

- 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?



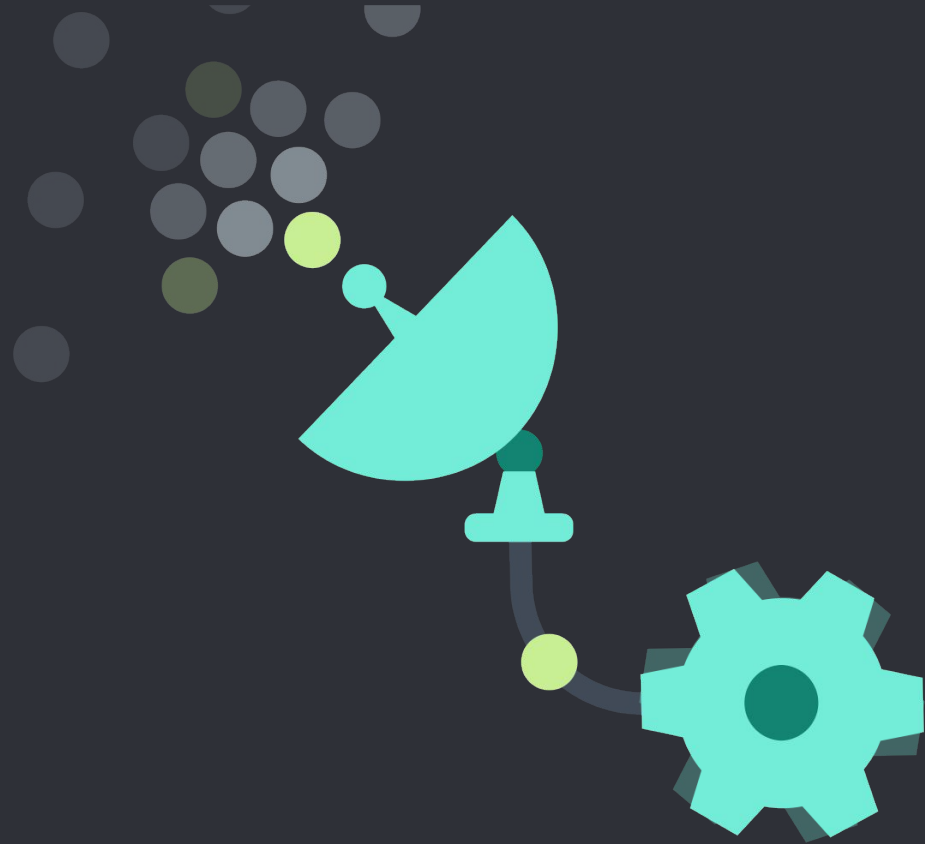
No Servers



Just Code

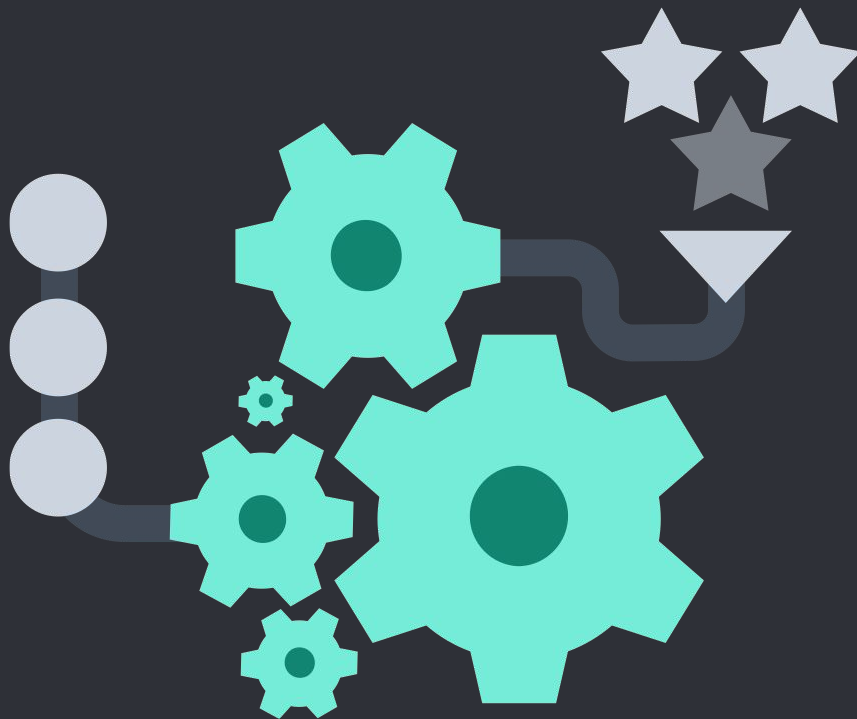
What is Serverless?

Runs that code
On Demand



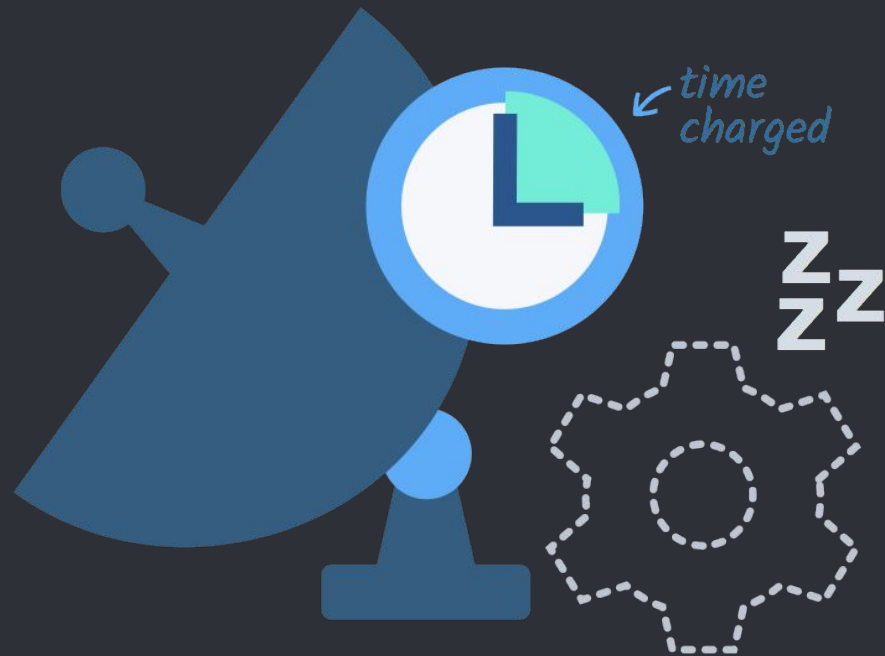
What is Serverless?

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

Severless Use Cases

Apps well suited to severless computing

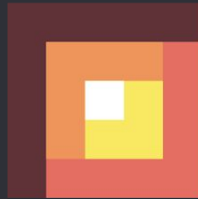
Serverless Use Cases

- Internet of Things
- Mobile back ends
- Data Processing
- Scheduled Workloads
- Video/Image Manipulation

Severless Providers

People who manage those boring servers for you

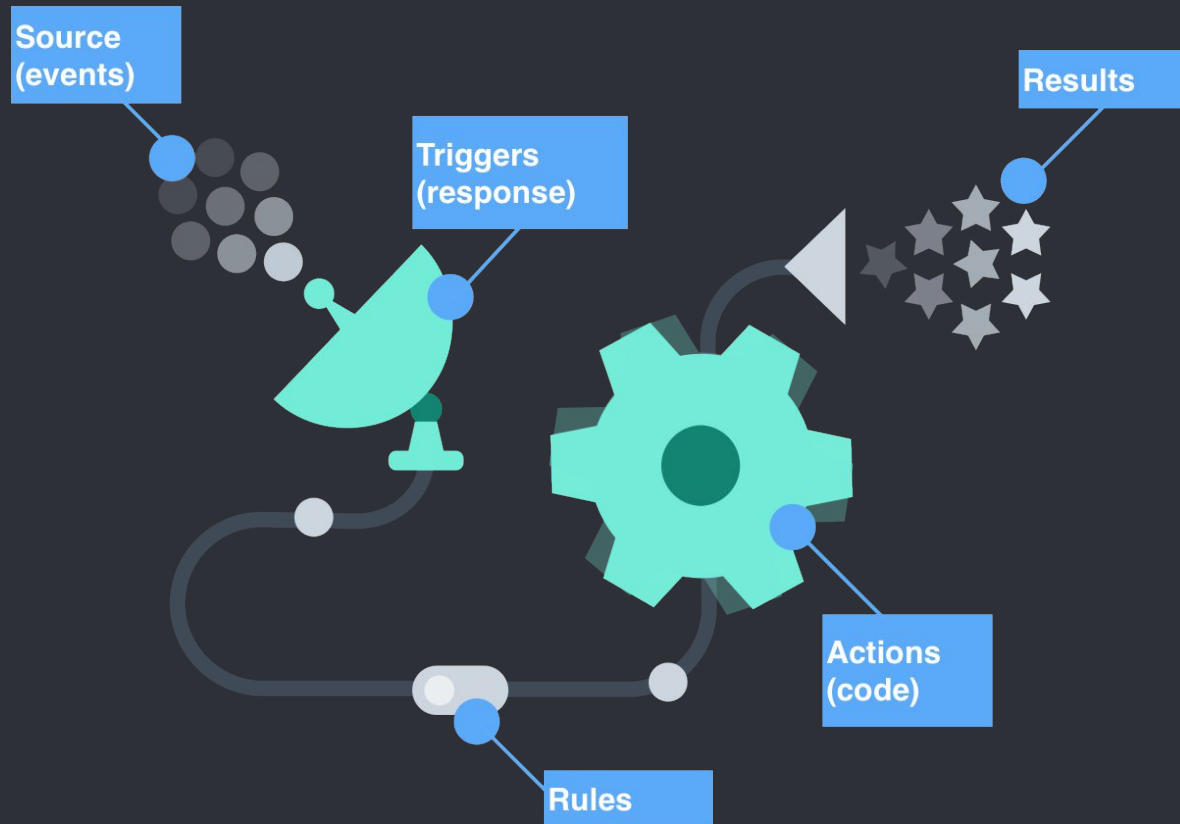
Serverless Providers



Apache OpenWhisk

openwhisk.org

Apache OpenWhisk



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.

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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.

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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/IBMCodeLondon/serverless-workshop

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

Thanks!

ANY QUESTIONS?

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