

## Ruby

### Course Summary

#### Description

In this hands-on Ruby training course you will learn about the Ruby language, its syntax, OOP in Ruby, its libraries (gems), testing, and much more. Not only will you gain the knowledge and the confidence to use the language effectively, but you'll leave with a smile on your face - because you'll love it.

This Ruby Training course is designed for those who want to become proficient with the Ruby programming language. It doesn't assume any previous programming experience. For those coming to Ruby from another language, the instructor will draw the parallels and point out the differences.

#### Objectives

By the end of this course, students will be able to:

- Be able to setup the Ruby development environment
- Learn the fundamentals of the Ruby language
- Learn about the built-in Ruby libraries and APIs
- Learn the principals of object-oriented programming (OOP) in Ruby
- Practice test-driven development (TDD) in Ruby using RSpec
- Learn how to use external libraries with Ruby Gems
- Be able to write Ruby code with confidence!

#### Topics

- Ruby Basics
- The Ruby Object Model
- Advanced Topics (time permitting)
- Test-Driven Development with RSpec (time permitting)

#### Audience

Our Ruby Training course is designed for those who want to become proficient with the Ruby programming language - including:

- Novice programmers (or those not familiar with OOP) who want to start off on the right foot - i.e. not get bogged down with Java :-)
- Programmers looking to migrate from existing languages such as Java, PHP, Python, Perl, etc

#### Prerequisites

There are no prerequisites for this course.

#### Duration

Two days

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### Course Outline

- I. Ruby Basics**
  - A. Ruby Overview
  - B. Command-line Tools
  - C. Core Ruby
  - D. Syntax
  - E. Functions
  - F. Control Flow
  - G. Built-in Types
  - H. Collections
  - I. Blocks and Iterators
  
- II. The Ruby Object Model**
  - A. Objects
  - B. Classes
  - C. Inheritance
  - D. Dispatching
  - E. Modules
  - F. Scope
  
- III. Advanced Topics (time permitting)**
  - A. Exceptions
  - B. Advanced Blocks
  - C. Classes as Objects
  - D. Metaprogramming
  - E. IO
  
- IV. Test-Driven Development with RSpec (time permitting)**
  - A. Introduction to TDD
  - B. Red-Green-Refactor
  - C. Describing a feature
  - D. Verifying expectations
  - E. Mocks & Stubs