Cognixia®

Spring Boot and Microservices Bootcamp

www.cognixia.com

About Cognixia

Cognixia- A Digital Workforce Solutions Company is dedicated to delivering exceptional trainings and certifications in digital technologies. Founded in 2014, we provide interactive, customized training courses to individuals and organizations alike, and have served more than 130,000 professionals across 45 countries worldwide.

Our team of more than 7000 industry experts facilitate more than 450 comprehensive digital technologies courses, along with state-of-the-art infrastructure, to deliver the best learning experience for everyone. Our comprehensive series of instructor-led online trainings, classroom trainings and on-demand self-paced online trainings cover a wide array of specialty areas, including all of the following:

• IoT
• Big Data
• Cloud Computing
• Cyber Security
• Machine Learning
• AI & Deep Learning
• Blockchain Technologies
• DevOps

Cognixia is ranked amongst the top five emerging technologies training companies by various prestigious bodies. We're also RedHat Enterprise Partner, Microsoft Silver Learning Partner and an authorized training partner for ITIL, Automation Anywhere and ISC2.

OUR AWARDS & AFFILIATIONS

Best Workplace Amongst Emerging Enterprises Awarded By **Great Indian Workplace Awards** – 2018 Mumbai, India

Best Training Provider of the Year Awarded By **The Golden Globe Tiger Awards** – 2018 Kuala Lampur, Malaysia

TOP 5 **Big Data** TRAINING INSTITUTES 2017 **siliconindia**

WORLD HRD CONGRESS

Cognixia is awarded as Training Company of the Year, 2018

Top 10 IoT Training Companies for the **Second consecutive year.** 2017 IoT India MAGAZINE

TOP 10 PROMISING **IoT TRAINING** INSTITUTES IN INDIA 2017 HIGHER EDUCATION Review

ASIA BEST EMPLOYER BRAND AWARDS 2016

World HRD Congress has awarded for Excellence in Training (Asia)

TOP 5 **CLOUD** TRAINING INSTITUTIONS INDIA 2016 HIGHER EDUCATION Review

Asian Training & Leadership Award, Dubai

siliconindia BEST TRAINING PROVIDER **BIG DATA** HADOOP DEVELOPER OF THE YEAR 2016

Top 10 IoT Training Institutes – 2016 **Analytics India** MAGAZINE

in Best of Pages 2019

Top 10 Linkedin Best of Pages, 2019

ISO 9001 2015 CERTIFIED

ISO 9001:2015 Certified Quality Management System

INFORMATION SECURITY MANAGEMENT SYSTEMS **ISO** ISO/IEC 27001 : 2013

ISO/IEC 27001:2013 Certified Information Security Management System

AUTHORIZED TRAINING PARTNERS FOR

(ISC)² OFFICIAL TRAINING PARTNER

AUTOMATION ANYWHERE

ITIL®

Silver Microsoft Partner

PMI®

Microservices Outlook

- According to the State of Microservices Report 2020, CTOs, middle-level managers as well as software developers rate microservices architecture very highly for scalability potential and performance potential.

- 65% of microservices users name JavaScript/TypeScript as one of their architecture's main technologies.

- According to the 2020 Java Technology Report, Spring Boot is the most preferred Java runtime platform.
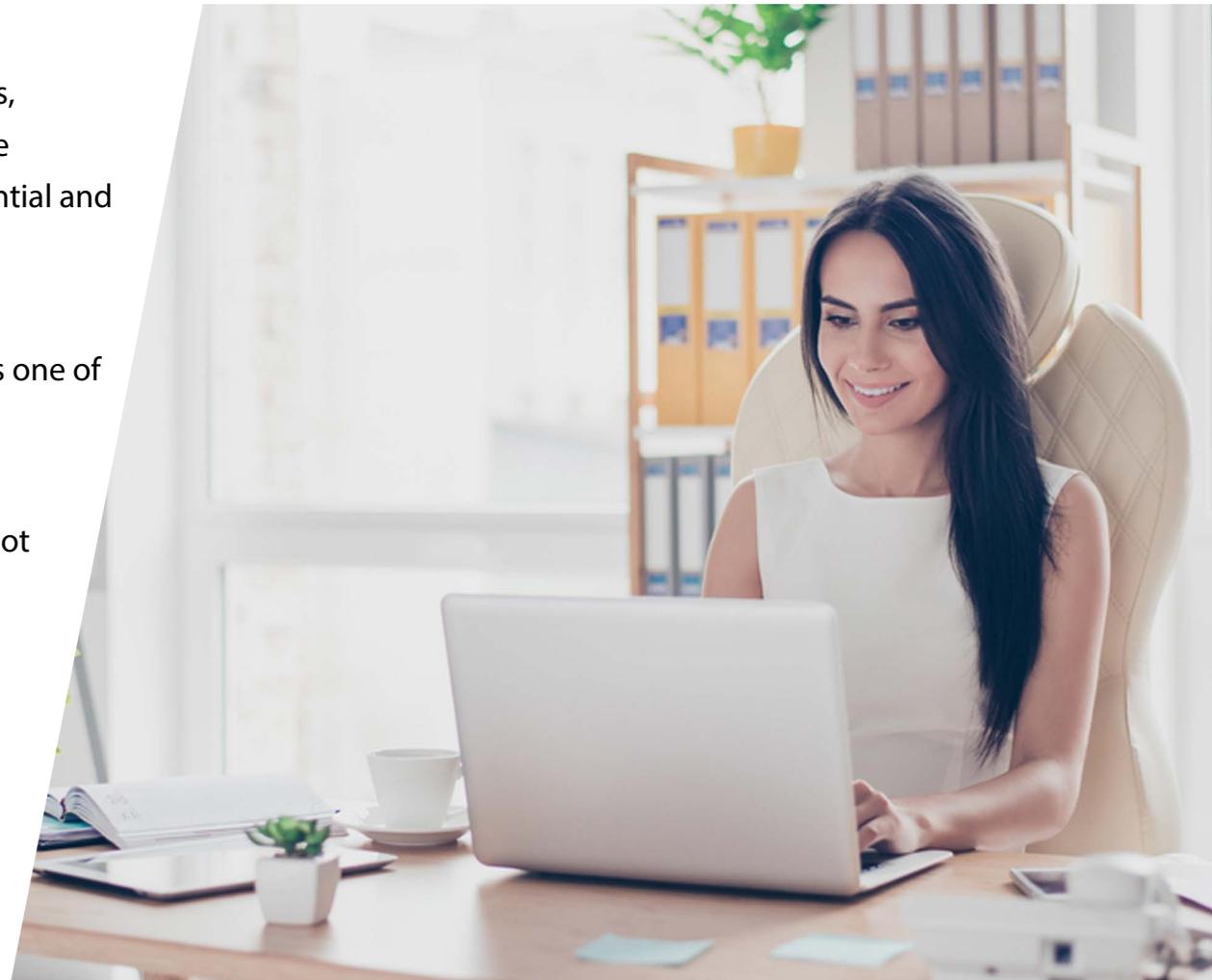
Cognixia's Spring Boot and Microservices Bootcamp

Cognixia's Spring Boot and Microservices Bootcamp will acquaint you with the concepts of Microservices and Spring Boot, and help you be well-versed in working with them. The course trains participants to develop cloud-based, scalable, and fault-tolerant enterprise applications using microservices. The course discusses how to containerize applications using Docker. The course also covers how to deploy Spring Boot applications on AWS Cloud. The course also incorporates hands-on projects and exercises for a thorough experiential and practical learning experience.

Who should take this course?

The course is highly recommended for anyone with the fundamental knowledge of Java and preferably some experience working it, who aspires to work as a Microservices developer with Spring Cloud.

Prerequisites

To be eligible for the Spring Boot and Microservices Bootcamp, participants need to have fundamental knowledge of Java. It is also beneficial to have basic knowledge of the Spring framework.

Program Structure

30 hours of
live online
instructor-led training

Industry
experienced
instructor

24X7

24x7
dedicated PoC
support

Multiple hands-on
exercises and labs
to ensure thorough
understanding
of concepts

Detailed Curriculum: Modules

Getting started with Spring Boot

- Introduction to Spring Boot

- Features of Spring Boot

- Using Spring Initializr

- Understanding Spring Boot Auto Configuration

- Exploring Spring Boot Annotations

- Configuring application properties

- Understanding profiles

- Using Spring Boot developer tools

Building RESTful web services with Spring Boot

- Introduction to REST

- The GET, POST, PUT, and DELETE methods

- The Accept and Content type headers

- Creating a CRUD REST API

- Implementing JPA based repositories

- Perform validation and exception handling

- Documenting RESTful web services

- Versioning RESTful web services

- API monitoring using Spring Boot actuator

Getting started with Microservices

- Introduction to microservices

- Monolithic vs. Microservices architecture

- Advantages of microservices

- Challenges of microservices

- Components of microservices

- Introduction to Spring Cloud

- Options for hosting microservices

- Testing microservices

Service registration and discovery

- Understanding Spring Cloud

- Introduction to Eureka server

- Creating the Eureka server

- Registering the Eureka client

- Looking up for services

- Building a Eureka server and client applications

Performing client-side load balancing

- Introduction to Ribbon

- Configuring Ribbon

- Integrating Eureka and Ribbon

Detailed Curriculum: Modules

Communication between microservices

- Introduction to Feign
- Configuring Feign
- Access services using Feign REST client

Implementing fault tolerance

- Importance of fault tolerance
- Introduction to Hystrix
- Configuring Hystrix
- Exploring Hystrix dashboard

Implementing API gateway

- Introduction to Zuul
- Implementing API gateway with Zuul
- Understanding Zuul filters

Performing distributed tracing

- Introduction to Spring Cloud Sleuth
- Configuring Spring Cloud Sleuth
- Introduction to Zipkin server
- Tying up microservices to Zipkin
- Trace requests

Externalizing configuration

- Working with Spring Cloud config server
- Configure different environments
- Create Git repository
- Configure Config server to utilize Git repository
- Connecting microservices to Config server

Broadcasting configuration changes

- Introduction to Spring Cloud Bus
- Implementing Spring Cloud Bus
- Introduction to Rabbit MQ
- Setup Rabbit MQ
- Connect Spring Cloud Bus with Rabbit MQ

Projects

- Build a Spring Boot microservices project
- Deploy microservices project on AWS cloud
- Dockerize the project

Cognixia USPs

- **LIFETIME LMS ACCESS**
- **24 x 7 SUPPORT**
- **REAL-LIFE PROJECTS & CASE STUDIES**
- **INDUSTRY EXPERTS AS TRAINERS**
- **INDUSTRY STANDARD CERTIFICATE**

POTENTIAL CAREER OPTIONS

Microservices developers

Microservices architects

Java software development engineers

Full stack developers

Spring Boot and Microservices Bootcamp