# **Ruby on Rails Bootcamp**

Master the Ruby programming language and the Rails framework to quickly build dynamic web applications with Ruby on Rails. Learn how to create full-functioning web applications from scratch and launch them live on the web.

Group classes in NYC and onsite training is available for this course. For more information, email <a href="mailto:hello@nobledesktop.com">hello@nobledesktop.com</a> or visit: <a href="https://www.nobledesktop.com/classes/ruby-on-rails-bootcamp">https://www.nobledesktop.com/classes/ruby-on-rails-bootcamp</a>



hello@nobledesktop.com • (212) 226-4149

# **Course Outline**

# Introduction to Ruby on Rails

#### Scaffolding

- · The Scaffold command
- Overview of Models, Views, and Controllers (MVC)

#### **Adjusting the Templates Created by Scaffolding**

- · Formatting in Rails
- · Working with Dynamic web pages
- · Editing the text in the tab
- Redirecting the homepage URL
- Editing the CSS

#### **Version Control with Git**

- Initializing a repository
- · Commiting and Pushing changes
- · Creating, switching, and deleting branches
- · Merging branches

# **Ruby Fundamentals**

#### **Ruby Data Types & Variables**

- · String, Integer, Float, Boolean and Nil values
- Properties of Ruby data types
- Instance variables & Local variables
- · Global variables

### **Functions & Control Flow**

- · Built-in functions
- Creating your own functions
- Passing arguments and returning values
- If/Else and Unless Statements
- While/Until Loops

#### **Ruby Data Structures**

- Arrays: The Simplest Collections
- Hashes
- Enumerators
- Common Iterators

#### **Classes**

- · Creating classes
- Inheritance
- · Class Methods
- Overriding Methods

# **Controllers and Views**

### **Generating a Controller**

- · Creating a New Rails Site for Flix
- · How Controller methods relate to views
- Private methods
- · The params hash

#### **Views**

- Generating and creating Views
- When you don't need a View
- Mapping Views to controller actions and routes
- Dynamic Views
- · The rails routes command

# **Models & Forms**

#### Models

- Generating a Model
- How Migration Files work
- · Migratiing the Database
- Rolling back a migration

#### **Rails Forms**

- Rails forms vs HTML forms
- HTTP Overview
- Rails Form Helpers
- Rails forms: form\_for, form\_tag, and form\_with
- Connecting a form to a Model

#### **Uploading Files**

- · Installing ActiveStorage
- Allowing users to upload images

#### **Views**

- · Creating a View
- · Adding Dynamic Data
- · Rendering a Partial
- · Optional Bonus: Rendering a View

### **Advanced Models**

#### **Model Validations**

- The purpose of validations
- Adding basic validations
- · Preventing submission of empty forms
- · Customizing validations
- Adding Error Messages

#### **Model Methods**

- · Built-in Model methods
- · Adding methods to models

#### **Model Relationships**

- has\_one and belongs\_to relationships
- has\_and\_belongs\_to\_many: Simple Many-to-Many Relationships
- · has\_many, through: Advanced Many-to-Many Relationships with Additional Metadata
- Polymorphic Relationships

#### Other Important Relationships in Rails

- Delegates: Sharing Methods Between Related Objects
- Self-Joins: Relationships Between Instances of the Same Model

# **ActiveRecord Associations**

#### **Model Relationships**

- Has\_one and belongs\_to relationships
- Has\_many relationships
- Joining models together via the controller
- · Writing Simple Tests Using Fixtures
- Optional Bonus: Writing Tests Using Embedded Ruby Code
- Additional Bonus: Helpers

# **Integrating Front-end Code**

# **Rails Asset Pipeline**

• What the Asset Pipeline does

- Adding CSS
- Adding JavaScript
- Conditional CSS and JavaScript files

# **Launching an Application**

# Preparation

- Managing Ruby environments
- · Locking Gem versions
- Environment variables

# **Amazon Web Services**

- · Setting up an AWS account
- · Where to store credentials
- Remote Asset Storage with Amazon S3

#### Heroku

- Heroku Account Setup
- Installing Heroku Toolbelt
- · How Heroku works
- Types of Dynos
- Deploying your application