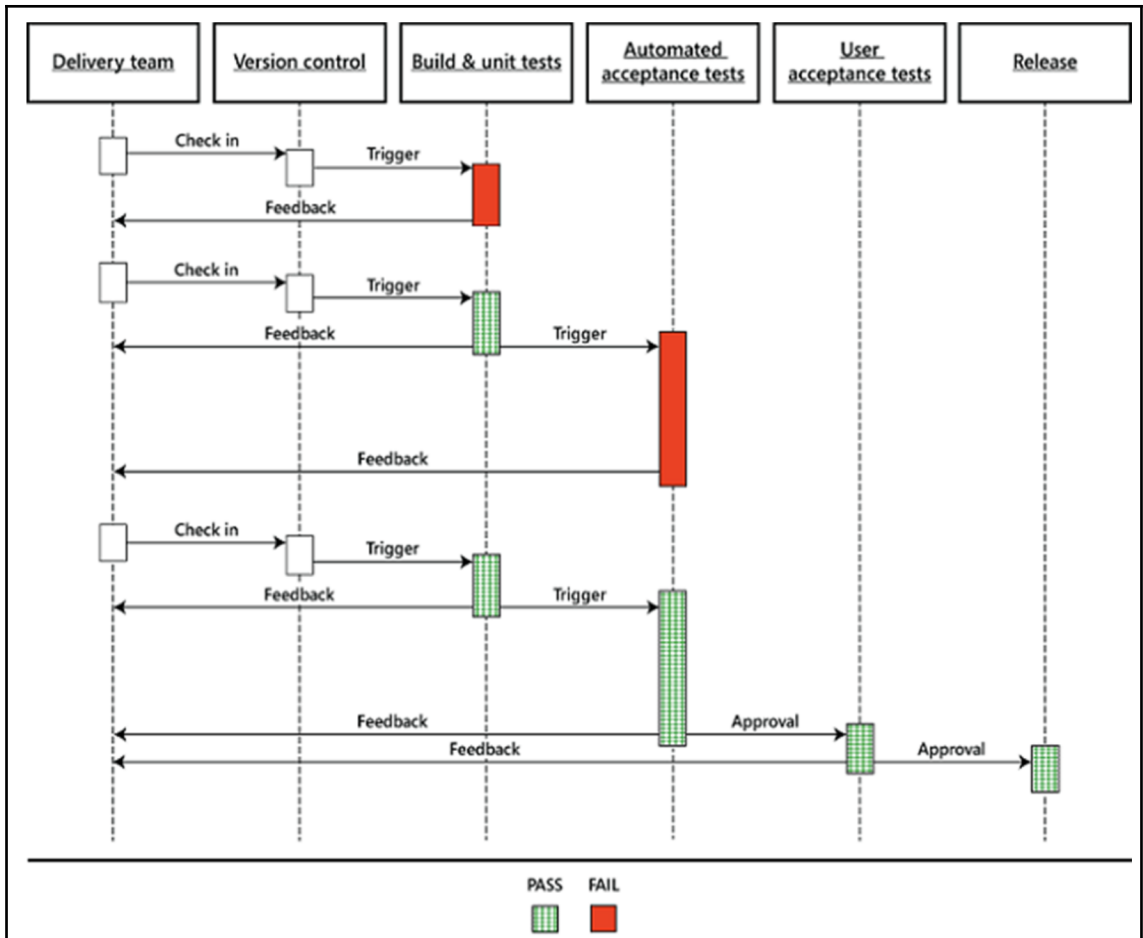
[Connect to feed](#)

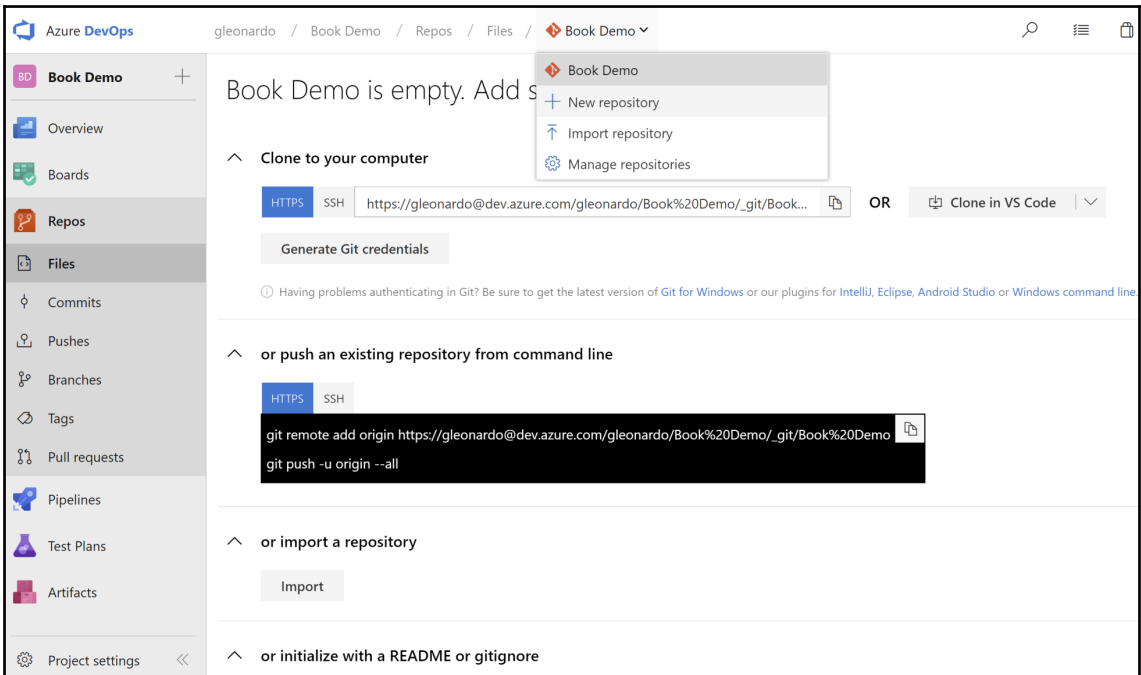
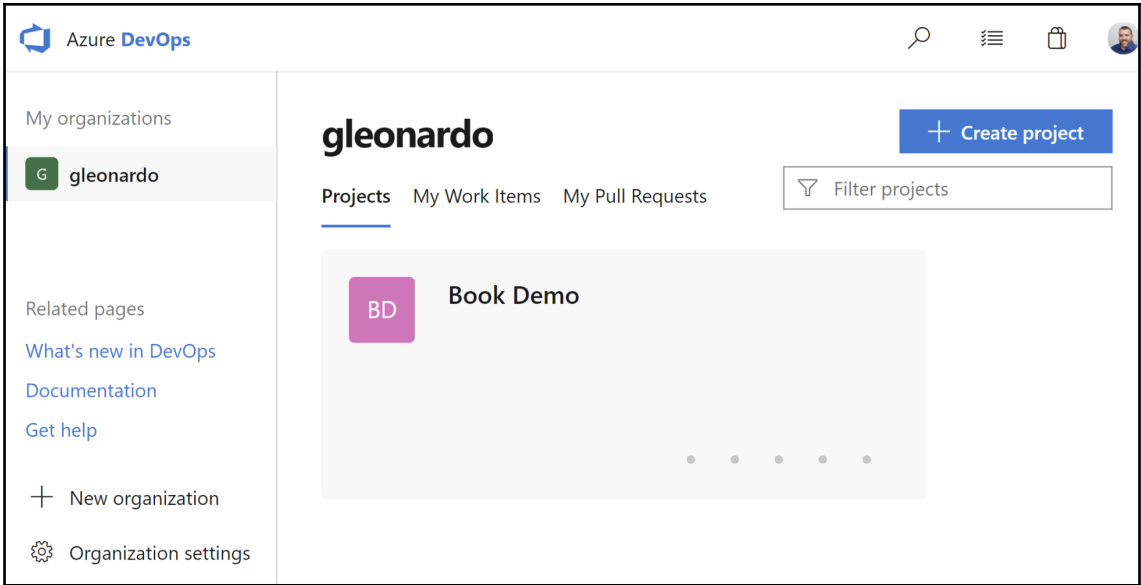
[Learn more about Azure Artifacts](#)

Book Demo

- Overview
- Boards
- Repos
- Pipelines
- Test Plans
- Artifacts

Project settings





Azure DevOps | gleonardo / Book Demo / Pipelines

Book Demo +

- Overview
- Boards
- Repos
- Pipelines**
- Builds
- Releases*
- Library
- Task groups
- Deployment groups
- Test Plans
- Artifacts
- Project settings <<

PowerShell 20180917.1

PowerShell · master · 6ca3b11: Set up CI with Azure Pipelines · Manual build

[Add a tag](#)

[Logs](#) | [Summary](#) | [Tests](#) | [Release](#) | [Edit](#) | [Queue](#) ▾ | ...

phase1 Job Started: 9/16/2018, 9:14:32 PM

Pool: Hosted Ubuntu 1604 · Agent: Hosted Agent ... 13.570

✓ Prepare job · succeeded	0.000
✓ Initialize Agent · succeeded	2.174
✓ Initialize job · succeeded	1.250
✓ Get sources · succeeded	6.353
✓ Run a one-line script · succeeded	2.883
✓ Run a multi-line script · succeeded	0.517
✓ Post-job: Get sources · succeeded	0.873
✓ Report build status · succeeded	0.127

Azure DevOps

gleonardo / Book Demo / Pipelines

All pipelines > PowerShell - CD

Save + Release View releases

Pipeline Tasks Variables Retention Options History

You cannot save a release pipeline that contains zero stages.

Artifacts | + Add

PowerShell

Schedule not set

Stages | + Add

+ Add a stage

Overview

Boards

Repos

Pipelines

Builds

Releases*

Library

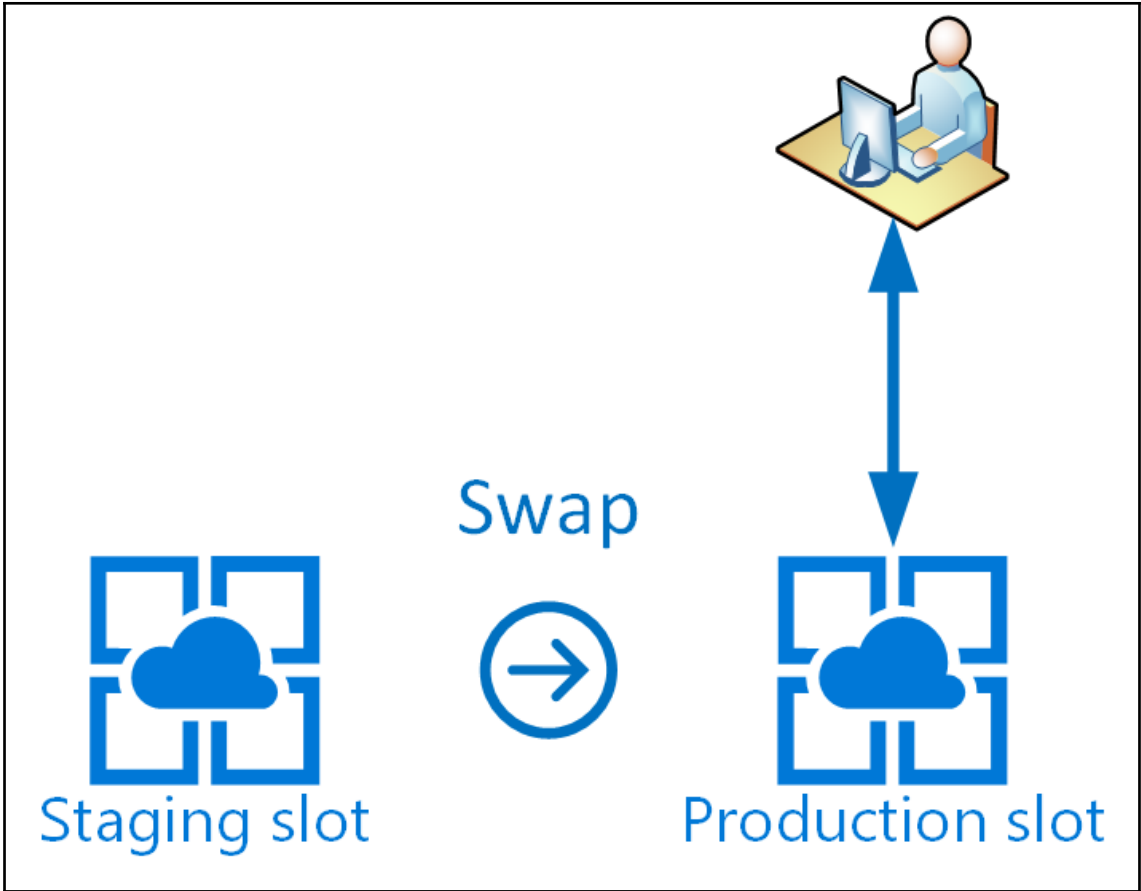
Task groups

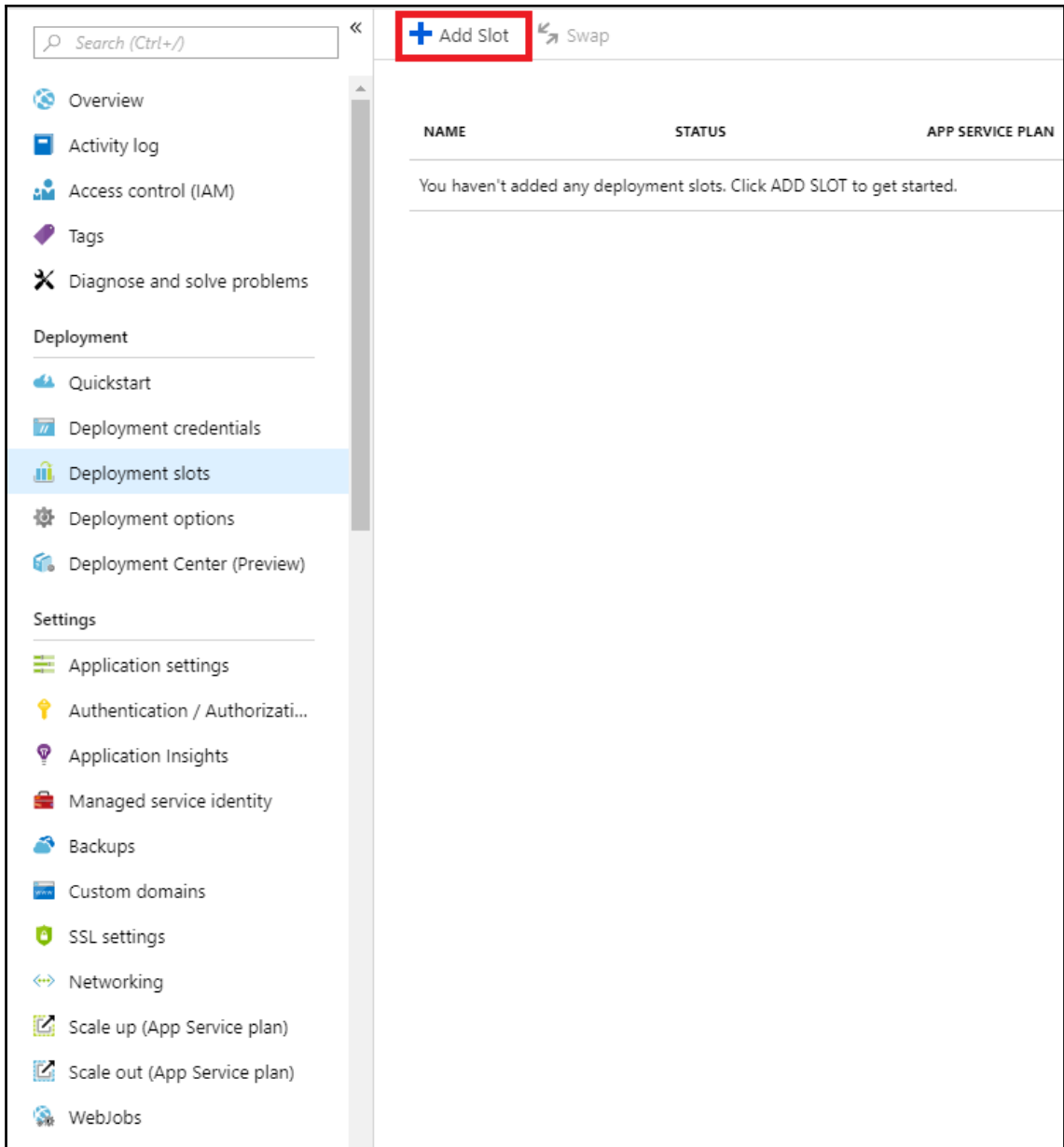
Deployment groups

Test Plans

Artifacts

Project settings





Search (Ctrl+/)

+ Add Slot Swap

NAME	STATUS	APP SERVICE PLAN
You haven't added any deployment slots. Click ADD SLOT to get started.		

Search (Ctrl+*/*)

Save Discard

i Affinity Cookie, stateful applications should keep the Affinity Cookie turned on for increased compatibility. Click to learn more.

ARR Affinity Off On

i Auto swap destinations cannot be configured from production slot

Auto Swap Off On

Auto Swap Slot

i FTP based deployment can be disabled or configured to accept FTP (plain text) or FTPS (secure) connections. Click to learn more.

FTP access FTP + FTPS FTPS Only Disable

Debugging

Remote debugging Off On

Remote Visual Studio version

Application settings

Tags

Diagnose and solve problems

Deployment

Quickstart

Deployment credentials

Deployment slots

Deployment options

Deployment Center (Preview)

Settings

Application settings

Authentication / Authorizati...

Application Insights

Managed service identity

Backups

Custom domains

SSL settings

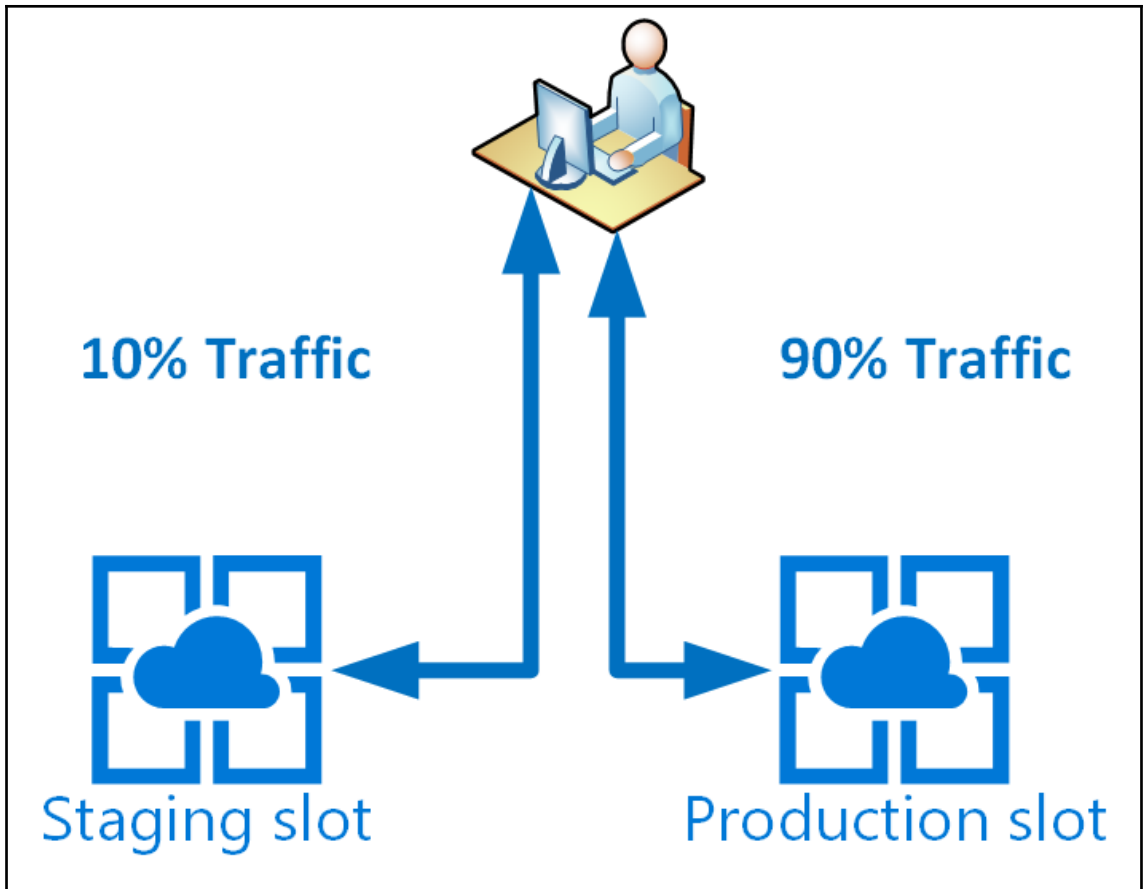
Networking

Search (Ctrl+/) Save Discard Add Slot

Static Routing ⓘ

	TRAFFIC %
staging	10%
Choose deployment slot	Traffic %
production	90%

mysql in app
Properties
Locks
Automation script
App Service plan
App Service plan
Quotas
Change App Service plan
Development Tools
Clone app
Console
Advanced Tools
App Service Editor (Preview)
Performance test
Resource explorer
Testing in production
Extensions
Mobile
Easy tables



Search (Ctrl+V)

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Deployment
 - Quickstart
 - Deployment credentials
 - Deployment slots
 - Deployment options
 - Deployment Center (Preview)
- Settings
 - Application settings
 - Authentication / Authorizati...
 - Application Insights
 - Managed service identity
 - Backups
 - Custom domains
 - SSL settings
 - Networking
 - Scale up (App Service plan)
 - Scale out (App Service plan)

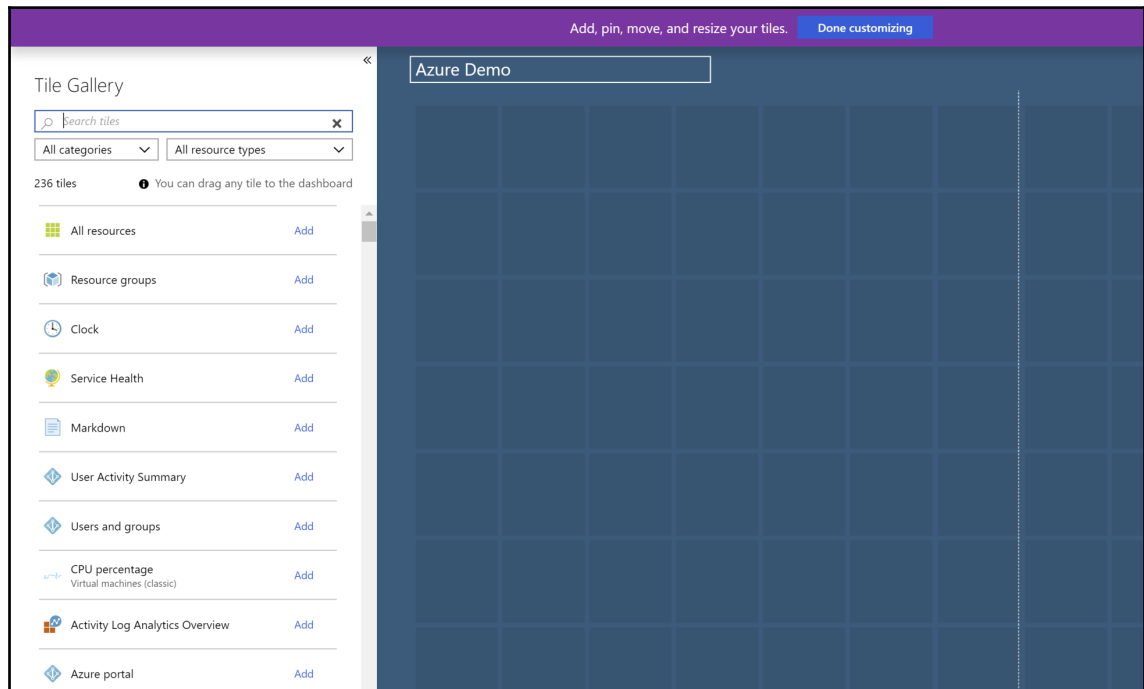
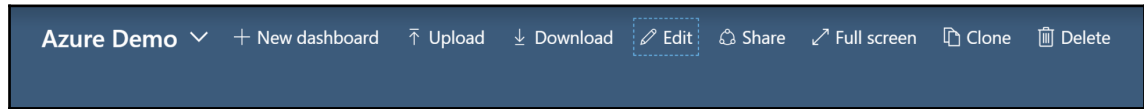
Deployment Center (Preview)

App Service Deployment Center enables you to choose the location of your code as well as options for build and deployment to the cloud. [Learn more](#)

1 SOURCE CONTROL — 2 BUILD PROVIDER — 3 CONFIGURE

<div style="text-align: center; margin-bottom: 5px;"> VSTS</div> <p style="font-size: small; margin: 0;">Configure continuous integration with a VSTS repo.</p>	<div style="text-align: center; margin-bottom: 5px;"> Github</div> <p style="font-size: small; margin: 0;">Configure continuous integration with a Github repo.</p> <p style="text-align: right; font-size: x-small; margin: 0;">Not Authorized</p>	<div style="text-align: center; margin-bottom: 5px;"> Bitbucket</div> <p style="font-size: small; margin: 0;">Configure continuous integration with a Bitbucket repo.</p> <p style="text-align: right; font-size: x-small; margin: 0;">Not Authorized</p>
<div style="text-align: center; margin-bottom: 5px;"> Local Git</div> <p style="font-size: small; margin: 0;">Deploy from a local Git repo.</p>	<div style="text-align: center; margin-bottom: 5px;"> OneDrive</div> <p style="font-size: small; margin: 0;">Sync content from a OneDrive cloud folder.</p> <p style="text-align: right; font-size: x-small; margin: 0;">Not Authorized</p>	<div style="text-align: center; margin-bottom: 5px;"> Dropbox</div> <p style="font-size: small; margin: 0;">Sync content from a Dropbox cloud folder.</p> <p style="text-align: right; font-size: x-small; margin: 0;">Not Authorized</p>
<div style="text-align: center; margin-bottom: 5px;"> External</div>	<div style="text-align: center; margin-bottom: 5px;"> FTP FTP</div>	

Chapter 7: Putting It All Together



booking-demo-app-dev-01
App Service

Search (Ctrl+/)

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Deployment

- Quickstart
- Deployment credentials
- Deployment slots
- Deployment options
- Deployment Center (Preview)

Settings

- Application settings
- Authentication / Authorizati...
- Application Insights
- Managed service identity
- Backups

Browse Stop Swap Restart Delete Get publish profile Reset publish profile

Click here to access our Quickstart guide for deploying code to your app with it.

Http 5xx

Http Server Errors 0

Data In

Data In 0 B

Data Out

Requests

Azure Demo + New dashboard Upload Download Edit Share Full screen Clone Delete

Http 5xx

Http Server Errors 0

Home > Advisor recommendations

Advisor recommendations

[Download as CSV](#)
[Download as PDF](#)
[Configure](#)

Subscriptions: All 3 selected – Don't see a subscription? [Open Directory + Subscription settings](#)

All subscriptions | All types | Active | No grouping

[Overview](#)
[High Availability \(2\)](#)
[Security \(2\)](#)
[Performance \(0\)](#)
[Cost \(0\)](#)
[All \(4\)](#)

High Availability

2 Recommendations

0 High impact | 1 Medium impact | 1 Low impact

2 Impacted resources

Security

2 Recommendations

2 High impact | 0 Medium impact | 0 Low impact

5 Impacted resources

Performance

0 Recommendation

0 High impact | 0 Medium impact | 0 Low impact

✓ You are following all of our performance recommendations
[See all performance recommendations](#)

Cost

Home > Advisor recommendations

Advisor recommendations

[Download as CSV](#)
[Download as PDF](#)
[Configure](#)

Subscriptions: All 3 selected – Don't see a subscription? [Open Directory + Subscription settings](#)

All subscriptions | All types | Active | No grouping

[Overview](#)
[High Availability \(2\)](#)
[Security \(2\)](#)
[Performance \(0\)](#)
[Cost \(0\)](#)
[All \(4\)](#)

Total recommendations

2

Recommendations by impact

High 0

Medium 1

Low 1

Impacted resources

2

IMPACT	DESCRIPTION	POTENTIAL BENEFITS	IMPACTED RESOURCES	UPDATED AT
Medium	Enable Soft Delete to protect your blob data	Save and recover your data when blobs or blob snapshots are accidentally overwritten or deleted	1 Storage account	9/20/2018, 1:33:38 PM
Low	Create an Azure service health alert	Get notified when Azure service issues affect you	1 Subscription	9/20/2018, 1:32:53 PM

Home > Advisor recommendations

Advisor recommendations

Download as CSV | Download as PDF | Configure

Subscriptions: All 3 selected – Don't see a subscription? Open Directory + Subscription settings

All subscriptions | All types | Active | No grouping

Overview | High Availability (2) | Security (2) | Performance (0) | Cost (0) | All (4)

Prevent, detect and respond to threats with increased visibility, go to Security Center →

Total recommendations
2

Recommendations by impact
High 2
Medium 0
Low 0

Impacted resources
5

Security alerts
0

Learn more
What is Security Center
Explore Security Center Recommendations

IMPACT	DESCRIPTION	POTENTIAL BENEFITS	RECOMMENDATIONS	UPDATED AT
High	Follow Security Center recommendations	Prevent potential security breaches	2 Recommendations	9/20/2018, 4:36:28 PM

Home > Advisor recommendations > Security Center - Recommendations

Security Center - Recommendations

Showing 3 subscriptions

Search (Ctrl+F) | Filter

Secure score
Secure score 325 of 400
325 SCORE
8 Active recommendations

Resource health monitoring

- 3 Compute & apps
- 2 Data & storage
- 0 Networking
- 2 Identity & access

Review

Learn more >

DESCRIPTION	SECURE SCORE IMPACT	RESOURCE	SEVERITY
Designate more than one owner on your subscription (Preview)	+5	2 subscriptions	High
Function App should only be accessible over HTTPS (Preview)	+20	1 function app	Medium
Configure IP restrictions for Function App (Preview)	+10	1 function app	Medium
Configure IP restrictions for Web Application (Preview)	+10	2 web applications	Medium
Web Application should only be accessible over HTTPS (Preview)	+10	1 web application	Medium
Use the latest supported PHP version for Web Application (Preview)	+10	2 web applications	Low

Home > Advisor recommendations

Advisor recommendations

Download as CSV | Download as PDF | Configure

Subscriptions: 3 of 4 selected – Don't see a subscription? [Open Directory + Subscription settings](#)

3 subscriptions | All types | Active | No grouping

Overview | High Availability (2) | Security (2) | Performance (0) | Cost (0) | All (4)

We could not find any performance recommendations for the selected subscriptions and resources. To learn more about best practices for cloud applications, [go to Azure Architecture Center](#)

IMPACT	DESCRIPTION	POTENTIAL BENEFITS	IMPACTED RESOURCES	UPDATED AT
There are no recommendations at this time.				

SET UP AZURE COST MANAGEMENT

Manage Your Azure Spend for FREE

Management Dashboard

- Cost Entity Summary: 32 Cost Entities, 53 Accounts
- Cost Over Time: \$31,843 (Cost trend for last 30 days)
- Asset Controller: 2114 Instances (Usage trend for last 30 days)
- Unused RI Detector: 213 Unused RIs
- Cost By Service: Pie chart showing cost distribution by service.
- Potential Savings: Instance Type Pricing Recommendations.
- Compare Instances - Daily Trend: Line chart showing daily trends for various instance types.
- Storage by Department: Pie chart showing storage usage by department.

Hello, Greg Leonardo

It only takes a few minutes to sign up for **free** Azure Cost Management to manage and optimize your cloud spend. Premium features are included for the first 30 days.

Your notifications email: *
Not a valid email address

Your organization name: *

What is your role in regards to Azure costs?
 Make sure you have access to keys and portals as described under each role.

- Azure Enterprise Enrollment Administrator**
 You have access to the Azure Enterprise Portal Enrollment level EA API key for your organization.
- Microsoft CSP Partner Program Administrator**
 You are a Direct CSP with access to billing API keys from the Microsoft Partner Center portal.
- Azure Individual Subscription Owner**
 Your subscription was purchased directly from Microsoft, not through a CSP partner or as part of an Enterprise Enrollment.
- None of the above**

[Next](#)

Home > App Services > booking-demo-app-dev-01 - Activity log

booking-demo-app-dev-01 - Activity log

App Service

Search (Ctrl+F)

Columns Refresh logs Export to Event Hub Download as CSV Logs Pin current filters Reset filters

Search

Quick Insights

Subscription: Microsoft Azure Sponsorship Timespan: Last 6 hours Event severity: All Resource group: booking-demo-app-dev-01

Resource: booking-demo-app-dev-01 Add Filter

0 items.

OPERATION NAME	STATUS	TIME	TIME STAMP	SUBSCRIPTION	EVENT INITIATED BY
No results to display					



booking-demo-app-dev-01 - Activity log

App Service

Search (Ctrl+)



Columns

Refresh logs

Export to Event Hub

Mobile

Easy tables

Easy APIs

Data connections

API

API definition

CORS

Monitoring

Alerts (Classic)

Diagnostics logs

Log stream

Process explorer

Support + troubleshooting

Resource health

App Service Advisor

New support request

Search

Subscription : **Microsoft Azure Sponsorship**

Timespan

Resource : **booking-demo-app-dev-01**

Add Filter

0 items.

OPERATION NAME

STATUS

No results to display

Home > Monitor - Alerts

Monitor - Alerts

Microsoft

Search (Ctrl+V)

+ New alert rule Manage alert rules Manage action groups View classic alerts Refresh

Subscription: Microsoft Azure Sponsorship Resource group: Type to start filtering ... Resource: Type to start filtering ... Time range: Past 24 hours

Overview
Activity log
Alerts
Metrics
Logs
Service Health

Insights
Applications
Virtual Machines (preview)
Containers (preview)
Network
More

Settings
Diagnostics settings
Autoscale

Support + Troubleshooting

Pay attention to what matters.

You have not configured any alert rules.

Configure alert rules and attend to fired alerts to efficiently monitor your Azure resources. [Learn More](#)

+ New Alert Rule

Home > Monitor - Alerts > Create rule

Create rule

Rules management

1. Define alert condition

Alert condition configuration requires 1) Target selection and 2) Alert criteria definition where signal(s) and alert logic is configured.

Alert target Target Hierarchy
Select the target(s) that you wish to monitor

+ Select target

Alert criteria
No criteria defined, click on 'Add criteria' to select a signal and define its logic

+ Add criteria

2. Define alert details

3. Define action group

Create alert rule

Select a resource

For metric and log based alert rules please select a specific target, for activity log alert rules you can select a subscription, a resource type or a resource group.

Filter by subscription: Microsoft Azure Sponsorship Filter by resource type: App Services

Search to filter items...

RESOURCE

- Microsoft Azure Sponsorship
 - booking-demo-app-dev-01
 - booking-demo-app-dev-01

Selection preview Available signal(s) : Activity Log

- Microsoft Azure Sponsorship >
- All App Services

Done

Home > Monitor - Alerts > Create rule

Create rule

Rules management

1. Define alert condition

Alert condition configuration requires 1) Target selection and 2) Alert criteria definition where signal(s) and alert logic is confi

Alert target Target Hierarchy

booking-demo-app-dev-01
Microsoft Azure Sponsorship
booking-demo-a

[+ Select target](#)

Alert criteria

No criteria defined, click on 'Add criteria' to select a signal and define its logic

[+ Add criteria](#)

2. Define alert details

3. Define action group

[Create alert rule](#)

Configure signal logic

This metric supports dimensions. Selecting the dimension values will help you filter to the right time series. If you do not select any value for a dimension, that dimension will be ignored.

DIMENSION NAME	DIMENSION VALUES	SELECT *
Instance	0 selected	<input type="checkbox"/>

Alert logic

Condition ⓘ Time Aggregation **Threshold** ⓘ

Greater than ▼ Total ▼ 1 ✓ count

Condition preview

Whenever the http server errors is greater than 1 count

Evaluated based on

[Done](#)

Create rule

Rules management

[+ Add criteria](#)

^ 2. Define alert details

* Alert rule name ⓘ

Book Demo Http Errors ✓

* Description

All Http Errors ✓

* Severity ⓘ

Sev 1 ▼

Enable rule upon creation

Yes

No



It can take up to 10 minutes for a metric alert rule to become active.

∨ 3. Define action group



Home > Monitor - Alerts > Create rule > Add action group

✕
Add action group □ ✕

* Action group name ✓

* Short name ✓

* Subscription ▼

* Resource group ▼

Actions

ACTION NAME	ACTION TYPE	STATUS	DETAILS
<input type="text" value="Unique name for the act..."/>	<input type="text" value="Email/SMS/Push/Voice"/>		
Privacy Statement	Azure Function		
Pricing	LogicApp		
	Webhook		
	ITSM		
	Automation Runbook		

Home > Resource groups > booking-demo-app-dev-01 > booking-demo-app-dev-01 - Application Insights > booking-demo-app-dev-01

booking-demo-app-dev-01

Application Insights

🔍 Search (Ctrl+V)
★ Application Dashboard
📄 Getting started
🔍 Search
📊 Analytics
📍 Monitor resource group
🔄 Refresh
😊 Feedback
🔖 Favorites
⋮

Essentials

Show data for last: 30 minutes 1 hour 6 hours 12 hours 1 day 3 days 7 days 30 days

Failed requests

Failed requests (Sum)
booking-demo-app-dev-01

Server response time

Server response time (Avg)
booking-demo-app-dev-01

Server requests

Availability

Home > Resource groups > booking-demo-app-dev-01 > booking-demo-app-dev-01 - Application Insights > booking-demo-app-dev-01 > Logs

Logs
booking-demo-app-dev-01

New Query 1 +

Help Settings Query explorer

booking-demo-app-dev-01 **Run** Time range: Last 24 hours Save Copy link Export Set alert Pin

Schema Filter (preview) << Type your query here...

Filter by name or type... Collapse all

Active

- booking-demo-app-dev-01
 - APPLICATION INSIGHTS
 - traces
 - customEvents
 - pageViews
 - requests
 - dependencies
 - exceptions
 - availabilityResults
 - customMetrics
 - performanceCounters
 - browserTimings

Favorite applications

Select queries

Performance Browser Failures

Response time: average request duration over the last 12 hours
 requests | where timestamp > ago(12h) | summarize avgRequestDuration=avg(duration) by bin(timestamp, 10m) // use a time grain of 10 minutes | render timechart

Request count over the last day
 requests | summarize totalCount=sum(itemCount) by bin(timestamp, 30m) | render timechart

Performance bar-chart
 requests | summarize requestCount=sum(itemCount), avgDuration=avg(duration) by performanceBucket | order by avgDuration asc // sort by average request duration | p...