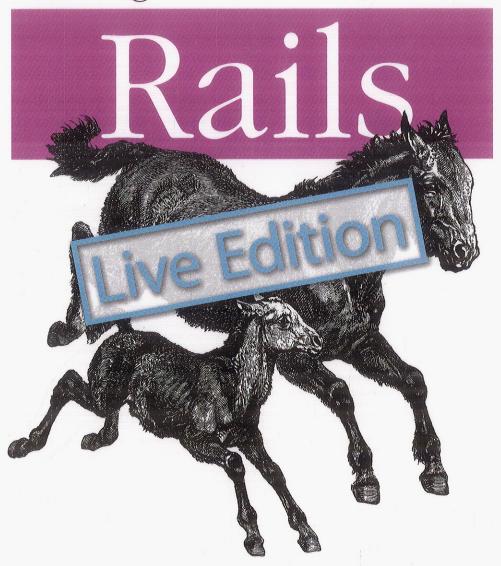
Learning



O'REILLY®

Simon St. Laurent & Edd Dumbill

Table of Contents

refa	ce	xiii
1.	Starting Up Ruby on Rails	1
	Getting Started at the Command Line	3
	Starting Up Rails	6
	Dodging Database Issues	8
	What Server Is That?	9
	Test Your Knowledge	10
	Quiz	10
	Answers	10
2.	Rails on the Web	11
	Creating Your Own View	11
	What Are All Those Folders?	15
	Adding Some Data	16
	How Hello World Works	19
	Protecting Your View from the Controller	20
	Parentheses Are (Usually) Optional	21
	Adding Logic to the View	22
	Test Your Knowledge	24
	Quiz	24
	Answers	24
3.	Adding Web Style	25
	I Want My CSS!	25
	Layouts	28
	Splitting View from Layout	29
	Creating a Default Layout	31
	Choosing a Layout from a Controller	32
	Sharing Template Data with the Layout	34
	,	

Test Your Knowledge Quiz Answers 4. Controlling Data Flow: Controllers Getting Started, Greeting Guest Application Flow Keeping Track: A Simple Guest Connecting to a Database Th	44
Answers 4. Controlling Data Flow: Controllers Getting Started, Greeting Guest Application Flow Keeping Track: A Simple Guest Connecting to a Database Th	37 and Models
4. Controlling Data Flow: Controllers Getting Started, Greeting Guest Application Flow Keeping Track: A Simple Guest Connecting to a Database Th	and Models
Getting Started, Greeting Guest Application Flow Keeping Track: A Simple Guest Connecting to a Database Th	s 39
Application Flow Keeping Track: A Simple Guest Connecting to a Database Th	44
Keeping Track: A Simple Guest Connecting to a Database Th	
Connecting to a Database Th	book 46
Connecting the Controller to	prough a Model 46
Finding Data with ActiveRecord	
Test Your Knowledge	57
Quiz	57
Answers	57
5. Accelerating Development with So	caffolding and REST59
A First Look at Scaffolding	59
REST and Controller Best Pract	ices 63
Websites and Web Applicati	
Toward a Cleaner Approach	65
Examining a RESTful Controlle	er 66
Index: An Overview of Data	71
Show: Just One Row of Data	
New: A Blank Set of Data Fig	
Edit: Hand Me That Data, Pl	lease 75
Create: Save Something New	75
Create: Save Something New Put This Updated Record In	75 76
Create: Save Something New Put This Updated Record In Destroy It	75 76 77
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison	75 76 77 79
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge	75 76 77 79 79
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge Quiz	75 76 77 79 79 79
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge	75 76 77 79 79
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge Quiz	75 76 77 79 79 79 79
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge Quiz Answers 6. Presenting Models with Forms More Than a Name on a Form	75 76 77 79 79 79 80
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge Quiz Answers 6. Presenting Models with Forms More Than a Name on a Form Generating HTML Forms with	75 76 77 79 79 79 79 80
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge Quiz Answers 6. Presenting Models with Forms More Than a Name on a Form Generating HTML Forms with Form As a Wrapper	75 76 77 77 79 79 79 80
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge Quiz Answers 6. Presenting Models with Forms More Than a Name on a Form Generating HTML Forms with Form As a Wrapper Creating Text Fields and Text	75 76 77 77 79 79 79 80
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge Quiz Answers 6. Presenting Models with Forms More Than a Name on a Form Generating HTML Forms with Form As a Wrapper Creating Text Fields and Text A Creating Checkboxes	75 76 77 77 79 79 79 80
Create: Save Something New Put This Updated Record In Destroy It Escaping the REST Prison Test Your Knowledge Quiz Answers 6. Presenting Models with Forms More Than a Name on a Form Generating HTML Forms with Form As a Wrapper Creating Text Fields and Text	75 76 77 77 79 79 79 80

	Dates and Times	99
	Labels	101
	Creating Helper Methods	102
	Letting Helper Methods Make Choices	104
	A More Elegant Helper Method	105
	Putting the Form Body in a Partial	105
	Test Your Knowledge	108
	Quiz	108
	Answers	108
7.	Strengthening Models with Validation	111
	Without Validation	111
	The Original Model	114
	The Power of Declarative Validation	115
	Managing Secrets	118
	Customizing the Message	118
	Limiting Choices	121
	Testing Format with Regular Expressions	121
	Seen It All Before	121
	Numbers Only	122
	A Place on the Calendar	124
	Testing for Presence	124
	Beyond Simple Declarations	125
	Test It Only If	125
	Do It Yourself	126
	Test Your Knowledge	127
	Quiz	127
	Answers	127
8.	Improving Forms	. 129
	Adding a Picture by Uploading a File	129
	File Upload Forms	130
	Model and Migration Changes	131
	Results	136
	Standardizing Your Look with Form Builders	140
	Supporting Your Own Field Types	141
	Adding Automation	143
	Integrating Form Builders and Styles	145
	Test Your Knowledge	149
	Quiz	149
	Answers	150

9.	Developing Model Relationships	. 151
	Connecting Awards to Students	152
	Establishing the Relationship	152
	Supporting the Relationship	153
	Guaranteeing a Relationship	158
	Connecting Students to Awards	160
	Removing Awards When Students Disappear	160
	Counting Awards for Students	160
	Nesting Awards in Students	163
	Changing the Routing	163
	Changing the Controller	164
	Changing the Award Views	166
	Connecting the Student Views	170
	Is Nesting Worth It?	172
	Many-to-Many: Connecting Students to Courses	173
	Creating Tables	173
	Connecting the Models	175
	Adding to the Controllers	176
	Adding Routing	178
	Supporting the Relationship Through Views	178
	What's Missing?	187
	Test Your Knowledge	188
	Quiz	188
	Answers	188
10.	Managing Databases with Migrations	191
	What Migrations Offer You	191
	Migration Basics	193
	Migration Files	193
	Running Migrations Forward and Backward	194
	Inside Migrations	196
	Working with Tables	197
	Data Types	197
	Working with Columns	199
	Indexes	200
	Other Opportunities	201
	Test Your Knowledge	202
	Quiz	202
	Answers	202
11.	Debugging	203
	Creating Your Own Debugging Messages	203
	-	

	Logging	204
	Working with Rails from the Console	205
	The Ruby Debugger	209
	Test Your Knowledge	213
	Quiz	213
	Answers	213
12.	Testing	. 215
	Test Mode	215
	Setting Up a Test Database with Fixtures	216
	Unit Testing	220
	Functional Testing	226
	Calling Controllers	229
	Testing Responses	230
	Dealing with Nested Resources	231
	Integration Testing	233
	Beyond the Basics	235
	Test Your Knowledge	236
	Quiz	236
	Answers	237
13.	Sessions and Cookies .,	239
	Getting Into and Out of Cookies	239
	Storing Data Between Sessions	247
	Test Your Knowledge	253
	Quiz	253
	Answers	253
14.	Users and Authentication	255
•	Installation	255
	Storing User Data	256
	Controlling Sessions	257
	Classifying Users	264
	More Options	271
	Test Your Knowledge	271
	Quiz	271
	Answers	272
15.	Routing	273
	Creating Routes to Interpret URIs	274
	Specifying Routes with map.connect	274
	A Domain Default with map.root	277
	<u>.</u>	

	Route Order and Priority	277
	Named Routes	278
	Globbing	278
	Regular Expressions and Routing	279
	Mapping Resources	280
	Nesting Resources	282
	Checking the Map	282
	Generating URIs from Views and Controllers	283
	Pointing url_for in the Right Direction	284
	Adding Options	285
	Infinite Possibilities	285
	Test Your Knowledge	286
	Quiz	286
	Answers	286
16.	Creating Dynamic Interfaces with Rails and Ajax	289
	Ajax Basics	289
	Supporting Ajax with Rails	293
	Rails as a Server API	293
	Rails and the Client	294
	Managing Enrollment through Ajax	295
	Making the Form More Scriptable	295
	Changing Courses without Changing Pages	299
	Switching to jQuery	305
	Rethinking Logic	306
	Moving Further into Ajax	307
	Test Your Knowledge	308
	Quiz	308
	Answers	308
17.	Mail in Rails	309
	Sending Text Mail	309
	Setup	310
	Adjusting Routing for an email Method	310
	Sending Email	311
	Sending HTML Mail	316
	Sending Complex HTML Email	319
	Receiving Mail	325
	Setup	325
	Processing Messages	326
	Test Your Knowledge	329
	Quiz	329
		J

	Answers	329
18.	Securing, Managing, and Deploying Your Rails Projects	331
	Securing Your Application	331
	SQL Injection	332
	Cross-Site Scripting	333
	Cross-Site Request Forgery (CSRF)	334
	URL Hacking	334
	Other Security Issues	335
	Deploying Rails Applications	335
	Changing to Production Mode	33 <i>6</i>
	Database, Web, and App Servers	330
	Walking Through a Passenger-Based Deployment	339
	Deployment Directions	347
	Test Your Knowledge	348
	Quiz	348
	Answers	349
19.	Making the Most of Rails—And Beyond	351
_	Keep Up with Rails	351
	Plug-ins	352
	Ruby	352
	Web Services	353
	Explore Other Ruby Frameworks	353
	Migrating Legacy Applications to Rails	35,5
	Keep Exploring	356
A.	An Incredibly Brief Introduction to Ruby	357
В.	An Inspectible Deief Legraduction to Datational Databases	270
D.	An Incredibly Brief Introduction to Relational Databases	3/9
C.	An Incredibly Brief Guide to Regular Expressions	389
٥.	A Catalog of Helper Methods	399
E.	Glossary	417
	,	
Index	***************************************	435