Getting started with the IBM Cloud, Part 4: Learn how to use serverless computing with the IBM Cloud Functions platform

Doug Tidwell shows you how to generate code that manages a cloud-hosted NoSQL database

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See how to use IBM Cloud Functions to make the most of serverless computing. Doug Tidwell shows you how to generate code that manages a cloud-hosted NoSQL database.

To view this video, An introduction to the IBM Cloud - Part 4, please access the online version of the article. If this article is in the developerWorks archives, the video is no longer accessible.

About this video

In this video, I show you how to use serverless computing to work with the Cloudant NoSQL database you created in Part 1. The IBM Cloud Functions platform, based on Apache OpenWhisk, is a powerful serverless environment that is tightly integrated with the overall IBM Cloud platform.

This video covers the basic concepts of serverless and the terminology and architecture of IBM Cloud Functions. From there, it shows you how to install the tools you need to work with serverless, including powerful utilities to generate code (actions, in OpenWhisk parlance) that gives you complete control over your database. With that code generated, you're only a couple of lines of code away from having a simple web app that interacts with the actions hosted on the IBM Cloud Functions platform.

When you're finished with this video, you'll understand the power of serverless and have all the tools and techniques you need to make the most of this important new trend in developing cloud-native applications.

To get started, create a free, non-expiring IBM Cloud Lite account and you can do everything that I show in this demo. Starting with the Cloudant database service you created in the first video, we'll go through three steps:

1. Generate a package that contains all the actions you need to work with your database service
2. Find the method name, endpoint, and authentication token your app needs to invoke the action in the serverless environment
3. Plug those values into a simple Node app

That's all you need to do to build a complete application that works with your database service. Hundreds and hundreds of lines of code are generated for you automatically by the IBM Cloud Functions platform. You'll be amazed by how little work you have to do to build a complete application.

This video is the last of a four-part series that shows you the full power of IBM Cloud’s Platform as a Service. The four videos show you how to build:

1. A basic Node.js application that includes a continuous delivery pipeline and a Cloudant NoSQL database
2. A more advanced application that displays a web form and updates the database
3. A containerized version of the advanced application, using Docker and Kubernetes in the IBM Container Service
4. (This video) A Node.js application that uses a microservice hosted on the IBM Cloud Functions serverless computing platform

More IBM Cloud resources

Ready to take a deeper dive? Check out our newly updated "IBM Cloud Essentials" course, which explores the fundamentals of cloud computing, the IBM Cloud platform, services, and Cloud Foundry applications.

The developerWorks Mailbag is a series of videos that cover topics such as containers, Cloud Foundry apps, microservices, git repositories, serverless computing, chatbots, and other cloud-related technologies.

developerWorks has two introductory articles on the IBM Cloud Functions Platform, both of which contain interactive sandboxes that let you build and run code directly in your browser:

- **Invoking actions on the IBM Cloud Functions platform** defines the basic concepts of serverless computing and shows you how to invoke serverless code in different languages.
- **Write runnable and deployable code for the IBM Cloud Functions platform** shows you how to write code that runs inside a serverless environment.

For a steady stream of tutorials and other technical resources to help you learn, develop, and connect with the IBM Cloud, see the IBM Cloud articles and tutorials on developerWorks. And be sure to visit our IBM Cloud Developer Center.
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