

# APACHE SPARK AND SCALA CERTIFICATION

As per International Standards



## UNICHROME

# Unichrone Training **Advantages**

- ✓ 2 Day Interactive Instructor-led Online/Classroom or Group Training
- ✓ Course study materials designed by subject matter experts
- ✓ Mock Tests to prepare in a best way
- ✓ Highly qualified, expert & accredited trainers with vast experience
- ✓ Enrich with Industry best practices and case studies and present trends
- ✓ Apache Spark and Scala Training Course adhered with International Standards
- ✓ End-to-end support via phone, mail, and chat
- ✓ Convenient Weekday/weekend Apache Spark and Scala Training Course schedule



# About Unichrone

✓ We are a professional training institute with an extensive portfolio of professional certification courses. Our training programs are meant for those who want to expand their horizons by acquiring professional certifications across the spectrum. We train small- and medium-sized organizations all around the world, including in USA, Canada, Australia, UK, Ireland and Germany.



Guaranteed Quality



Handpicked Trainers



Global Presence



Online Training Option

**We've trained professionals across global companies**


## Importance of Apache Spark and Scala Training

- ✓ Apache Spark and Scala Certificate verify candidates' understanding of these technologies. It also demonstrates their commitment to developing scalable and high-performance data solutions. Employers in the big data business find certified professionals more enticing. They enable data-driven decision-making by quickly processing and analyzing huge datasets. Consequently, this qualification provides opportunities for leadership roles, professional growth, and much higher earning potential.
- ✓ Apache Spark and Scala Training will acquaint participants with applications and advanced capabilities of these tools for analyzing big data. In addition to describing Spark's architecture, RDDs, DataFrames, and SQL, learners gain necessary skills for handling and analyzing big data effectively. They gain better control over Scala language's use of functional programming, improving their coding fluency and elegance. Furthermore, curriculum introduces participants to streaming data, using MLlib for machine learning, identifying patterns and features for analysis, and creating a predictive model.

## ELIGIBILITY CRITERIA

- ✓ Aspirants need not meet any requirements to pursue Apache Spark and Scala Training Course. However, having prior knowledge is beneficial.

## WHO SHOULD ATTEND

- ✓ Any individual who wants to gain skills to understand Apache Spark and Scala can enroll in the Apache Spark and Scala Training course.

# APACHE SPARK AND SCALA CERTIFICATION ADVANTAGES



CERTIFIES  
YOUR TALENT



HELPS  
BUILDING  
VALUES



GLOBAL  
RECOGNITION



PERFECT  
EXECUTION



BUILDS  
CUSTOMER  
LOYALTY



MORE  
EMPLOYABILITY  
OPTIONS

# Syllabus of Apache Spark and Scala Training

## Lesson 01 – Introduction to Scala

1.	Introduction to Scala and Development of Scala for Big Data Applications
2.	Apache Spark

## Lesson 02 – Pattern Matching

1.	Introduction to Pattern Matching
2.	Uses of Scala
3.	Concept of REPL (Read Evaluate Print Loop)
4.	Deep Drive into Scala Pattern Matching
5.	Type Interface and Higher-Order Function
6.	Currying and Traits

# Syllabus of Apache Spark and Scala Training

## Lesson 03 – Executing the Scala Code

1.	Introduction to Scala Interpreter
2.	Creating Static Members with Companion Objects
3.	Implicit Classes in Scala
4.	Different Classes in Scala

## Lesson 04 – Classes Concepts in Scala

1.	Understanding the Constructor Overloading
2.	Different Abstract Classes
3.	Hierarchy Types in Scala
4.	Concept of Object Equality and Val and Var Methods in Scala



# Syllabus of Apache Spark and Scala Training

## Lesson 05 – Concepts of Traits with Example

1.	Introduction to Traits in Scala
2.	When to Use Traits?
3.	Linearization of Traits and the Java Equivalent
4.	Boilerplate Code

## Lesson 06 – Scala Java Interoperability and Scala Collection

1.	Implementation of Traits in Scala and Java
2.	Handling of Multiple Traits Extending
3.	Introduction to Scala Collections
4.	Classification of Collections
5.	Difference Between Iterator and Iterable in Scala
6.	List and Sequence in Scala

# Syllabus of Apache Spark and Scala Training

## Lesson 07 – Mutable Collections vs Immutable Collections

1.	Types of Collections in Scala
2.	Lists and Arrays in Scala
3.	List Buffer and Array Buffer
4.	Queue in Scala
5.	Stacks and Sets
6.	Maps and Tuples in Scala

## Lesson 08 – Introduction to Spark

1.	What are Spark and Spark Stack?
2.	Ways to Resolve Hadoop Drawbacks
3.	Interactive Operations on Map Reduce
4.	Spark Hadoop YARN
5.	HDFS and YARN Revision
6.	How it is Better Hadoop?
7.	Deploying Spark Without Hadoop
8.	Spark History Server
9.	Cloudera Distribution

# Syllabus of Apache Spark and Scala Training

## Lesson 09 – Spark Basics

1.	Spark Installation
2.	Memory Management
3.	Concept of Resilient Distributed Datasets (RDD)
4.	Functional Programming in Spark

## Lesson 10 – Working with RDDs in Spark

1.	Creating RDDs
2.	Operations and Transformation in RDD
3.	RDD Partitioning
4.	FlatMap Method
5.	Scala Map Count
6.	Saveastextfiles
7.	Pair RDD Functions

# Syllabus of Apache Spark and Scala Training

## Lesson 11 – Aggregating Data with Pair RDDs

1.	Introduction to Key-Value Pair in RDDs
2.	How Spark Makes Map-Reduce Operations Faster?

## Lesson 12 – Writing and Deploying Spark Applications

1.	Difference Between Spark and Scala
2.	Set and Set Operations
3.	List and Tuple
4.	Concatenating List
5.	Install Apache Maven

# Syllabus of Apache Spark and Scala Training

## Lesson 13 – Parallel Processing

1.	Spark Parallel Processing
2.	Setup Spark Master Code
3.	Introduction to Spark Partitions
4.	Data Locality in Hadoop
5.	Comparing Repartition and Coalesce
6.	Actions of Spark

## Lesson 14 – Spark RDD Persistence

1.	Execution Flow in Spark
2.	RDD Persistence Overview
3.	Spark Terminology
4.	Distribution Shared Memory vs RDD
5.	ReduceByKey and SortByKey and AggregateByKey

# Syllabus of Apache Spark and Scala Training

## Lesson 15 – Spark Streaming and Mila

1.	Introduction to Spark Streaming
2.	What is Spark Streaming?
3.	Aspects of Spark Streaming
4.	How does Spark Streaming Work?
5.	Broadcast Variables
6.	Accumulator

## Lesson 16 – Spark Variables and RDD Operations

1.	Variables in Spark
2.	Numeric RDD Operations

# Syllabus of Apache Spark and Scala Training

## Lesson 17 – Scheduling or Partitioning

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|----|---|
| 1. | Partitioning in Spark                     |
| 2. | Hash Partition and Range Partition        |
| 3. | Scheduling within and Around Applications |
| 4. | Map Partition with Index                  |
| 5. | GroupByKey                                |
| 6. | Spark Master High Availability            |
| 7. | Standby Masters with Zookeeper            |

# Exam Format of Apache Spark and Scala Certification

Examination Format	
Exam Name	Apache Spark and Scala Exam
Exam Format	Multiple Choice
Total Questions & Duration	30 Questions, 1 Hour
Passing Score	Minimum passing score of 70%
Exam Cost	Included in training fee

To get you fully prepared with the knowledge and skills for Apache Spark and Scala, a training session at Unichrone gives immense importance to mock questions at the end of every module and problem-solving exercises within the session. Prepared by certified faculty, the practice tests are a true simulation of the Apache Spark and Scala exam.



# Contact Us

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<https://unichrone.com/>

