

# How AWS Lambda and Serverless Application Model are Revolutionizing the Way We Build Applications

Are you tired of traditional application development approaches that require extensive infrastructure management and server provisioning? Look no further – AWS Lambda and the Serverless Application Model (SAM) have emerged as game-changers in the world of cloud computing, enabling developers to build applications without worrying about server management or scalability.

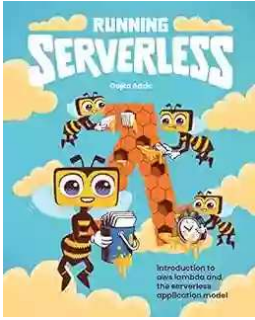
## What is AWS Lambda?

AWS Lambda is an event-driven computing service provided by Amazon Web Services (AWS). It allows developers to run their code without provisioning or managing servers. With Lambda, you pay only for the computing time consumed by your code – that means no idle server costs. It supports a wide range of programming languages, including Java, C#, Python, and Node.js, making it incredibly versatile for different types of applications.

## How does AWS Lambda work?

The traditional server-based approach requires developers to provision servers, manage their configurations, and scale them as per demand. This can be time-consuming and expensive. AWS Lambda, on the other hand, follows a serverless architecture. When an event triggers the Lambda function, AWS automatically provisions and runs the necessary infrastructure to execute the code, and then shuts it down when it's done.

**Running Serverless: Introduction to AWS Lambda and the Serverless Application Model**



by Gojko Adzic(Kindle Edition)

★★★★☆ 4.5 out of 5

Language : English

File size : 15061 KB

Text-to-Speech : Enabled

Enhanced typesetting : Enabled

Print length : 298 pages

Screen Reader : Supported



Each Lambda function can be triggered by various AWS services, such as Amazon S3, Amazon DynamoDB, or Amazon API Gateway. This allows developers to build responsive and scalable applications effortlessly. With AWS Lambda, you can focus solely on your code and leave the infrastructure management to AWS.

## What is the Serverless Application Model (SAM)?

In order to simplify the development and deployment of serverless applications, AWS introduced the Serverless Application Model (SAM). SAM is an open-source framework that extends AWS CloudFormation to help you define and deploy serverless applications more easily. It provides a simplified syntax for defining serverless resources such as Lambda functions, APIs, and event sources, making the deployment process faster and more efficient.

## Key Benefits of AWS Lambda and SAM

### 1. Cost Efficiency

With AWS Lambda, you only pay for the computing time consumed by your code, making it highly cost-efficient. Traditional server-based approaches often lead to idle server costs, as resources are provisioned even when not in use. By

leveraging Lambda, you can significantly reduce infrastructure costs and optimize your spending.

## **2. Scalability and Responsiveness**

Thanks to the serverless architecture, AWS Lambda can automatically scale your applications to handle any amount of incoming requests. You don't need to worry about infrastructure scaling or performance bottlenecks. Lambda handles everything for you, ensuring that your application stays responsive even during peak loads.

## **3. Developer Productivity**

By abstracting the infrastructure management, AWS Lambda and SAM allow developers to focus solely on writing their application code. This boosts productivity and speeds up the development cycle, as developers can iterate and deploy new features more quickly. Additionally, SAM's simplified syntax makes it easier to define and manage serverless resources, further improving developer efficiency.

## **4. Flexibility**

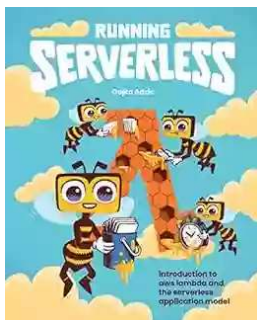
With support for multiple programming languages, AWS Lambda offers great flexibility for developers to choose the language they are most comfortable with. This allows teams to leverage existing skills and utilize their preferred language to build serverless applications. It also makes it easier to integrate Lambda with other AWS services, providing endless possibilities for application architectures.

## **5. Easy Deployment and Management**

Using the Serverless Application Model, deploying and managing serverless applications becomes a breeze. SAM's simplified syntax allows you to define all the resources required for your application in a single YAML file, making it easy to

version control and deploy changes. This streamlines the deployment process and eliminates the need for complex infrastructure management configurations.

AWS Lambda and the Serverless Application Model are revolutionizing the way we build applications. By eliminating the need for server management and infrastructure provisioning, developers can focus solely on writing code, which leads to improved productivity and faster time-to-market. The cost efficiency and scalability of Lambda make it an ideal choice for modern application development. With SAM's simplified syntax, deployment and management of serverless resources have never been easier. So, why wait? Dive into serverless development and experience the power of AWS Lambda and SAM today!



## Running Serverless: Introduction to AWS Lambda and the Serverless Application Model

by Gojko Adzic (Kindle Edition)

★★★★☆ 4.5 out of 5

Language : English

File size : 15061 KB

Text-to-Speech : Enabled

Enhanced typesetting : Enabled

Print length : 298 pages

Screen Reader : Supported



This book will help you get started with AWS Lambda and the Serverless Application Model (SAM). Lambda is Amazon's engine for running event-driven functions, and SAM is an open-source toolkit that greatly simplifies configuring and deploying Lambda services. Together, they make it easy to create auto-scaling APIs and cloud services designed for serverless deployments.

Running Serverless is a technical tutorial book. It will be useful for two groups of software developers and architects: people who have no previous experience working with serverless applications and are interested in learning about emerging cloud architectural patterns, and people who already work with Lambda using other deployment frameworks and want to learn about AWS SAM, the Serverless Application Model.

The contents of this book are based on author's experiences with MindMup, a collaborative mind-mapping system that was one of the early adopters of AWS Lambda. MindMup moved to a serverless model from an application hosting service throughout 2016, in order to benefit from on-demand scaling. We reduced operational costs by about two-thirds while significantly increasing application capacity, speeding up development and reducing time to market for new features.

This book is structured as a walk-through for building a practical application. We start from a simple static API and gradually grow it into an online image-resizing service, ready for millions of users, with all the supporting operational and infrastructural capabilities. The application closely resembles real-world systems that many of you will develop in your jobs. This will give you a good structure for your own work, and you will be able to almost copy parts to get a head start. As you discover how to create and deploy different parts of the application, you will also learn about key aspects of Lambda and related services, important tips, techniques and tools for running serverless.

The tutorial evolved from dozens of conference workshops and code camps. Gojko and his colleagues have used the exercises from this book to teach hundreds of developers about serverless architectures, improving the examples through feedback into a great way to gradually introduce important concepts.



## The Secrets of Chaplaincy: Unveiling the Pastoral Theology of Inquiry Haworth

Chaplaincy is a field that encompasses deep empathy, understanding, and spirituality. It is a profession where individuals provide spiritual care and support to those in...



## Animales Wordbooks: Libros de Palabras para los Amantes de los Animales

Si eres un amante de los animales como yo, entonces seguramente entenderás la fascinación que sentimos hacia estas increíbles criaturas. Ya sea que se trate de majestuosos...



## Let's Learn Russian: Unlocking the Mysteries of the Cyrillic Script

Are you ready to embark on a linguistic adventure? Have you ever been curious about the beautiful Russian language? Look no further - this article is your...



## The Incredible Adventures of Tap It Tad: Collins Big Cat Phonics For Letters And Sounds

Welcome to the enchanting world of phonics where learning to read becomes a captivating journey! In this article, we will explore the marvelous educational resource,...



## Schoolla Escuela Wordbookslibros De Palabras - Unlocking the Power of Words!

Growing up, one of the most significant milestones in a child's life is learning how to read. It opens up a whole new world of possibilities, imagination, and knowledge. A...



## 15 Exciting Fun Facts About Canada for Curious Kids

Canada, the second-largest country in the world, is famous for its stunning landscapes, diverse wildlife, and friendly people. As children, it's essential to...



## What Did He Say? Unraveling the Mystery Behind His Words

Have you ever found yourself struggling to understand what someone really meant when they said something? Communication can often be clouded with ambiguity, leaving us...



## A Delicious Journey through Foodla Comida Wordbookslibros De Palabras

Welcome to the world of Foodla Comida Wordbookslibros De Palabras, where colorful illustrations and engaging words come together to create a delightful learning...