

Stack Traces in Function As a Service Framework

Ádám Révész, Norbert Pataki

Department of Programming Languages and Compilers,
Eötvös Loránd University
reveszadam@gmail.com, patakino@elte.hu

Abstract

Containerization has become an essential approach in modern software engineering. Docker is a widely-used solution for separate services (like database, backend, etc.) and run them as a standalone, isolated process instance on the same host kernel. Kubernetes is distributed approach over Docker, it supports multiple hosts for the deployment. Kubeless in new approach that aims at the functionwise deployment, so every subprogram can be deployed, scaled, operated separately, therefore a functional programming approach can be realized in a modern, highly distributed realm. In this paper, we present our framework that provides a programming framework over Kubeless. However, many programming development tools are not available in this realm. Stack trace is a well-known construct in programming languages to follow the function calls. We propose a mechanism to retrieve the stack trace for realizing program errors easily.

Keywords: cloud, Kubeless, serverless programming, stack trace

MSC: 68M14 Distributed systems