3/24/2016 Coursera

Learning Resources

Help Center

Quick References

- Scala Standard Library API
- Akka Reference Documentation and API
- RxScala API
- Scala Overview on StackOverflow: A list of useful questions sorted by topic

Learning Scala and Functional Programming

- The #progfun coursera class, *Functional Programming Principles in Scala*, is a recommended pre-requisite for this class, and will remain open for you to refresh your knowledge of the material.
- Martin's talk at OSCON 2011: Working Hard to Keep it Simple (slides)
- Books:
 - Structure and Interpretation of Computer Programs. Harold Abelson and Gerald J. Sussman. 2nd edition. MIT Press 1996. [Full text available online].
 - Programming in Scala. Martin Odersky, Lex Spoon and Bill Venners. 2nd edition. Artima 2010. [Full text of 1st edition available online].

Artima has graciously provided a 25% discount on the 2nd edition of *Programming in Scala* to all participants of this course. To receive the discount, simply visit http://www.artima.com/shop/programming_in_scala_2ed and during checkout, please use the coupon code: COURSERA-ODERSKY to have the discount applied.

- Scala for the Impatient. Cay Horstmann. Addison-Wesley 2012. [First part available for download.]
- Scala in Depth. Joshua D. Suereth. Manning 2012. [Available for purchase].
- Programming Scala. Dean Wampler and Alex Payne. O'Reilly 2008. [Online edition].
- Glossary of Scala and FP terms, for any issues with terminology.
- Scala By Example, for more examples which illustrate concepts covered in the lectures.
- Scala Cheatsheet, for a quick reference covering pattern matching syntax, for-comprehension syntax, and more.
- Scala School!: A Scala tutorial by Twitter
- A Tour of Scala: Tutorial introducing the main concepts of Scala

ScalaCheck (Week 1)

- ScalaCheck User Guide
- ScalaCheck API

Futures and Rx (Weeks 3, 4)

- Rx Wiki
- async SIP
- · Futures in the Scala Standard Library

Distributed Systems (Weeks 5, 6, 7)

- An introduction to actor-based programming is the book Akka Concurrency by Derek Wyatt [Available for purchase].
- Presentation about testing actor systems (R. Kuhn, ScalaDays 2012)
- from D. Westheide's series The Neophyte's Guide to Scala:
 - The Actor Approach to Concurrency (for week 5)
 - Dealing With Failure in Actor Systems (for week 6)
- for further reading see Advanced Reading in Distributed Systems
- more background can be found in Reactive Design Patterns, use code kuhncourse for a 50% discount

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