Intro to Serverless

Hello!

I AM ED SHEE

Cloud Developer Advocate at IBM

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Hello!

THIS IS JAMES THOMAS

Lead Serverless Advocate, IBM Cloud

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What is "Serverless" computing?

FaaS, Event-Driven, Functions, Lambda, OpenWhisk and Jeff!
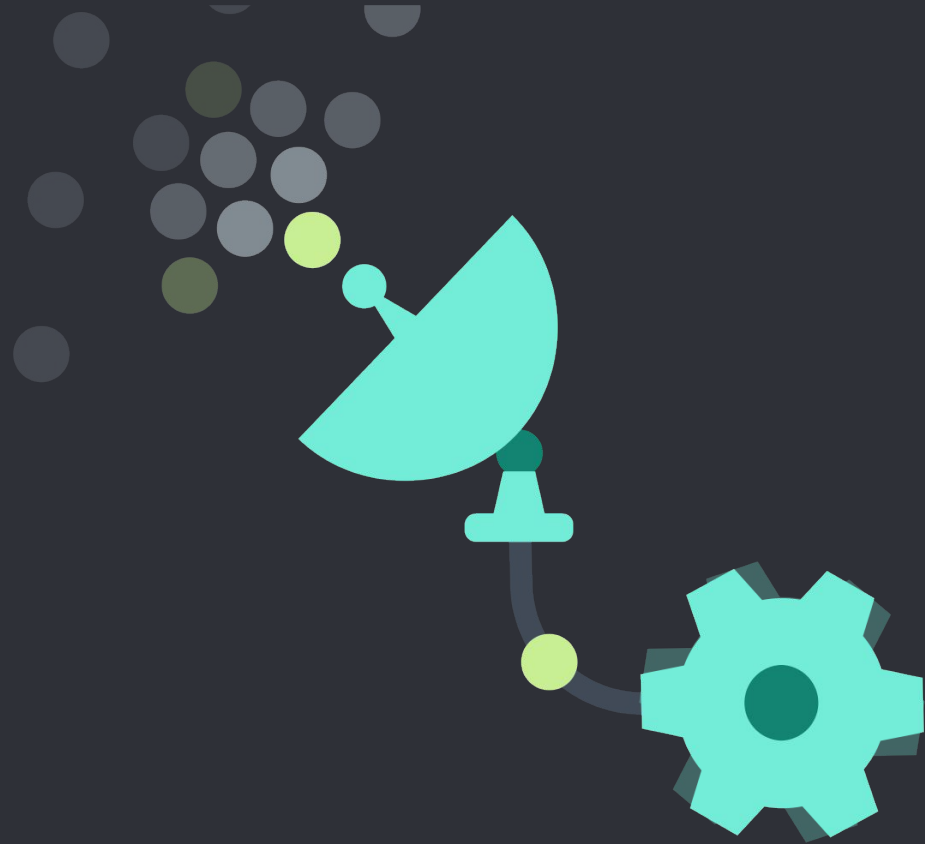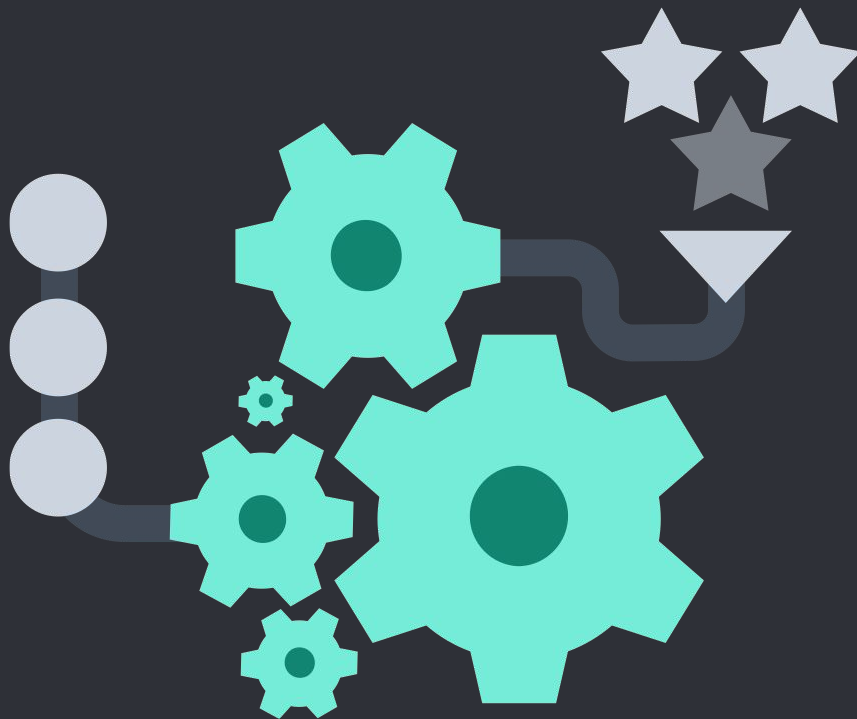
What is Serverless?

No Servers

Just Code

What is Serverless?
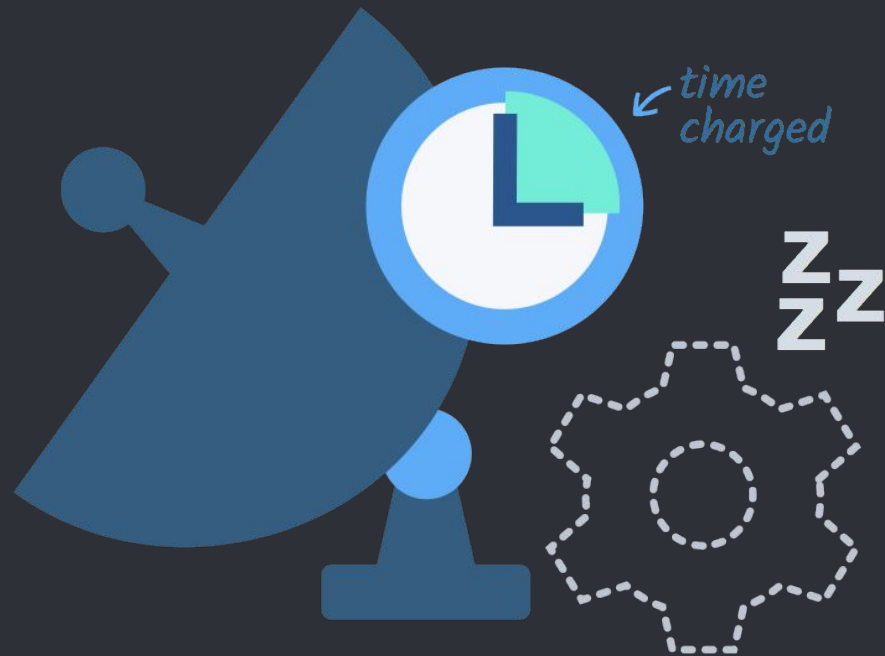
Runs that code
On Demand

What is Serverless?

Scales on a
Per-request
basis

What is Serverless?

Only billed for the
resources used

Example

An Internet Enabled Alarm

Advantages of Serverless

Why serverless is worth using

Advantages of Serverless

- No infrastructure to manage

- Scaling is built in

- Only pay for used resources

- High availability built in

- Easy to use

Disadvantages of Serverless

What makes serverless computing challenging

Disadvantages of Serverless

- Need to trust the provider

- New architecture to learn

- Debugging, Monitoring, Logging tools
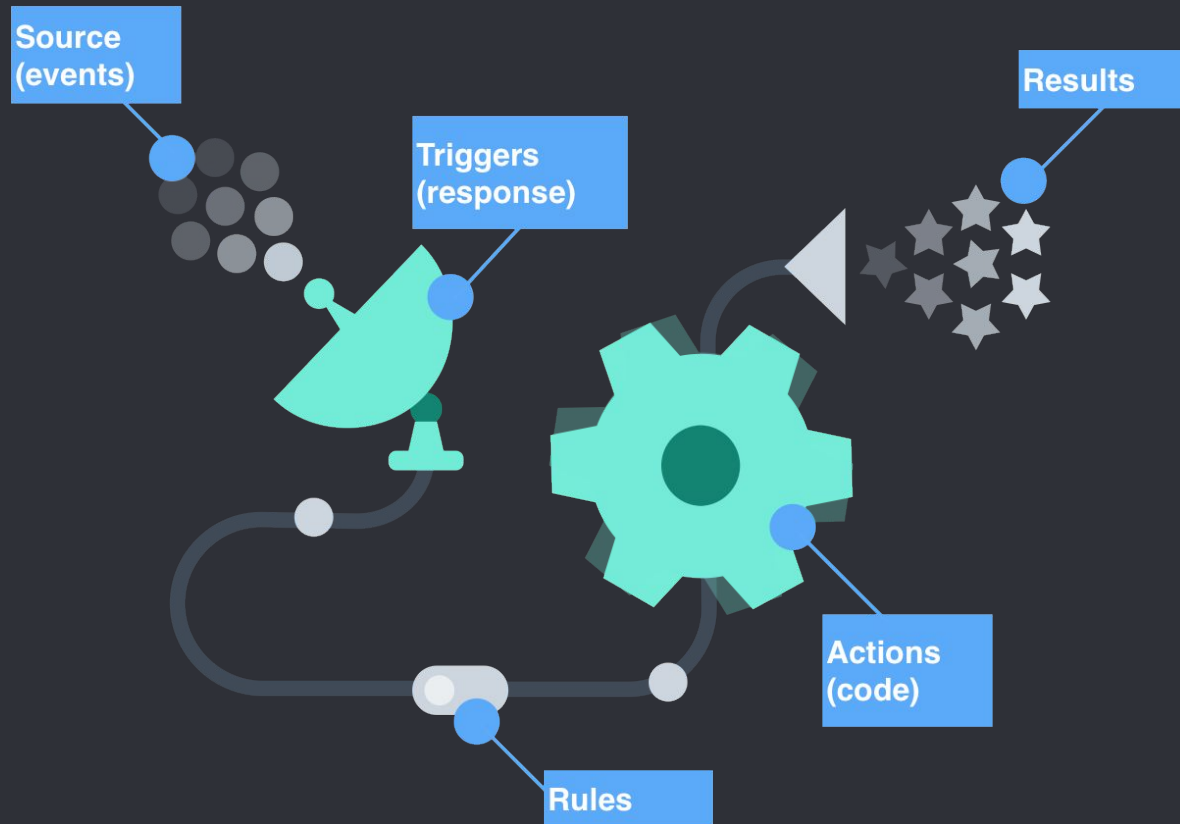
- Performance

- Unpredictable costs

Serverless Providers

Apache OpenWhisk

openwhisk.org

Apache OpenWhisk

Source
(events)

Triggers
(response)

Results

Actions
(code)

Rules

Apache OpenWhisk

Event Sources

Event sources, such as devices, queues, databases, and webhooks, emit classes of events in the form of triggers.

Apache OpenWhisk

Triggers

Triggers are the class of events (including device readings, published messages, and data changes) that are emitted by event sources.

Apache OpenWhisk

Actions

Actions are functions that encapsulate code – written in any supported language by implementing a single method signature – to be executed in response to a trigger.

Apache OpenWhisk

Rules

Rules represent the declarative association between a trigger and an action, defining which action(s) should be executed in response to an event

Apache OpenWhisk

Sequences

Sequences allow to chain together a sequence of actions in a declarative fashion.

Apache OpenWhisk

Packages

Packages encapsulate external services in a reusable manner and assemble them into triggers and actions.

Apache OpenWhisk

Supported Languages

JS/NodeJS 8	Swift 3
Java	Docker / Binary
Python 3	PHP
Go	Scala
Rust	Haskell

github.com/IBMDeveloperUK/serverless-voice-assistants

Work through at your own pace.
Give us a shout if you need help!

Thanks!

ANY QUESTIONS?

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