Building Serverless Applications in Azure

GOING SERVERLESS

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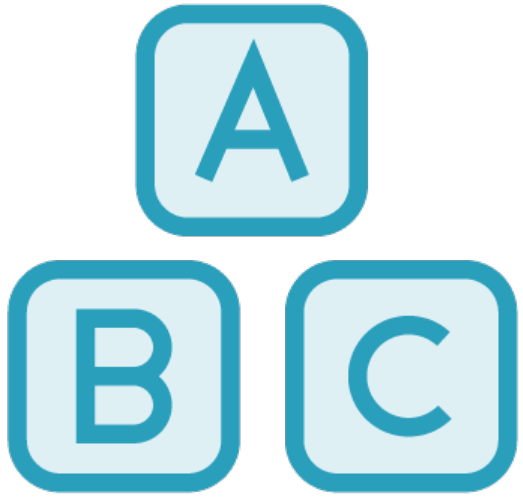
What's in This Course?



Getting Started with Serverless

We'll actually build a serverless application

Building in Azure

We'll use several features of the Azure cloud platform

Who's This Course For?

Software Architects

Learn about what a serverless architecture looks like in practice

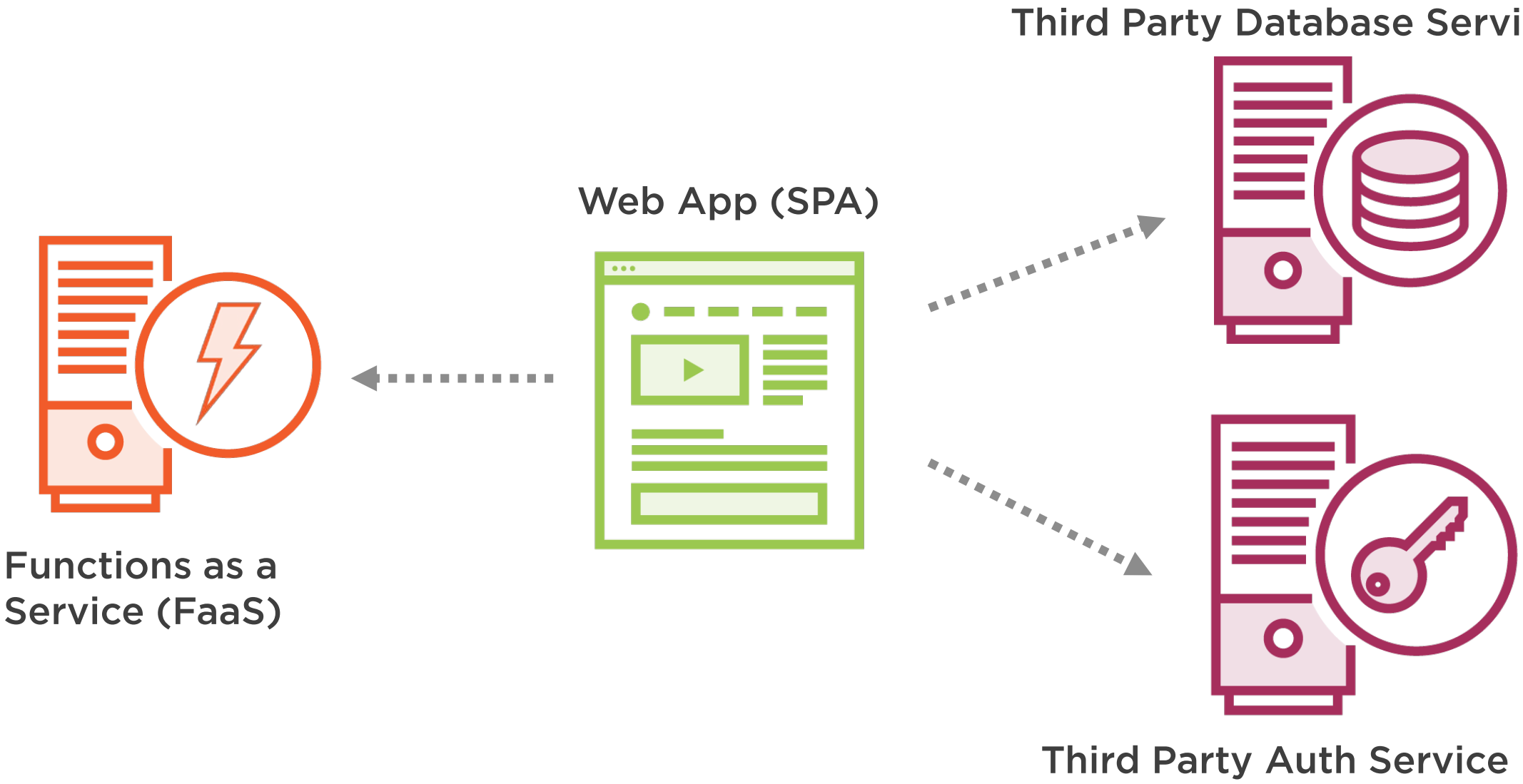
.NET / Azure Developers

Apply what you already know to a serverless application

What is Serverless?

Serverless architectures depend as much as possible on third party applications or services running in the cloud

A Serverless Architecture



Serverless Architecture Big Ideas

Make use of third party services

e.g. Databases, authentication providers

Functions as a Service

Host your own code without managing servers

What Are the Benefits of Serverless?

1. No more managing servers

- ✗ Avoid using Infrastructure as a Service (IaaS)
- ✓ Prefer Platform or Functions as a Service (PaaS / FaaS)

scale

- Avoid spending time writing infrastructure code
- Only write the code that is specific to your business domain
- ✗ Avoid the need to implement scale out yourself
- ✓ Additional capacity is automatically provisioned for you

4. Cost-effectiveness

- ✗ Avoid paying monthly fees for under-utilised servers
- ✓ Pay only for what you use – minimal cost during prototyping

5. Rapid prototyping

- ✗ Avoid slow starts and get quickly to a proof of concept
- ✓ Create a low cost prototype you don't need to throw away

What Are the Drawbacks of Serverless?

Third Party Service SLAs

Less Control

Latency

Variable Costs

Immature Tooling

How Does Azure Support Serverless?

Web Hosting

Azure App Service

Static File Storage

Azure Blob Storage

Database

SQL Azure

Cosmos DB

Azure Table Storage

Functions as a Service

Azure Functions

Authentication

Azure AD B2C

Monitoring

Azure App Insights

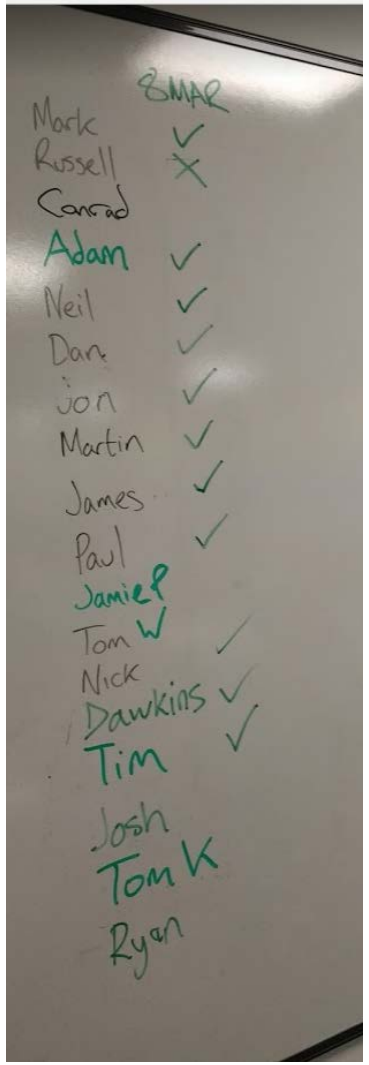
Messaging

Azure Storage Queues

Deployment

Azure Resource Manager

Demo Application – Who's Playing?



Serverless is great for prototyping

- Minimal Viable Product (MVP)

"Who's playing this week?"

- Automate sending out invites
- Submit responses online
- Web page to show who's playing

Use a serverless architecture to help us...

- Prototype this quickly
- Minimise costs
- Monetize it later

Platform Requirements

Serve web pages	Run custom code	Store data
Security	Monitoring	Deployment

Summary

Serverless architecture

- Rely on third party services
- Functions as a service

Serverless benefits

- Save time managing servers
- Focus on what's important
- Move rapidly
- Pay for what you use
- Scaling for free

Serverless on Azure

"Who's Playing" demo application

Up next ...

Serving static web content without a web server!