Scala with Spark Advance Training

Day - 1

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  - Overview
  - Why Learn Scala?
  - What You Will Learn
  - Installation
  - Scala REPL
  - Scala IntelliJ IDEA
  - Summary
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  - Overview
  - Immutability
  - Expressions vs. Statements
  - Functions
  - Pure and Impure Functions
  - Referential Transparency
  - Higher-Order Functions
  - Summary

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  - Overview
  - REPL
  - Variables and Values
  - Conditionals
  - Loops
  - Summary
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  - Overview
  - Structure of a Function
  - Anonymous Functions
  - Higher-Order Functions
  - Summary

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  - Overview
  - Structure of Classes
  - Companion Objects
  - Creating Objects Using Apply
  - Case Classes
  - Launching Standalone Programs Extending App
  - Summary
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  - Overview
  - Why Null Checks Are Bad
  - Option as a Better Alternative
  - Error Handling in Imperative Languages
  - Error Handling with Try
  - Error Handling with Either
  - Summary

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  - Overview
  - What Is It?
  - Match on Constants
  - Match on Case Classes
  - Match on Sequences
  - Match on Type Only
  - Guarding Your Match
  - Summary
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  - Overview
  - Benefits of Scala Collections Library
  - Mutable and Immutable
  - Class Hierarchy Diagram
  - List with Examples
  - Set with Examples
  - Map with Examples
  - Methods on Numeric Collections
  - Filtering, Size, and Conversion Operations on Collections
  - Transforming a Collection Using Map
  - Transforming a Collection Using Flat Map

Day - 2

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  - Overview
  - Concurrency and Parallelism
  - Future and Execution Context
  - Futures Transformation
  - Filtering and Collecting Futures
  - Other Ways to Model Asynchronous Operation
  - Dealing with Future Failures
  - Summary

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  - Overview
  - Understanding Classes and Objects
  - Creating Classes and Objects
  - Making Objects Immutable
  - Understanding Singleton Objects
  - Understanding Functional Objects
  - Understanding Abstract Classes, Inheritance, and Composition
  - Session start ()
  - Project Demo

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  - Overview
  - Introduction to Scala Types
  - Embedding Scala Expressions in String Literals
  - Using Methods as Operators
  - Understanding Scala Class Hierarchy
  - Project Demo
  - Summary

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  - Overview
  - Understanding Local Functions
  - Understanding Function Literals and Function Values
  - Understanding Partially Applied Functions
  - Understanding Closures
  - Applying Repeated Arguments to Functions
  - Understanding Named Arguments and Default Parameter Values
  - Understanding Tail Recursion
  - Project Demo
  - Summary

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  - Overview
  - Using Function Value to Remove Code Duplication
  - Understanding Currying
  - Creating Control Abstraction
  - Understanding by Named Parameters
  - Project Demo
  - Summary

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  - Overview
  - Understanding Traits
  - Developing Rich Interfaces with Traits
  - Developing Stackable Modifications with Traits
  - Understanding When to Use Traits or Not
  - Project Demo
  - Summary

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  - Overview
  - Understanding How Reduce Works
  - Understanding How Fold Operations Work
  - Project Demo
  - Summary

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  - Overview
  - Understanding How Implicit Conversion Works
  - Understanding the Rules for Implicits
  - Working with Application of Implicits
  - Project Demo
  - Summary

Day - 3

- Overview
  - Overview
  - Using Function Value to Remove Code Duplication
  - Understanding Currying
  - Creating Control Abstraction
  - Understanding by Named Parameters
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  - Summary

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- Overview
  - Why Spark?
  - Hadoop Explosion to Spark Unification
  - Spark's Background
  - Installation
  - Spark Programming Languages
  - Hello Big Data!
  - Logistics
  - Resources
  - Summary

- Overview
  - Intro
  - Spark Appification
  - What Is an RDD?
  - Loading Data
  - Lambdas
  - Transforming Data
  - More Transformations
  - Actions and the Associative Property
  - Acting on Data
  - Persistence
  - Resources

- Overview
  - Intro
  - Implicit Conversions
  - Key-Value Methods
  - Caching Data
  - Accumulating Data
  - Java in Spark
  - Resources
  - Summary

- Overview
  - Intro
  - Spark Submit
  - Cluster Management
  - Standalone Cluster Scripts
  - AWS Setup
  - Spark on Yarn in EMR
  - Spark UI
  - Resources
  - Summary