

# Microservices

## What Are Microservices?

Microservices are a form of service-oriented architecture style (one of the most important skills for Java developers) wherein applications are built as a collection of different smaller services rather than one whole app. Instead of a monolithic app, you have several independent applications that can run on their own and may be created using different coding or programming languages. Big and complicated applications can be made up of simpler and independent programs that are executable by themselves. These smaller programs are grouped together to deliver all the functionalities of the big, monolithic app.

Microservices captures your business scenario, answering the question "What problem are you trying to solve?" It is usually developed by an engineering team with only a few members and can be written in any programming language as well as utilize any framework. Each of the involved programs is independently versioned, executed, and scaled. These microservices can interact with other microservices and can have unique URLs or names while being always available and consistent even when failures are experienced.

## What Are the Benefits of Microservices?

There are several benefits to using microservices. For one, because these smaller applications are not dependent on the same coding language, the developers can use the programming language that they are most familiar with. That helps developers come up with a program faster with lower costs and fewer bugs. The agility and low costs can also come from being able to reuse these smaller programs on other projects, making it more efficient.

## Examples of Microservices Frameworks for Java

There are several microservices frameworks that you can use for developing for Java. Some of these are:

**Spring Boot:** This is probably the best Java microservices framework that works on top of languages for Inversion of Control, Aspect Oriented Programming, and others.

**Jersey:** This open source framework supports JAX-RS APIs in Java is very easy to use.

**Swagger:** Helps you in documenting API as well as gives you a development portal, which allows users to test your APIs.

Others that you can consider include: Dropwizard, Ninja Web Framework, Play Framework, RestExpress, Restlet, Restx, and Spark Framework.