

An aerial photograph of a European city, likely Munich, featuring a large cathedral with two green domes on the left and a tall, ornate clock tower in the center. The city is filled with red-roofed buildings, and the sky is blue with scattered white clouds. A diagonal line divides the image, with the left side being darker and the right side being lighter.

Develop cool Serverless PowerShell code in Azure Functions

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Blogs @ jaapbrasser.com
Works Tech Marketeer @ Rubrik.com
Does Blogger, Speaker, Tech Enthusiast
Likes Cloud Automation, Scripting & Security





Agenda

01

Intro to
Cloud
Automation

02

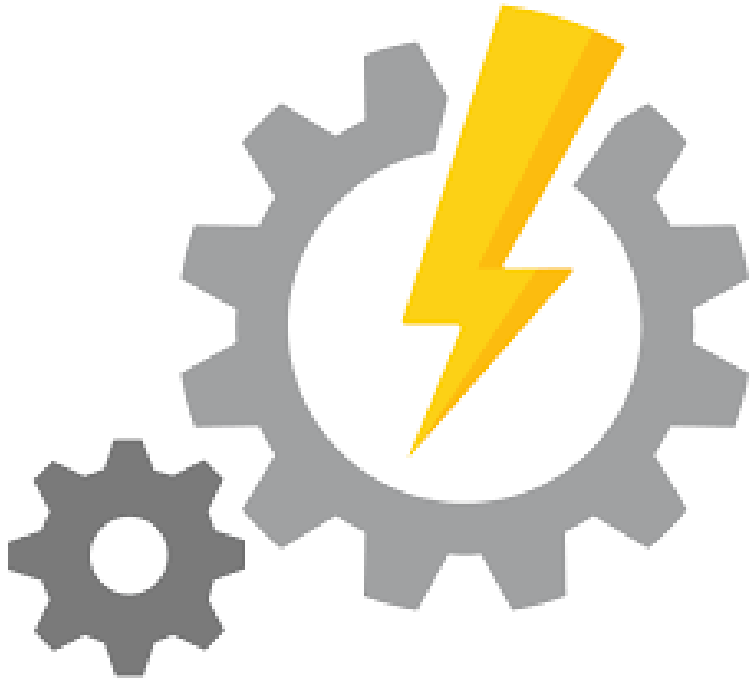
Azure
Functions v2

03

Demos!

04

Questions?



Cloud Automation

Azure Automation



Process Automation

Orchestrate processes using graphical, PowerShell, and Python runbooks



Configuration Management

Collect inventory
Track changes
Configure desired state



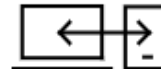
Update Management

Assess compliance
Schedule update installation



Shared capabilities

Role based access control
Secure, global store for variables, credentials, certificates, connections
Flexible scheduling
Shared modules
Source control support
Auditing
Tags



Heterogenous

Windows & Linux
Azure and on-premises



Azure Automation Summary

Automate processes

Cross-platform conf mgmt

Download runbooks & scripts

Event grid integration

Hybrid Runbook Worker

500 free minutes

What is
Microsoft
Flow



Microsoft Flow

Connectors



Office 365 Outl...



OneDrive for B...



Office 365 Users



SharePoint



Twitter



Notifications



RSS



Outlook.com

Recently added connectors



AtBot Admin



Marketing Cont...



Pitney Bowes T...



Excel Online (B...




Excel Online (O...



Azure SQL Data...


Flow Templates



Save Office 365 email attachments to OneDrive for Business

By Microsoft
Used 235650 times

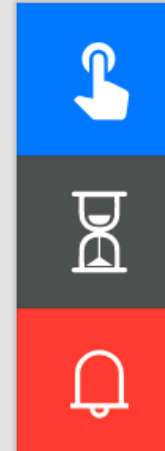
This flow template features a blue header with an Office 365 icon and a blue footer with a cloud icon.



Get a push notification when you receive an email from your...

By Microsoft
Used 136809 times


This flow template features a blue header with an Office 365 icon, an orange middle section with a OneDrive icon, and a red footer with a bell icon.



Send myself a reminder in 10 minutes

By Microsoft
Used 95634 times


This flow template features a blue header with a hand icon, a dark gray middle section with a sandglass icon, and a red footer with a bell icon.



Get today's weather forecast for my current location

By Microsoft
Used 83902 times


This flow template features a blue header with a hand icon, a blue middle section with a sun icon, and a red footer with a bell icon.



Save Outlook.com email attachments to your OneDrive

By Microsoft Flow Community
Used 64359 times

This flow template features a blue header with an Office 365 icon and a blue footer with a cloud icon.



Get a push notification with updates from the Flow blog

By Microsoft
Used 47714 times






This flow template features an orange header with a RSS icon and a red footer with a bell icon.

Flows

My flows

Team flows

Business process flows

	Name	Modified	Type
	Save Outlook.com email attachments to your OneD...	3 wk ago	Automated
	Hey PowerShell!	1 mo ago	Instant
	Get today's weather forecast for my current locati...	2 mo ago	Instant
	Sheep on Mac	3 mo ago	Instant

+ New ▾ ← Import

+ Create from blank

📄 Create from template



Send myself a
reminder in 10
minutes



By Microsoft
Used 126626 times



Get today's weather
forecast for my
current location



By Microsoft
Used 123456 times



PowerApps button



By Microsoft
Used 90541 times

Templates

Start approval
when a new item is
added



By Microsoft
Used 64388 times



Get a push
notification with
updates from the
Flow blog



By Microsoft
Used 62066 times



Save Office 365
email attachments
to OneDrive for
Business

By Microsoft
Used 57462 times

Flow Summary

Use Connectors to get data

Create triggers based on data

Build workflows

Integrate and combine services

Approval flows

Long runtime of flows

What are Azure Functions

Code

Events + data

Azure Functions



Microsoft Serverless

Microsoft Serverless



Storage



Functions



Logic App



Media Services



Cortana
Management Suite



App Service



Document DB



CDN



Machine Learning



OMS
Management Suit



Visual Studio
Services



Traffic
Manager



Active Directory



Key Vault



App Insights



Cognitive Services



Embedded Power BI



Search



IoT Hub



Service Bus



Notification Hub



Stream Analytics



Hockey App



Scheduler



Azure Web Apps

Advantages of Azure Functions



Pay for what you use



No Infrastructure to
manage



No maintenance of
servers



Can be placed in
existing subscriptions



Simplify code writing

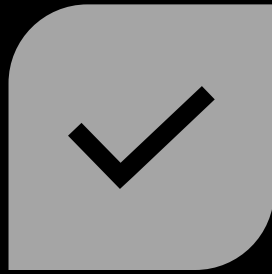


WAIT. HOLD UP. HOLD UP.

What are we trying to solve?



RE-USING EXISTING
SKILLS



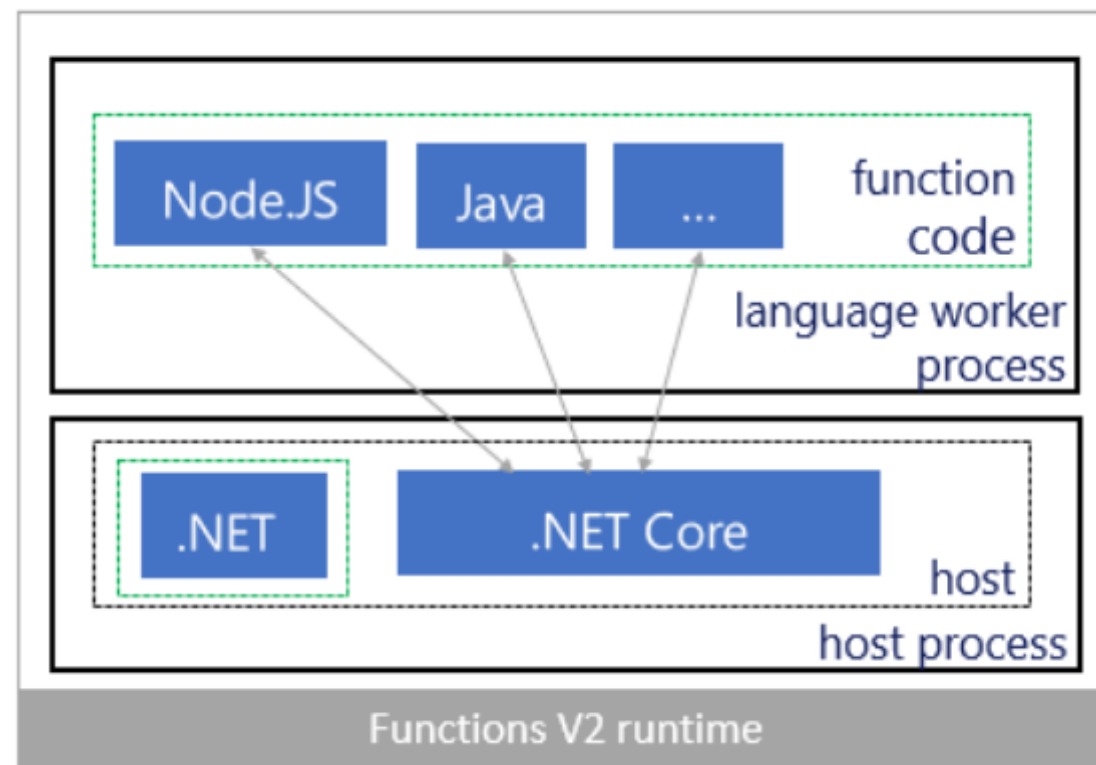
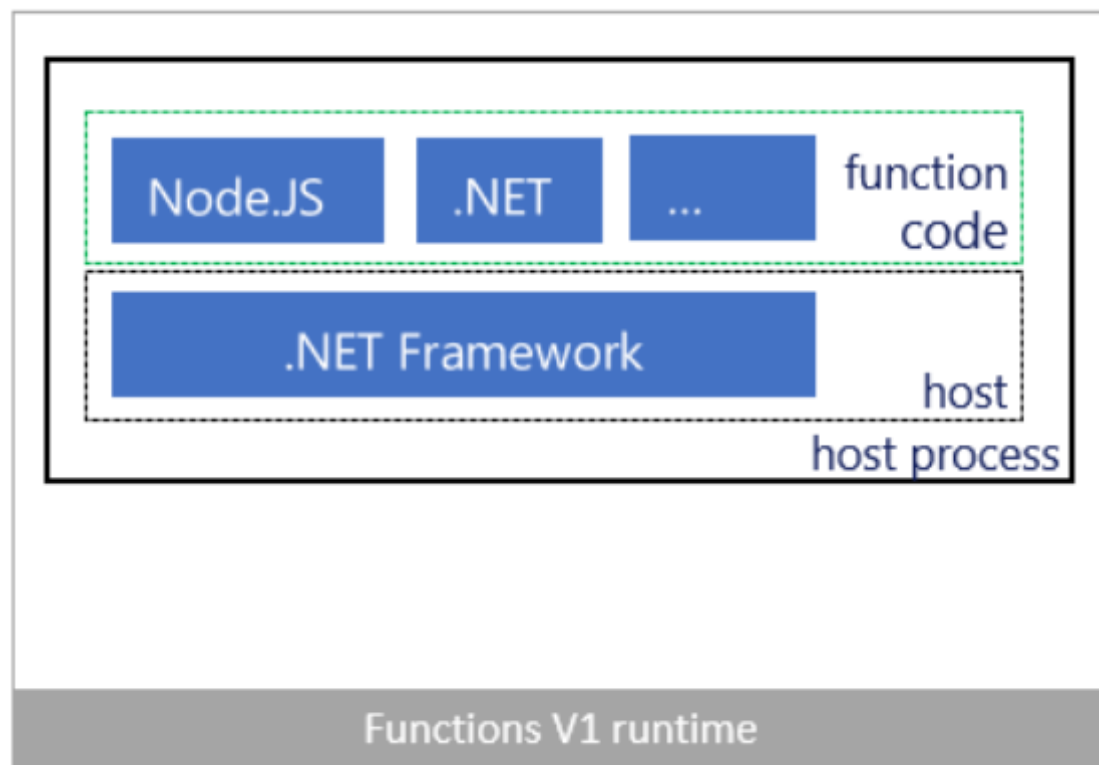
RE-USING EXISTING
CODE / SCRIPTS



FASTER
DEPLOYMENT



CLOUD NATIVE



demo



Working with Azure Functions

Alternative Deployment methods



Run from
Package



GitHub CD



FTP Upload

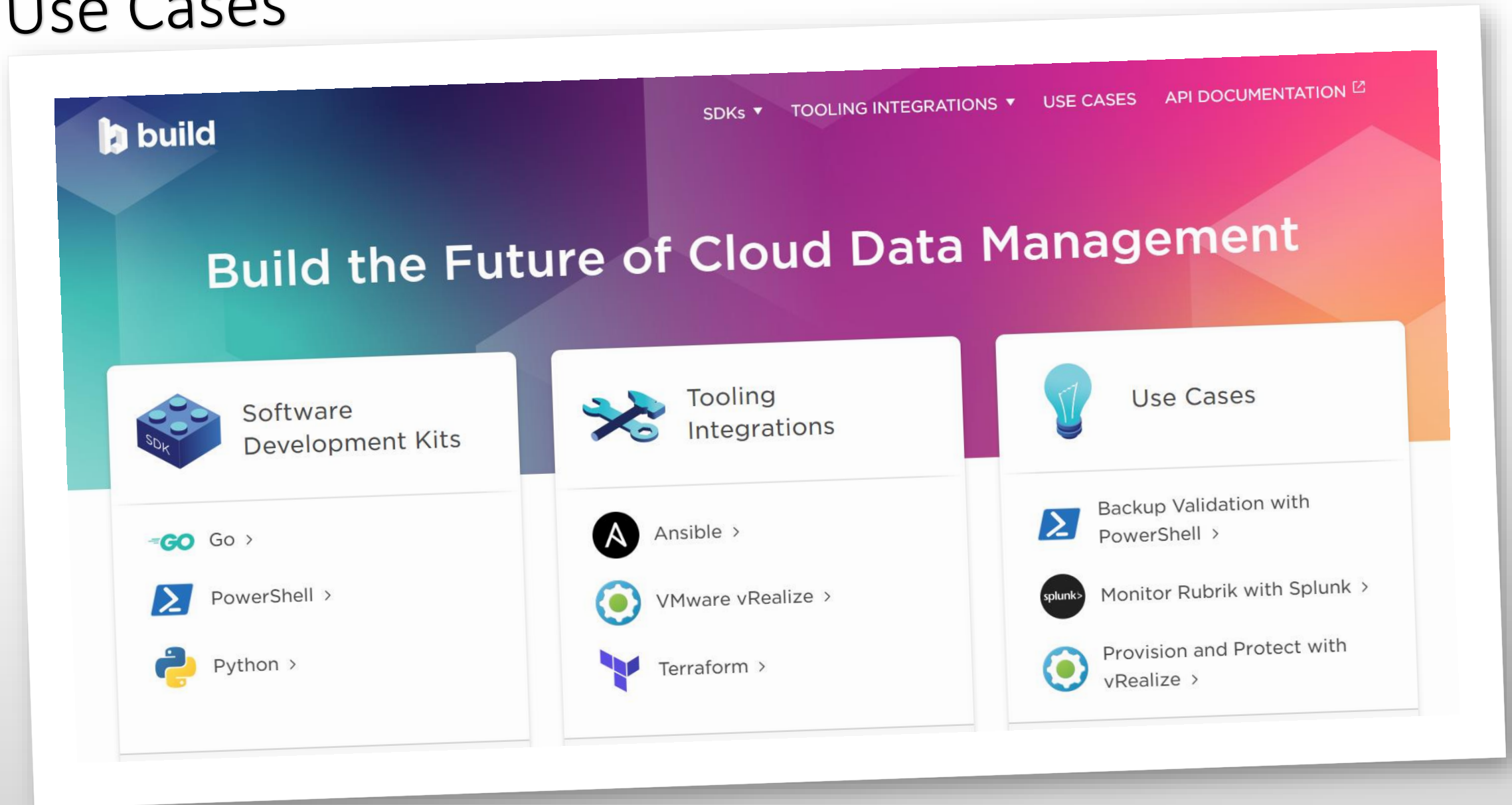


PowerShell /
CLI



Visual Studio

Use Cases




The screenshot displays the Build.com website with a purple and blue gradient header. The main navigation bar includes links for SDKs, Tooling Integrations, Use Cases, and API Documentation. The central banner reads "Build the Future of Cloud Data Management". Below this, three white cards are shown: "Software Development Kits" (with a blue SDK block icon), "Tooling Integrations" (with a blue wrench and screwdriver icon), and "Use Cases" (with a blue lightbulb icon). The "Use Cases" card lists three items: "Backup Validation with PowerShell", "Monitor Rubrik with Splunk", and "Provision and Protect with vRealize".




build


SDKs ▾ TOOLING INTEGRATIONS ▾ USE CASES API DOCUMENTATION ↗

Build the Future of Cloud Data Management







Software Development Kits

-  Go >
-  PowerShell >
-  Python >






Tooling Integrations

-  Ansible >
-  VMware vRealize >
-  Terraform >



Use Cases

-  Backup Validation with PowerShell >
-  Monitor Rubrik with Splunk >
-  Provision and Protect with vRealize >



Azure Functions Summary

Use existing PowerShell skills

Develop serverless code

Interact with other services

Free tier

functions.azure.com

Questions?

