

**BIGDATA-104** 

**Scala for Data Engineers** 

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## Scala for Data Engineers

#### **OVERVIEW**

Skill Level : Intermediate

Scala is suitable for a diverse group of people; thanks to its versatile

Suitable for : nature and the range of domains it covers. This includes software

engineers, developers, researchers and more.

Duration : 5 Days

Scala is a powerful and expressive programming language that seamlessly blends object-oriented and functional programming paradigms. It is particularly well-suited for data engineering tasks, notably within the Apache Spark ecosystem.

#### **PREREQUISITES**

• JAVA-101 — Java Fundamentals

#### **LEARNING OUTCOMES**

- By studying Scala, you'll strengthen your grasp of object-oriented principles like classes, objects, inheritance, and encapsulation.
- Scala's support for concurrency and parallelism, including actors and the Akka toolkit, will enable you to develop applications that efficiently handle multiple tasks simultaneously.
- Scala can be used for building web applications using frameworks like Play Framework. You'll learn how to create web APIs and manage asynchronous programming.



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### **COURSE OUTLINE**

#### Day 1

- Introduction to Scala
- Scala vs X
- SBT
- Language
  - o Lexical Syntax
  - o Identifiers, Names and Scopes
  - o Types
  - $\circ$  Declarations and Definitions
  - o Control Structures
  - o Classes and Objects
  - o Collections
- Working Group Formation

#### Day 2

- Case Classes
- Expressions
- Implicits
- Pattern matching
- Top Level Definitions
- Standard Library

#### Day 3

- Functional Programming
- JSON and XML Parsing
- JDBC
- HTTP Clients

#### **Day 4-5**

- Individual and Group Work
- Sample Application
- Presentations
- Final Exam



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# **Engineering for the Real World**

## **Enquiries**



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