

## SCALA DEVELOPMENT COURSE CURRICULUM

### Scala Basics

- What is Scala?
- Intro to Scala REPL
- Installing Scala IDE
- Basic Operations
- Type Inference
- Block expression
- Lazy values
- Defining Functions
- Defining Procedures
- Control Structures in Scala
- Loops – ForEach, For, While, Do-While, For Comprehension
- Collections – Array, ArrayBuffer, Map, Tuples, Lists, ListBuffer, Sets, Sequence, Vector
- Conditional Operators
- Enumerations

### Object Oriented Programming

- Class and Object Basics
- Inheritance in Scala
- Scala Constructors (Auxiliary & Primary)
- Singletons
- Companion Objects
- Nested Classes
- Case Classes
- Packages & Visibility Rules
- Overriding Methods
- Traits
  - Interfaces
  - Layered Traits

## **Functional Programming**

- Functional programming Approach
- Higher Order Functions
  - map
  - filter
  - reduceLeft and reduceRight
  - sortWith
  - folding and scanning etc...
- Anonymous Functions
- Function Currying

## **Course Deliverables**

- Workshop style coaching
- Interactive approach
- Course material
- Hands on practice exercises for each topic
- Quiz at the end of each major topic