Create serverless applications with Azure Functions

Teerasej Jiraphatchandej, Microsoft Certified Trainer, teerasej@nextflow.in.th

“Pon”

Teerasej Jiraphatchandej

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Why
Azure Function?

Where’s the code?

- Required environment setup
- Fix resources
- Operate 24/7
- Create the project to run a few tasks

So, Azure Functions designed to solve these problems

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1. Compute service on the cloud

Environment ready

2. Flexible hosting plan

Consumption, Premium, Dedicated

Scale.

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demeter


Chili
Lime
Kastanjer
Druer
Sukat


Looking for nutritious choices? Reach for the Stars!
Looking for nutritious choices? Reach for the Stars!

3. Event-based

Focus on process & data
, like robots in a factory

Lab 1:
Create a function app in Azure portal

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Choose the best Azure Service to automate your business

4 technologies

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2 Design-first tools

2 Code-first tools

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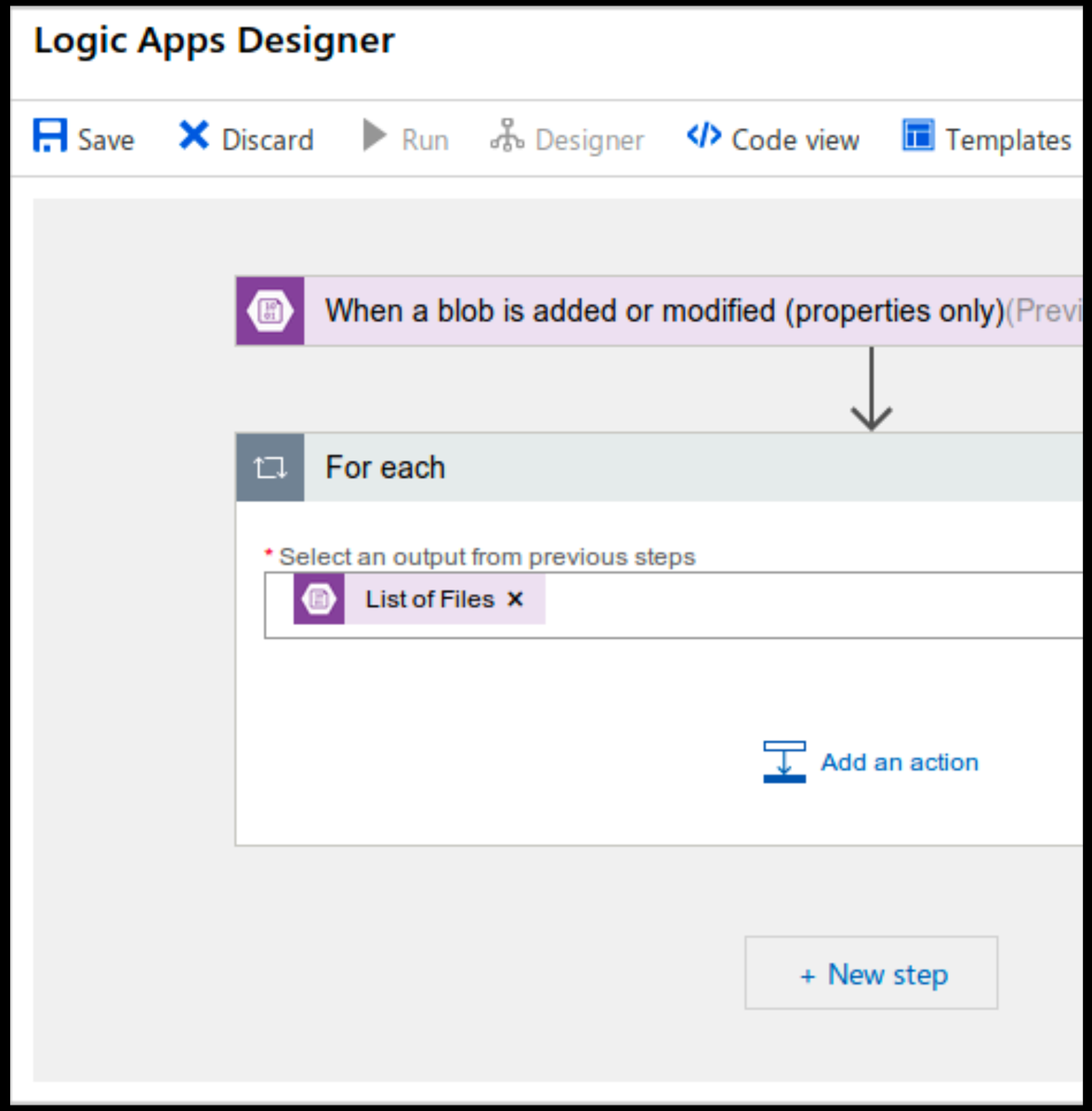
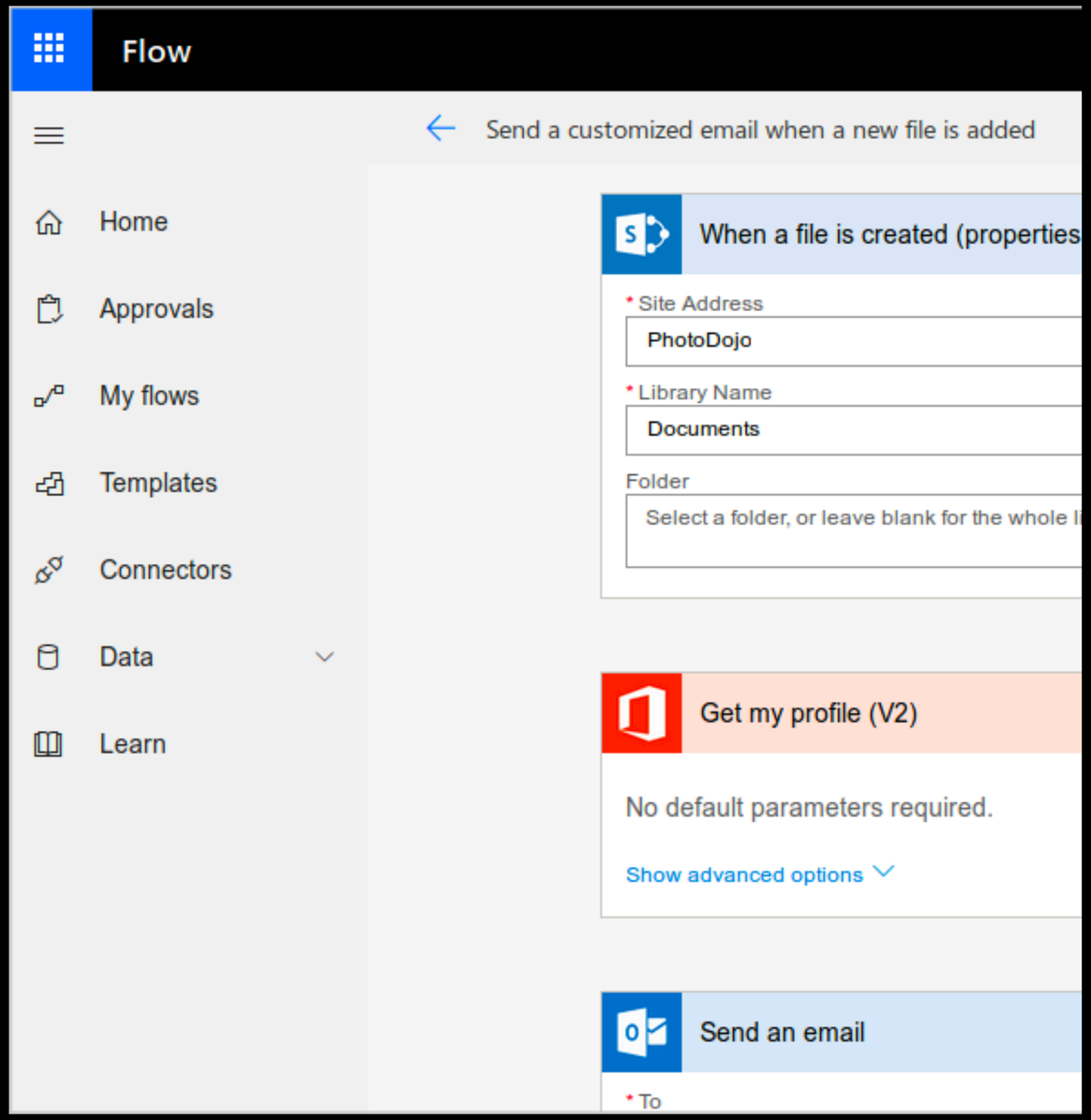
1. Logic Apps

- For developer & IT Pro
- Design UI & Code
- Advanced integration
- Can be added to Devops & Git



2. Power Automate

- Office worker & business analyst
- Self-service workflow
- GUI only
- Include testing & production environment



3. Webjobs

- Part of Azure App Service
- Scheduled/Manual
- C# Support

4. Azure Functions

- Auto Scaling
- Dev & Test in browser
- Pay per use
- Support C#, Java, JavaScript, Powershell, etc.

Lab 2:
Add Logic to the function app

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Execute Azure Functions with Trigger

Triggers

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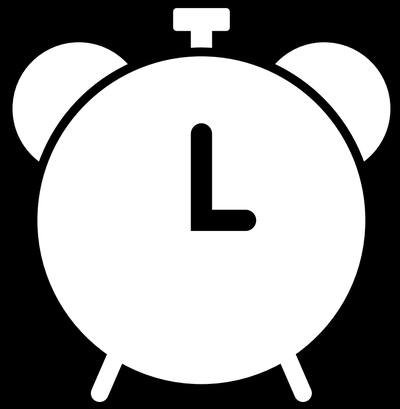
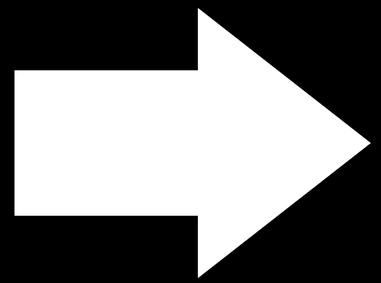
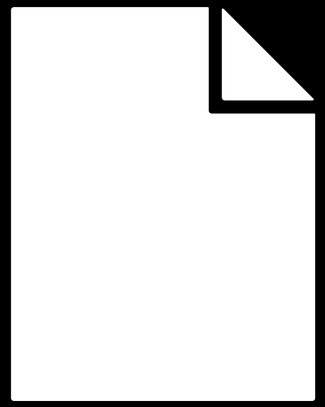
Trigger’s types
Example



Timer



HTTP



Blob

“Only 1 trigger per function”

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Timer

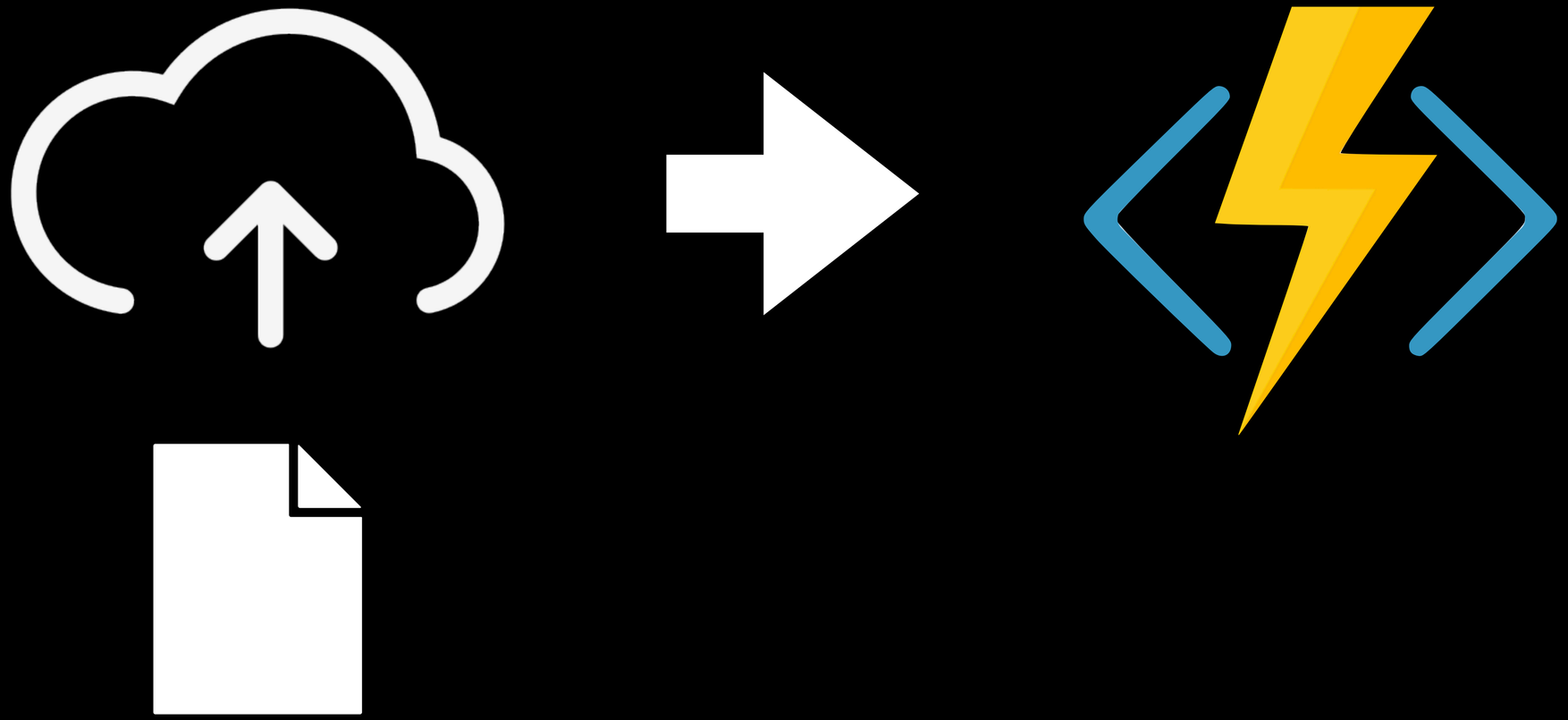
{second} {minute} {hour} {day} {month} {day of the week}

*/5 * * * * *

*/5 * 16 * * *

*/5 * 16 * * Fri

Blob trigger



Lab 3, 4, 5:
Execute Azure Function with triggers

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Chain Azure Functions together using input and output bindings

Bindings

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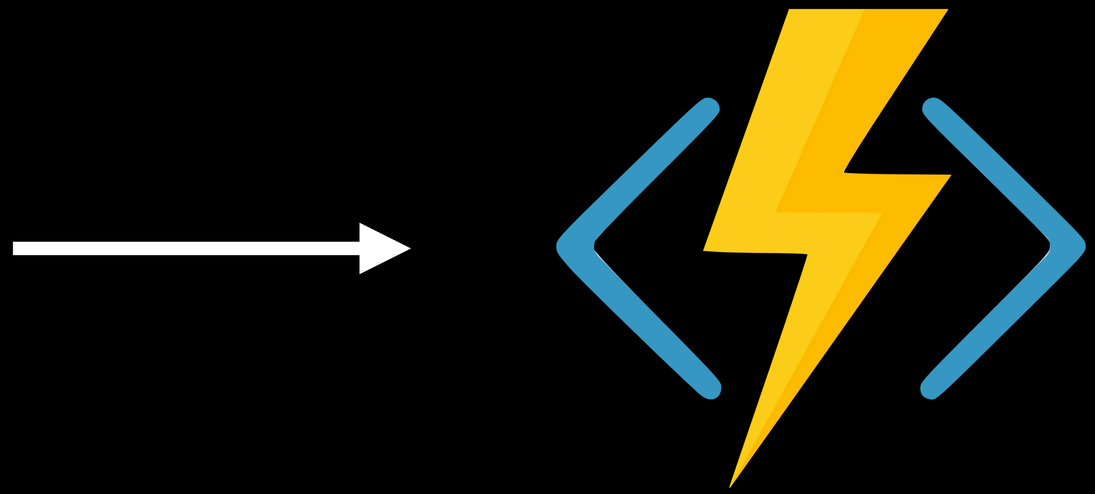
Bindings component

- Input as a coin
- Output as a soda can
- One or more binding per function
- Less code

Input Binding example

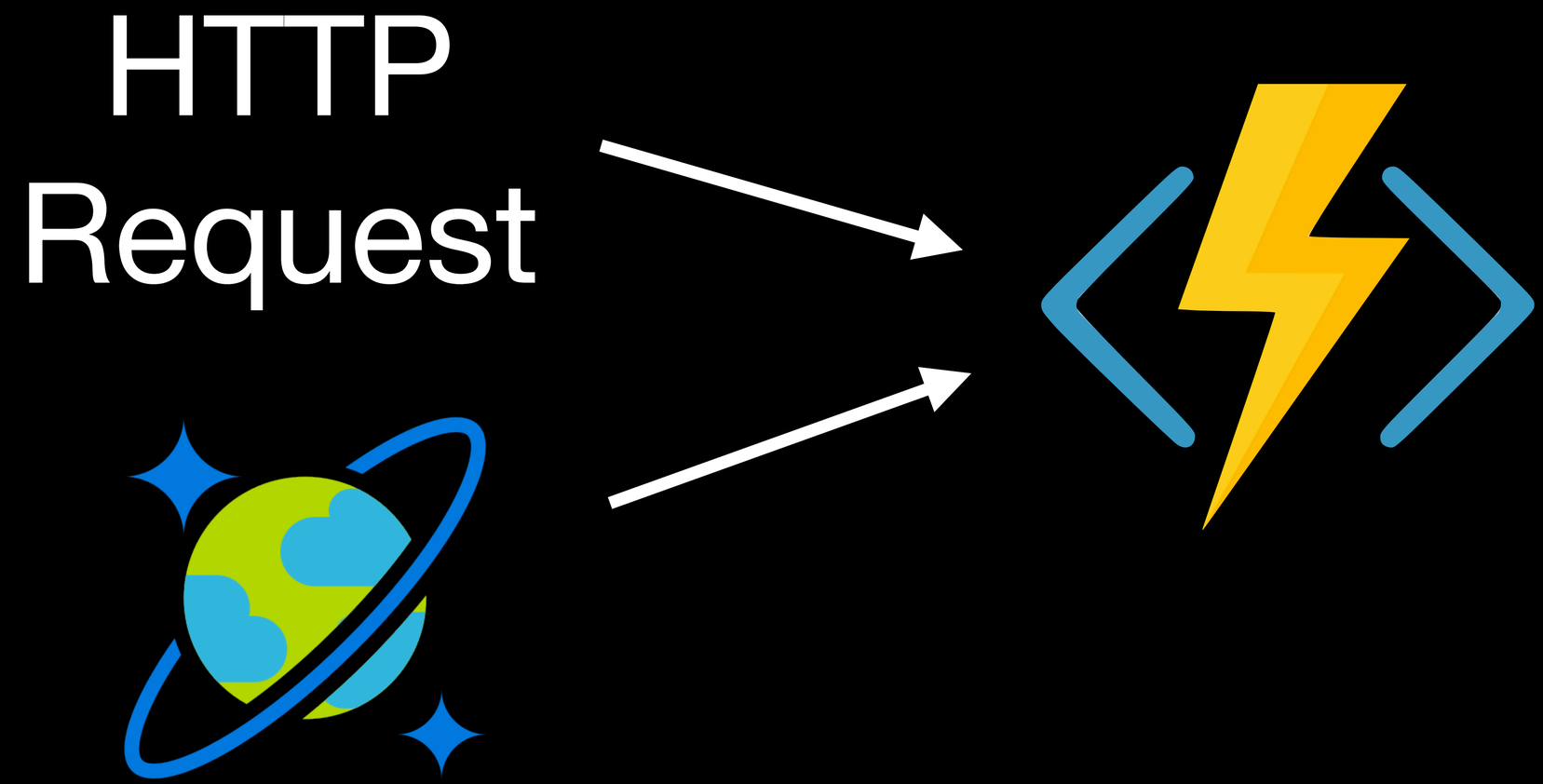
HTTP Request & Cosmos DB

HTTP Request



Input Binding example

HTTP Request & Cosmos DB



Lab 6, 7:
Explore & Read data with input binding

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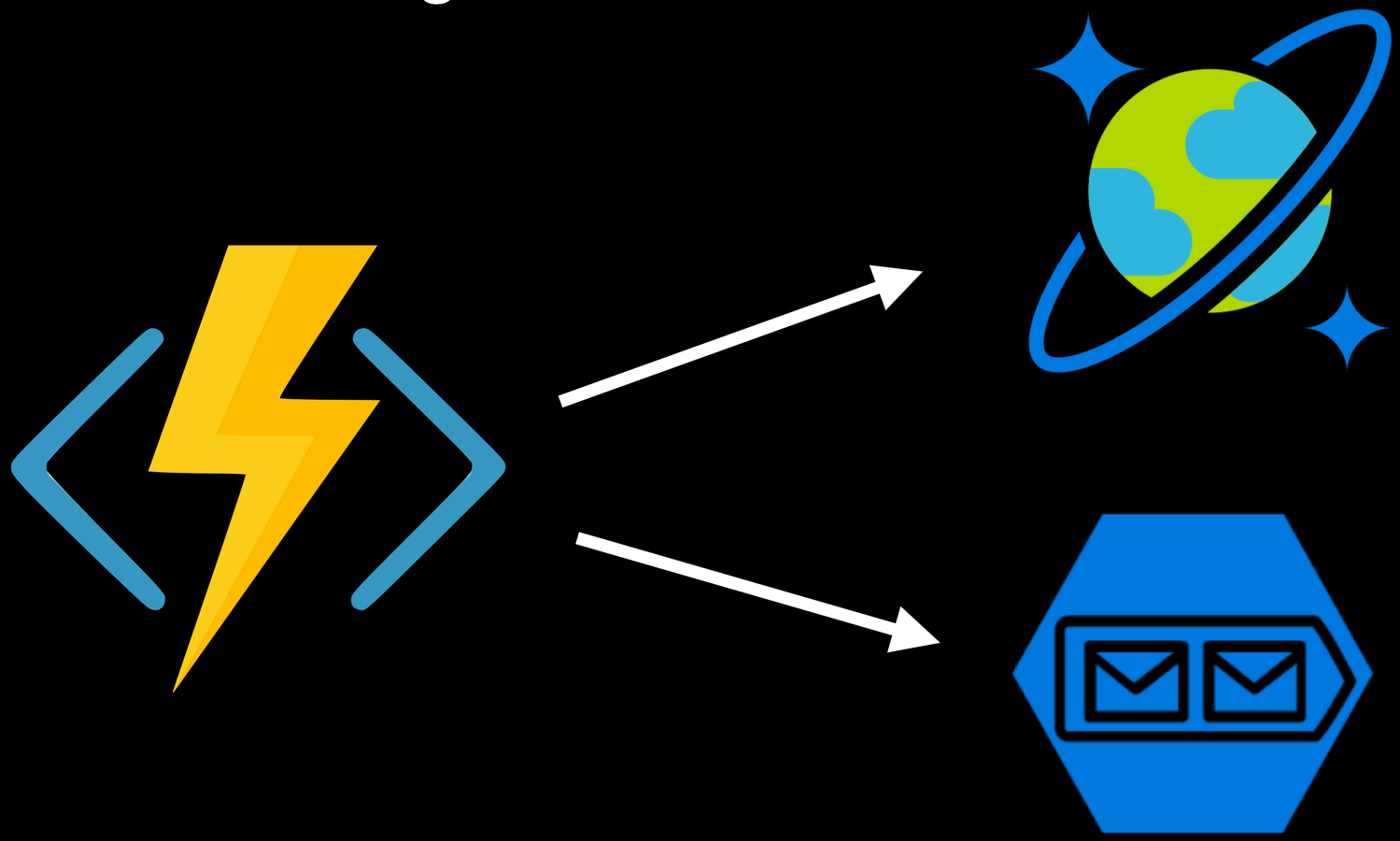
Output Binding example

Cosmos DB & Storage Queue



Lab 8:
Write data with output bindings

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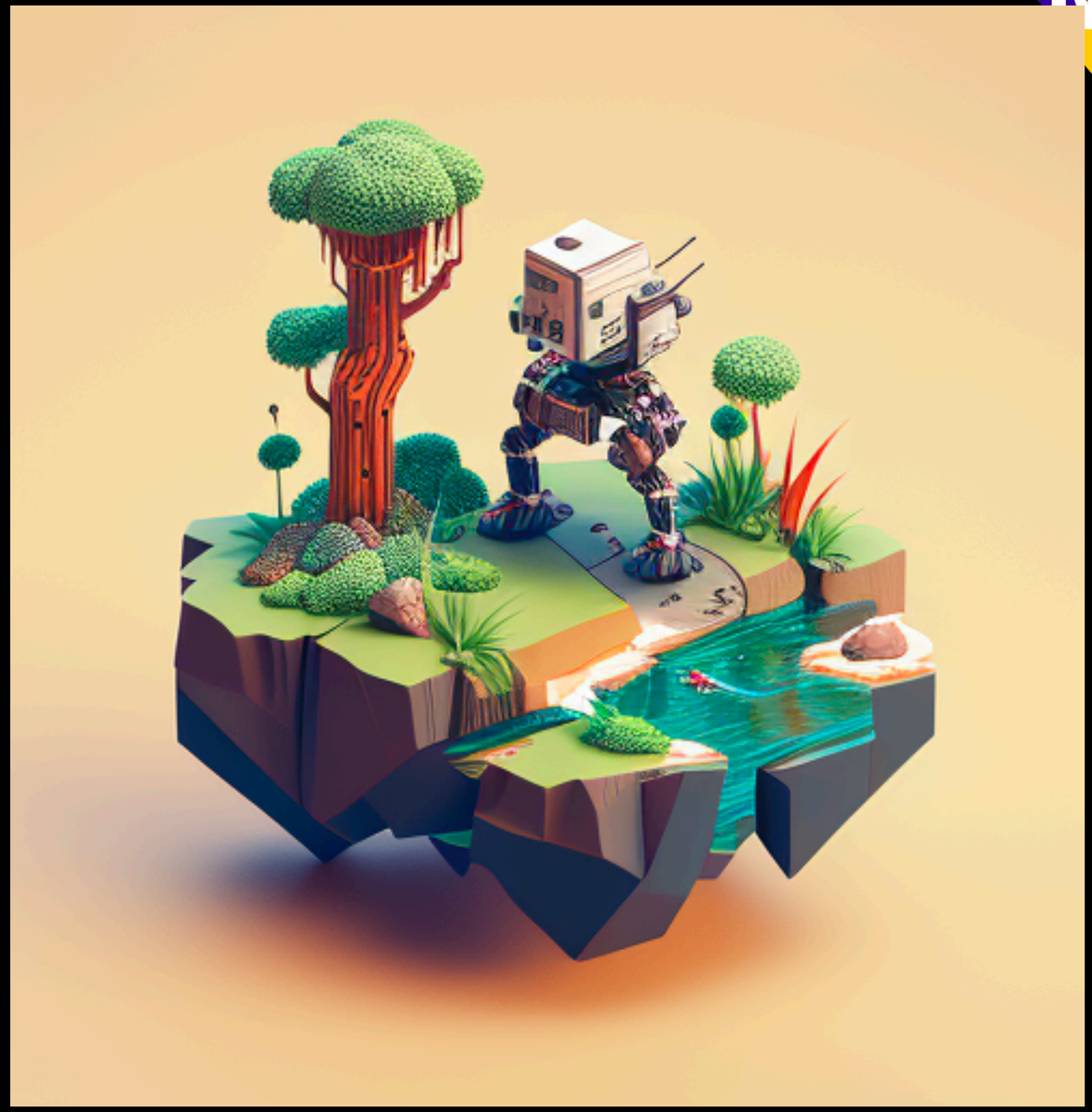
Create a long-running serverless workflow with Durable Functions

Why?

Functions are independent.

Stateless.



Durable function

- A function’s extension
- Team up multiple functions
  - Chain
  - Orchestrate
- Manage state

Durable Function’s type

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Client type

- Entry point
- Response to any source

Orchestrator type

- How action will be execute in order
- Support C# & JavaScript

Activity type

- Basic unit
- Perform a task

Lab 9:
Create a workflow using Durable Functions

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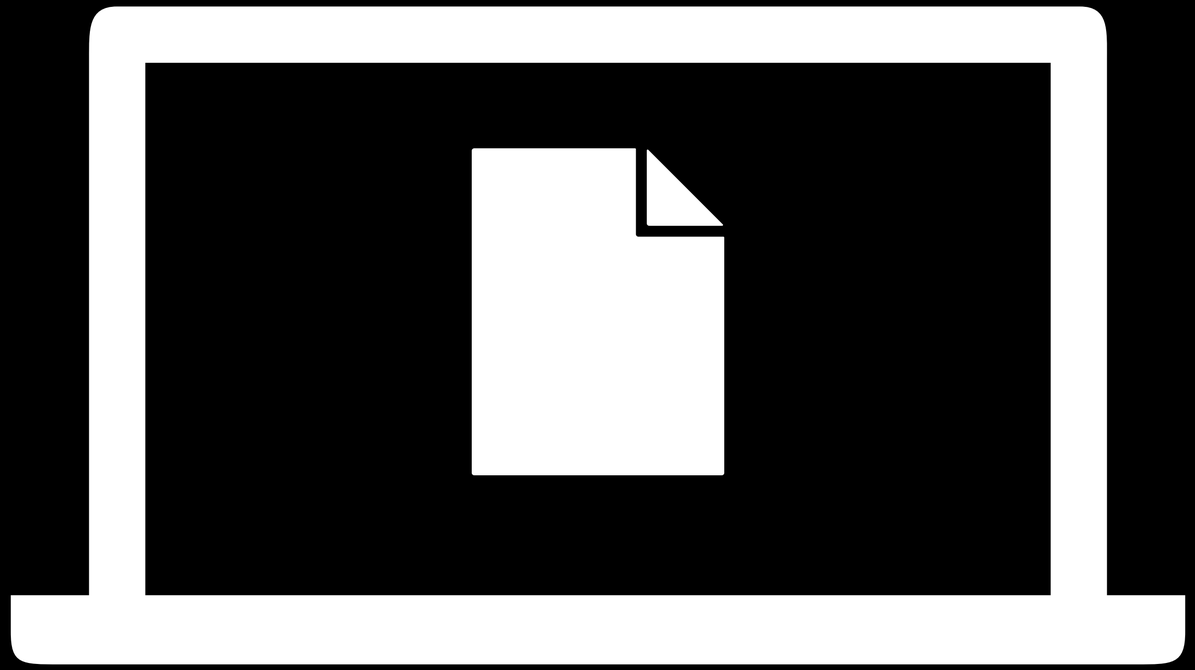
Develop, test, and publish Azure Functions by using Azure Functions Core Tools

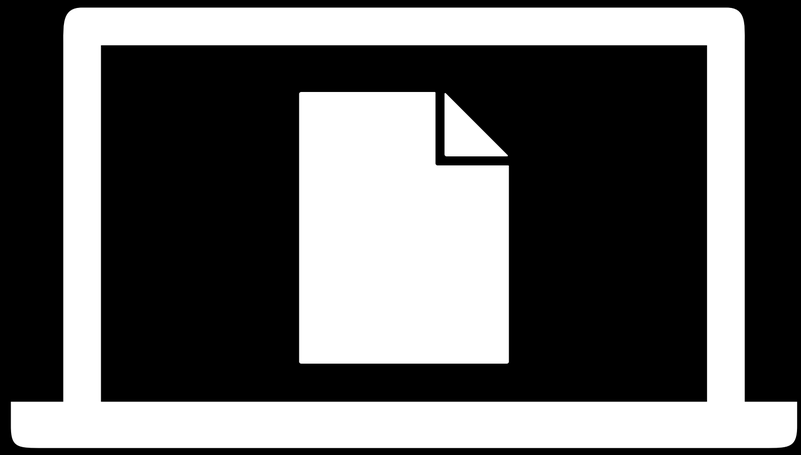
Develop locally

With CLI

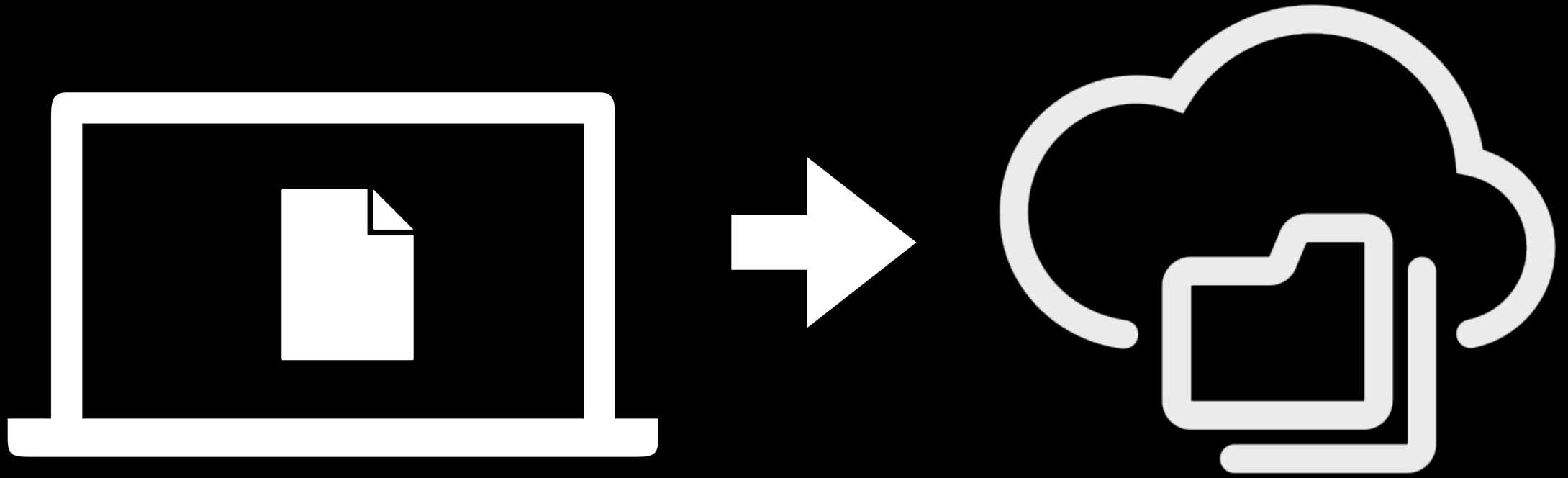


Develop locally
With CLI

- Generate function app
- Generate function from template
- Run function for testing & debug



Publishing
With CLI



Lab 10, 11:
Develop, test, and publish Azure Functions by using Azure Functions Core Tools

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The conclusion

Thank you!

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