Serverless & FaaS

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Serverless Computing

❖ **Serverless computing** is an execution model where
  - the cloud provider executes a piece of code by dynamically allocating the resources,
  - only charging for the resources used to run the code.

❖ The code is typically run inside **stateless containers** that can be triggered by a variety of events
  - including http requests, database events, queuing services, monitoring alerts, file uploads, scheduled events (cron jobs).

❖ The code that is sent to the cloud provider for execution is usually in the form of a function.
  - Hence serverless is sometimes referred to as "**Functions as a Service**" or "FaaS".

In this module, you should read and investigate autonomously about this subject.

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Recommended readings

❖ **Serverless Computing**
  – https://martinfowler.com/articles/serverless.html
  – https://arxiv.org/pdf/1706.03178.pdf
  – https://gojko.net/2019/02/06/badass-integrations.html
  – https://tudip.com/blog-post/what-is-serverless-computing/

❖ **Functions as a Service (FaaS)**
  – Microsoft/Azure
  – AWS Lambda
  – Google Cloud
  – IBM Cloud

❖ **Spring**
  – http://cloud.spring.io/spring-cloud-function/

❖ **Open source**
  – https://openwhisk.apache.org

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