

Deploying Azure Resources with PowerShell Azure Functions

... the next 60 minutes

⚡ Azure Functions

⚡ Triggers

⚡ Bindings

⚡ Hosting Plans

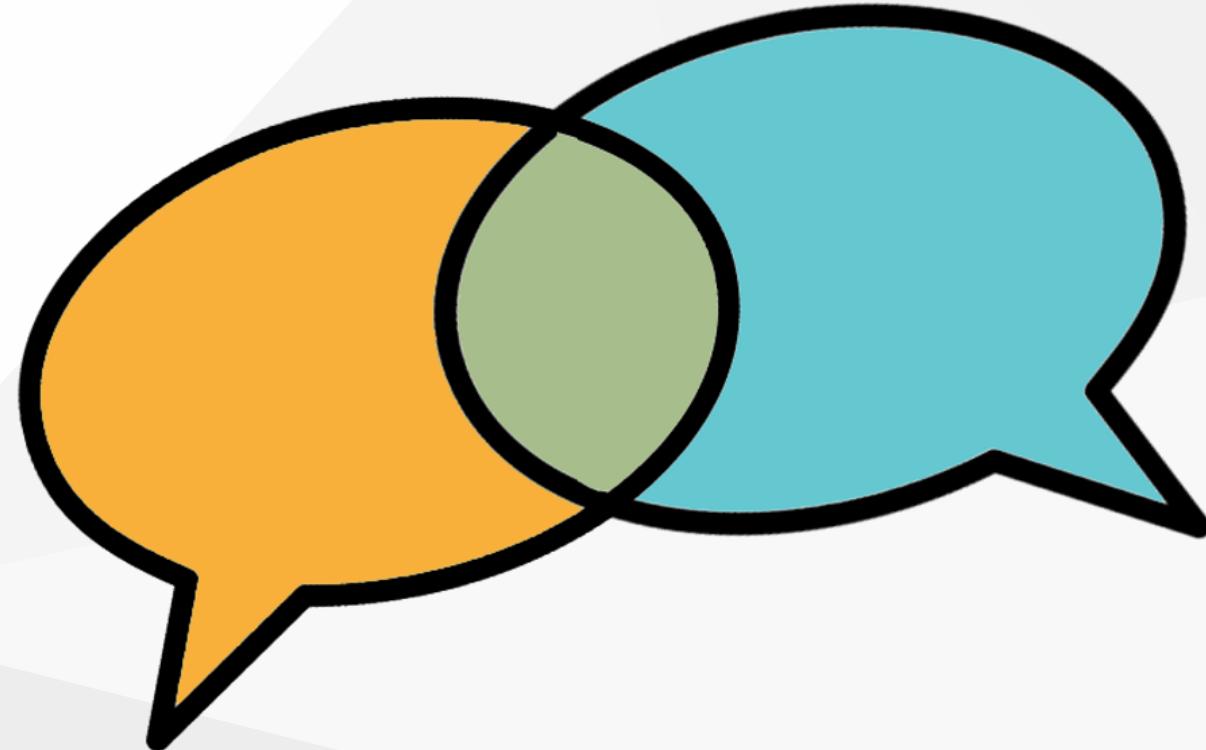
⚡ Use Cases

⚡ Demos

⚡ Durable Functions

Presentation Rules

- ⚡ Always ask questions
- ⚡ Interrupt us
- ⚡ This is a two-way conversation, let's learn from each other's experiences



Let's introduce ourselves

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Introduction to Azure Functions

FUNCTION



TRIGGER



BINDING



AZURE FUNCTION



Azure Functions, Function App, Function... Oh my!

 Azure Functions

 Function App

 Function

Function App

- ⚡ Shell of our project
- ⚡ Logically group functions
 - ⚡ manage & deploy as a group
 - ⚡ share resources
- ⚡ Create via the portal
- ⚡ Or via code:
 - ⚡ Azure CLI\PowerShell
 - ⚡ IaC - Arm, Bicep, Terraform

Function

- ⚡ Central concept of Azure Functions
- ⚡ Serverless compute on demand
- ⚡ Implement your code in C#, Java, PowerShell, Python, & more
- ⚡ You can deploy multiple functions in one function app
- ⚡ They must all be the same language

Triggers

- ⚡ A function can have only one trigger
- ⚡ This starts the execution of your function code
- ⚡ Can contain data, which is the payload
- ⚡ Many types:
 - ⚡ Timer
 - ⚡ Event Grid
 - ⚡ Blob Storage
 - ⚡ HTTP Webhooks

Bindings

- ⚡ Connecting other resources to your function
- ⚡ Input & Output
- ⚡ Can have multiple bindings
- ⚡ Triggers are input bindings
- ⚡ Vast array of options including
 - ⚡ Azure Cosmos DB
 - ⚡ Azure SQL (preview)
 - ⚡ Azure Storage

Hosting Plans

 Consumption (default)

 Premium

 Dedicated

Use cases for Azure Functions

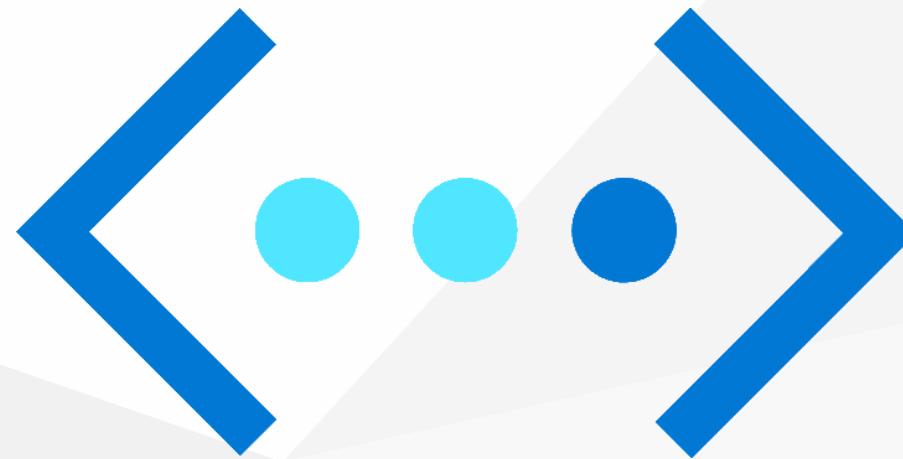
- ⚡ Scheduled tasks and messages
- ⚡ Reminders and notifications
- ⚡ File processing
- ⚡ Data or data streams processing
- ⚡ Running background backup tasks
- ⚡ Computing backend calculations
- ⚡ Lightweight Web APIs and Proof of Concepts

Demos

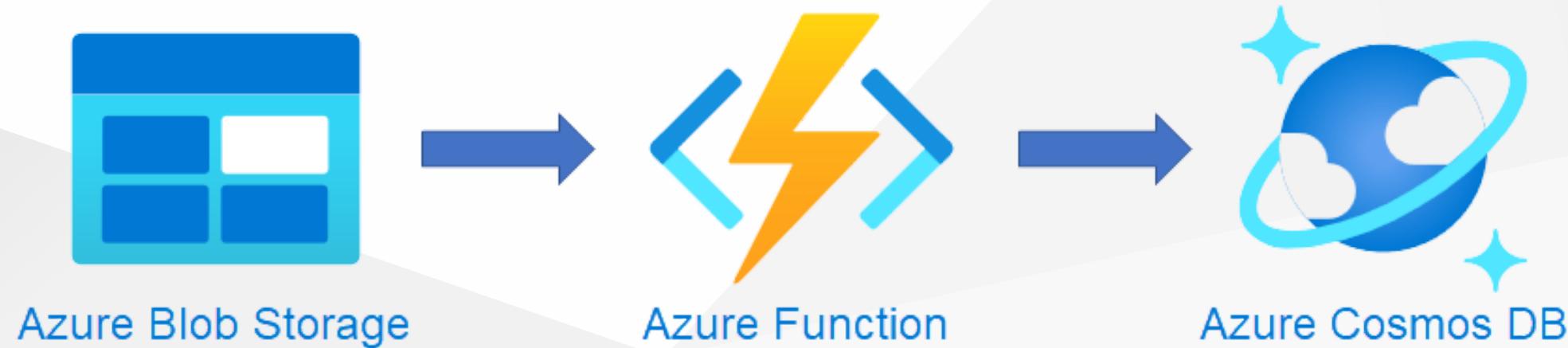
Create a Function App



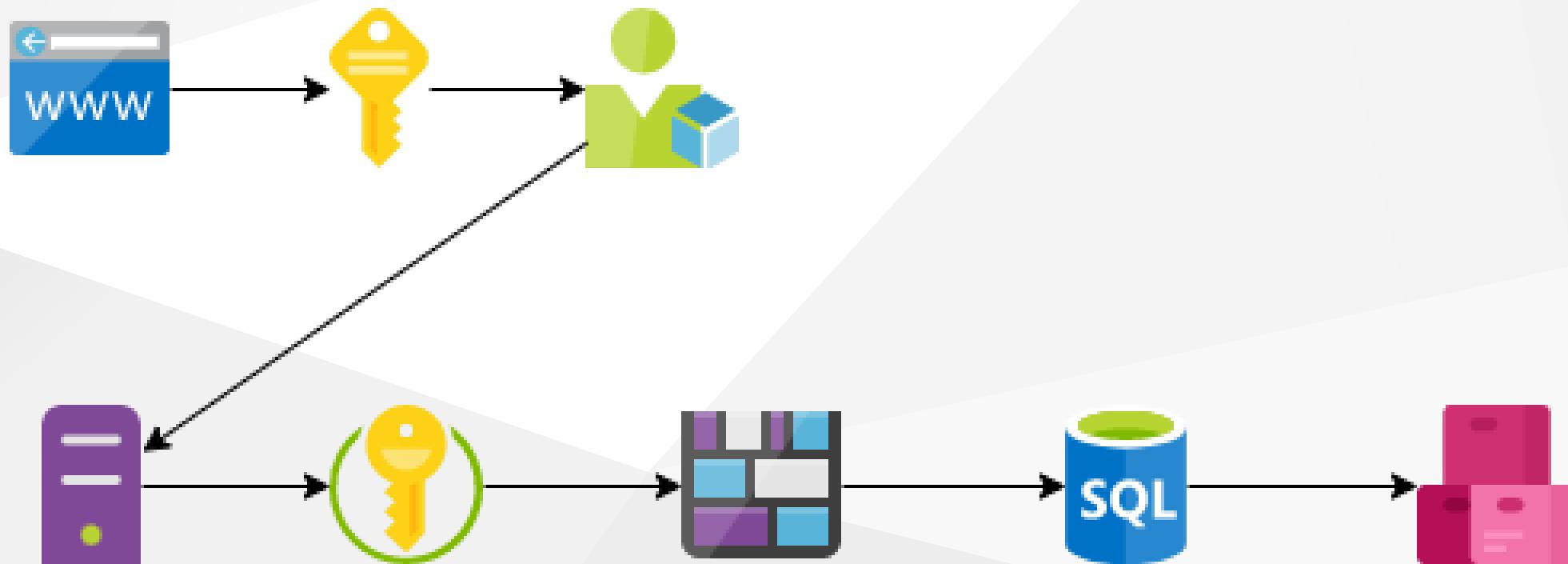
Create Function App Project



Simple Function Demo

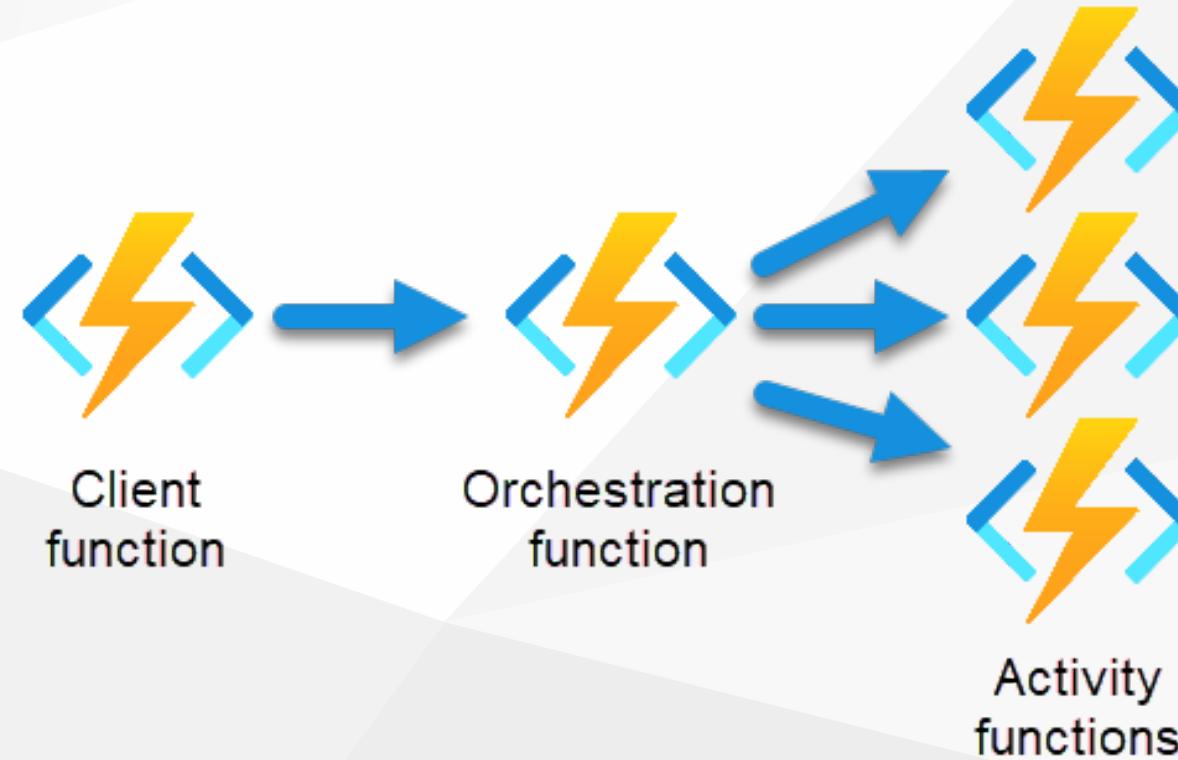


Complex Function Demo



Durable Functions

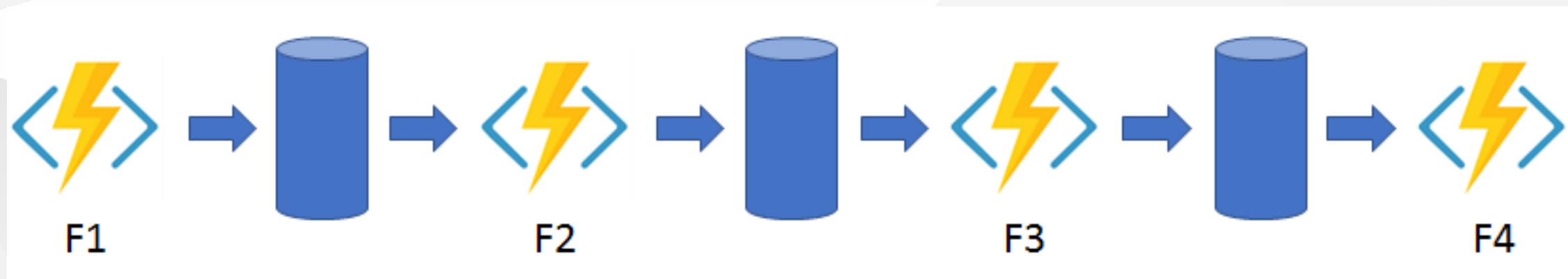
What is a Durable Function?



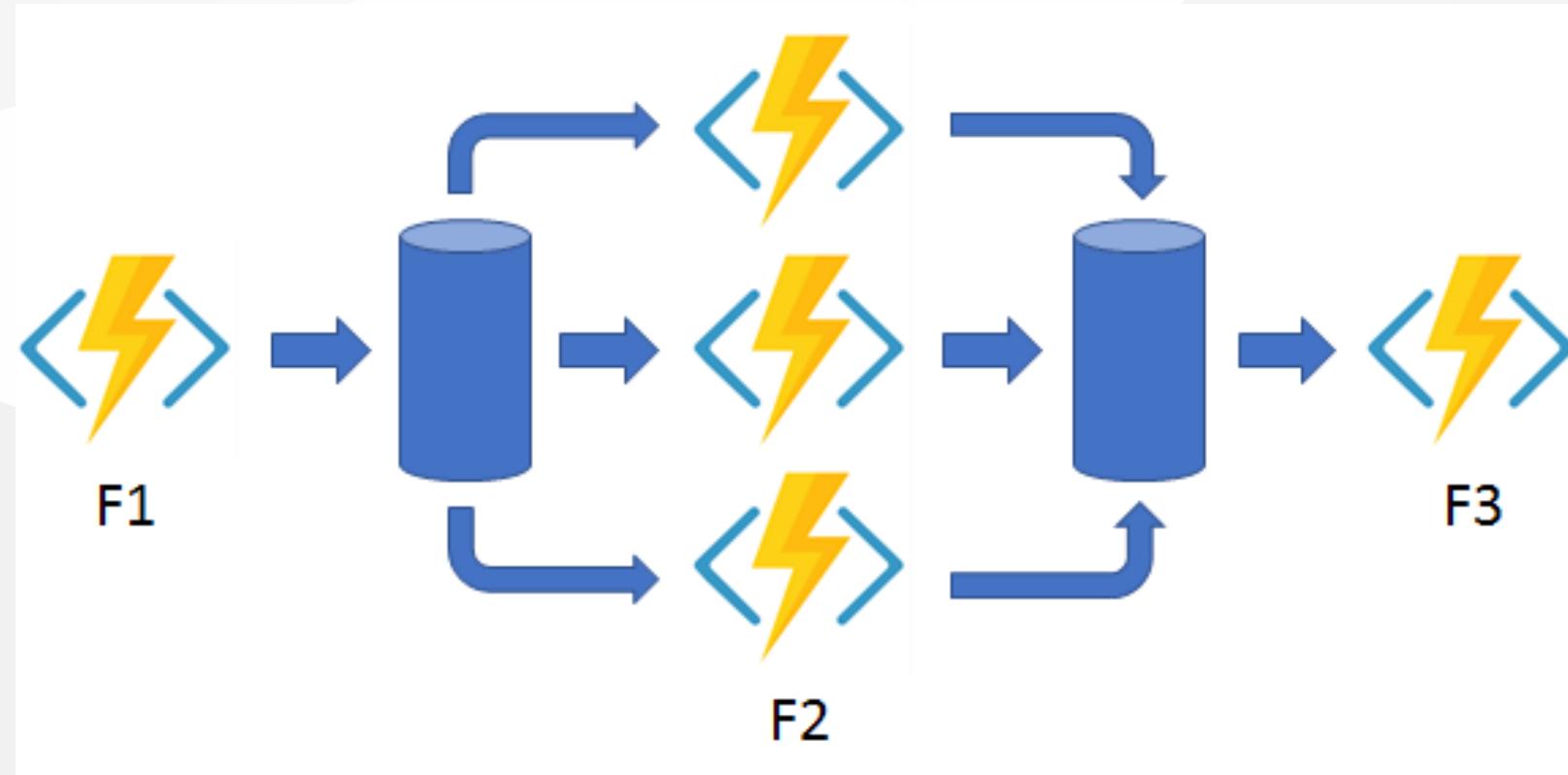
Application Patterns

- ⚡ Function chaining
- ⚡ Fan out/fan in
- ⚡ Async HTTP APIs
- ⚡ Monitor
- ⚡ Human interaction
- ⚡ Aggregator (stateful entities)

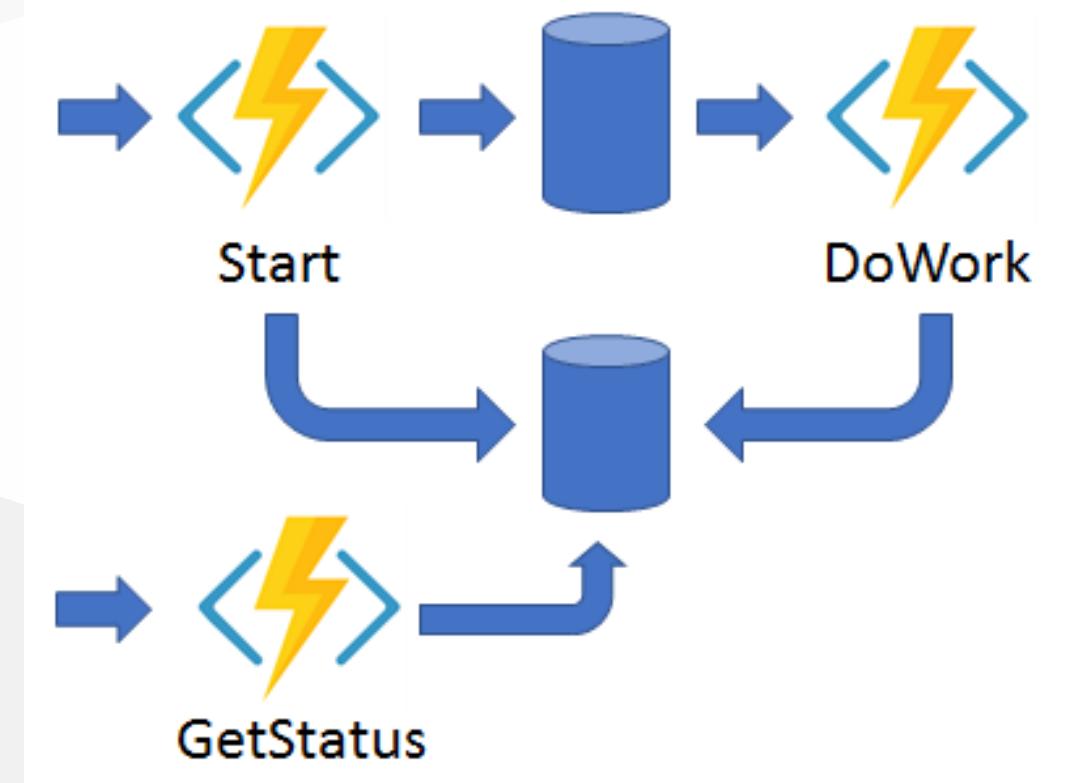
Function chaining



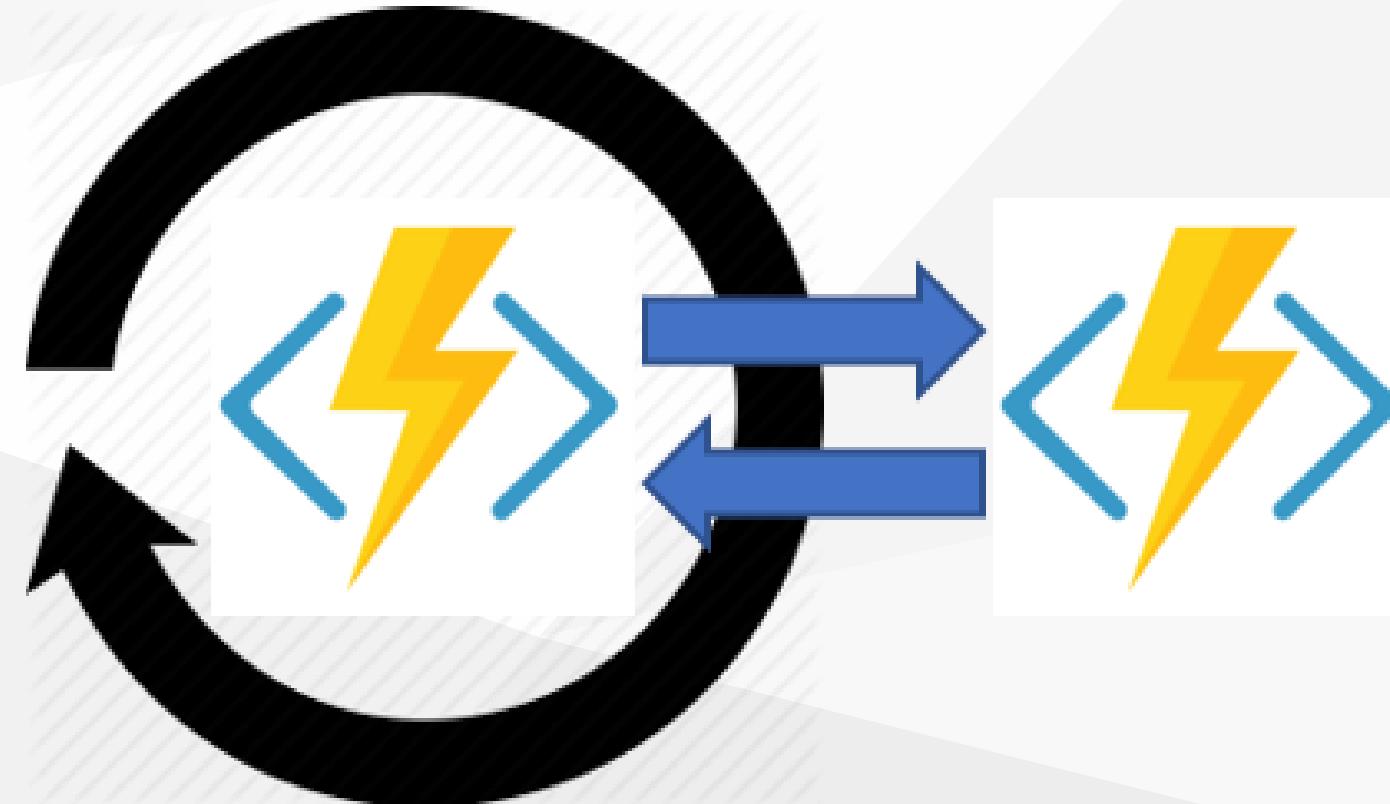
Fan out/fan in



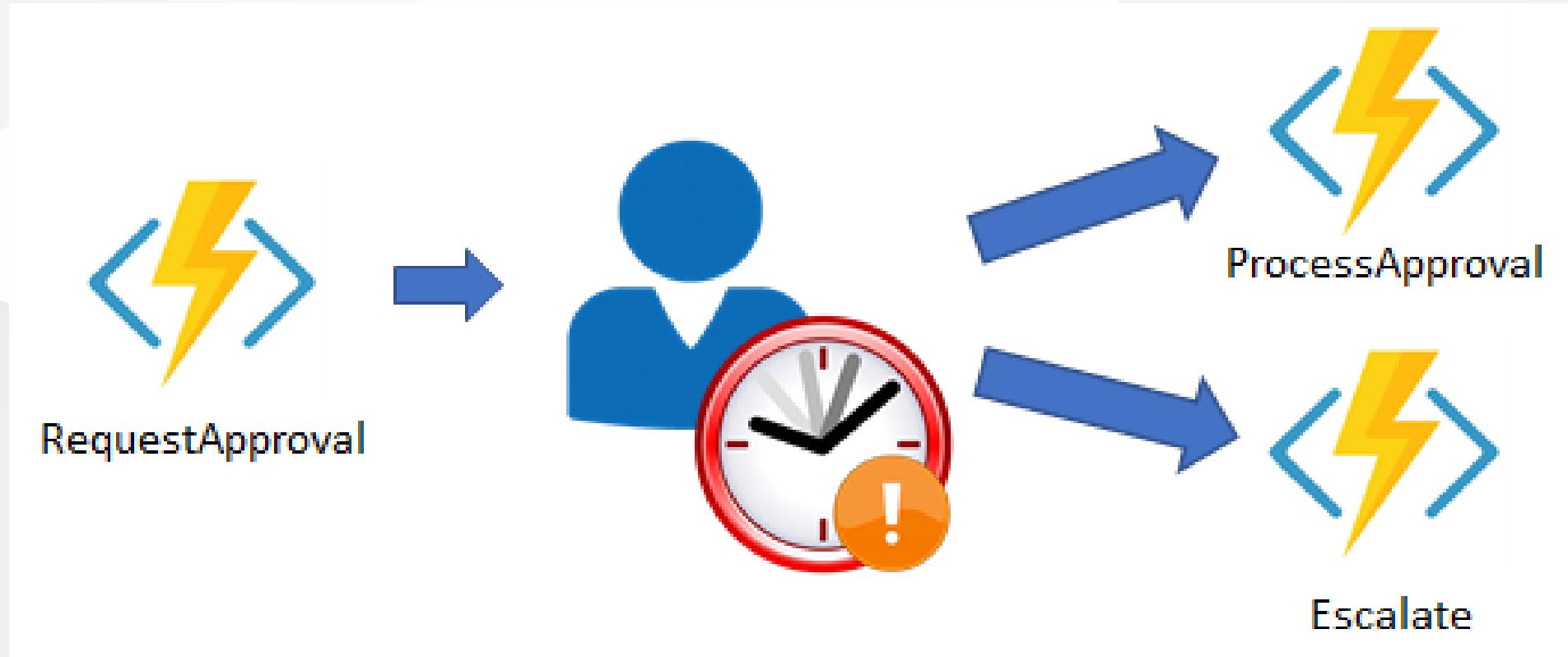
Async HTTP APIs



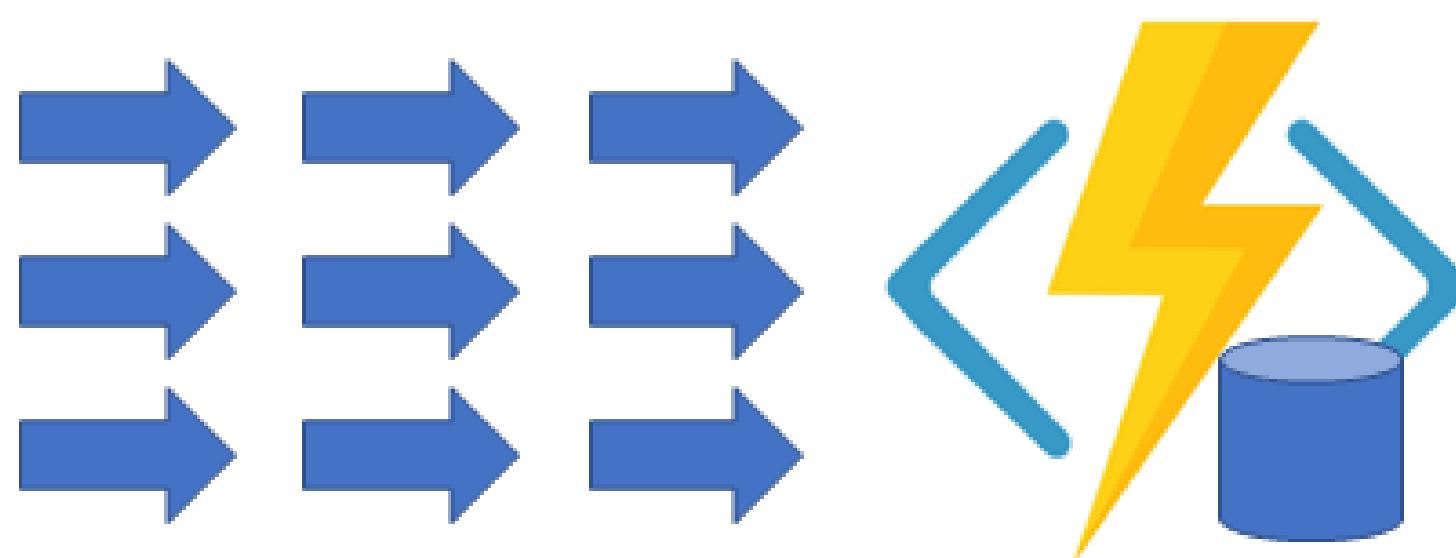
Monitor



Human interaction



Aggregator (stateful entities)



Azure Functions Wrap-up

- Serverless offering that allows us to deploy code into the cloud
- Many triggers & bindings available
 - Leads to many use cases
- Durable functions - break complicated functions into simple chunks

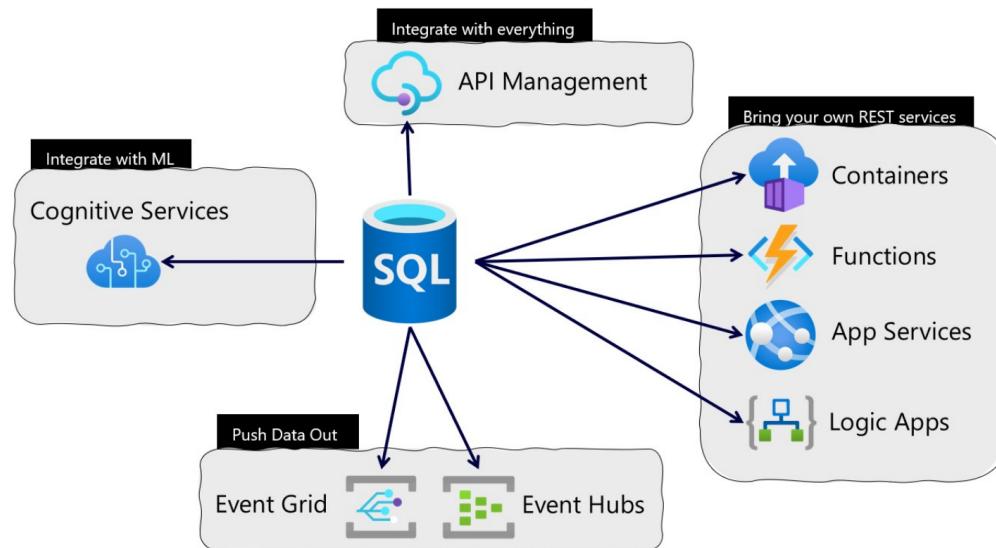
Announcing the “Azure SQL Database External REST Endpoints Integration” Early Adoption Program



Davide Mauri

May 24th, 2022 | 2

A new, exciting capability for Azure SQL Database has been announced today at //Build: **Azure SQL Database has a new built-in feature that allows native integration with external REST endpoints.** This means that integration of Azure SQL Database with Azure Functions, Azure Logic Apps, Cognitive Services, Event Hubs, Event Grid, Azure Containers, API Management and in general any REST or even GraphQL endpoint is just one line of code away. The feature is one of the most requested by developers and MVPs and it enormously reduces the friction to integrate Azure services with Azure SQL Database.



Questions & Feedback

⚡ Please leave us feedback:
<https://evals.datagrillen.com>

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