

# Contents

---

Foreword to the First Edition by Derek Sivers	xv
Foreword to the First Edition by Obie Fernandez	xvii
Acknowledgments	xix
About the Author	xxi

## **Chapter 1 From Zero to Deploy 1**

1.1	Introduction	3
1.1.1	Comments for Various Readers	4
1.1.2	“Scaling” Rails	7
1.1.3	Conventions in This Book	7
1.2	Up and Running	9
1.2.1	Development Environments	10
1.2.2	Ruby, RubyGems, Rails, and Git	12
1.2.3	The First Application	17
1.2.4	Bundler	19
1.2.5	<code>rails server</code>	23
1.2.6	Model-view-controller (MVC)	25
1.3	Version Control with Git	27
1.3.1	Installation and Setup	27
1.3.2	Adding and Committing	30
1.3.3	What Good Does Git Do You?	31

1.3.4	GitHub	32
1.3.5	Branch, Edit, Commit, Merge	34
1.4	Deploying	39
1.4.1	Heroku Setup	39
1.4.2	Heroku Deployment, Step One	40
1.4.3	Heroku Deployment, Step Two	40
1.4.4	Heroku Commands	41
1.5	Conclusion	43
<b>Chapter 2</b>	<b>A Demo App</b>	<b>45</b>
2.1	Planning the Application	45
2.1.1	Modeling Demo Users	47
2.1.2	Modeling Demo Microposts	48
2.2	The Users Resource	49
2.2.1	A User Tour	51
2.2.2	MVC in Action	56
2.2.3	Weaknesses of this Users Resource	62
2.3	The Microposts Resource	63
2.3.1	A Micropost Microtour	63
2.3.2	Putting the <i>micro</i> in Microposts	66
2.3.3	A User has many Microposts	68
2.3.4	Inheritance Hierarchies	70
2.3.5	Deploying the Demo App	73
2.4	Conclusion	74
<b>Chapter 3</b>	<b>Mostly Static Pages</b>	<b>77</b>
3.1	Static Pages	82
3.1.1	Truly Static Pages	82
3.1.2	Static Pages with Rails	85
3.2	Our First Tests	93
3.2.1	Test-driven Development	93
3.2.2	Adding a Page	99
3.3	Slightly Dynamic Pages	103
3.3.1	Testing a Title Change	103
3.3.2	Passing Title Tests	106
3.3.3	Embedded Ruby	108
3.3.4	Eliminating Duplication with Layouts	111
3.4	Conclusion	114

- 3.5 Exercises 114
- 3.6 Advanced Setup 117
  - 3.6.1 Eliminating `bundle exec` 118
  - 3.6.2 Automated Tests with Guard 120
  - 3.6.3 Speeding up Tests with Spork 123
  - 3.6.4 Tests inside Sublime Text 127

## **Chapter 4 Rails-Flavored Ruby 129**

- 4.1 Motivation 129
- 4.2 Strings and Methods 134
  - 4.2.1 Comments 134
  - 4.2.2 Strings 135
  - 4.2.3 Objects and Message Passing 138
  - 4.2.4 Method Definitions 141
  - 4.2.5 Back to the Title Helper 142
- 4.3 Other Data Structures 142
  - 4.3.1 Arrays and Ranges 142
  - 4.3.2 Blocks 146
  - 4.3.3 Hashes and Symbols 148
  - 4.3.4 CSS revisited 152
- 4.4 Ruby Classes 153
  - 4.4.1 Constructors 153
  - 4.4.2 Class Inheritance 155
  - 4.4.3 Modifying Built-in Classes 158
  - 4.4.4 A Controller Class 159
  - 4.4.5 A User Class 161
- 4.5 Conclusion 164
- 4.6 Exercises 164

## **Chapter 5 Filling in the Layout 167**

- 5.1 Adding Some Structure 167
  - 5.1.1 Site Navigation 169
  - 5.1.2 Bootstrap and Custom CSS 175
  - 5.1.3 Partials 181
- 5.2 Sass and the Asset Pipeline 187
  - 5.2.1 The Asset Pipeline 187
  - 5.2.2 Syntactically Awesome Stylesheets 190

- 5.3 Layout Links 197
  - 5.3.1 Route Tests 200
  - 5.3.2 Rails Routes 202
  - 5.3.3 Named Routes 205
  - 5.3.4 Pretty RSpec 207
- 5.4 User Signup: A First Step 211
  - 5.4.1 Users Controller 212
  - 5.4.2 Signup URI 213
- 5.5 Conclusion 215
- 5.6 Exercises 217

## **Chapter 6 Modeling Users 221**

- 6.1 User Model 222
  - 6.1.1 Database Migrations 223
  - 6.1.2 The Model File 228
  - 6.1.3 Creating User Objects 230
  - 6.1.4 Finding User Objects 233
  - 6.1.5 Updating User Objects 235
- 6.2 User Validations 236
  - 6.2.1 Initial User Tests 236
  - 6.2.2 Validating Presence 239
  - 6.2.3 Length Validation 243
  - 6.2.4 Format Validation 245
  - 6.2.5 Uniqueness Validation 249
- 6.3 Adding a Secure Password 254
  - 6.3.1 An Encrypted Password 255
  - 6.3.2 Password and Confirmation 257
  - 6.3.3 User Authentication 260
  - 6.3.4 User Has Secure Password 263
  - 6.3.5 Creating a User 265
- 6.4 Conclusion 267
- 6.5 Exercises 268

## **Chapter 7 Sign Up 271**

- 7.1 Showing Users 271
  - 7.1.1 Debug and Rails Environments 272
  - 7.1.2 A Users Resource 278

- 7.1.3 Testing the User Show Page (with Factories) 282
- 7.1.4 A Gravatar Image and a Sidebar 286
- 7.2 Signup Form 292
  - 7.2.1 Tests for User Signup 293
  - 7.2.2 Using `form_for` 297
  - 7.2.3 The Form HTML 301
- 7.3 Signup Failure 303
  - 7.3.1 A Working Form 303
  - 7.3.2 Signup Error Messages 308
- 7.4 Signup Success 312
  - 7.4.1 The Finished Signup Form 313
  - 7.4.2 The Flash 315
  - 7.4.3 The First Signup 317
  - 7.4.4 Deploying to Production with SSL 317
- 7.5 Conclusion 321
- 7.6 Exercises 321

## **Chapter 8 Sign In, Sign Out 325**

- 8.1 Sessions and Signin Failure 325
  - 8.1.1 Sessions Controller 326
  - 8.1.2 Signin Tests 330
  - 8.1.3 Signin Form 333
  - 8.1.4 Reviewing Form Submission 336
  - 8.1.5 Rendering with a Flash Message 339
- 8.2 Signin Success 343
  - 8.2.1 Remember Me 343
  - 8.2.2 A Working `sign_in` Method 349
  - 8.2.3 Current User 351
  - 8.2.4 Changing the Layout Links 355
  - 8.2.5 Signin upon Signup 359
  - 8.2.6 Signing Out 361
- 8.3 Introduction to Cucumber (Optional) 363
  - 8.3.1 Installation and Setup 364
  - 8.3.2 Features and Steps 365
  - 8.3.3 Counterpoint: RSpec Custom Matchers 368
- 8.4 Conclusion 371
- 8.5 Exercises 372

**Chapter 9 Updating, Showing, and Deleting Users 373**

- 9.1 Updating Users 373
  - 9.1.1 Edit Form 374
  - 9.1.2 Unsuccessful Edits 380
  - 9.1.3 Successful Edits 382
- 9.2 Authorization 385
  - 9.2.1 Requiring Signed-in Users 386
  - 9.2.2 Requiring the Right User 390
  - 9.2.3 Friendly Forwarding 392
- 9.3 Showing All Users 396
  - 9.3.1 User Index 396
  - 9.3.2 Sample Users 403
  - 9.3.3 Pagination 404
  - 9.3.4 Partial Refactoring 410
- 9.4 Deleting Users 413
  - 9.4.1 Administrative Users 413
  - 9.4.2 The `destroy` Action 417
- 9.5 Conclusion 422
- 9.6 Exercises 424

**Chapter 10 User Microposts 429**

- 10.1 A Micropost Model 429
  - 10.1.1 The Basic Model 430
  - 10.1.2 Accessible Attributes and the First Validation 432
  - 10.1.3 User/Micropost Associations 433
  - 10.1.4 Micropost Refinements 439
  - 10.1.5 Content Validations 443
- 10.2 Showing Microposts 445
  - 10.2.1 Augmenting the User Show Page 446
  - 10.2.2 Sample Microposts 450
- 10.3 Manipulating Microposts 454
  - 10.3.1 Access Control 456
  - 10.3.2 Creating Microposts 459
  - 10.3.3 A Proto-feed 467
  - 10.3.4 Destroying Microposts 475
- 10.4 Conclusion 479
- 10.5 Exercises 480

<b>Chapter 11</b>	<b>Following Users</b>	<b>483</b>
11.1	The Relationship Model	484
11.1.1	A Problem with the Data Model (and a Solution)	485
11.1.2	User/Relationship Associations	491
11.1.3	Validations	495
11.1.4	Followed users	495
11.1.5	Followers	500
11.2	A Web Interface for Following Users	503
11.2.1	Sample Following Data	503
11.2.2	Stats and a Follow Form	505
11.2.3	Following and Followers Pages	515
11.2.4	A Working Follow Button the Standard Way	519
11.2.5	A Working Follow Button with Ajax	524
11.3	The Status Feed	529
11.3.1	Motivation and Strategy	530
11.3.2	A First Feed Implementation	532
11.3.3	Subselects	535
11.3.4	The New Status Feed	538
11.4	Conclusion	539
11.4.1	Extensions to the Sample Application	540
11.4.2	Guide to Further Resources	542
11.5	Exercises	543
	Index	545