

€ TRAINING

Ruby Association Certified Ruby
Programmer Silver version 3





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Introduction:

This training program is designed to prepare participants for the certification exam only.

This training program empowers participants to master foundational Ruby programming skills, understand Ruby syntax and core concepts, and apply Ruby effectively in practical coding scenarios.

Program Objectives:

By the end of this program, participants will be able to:

- Understand the fundamentals of Ruby programming.
- Master Ruby syntax and control structures.
- Work with classes, objects, and modules in Ruby.
- Handle data structures like arrays and hashes.
- Prepare for the Ruby Association Certified Ruby Programmer Silver exam.

Target Audience:

- Aspiring Ruby Developers.
- Software Developers seeking Ruby certification.
- Programmers transitioning to Ruby.
- IT professionals looking to validate their Ruby programming skills.
- Professionals preparing for the Ruby Silver certification.

Program Outline:

Unit 1:

Introduction to Ruby and Basic Syntax:

- Overview of Ruby programming language and its history.
- Installing Ruby and setting up the development environment.

- Ruby syntax: keywords, variables, and data types.
- Basic input/output operations in Ruby.
- Understanding Ruby's object-oriented nature.

Unit 2:

Control Structures and Methods:

- Conditional statements: if, unless, case.
- Loops: while, until, for, and each.
- Defining and calling methods in Ruby.
- Working with blocks, procs, and lambdas.
- Handling exceptions and errors in Ruby programs.

Unit 3:

Working with Data Structures:

- Arrays: creating, manipulating, and iterating through arrays.
- Hashes: understanding key-value pairs and common operations.
- Symbols and strings: differences and uses in Ruby.
- Enumerables and iterators in Ruby.
- Advanced collection manipulation techniques.

Unit 4:

Object-Oriented Programming in Ruby:

- Defining and using classes and objects.
- Understanding Ruby's inheritance model.
- Working with modules and mixins.
- Access control: public, private, and protected methods.
- Best practices in object-oriented Ruby programming.



Unit 5:

Exam Preparation:

- Review of key concepts and skills.
- Sample exam questions and their potential answers.
- Exam format and structure overview.
- Resources for further study and practice.

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