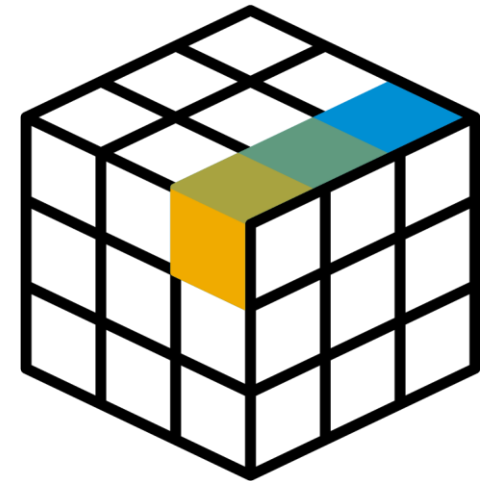Week 1: Introducing SAP Cloud Application Programming Model

Unit 1: Introduction to SAP Cloud Application Programming Model

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Motivation

- Customers need a stable environment for business application development
- Reduce high entry barrier for less tech-savvy developers
- Customers ask for guidance and best practices
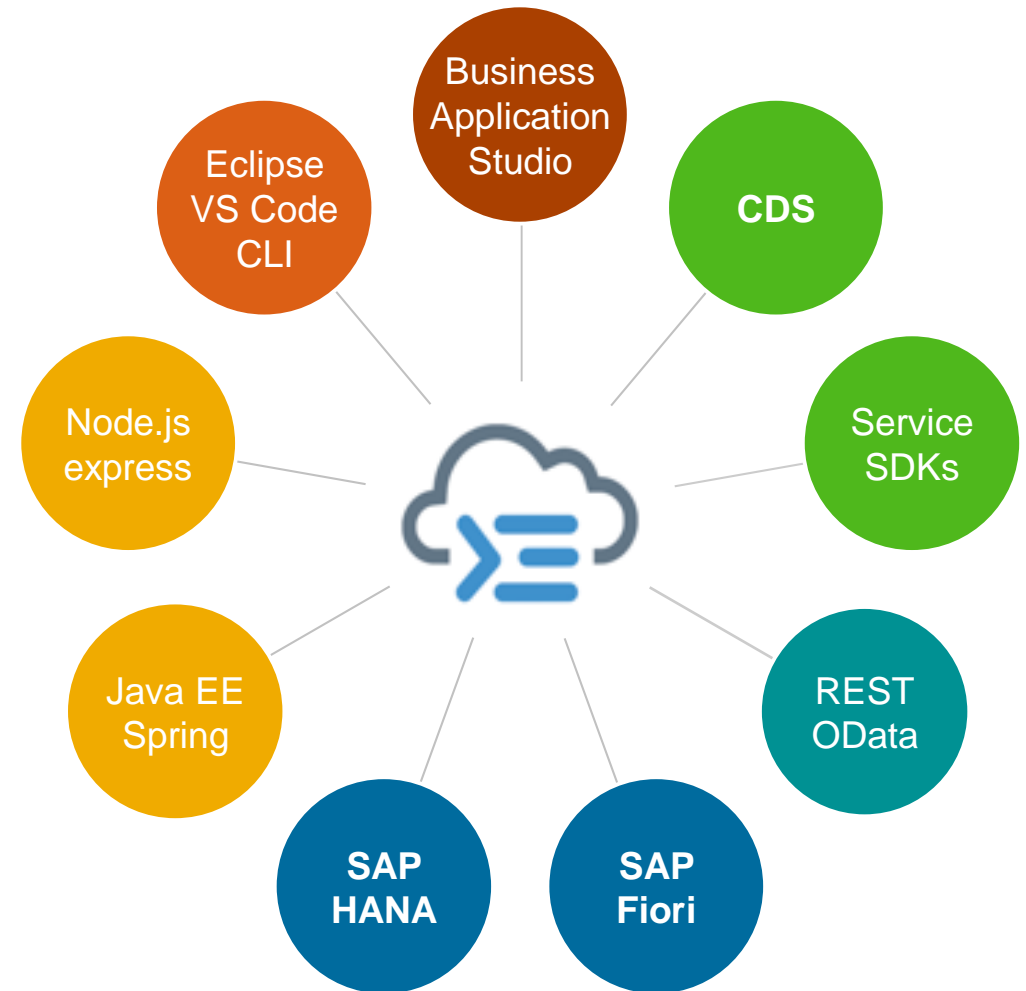- Developers want to focus on business logic

Introduction

*The SAP Cloud Application Programming Model is an **opinionated**, yet **open** framework of tools, languages, and libraries to efficiently build enterprise-grade services and applications.*

*It guides developers along a 'golden path' of proven **best practices**, while minimizing boilerplate so they can **focus on their domain** problems at hand.*
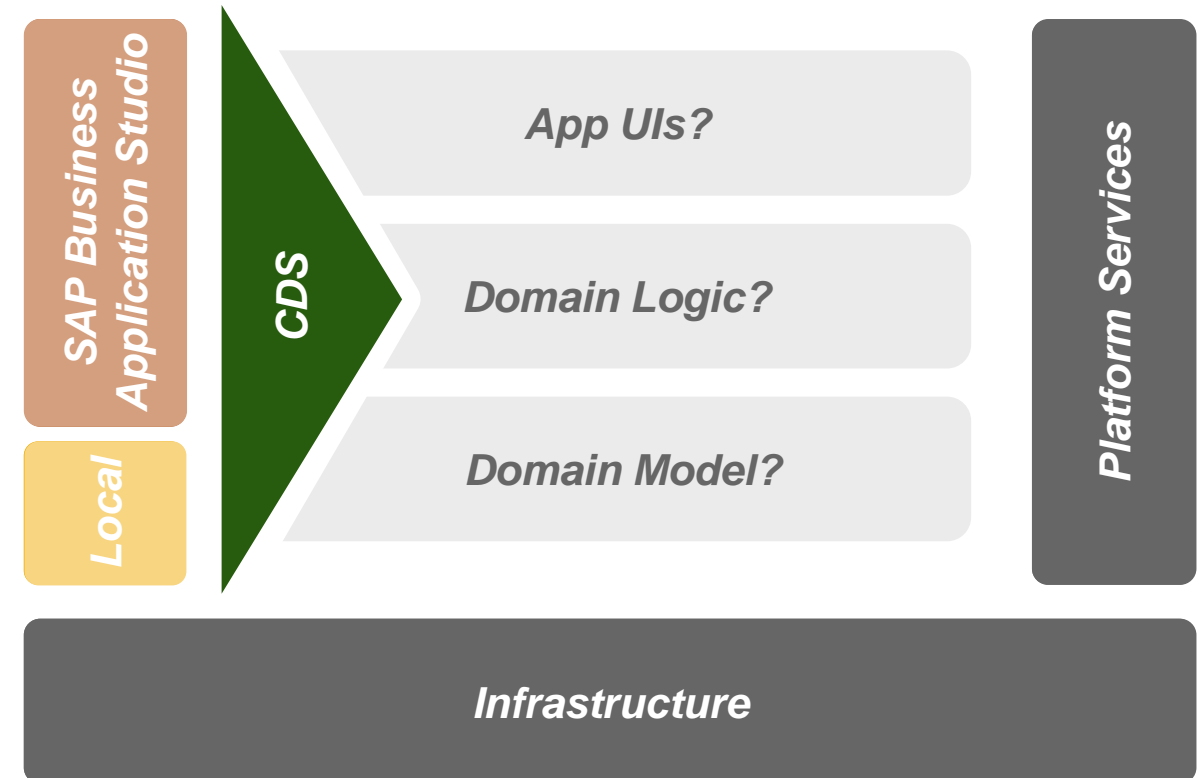
*The framework features a mix of broadly adopted **open-source** and **SAP** tools and technologies.*

- Business Application Studio
- Eclipse VS Code CLI
- CDS
- Node.js express
- Service SDKs
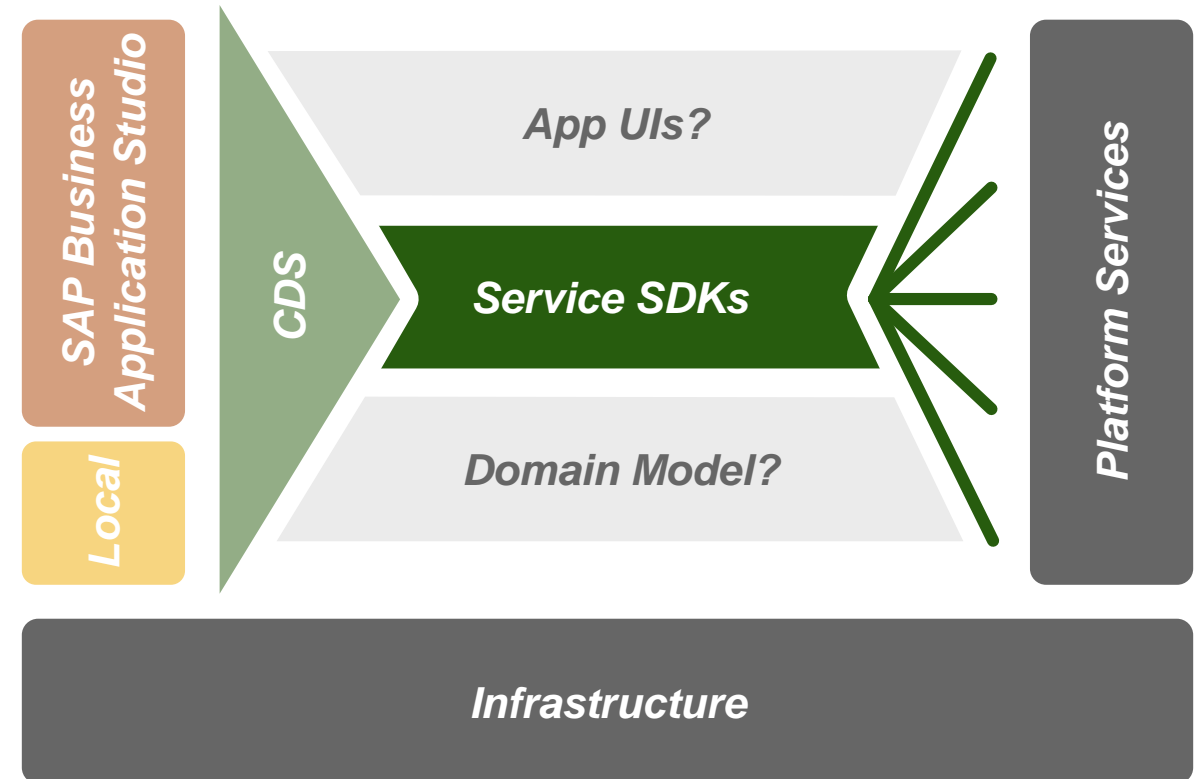- Java EE Spring
- REST OData
- SAP HANA
- SAP Fiori

Ingredients

- **Core Data Services (CDS)** is a data modeling infrastructure
- You can use CDS to define data models and service definitions

SAP Business Application Studio

Local

CDS

App UIs?

Domain Logic?

Domain Model?

Platform Services

Infrastructure

Ingredients

- Choose between **Java** and **Node.js**
- Provide and consume services
- Easy access to libraries provided by SAP
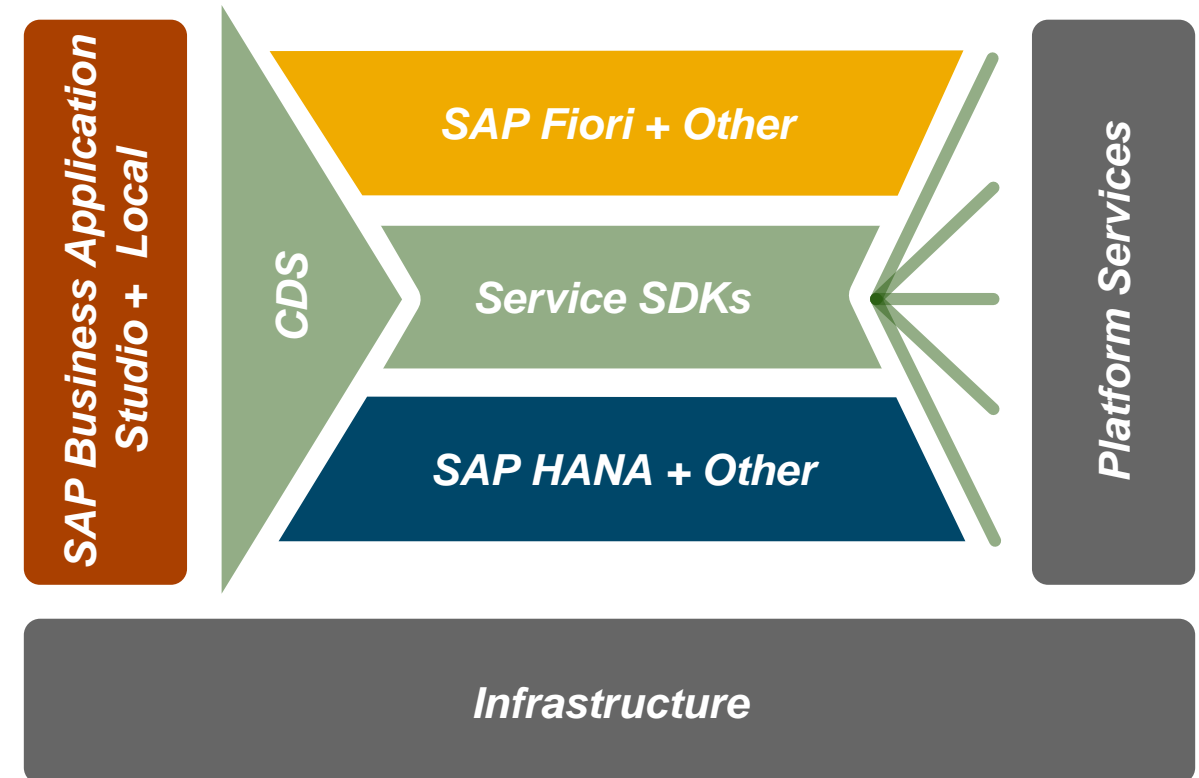- High-level integration to low-level platform services (abstraction)

SAP Business Application Studio

Local

CDS

App UIs?

Service SDKs

Domain Model?

Platform Services

Infrastructure

Ingredients

Get *1st-class support* for…

- **SAP Business Application Studio**
  with tailored tools
- **SAP Fiori Elements**
- **SAP HANA**

SAP Business Application Studio + Local

CDS

SAP Fiori + Other

Service SDKs

SAP HANA + Other

Platform Services

Infrastructure

Design principles

Open

- You choose technologies
- Select your architecture pattern
- Use CAP or parts of CAP

## Opinionated

- Gives guidance
- Support for recurring tasks

SAP Fiori   *Angular*   *React*   *Vue*   • • •

Front Ends

SAP Business Application Studio

Eclipse

VS Code

• • •

Toolsets

Core

Node.js   **Java**

Core Data Services

Environments

Cloud Foundry

Kubernetes

XSA

Local

Data Sources

SAP HANA   **sqlite**   • • •
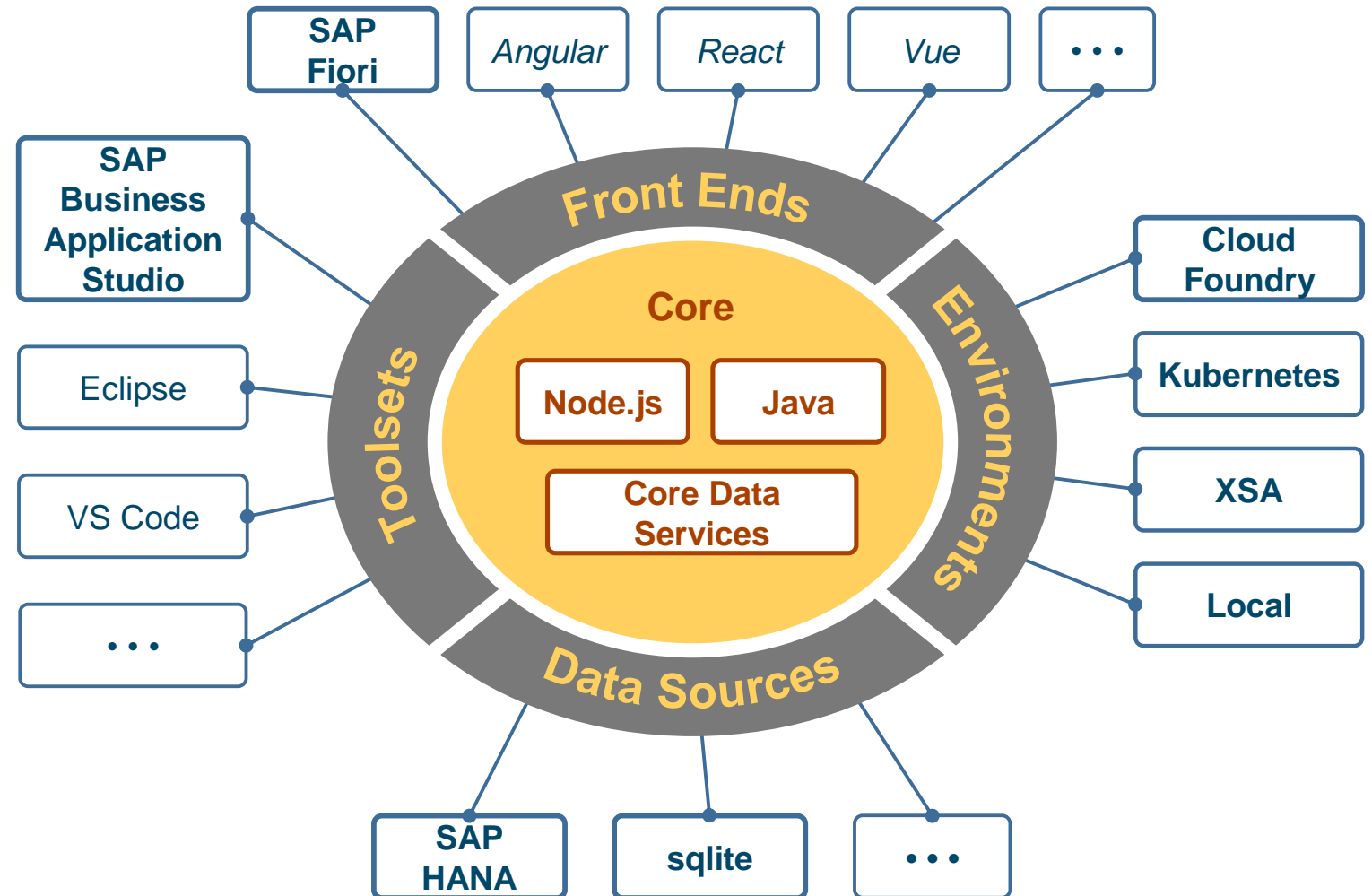
Design principles

Zero Lock-In

- You choose UI and database technology

- SAP Fiori Elements and SAP HANA out-of-the-box

- Designed to integrate with alternatives
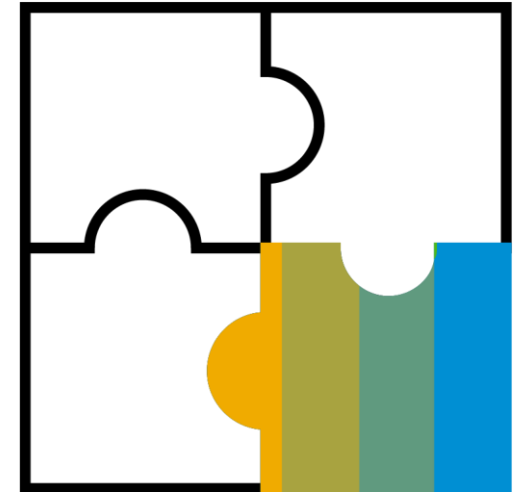
Design principles

Non-Intrusive

- Your architecture, your methodology
- CAP is free of assumptions
- Avoids boilerplate using convention over configuration

Design principles

Platform-Agnostic

- Use higher-level APIs
- Avoids hard-wiring
- Enables you to keep pace with cloud technologies
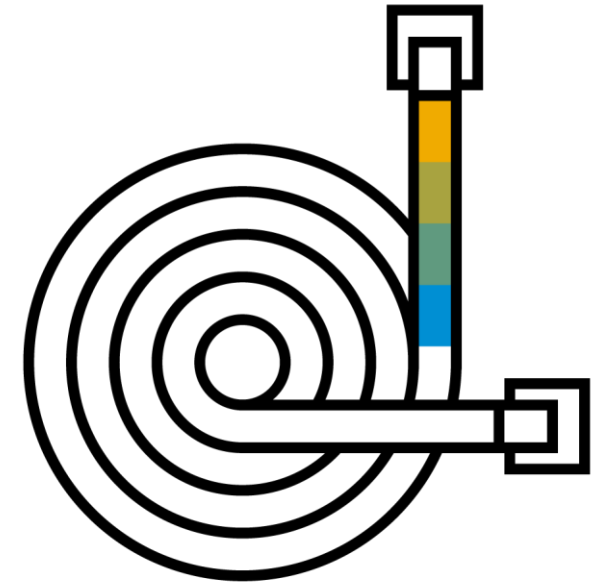
Demo

Create a "**Hello World**" application

Define ➡ Implement ➡ Run ➡ Consume
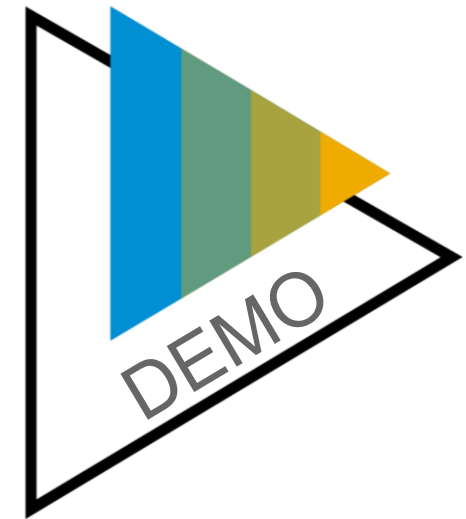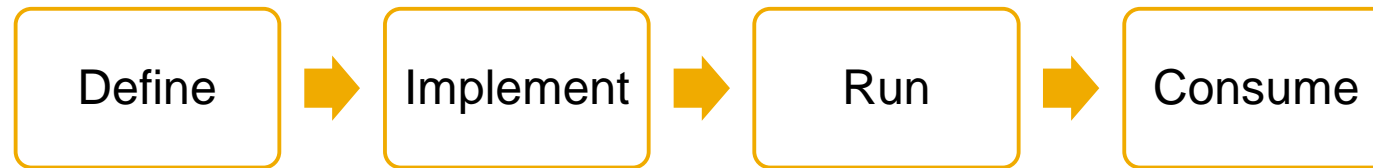
What you've learned in this unit

- How you can focus on your business domain by using SAP Cloud Application Programming Model

- What benefits you have while developing with SAP Cloud Application Programming Model

- Which toolset and capabilities SAP Cloud Application Programming Model offers for development
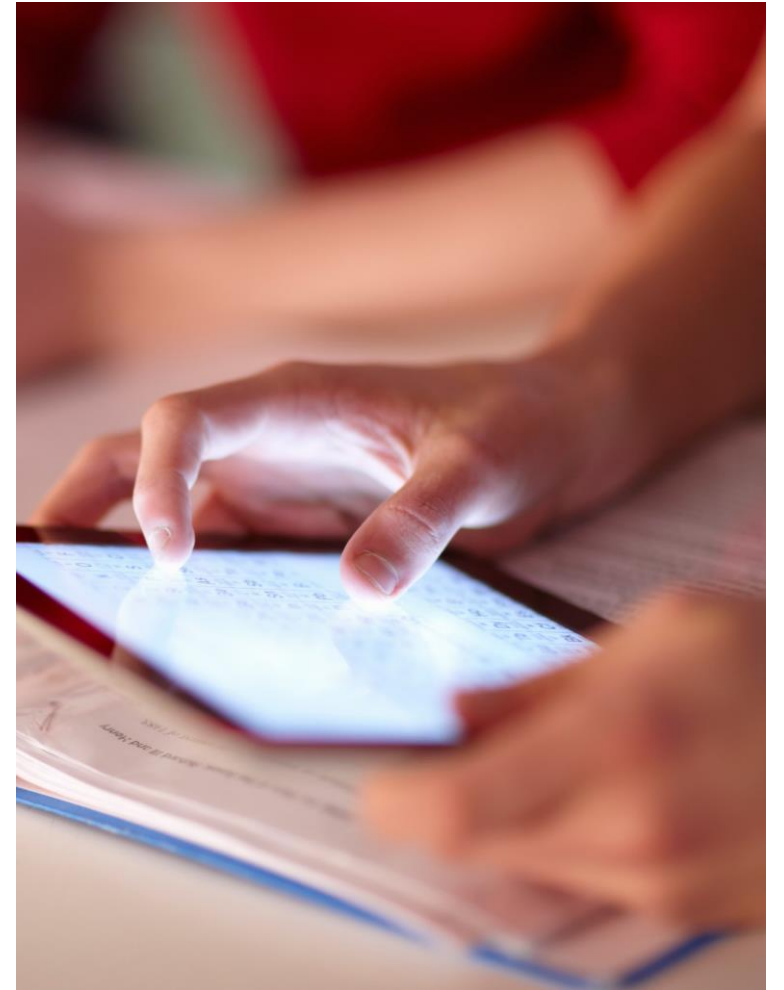
Further reading

- [Official documentation](#)
- [Blogs Cloud Application Programming Model](#)
- [Starter Scenario](#)
- [TechEd Replay](#)
- [Hello World Tutorial](#)
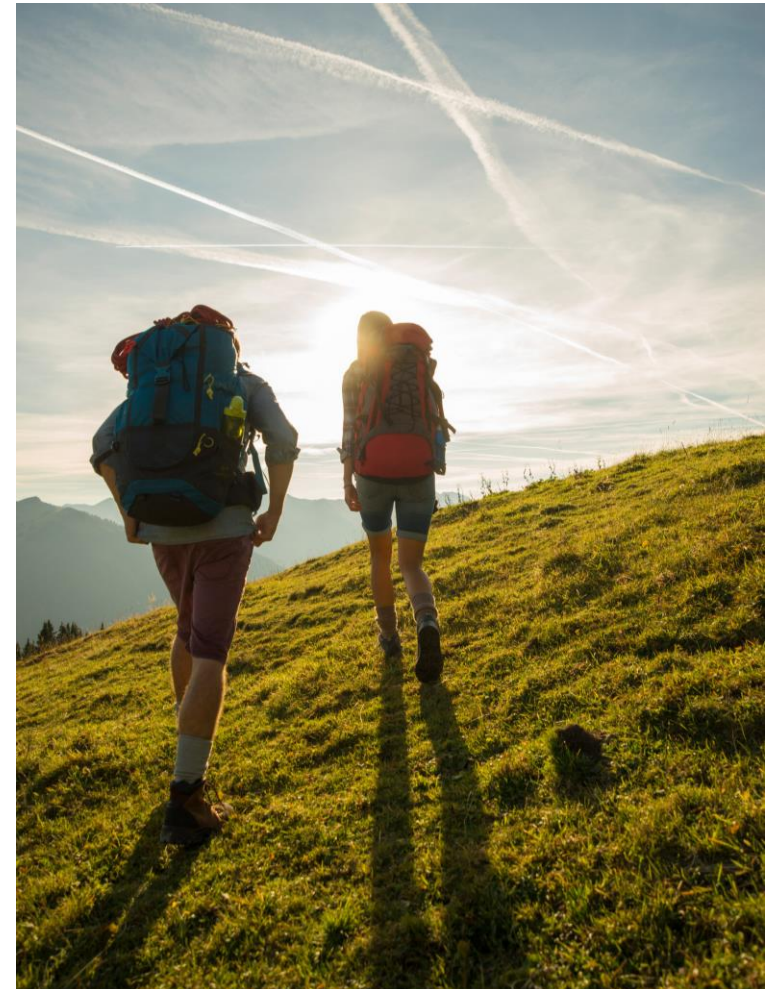
Thank you.

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