



# Spring Microservices Training Course

Project Based Immersive Learning Course

## Course Overview?

Education Nest offers a Microservices Training program that has been created by industry experts who have more than 10 years of experience in the field. The primary objective of this course is to equip you with the skills required to develop high-performance Microservices design-based applications. Microservices architecture is particularly well-suited for the public cloud as it prioritizes elastic scaling utilizing on-demand resources. The training will provide you with a comprehensive understanding of the importance of Microservices in contemporary application development. You will also learn how to build Java applications using Spring Boot and Spring Cloud on Google Cloud. The course instructor will explain every line of code in a simple manner, making it easier for you to comprehend the concepts. Additionally, the knowledgeable trainer will guide you through the fundamental principles of Microservices development.

## Benefits of Spring Microservices Training Course :

The Microservices architectural design is becoming increasingly popular in comparison to its counterparts such as Monolithic and SOA architecture. The integration of RESTful web services, Java, and Spring Boot in conjunction with Spring MVC simplifies the development of fast, dependable, and scalable applications with other technologies. This course is intended to equip you

with the expertise required to excel in Microservices application development and jumpstart your career in this field. Obtaining a Microservices Developer certification is the most effective approach to secure a well-paying job.

## Who should learn:

- Freshers
- Java Developer
- Application Developer
- Senior Web Developer
- Spring Boot Microservices Developer
- QA Engineers
- Software Developers and Architects

## Why do you need Spring Microservices Training Course?

## Average Salary Growth:

The average salary growth of a Spring Microservices developer can vary depending on several factors such as location, years of experience, company size, industry, and other factors. According to various sources, the average salary for a Spring Microservices developer in the United States can range from \$90,000 to \$150,000 per year, depending on their experience and location. It's worth noting that this is only an estimate and the salary can vary significantly based on the factors mentioned above.

## Industries:

The demand for Spring Microservices developers is high in various MNCs (multinational corporations) across industries such as finance, healthcare, e-commerce, and more. As more and more companies adopt microservices architecture for their applications, the need for skilled Spring Microservices developers continues to grow. Some examples of MNCs that have job openings for Spring Microservices developers include: Amazon, Google, Microsoft, IBM, JP Morgan Chase, Goldman Sachs, Accenture, Infosys, Capgemini, Wipro and TCS.

## **Position in Market:**

The U.S. Bureau of Labor Statistics (BLS) projects that employment of software developers, in general, will grow 21 percent from 2019 to 2029, which is much faster than the average for all occupations. Additionally, a report from ResearchAndMarkets.com predicts that the global market for microservices will grow from \$2.2 billion in 2020 to \$7.5 billion by 2025, representing a compound annual growth rate (CAGR) of 27.9 percent. According to the U.S. Bureau of Labor Statistics (BLS), the employment of web developers is projected to grow 8 percent from 2020 to 2030.

## **Designations:**

- Microservices developers
- Java Microservices developers
- Microservices Application developer
- Spring Microservices developers
- Microservices Architect

## **Why Spring Microservices Course from Education Nest**

- **Free Demo on Request**
- **Live Interactive Learning**
- **Lifetime Access**
- **Flexible Schedules**
- **24x7 Support**
- **One on One Doubt Clearing**
- **Real Time Project-Based Learning**
- **Certificate Oriented Curriculum**

## **Key Skills Covered:**

- Application Development using Java and Spring
- Build Spring Boot microservices
- Send and receive messages with Pub/Sub and Spring Integration
- Microservices Architecture
- Spring Boot RESTful Web Services
- Application deployment using Docker
- Microservices Patterns
- Implement distributed tracing by using Cloud Trace

## **Spring Microservices Course Syllabus**

### **Introduction to Microservices**

- Introduction to Microservices
- Monolithic Architecture
- SOA Architecture
- Key benefits of Microservices
- Challenges in Microservices
- Comparisons between Monolithic, SOA, and Microservices
- Microservices: Process and Organization
- Use Case #1 FTGO

### **Microservices Design and Architecture**

- Introducing Microservices Architecture
- Microservices Design Patterns
- Use case: Apollo Store
- Decomposition Strategies

- Obstacles in Decomposition
- Inter-process communication
- Partial failure in communication
- Service Discovery
- Transaction management

## **Spring Boot Overview**

- What is Spring Boot?
- Spring Boot Main Features
- Comparisons between Spring, Spring Boot
- Working of Spring in Eclipse/any other IDE of your choice
- Necessary files in Spring Boot
- Components
- POM
- Servers
- Annotations
- Spring boot database – H2 and JPA

## **Spring Boot and Spring framework**

- Spring boot AOP
- Spring Boot caching
- Spring Boot database - MySQL
- Spring Boot RESTful Web Services
- Swagger documentation format

## **Microservices with Spring Boot and Cloud**

- Introduction to Spring cloud
- Difference between Spring Boot and Spring cloud
- Spring Cloud features
- Spring Cloud and Netflix Eureka
- Registration and Discovery

- Spring Load Balancer
- Introducing Spring Cloud Gateway

## **Microservices Security**

- Introduction to Spring Security
- Microservices Security Principles
- Introduction to OAuth 2.0
- Authentication and Authorization
- Principal Security
- Spring Boot Security

## **Docker with Microservices using Spring Boot – I**

- Introduction of Docker with Microservices
- Introduction to Linux
- Docker Basics
- Advantages of Docker
- Installation and commands
- Docker Hub and Desktop
- Docker hosts and machine

## **Docker with Microservices using Spring Boot – II**

- Introduction to Docker Images
- Docker containers
- Docker Images
- Docker Repositories
- Managing containers for Microservices
- Monitoring with Prometheus and Grafana

## **Career Support**

### **Profile Building :**

Experienced professionals are available to offer tailored assistance in crafting your CV and online profiles, taking into account your unique educational and experiential background.

### **Interview Preparation :**

The upcoming interview preparation service will include personalized one-on-one sessions and the option for mock interviews if needed.

### **Job Referrals :**

At Education Nest, we receive a variety of job requirements from diverse sources such as organizations, our clients, HR consultants, and a vast network of Education Nest currently employed in different companies. We strive to meet these varied requirements to the best of our abilities.

### **Continuous Support :**

We offer continuous support for as much time as you need it, and a considerable number of our learners receive multiple interviews offers and promising employment opportunities as a result of the abilities they gain during the program.