Institut für Verteilte Systeme
Institute of Distributed Systems

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Practical Overview of Serverless Computing

Project

8/16 CP

Serverless is a current trend in cloud computing. In contrast to what the name indicates it does not describe an architecture without servers. Instead, it really means that developers do not have to worry about servers and infrastructure, but can completely focus on their code.

Unlike previous cloud computing models, a cloud vendor does not offer full platforms or virtual machines, but an execution environment for functions. These often feature a pay-per-use billing model and automatic scalability of resources based on current utilization. Thus, developers are completely relieved of the operational concerns of their applications.

All major cloud computing providers offer their own flavor of serverless computing or Function as a Service (FaaS). The goal of this project is to provide a comparison of the similarities and differences of these platforms. Another goal of this project is the implementation of a reference application that can be used to compare different platforms and their programming model. As the practical part of this project a multi node Apache OpenWhisk (an open source serverless platform) cluster should be set up and tested.

Suitable for students with experience in Java and interest in familiarizing themselves with real cloud computing platforms.

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If you are interested or if you would like further details, please contact me or simply come by without any commitment.