Major Topics

* Ruby language and syntax
* When to use certain data structures
* Using Pseudo-code and Flowcharts for problem decomposition and analysis
* Use a static code analyzer
* Learn to debug small programs
* Understand local variable scope
* Understand method arguments

Start with Small Programs

* Ruby style
* Build a calculator
* Think with pseudo-code
* Use flow charts to map out logical sequence
* Use Rubocop to enforce styles
* Refactoring our calculator program
* Debugging
* Extra features for the calculator program
* How to write better code
* Reference vs value
* Build a Rock-Paper-Scissors game
* RPS game bonus features

Exercises

* Exercise set: Easy 1
* Exercise set: Easy 2
* Exercise set: Easy 3
* Exercise set: Medium 1
* Exercise set: Medium 2
* Exercise set: Medium 3
* Exercise set: Hard

Ruby Collections

* Collections basics
* Looping
* Selection and transformation
* Methods
* Sorting
* Exercises: Methods and sorting
* Nested data structures
* Working with blocks
* Exercises: Nested collections and blocks

Slightly Larger Programs

* Customizable Rubocop configuration
* Decomposition of bigger problems
* Build a Tic Tac Toe game
* TTT game bonus features
* Build a Twenty-One game
* Twenty-One game extra features