

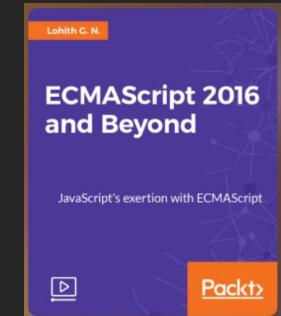
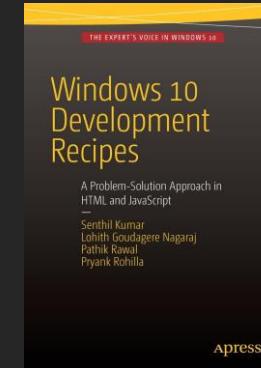
SERVERLESS ARCHITECTURE

REAL WORLD END-TO-END APPLICATION DEMO PART 1

ABOUT ME

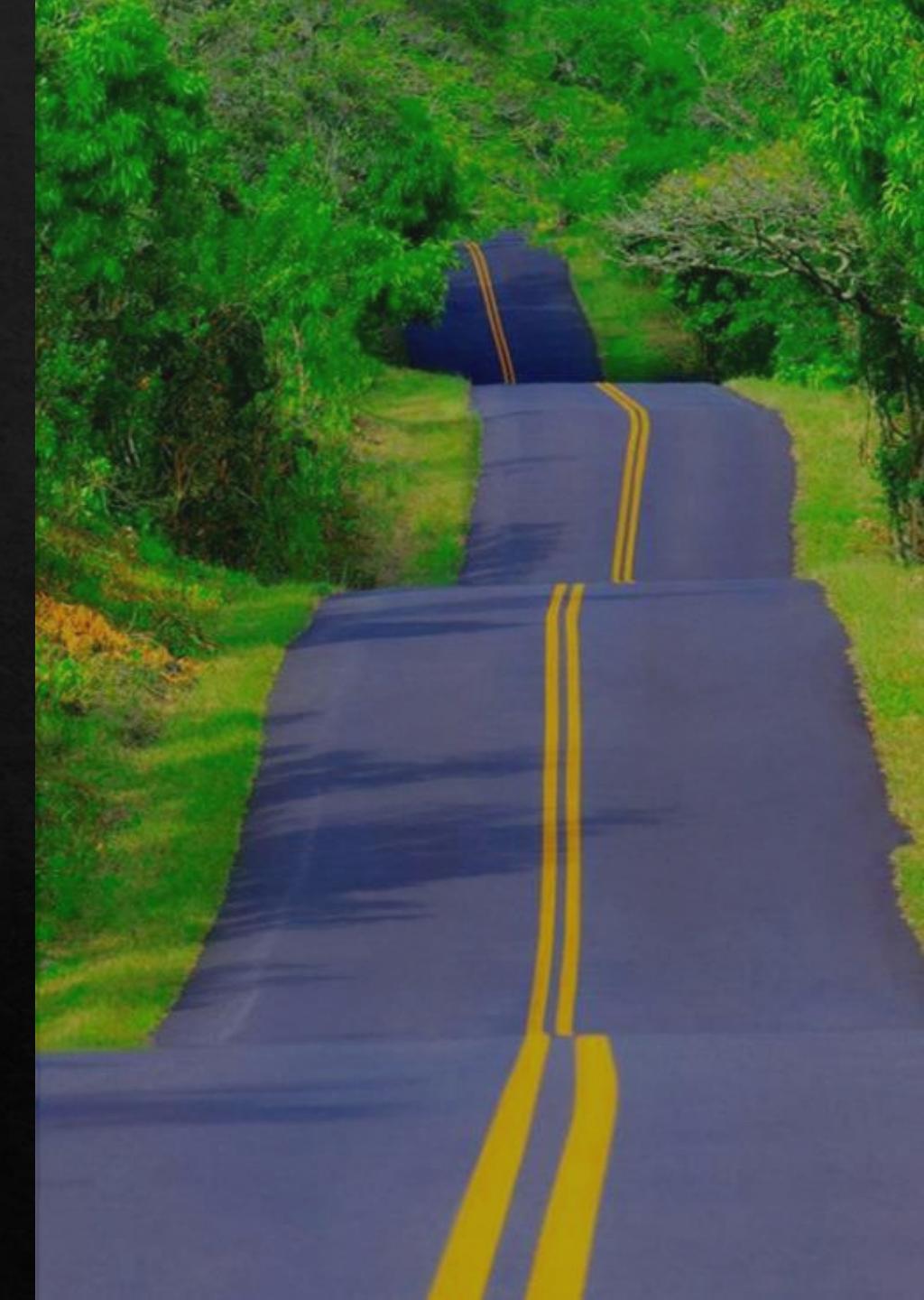


- ② Coder – 2 Decades on Microsoft .NET Technology
- ② Technology Lead, Xamariners Pte Ltd
- ② Ex Microsoft MVP (2011-2018)
- ② Ex Evangelist – Telerik India
- ② Author
- ② Speaker



SERIES

- ❖ Part 1: Designing the API
- ❖ Part 2: DevOps for the API
- ❖ Part 3: Implementing API
- ❖ Part 4: Implementing Consumer



PRE-REQUISITES

- ❖ Familiarity with
 - ❖ .NET ecosystem
 - ❖ Azure
- ❖ Serverless as an Architectural Pattern
- ❖ Azure Functions (at-least heard of it)
- ❖ C#

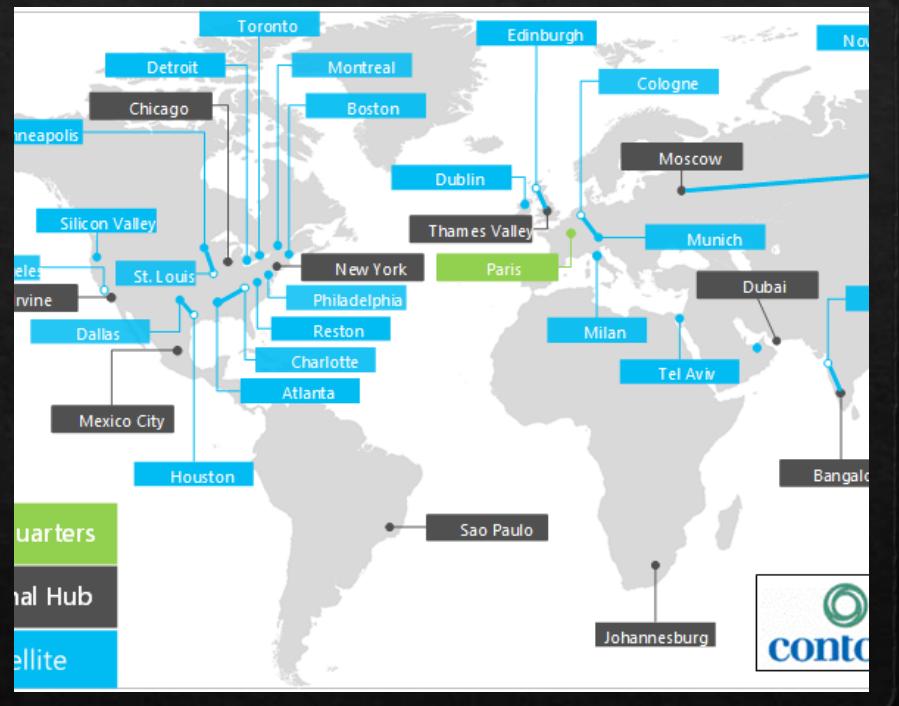
PROBLEM STATEMENT

You are part of:

**API development team at
Contoso Ltd.**

You are tasked with development
of an:

API to manage Employee To-do's.





To Code
or
Not to Code ?

DB Development vs API Development

DB

- ❖ Database First
- ❖ TSQL Statements
- ❖ Code First
- ❖ POCO
- ❖ EntityFramework ORM

API

- ❖ Design First
- ❖ OpenAPI Spec/Standards
- ❖ Code First
- ❖ Just code it out

What is OpenAPI ?



**The OpenAPI Specification:
A broadly adopted industry standard for describing modern APIs.**

<http://spec.openapis.org/oas/v3.0.3>

OpenAPI? OAS? OAI? Swagger?



=

Specification



=

Tools





[This Photo](#) by Unknown Author is licensed under [CC BY-SA-NC](#)

DESIGNING THE API

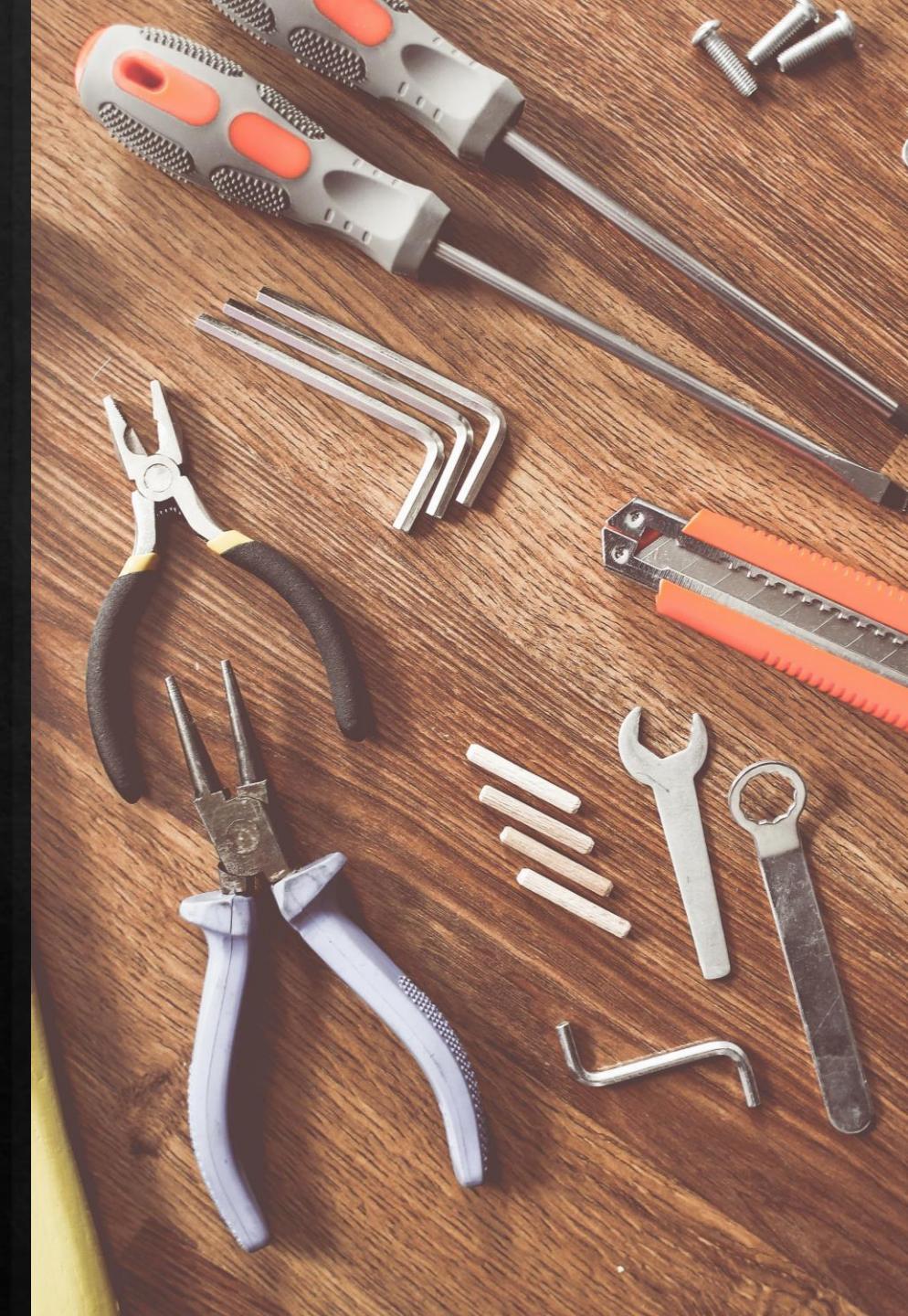
Open API Specification

- ❖ Info
- ❖ Paths
 - ❖ Operations
- ❖ Components
- ❖ Schemas
- ❖ SecuritySchemes



TOOLS OF THE TRADE

- ❖ Swagger Editor
- ❖ Insomnia Designer
- ❖ Postman API Editor
- ❖ VS Code + OpenAPI Extension
- ❖ ...



DEMO

Creating Open API
Specification

Code Generation with OAS

Use Open API Specification to
generate code

How to generate code?

- ❖ Open API specification is used as input
- ❖ Generate Server-Side Code
- ❖ Generate Client-Side Code

Generating Azure Functions

- ❖ Auto-Rest command line tool
 - ❖ <https://github.com/Azure/autorest.azure-functions-csharp>
- ❖ VS Code + Azure Functions Extension
 - ❖ <https://marketplace.visualstudio.com/items?itemName=ms-azuretools.vscode-azurefunctions>

DEMO

Generating Azure Function
HTTP Trigger API

The left side of the slide features a large, abstract graphic composed of numerous white and light gray 3D-style polygons. These shapes are arranged in a way that suggests depth and volume, creating a complex, geometric pattern.

Thank You

❖ kashyapa78@hotmail.com