

INDEX

Numbers and Symbols

404.html file, 24
422.html file, 24
500.html file, 24
`&&` (and) operator, 9–10
`@.`, for instance variables, 15
`\` (backslash), for special characters, 6
`:` (colon), for symbols, 7
`{ }` (curly braces)

- for blocks, 13
- for hashes, 8

`::` (double-colon) operator, 91
`"` (double-quotes), for strings, 6
`==` (equal) operator, 9
`!` (exclamation mark), at end of

- method name, 7

`=>` (hash rocket), 8–9
`>` (greater than) operator, 9
`<` (less than) operator, 9

- and inheritance, 17

`<<` operator, 8
`<=>` operator, 92
`<% %>` tag, 58
`<%# %>` tag, 58–59
`%` (modulus) operator, 5
`!=` (not equal) operator, 9
`||` (or) operator, 9–10
`||=` (conditional assignment) operator, 10
`+` operator, to add arrays, 8
`? (question mark)`, at end of

- method name, 7

`[]` (square brackets), for array, 7–8
`_` (underscore), in partial names, 67
`|` (vertical pipe), 13

A

Accessor class, defining, 101
Active Record, 30, 106–121

- `cache_key` method, 187
- calculations, 35
- query conditions, 34–35
- relation, 32

`ActiveRecord::Base`, inheriting from, 110
 `ActiveRecord::RecordNotFound` exception, 32, 41
 `ActiveSupport::Cache::FileStore` cache store, 186
 `ActiveSupport::Cache::MemoryStore` cache store, 186
 `ActiveSupport::TestCase` module, 143
Ada, 3
add command (Git), 77
alert class, 131
alert-danger class, 132
alert message, 132
alert-success class, 132
all method, 32
Amazon Elastic Compute Cloud (Amazon EC2), 224
Amazon Web Services (AWS), 224–225
ancestors class method, 95–96
and (`&&`) operator, 9–10
anonymous users, restricting page access, 125, 136
Apache

- disabling default site, 237
- installing, 226–228

 `API controllers`, 212–213
 `api` module, 219
 `API requests`

- adding route for, 211
- authentication credentials for, 209

 `APIs` (application programming interfaces), 51

- creating, 211–222
- token-based authentication, 216–222

 `api_token` string, 216
 `app/assets` directory, 65, 177

- `application.css` file, 65, 124, 176–177
- `application.js` file, 66, 124
- `javascripts` directory, 176
- `stylesheets` directory, 176

 `app/controllers` directory

- `api/posts_controller.rb` file, 212, 257
- `api/text_posts_controller.rb` file, 219
- `application_controller.rb` file, 135, 171, 218

app/controllers directory (*continued*)
 comments_controller.rb file, 248, 253–254
 destroy action in, 244
 image_post_controller.rb file, 165, 250–251
 ImagePostsController methods, 252
 posts_controller.rb file, 48, 125, 256
 index action, 184
 logger statement, 198
 PostsController, 253
 sessions_controller.rb file, 256
 text_posts_controller.rb file, 158, 159, 164–165
 users_controller.rb file, 129, 156, 250
app/helpers directory, 61
 application_helper.rb file, 61
 posts_helper.rb module, 61
application, view for, 22
 ApplicationController class, 136–137
 authentication method in, 218
ApplicationHelper module, 61, 90
application programming interface.
 See API (application programming interface)
application.rb file, 24
application server, for Ruby on Rails, 226–227
app/models directory
 comment.rb file, 189
 adding validation, 241
 ext_post.rb file, checking for body text, 118–119
 image_post.rb file, 118
 post.rb file, 29
 subscription.rb file, 113
 user.rb file, 114, 129, 143
 has_many association, 119
app/views directory, 58
 comments/_comment.html.erb file, 248, 253, 255
 image_posts/edit.html.erb file, 165
 image_posts/_form.html.erb file, 251
 image_posts/_image_post.html.erb file, 126, 188, 192, 248
 ImagePost partial, 249
 image_posts/new.html.erb file, 251
 layouts/application.html.erb file, 64, 136, 171, 196, 250, 258
 updating, 243
 link_posts/_link_post.html.erb file, 256
 posts/index.html.erb file, 58, 62, 125, 159
 will_paginate call, 184
 posts/show.html.erb file, 58, 68, 127
sessions/new.html.erb file, for login form, 133–134
text_posts/edit.html.erb file, 165
text_posts/_form.html.erb file, 158
text_posts/_text_post.html.erb file, 126, 165, 248, 255
 comment count in, 187–188
 TextPost partial, 249
users/new.html.erb file, 130–131
users/show.html.erb file, 155, 156
apt-get system, for software install, 225–226
arrays, 7–8
 for all keys in hash, 9
 returning first and last entries in, 32
ASC order, for retrieving posts, 34
as_json method, 213–214
assertions, 146–147
 controller test, 150–152
 in testing, 143
asset pipeline, 65, 176–179
 asset precompilation, 178–179
 debug mode, 177–178
 manifests, 176–177
 viewing search path list, 177
assets, in Rails application, 65
assets:clobber rake task, 178
assets directory, 23, 24
assigns hash, 150
associations, 39–42
 adding, 40
 belongs_to methods, 41–42
 defining, 113
 generating model, 39
 has_many methods, 40–41
 has_many :through, 109–110
 many-to-many, 107–110
 polymorphic, 111–112
 self join, 106–107
 specifying in advance, 183
 testing, 115–116
 touch option, 189
attr_accessor method, 16, 90, 100–101
attributes of object, displaying, 198
authenticated user, for
 TextPostsController, 158
authenticate_or_request_with_http_token method, 218
authenticate_user! method, 136, 250
authenticating over SSH (secure shell), 81
authentication, 123–140
 vs. authorization, 163–164
 of current user, 125
 with GitHub API, 209–211

log in, 132–135
of requests, 218–219
token-based, 216–222
of user, 136–137
`authenticity_token` token, 171
authorization attacks, 163–165
author migration, 37
average method, 35
AWS (Amazon Web Services), 224–225

B

backslash (\), for special characters, 6
`BasicObject` class, 96
`bcrypt` gem, 128, 249
`BCrypt::Password.create` method, 144
`before_action :authenticate_token!`
 method, 219
`before_action :authenticate_user!`
 method, 248
`before_action` method (Rails), 48, 136
`belongs_to` association, 106, 107, 111–112,
 113, 247
`belongs_to` methods, 41–42
`belongs_to` statement, 40
`between?` method, 92
`bin` directory, 20, 23
 bundle install command, 124, 128, 199
 cap production deploy command, 258
 rails console command, 247, 249
 rails generate command, 153
 rails server command, 57
 rake db:migrate command, 129, 216
 rake log:clear command, 197
 rake routes command, 211
 rake test command, 142
 rake test:models command, 149
`--binstubs` option, for bundler, 231
block of code, 13
blog posts, adding comments, 39
body element (HTML), 64
Booleans, 9–10
Bootstrap, 124
 form-group class, 131
 panel component, 126
 styles for links, 157
`bootstrap_sass` gem, 124
`branch` command (Git), 79
branching, 11
BrightBox, 225
`build-essential` package, 229
build tools, installing, 229
`bundle` command, 25–26, 82, 229
`bundle install` command, 20, 235

Bundler tool, 25
 flags in, 82
business logic, 22
`byebug` gem, 199

C

`cached_comment_count` method, 188
`cache_key` method, 187, 189, 190
cache keys, 187, 255
cache store, 185
 Rails support of, 186
caching, 185–192
 enabling, 186
 fragment, 189–191
 issues, 191–192
 low-level, 187–189
`calc` method, 93
callbacks, eliminating, 147–148
canceling current operation, 4
`cannot_feature!` method, 245
`Capfile`, 232
Capistrano, 178, 230–237
 configuration, 232–233
 database setup, 233–234
 deployment, 235
 secrets setup, 234
 setup, 231–232
 virtual host, 236–237
`capistrano-rails` gem, 231
Cascading Style Sheets (CSS)
 asset pipeline and, 176
 including in application, 124
 lists of application use, 65
case
 for constants, 10
 for variables, 11
`cd` command, 20
centralized version control systems, 76
`change_column` method, 37
`change` method, 36
changes, pushing or pulling, 76
`checkout` command (Git), 79, 80
child model, 106
classes, 15–18
 adding new methods, 16
 ancestors, 95–96
 assigning method calls to another, 94
 creating instance of, 16
 as instance of other class, 96–97
 methods, 96
`class_eval` method, 100–102
class methods, 17
class statement, 15

client error, 4xx status codes for, 208
cloud application platform. *See* Heroku
 cloud application platform
code
 block, 13
 executing inside debugger, 203
 optimization, 180–185
CoffeeScript, 176, 180
:collection option, 67–68
collections, 67–68
colon (:), for symbols, 7
columns in database, adding, 37
combining strings, 6
comment model, 120, 247
comment_params method, 55, 242
comments
 adding, 54–55
 adding to blog posts, 39
 belongs_to methods, 41–42
 form, 72–73
 has_many methods, 40–41
 show page for, 254
 showing, 68–69
CommentsController#create method, 72
commit command (Git), 77–78
commit message, 77
Comparable module, 92
Concurrent Version System (CVS), 76
conditional assignment (||=) operator, 10
conditional statements, 11–12
 for Edit button, 191–192
config.action_controller.perform_caching
 setting, 186
config.assets.debug setting, 178
config directory, 23
 deploy/production.rb file, 233
 deploy.rb file, 232–233
 environments/development.rb file, 178,
 186, 192
 routes.rb file, 45, 46, 156, 171
 logout route, 254
 secrets.yml file, 234
console command, 26
constants, 10
continue command (debugger), 203
control flow, 11–13, 58–59
controllers, 23, 43–56
 actions, 48–54
 API, 212–213
 helpers for, 47–48
 parameters, 49–50
 response formats, 51–52
 testing, 150–152
controls on forms, helper methods for,
 69–70
convention over configuration, 21
cookies, 52
 secret key for, 234
cookies hash, 150
count method, 35
create action, 44
 controller test for, 151
 POST request for, 151
create command, in Heroku, 83
create comment action, controller for, 54
created_at field, 28
create_join_table method, 109
create method, 31, 53
 for login form, 134
 in SessionsController, 181–182
createuser command, for PostgreSQL, 228
cross-site request forgery (CSRF), 64,
 170–171
 token, 221
cross-site scripting (XSS), 167–169
CRUD functions, 31, 44
CSRF (cross-site request forgery), 64,
 170–171
 token, 221
csrf_meta_tags method, 66–67
csrf-token meta tag, 66
CSS. *See* Cascading Style Sheets (CSS)
Curl, 208–209, 220–221, 257
 to check index action output, 215
testing API, 212
 for testing token-based
 authentication, 209
curly braces ({})
 for blocks, 13
 for hashes, 8
current user
 authentication, 125
 identifying, 135–136
 using, 137–139
current_user method, 135–136, 219
 output of, 196
custom routes, 46
CVS (Concurrent Version System), 76

D

data, testing, 39
database
 adding columns, 37
 adding records, 31
 CRUD functions, 31, 44
 current state, 36
 HTTP verbs for actions, 44
 retrieving posts from, 48

database migrations, 24, 28, 35–37
 and application deployment, 83
 for creating table, 113
 preventing creation of, 118
 updating *db/schema.rb* with, 142
database queries, reducing, 180–183
database.yml file, 24
data model, 106
 advanced, 106–112
 for social networking service, 112
data types, 5–11
 arrays, 7–8
 Booleans, 9–10
 hashes, 8–9
 numbers, 5
 strings, 6–7
 symbols, 7
dbconsole command, 26
db directory, 24
 migrate directory, 35
 schema.rb file, 36
db:rollback statement, 36
debugger method, 200, 256
debugging, 195–204
 commands, 200–204
 Rails logger for, 197–199
debug helper, 196–197
:debug log level, 197
debug mode, 177–178
def_delegators method, 95
define_method method, 99–100
def statement, 14
delegation, 94
delete method, 150
DELETE request, 44, 46, 60
delete_via_redirect method, 152
deleting records, 33–34
dependent: :destroy option, 117
deploy:check task, 235
deployment, 75–85, 223–237
 Capistrano, 230–237
 virtual private servers, 224–230
DESC order, for retrieving posts, 34
destroy action, 44, 253
destroy method, 33–34, 53–54, 247
 for *user_id*, 134
development environment,
 debug mode, 178
development.log file, 24
development.rb file, 23
diff command (Git), 78–79
digital signature, 81
directives, in manifest files, 176
direct manipulation, 30

directory
 creating for Ruby on Rails, 227–228
 for Rails project, 20
display command (debugger), 202–203
distributed version control system, 76
div element, *class="container"*, 124
division, math operation, 5
doctype (HTML5), 64
documentation
 for Bootstrap, 124
 from gems, 229
document root, for Virtual Host, 236
do, *end* pair, for adding block, 45
Don't Repeat Yourself (DRY), 22
do statement, 13
double-colon (::) operator, 91
double-quotes ("), for strings, 6
DRY (Don't Repeat Yourself), 22
duck typing, 98–99
duplication, eliminating, 147–148

E

each method, 12–13, 58
eager loading, 183
edit action, 44, 49
Edit button, conditional statement for, 191–192
Eiffel, 3
Element class, instance methods of, 246
elements
 adding to array end, 8
 of web pages, 64
else statement, 11
elsif statement, 11
email address
 of current user, 125
 storing, 128
Embedded Ruby (ERB), 22, 57, 58–59
 comments, 59
Employee model, defining
 associations in, 107
empty? method, 6–7
end statement, 13, 14, 90
environments directory, 23
equal (==) operator, 9
ERB (Embedded Ruby), 22, 57, 58–59
 comments, 59
error_explanation *div* element, 70–71
error messages
 code for displaying, 70–71
 files for, 24
errors array, 39
errors method, 242

/etc/apache2/sites-available directory, 236–237
eval command (debugger), 203
exclamation mark (!), at end of method name, 7
:exclusion validation, 38
exit command, 4, 30
extend statement, 94

F

favcon.ico file, 25
features, enabling and checking for, 99–100
fetch method, 187
Fibonacci sequence, 93–94
Fielding, Roy, 43
`field_with_errors` class, 71
`file.open` method, passing block to, 13
`file.read` method, 18
`file.split` method, 18
`find_by` method, 219
`find` method, 32, 164
`first` method, 32
fixtures, 144–146, 156
flags, in Bundler, 82
`flash` hash, 150
flash messages, 52
 displaying, 131–132
floating-point math, 5
flow between pages, testing, 152
follow action, safety from
 CSRF attacks, 171
`following?` method, 114
`following!` method, 115
`follow_redirect!` method, 152
foreign key, 106
 in migration file, 108
`for` loop, 12–13
form builder object, 71
`form_for` method, 71, 72
forms, 69–72
 for comments, 72–73
`form_tag`, 134
Forwardable module, 94–95
Fowler, Martin, *Patterns of Enterprise Application Architecture*, 30
fragment caching, 185, 189–191
`friendly_date` helper method, 61
full-stack web framework, 19
functional tests, 150

G

garbage collection, optimization, 175
`gem` command, 25, 229
Gemfile
 adding debugger gem, 199
 updating for Heroku, 81–83
gems, 20, 258
 `bcrypt`, 128
 `bootstrap_sass`, 124
 `byebug`, 199
 `capistrano-rails`, 231
 directories in asset pipeline
 searches, 177
 documentation from, 229
 installing, 229–230
 `jbuilder`, 214–216
 updating installed, 124, 128, 199
 `will_paginate`, 184
`generate_api_token` method, 217
`generate` command, 26
`get` method, 150
GET request, 44, 46, 60
 and state change, 170
 test issuing, 151
getter methods, 16
`get_via_redirect` method, 152
`git add` command, 77
`git branch` command, 79
`git checkout` command, 79, 80
`git commit` command, 77–78
`git diff` command, 78–79
`git --help` command, 78
GitHub, 84
 account, 244
 pushing code to, 234–235
GitHub API, 205, 206–207
 authentication with, 209–211
 token generation, 209–210
`git log` command, 77
`git pull` command, 80
`git push` command, 80, 83
`git remote add` command, 80
`git status` command, 78, 79
Git version control system, 75
 basic usage, 77–80
 branches, 79–80
 getting started, 76–77
 remotes, 80
 repository, creating, 234–235
 setup, 76
 staging area of, 77
greater than (>) operator, 9
`greet` method, 15–16

H

Hansson, David Heinemeier, 19
hashed version of password, 128
hashes, 8–9
 for commit, 77
 iteration over, 13
hash rocket (`=>`), 8–9
has_many association, 106, 107, 112, 116, 143
has_many :leaders association, 137
has_many method, 40
has_many :through association, 109–110, 117
has_secure_password method, 128, 143
head element (HTML), 64
head method, 150
help command, for debugger, 201
--help command (Git), 78
helpers, 22, 59–61
 adding methods, 61
 for controllers, 47–48
 controller test, 150
 integration, 152
 methods for form controls, 69–70
helpers directory, 23
Heroku cloud application platform, 75,
 81–84
 deploying application, 83–84
 Gemfile update for, 81–83
`heroku run` command, 83
Heroku Toolbelt, installing, xxi, 81
hex method, 217
home page
 root route setting for application, 47
 timeline for, 137
HTML, partials for shared code, 67–69
HTML5 field types, helper
 methods for, 72
HTML page
 Rails layout for, 64
 Ruby code and, 22
HTTP, 207–209
 status codes, 207–208
HTTP verbs, 60
 for database actions, 44

I

identifiers, symbols as, 7
`id` field, 28
 retrieving record by, 32
`if` statement, 11, 250
`ImagePost`
 editing, 165
 fixture files for, 145–146
 validation test, 149

`image_post_params` method, 250–251
`image_tag` helper, 126
`img-responsive` class (Bootstrap), 126
include statement, for methods, 91–92
:inclusion validation, 38
`index` action, 44, 48, 125, 212
index for array, 8
index page
 for post model, 125
 for posts, 61–63
indices, creating for foreign keys, 109
inheritance, 17–18
 in Ruby, 91
 single-table, 110–111
initialize statement, 15
injection attacks, 165–169
insecure direct object reference, 164
`inspect` method, 198
installing
 Apache, 226–228
 build tools, 229
 gems, 229–230
 Heroku Toolbelt, xxi, 81
 PostgreSQL, 228–229
 Rails, xxi–xxiii, 230
 Ruby, xxi–xxiv, 225–226
instance, 224
 of class, creating, 16
instance methods, 17
`instance_methods` method, 96
`instance_of?` method, 97
instance variables
 accessing, 16
 assigning value to, 15
instantiating objects, 31
integer division, 5
integration tests, 152–154
Interactive Ruby interpreter (IRB), 4
Internal Server Error code, 208
introspection, 97
IRB (Interactive Ruby interpreter), 4
`irb` command, 4
`is_a?` method, 97
is-a relationship, 17
:is validation, 38
iteration, 12–13

J

JavaScript
 asset pipeline and, 176
 events, 180
 including in application, 124
 list of files in use, 65
`javascript_include_tag` method, 66

JavaScript Object Notation (JSON), 22,
 51, 207
 customizing output, 213–216
 messages, 205
jbuilder gem, 214–216
join table, 113
 creating, 109
 for many_to_many association, 107–109
jq (JSON processor), 212–213
JSON (JavaScript Object Notation), 22,
 51, 207
 customizing output, 213–216
 messages, 205
json.array! method, 215
json.extract! method, 215

K

kernel class, 96
keys method, 9
key-value pairs, 8

L

label helper, 71
last method, 32
layouts for views, 64–67
leader_ids method, 137
leaders method, 116
length method, 6
:length validation, 38
less than (<) operator, 9
lib/assets directory, 177
lib directory, 24
libpq-dev package, 229

M

mailers directory, 23
manifests, 65, 176–177
many-to-many associations, 107–110

margins, for page, 124
master branch, 79
Math module, 91
math operations, in IRB, 5
Matsumoto, Yukihiro, 3
maximum method, 35
:maximum validation, 38
memcached server, 186
memoization, 92
Memoize module, calc method, 93
Mercurial, 76
merge method, 9
metaprogramming, 89, 99–104
method_missing method, 102–104

N

N + 1 Queries, 182–183
named parameters, passing to method, 9
names
 for modules, 90
 for partials, 67
 for templates, 58
namespaces, modules as, 91
namespace :api block, 211
nano editor, 236
nested resources, 45

network communications, Curl for, 208–209
new action, 44, 49
 controller test for, 151
New Image Post form, button linking to, 251–252
newlines, in strings, 6
new method, 17
 for login form, 134
new post form, 51
 params from, 53
 from Rails scaffold generator, 69–70
next command (debugger), 203
nil, 4
 from [] method, 8
 from accessing nonexistent key, 8
 for method definition, 14
NoMethodError exception, 96, 98, 102
not equal (!=) operator, 9
“not” form, of assertions, 146
notice message, 132
not operator, 12
NOT operator, 100
number helpers, 60–61
numbers, 5
 number_to_currency method, 60
 number_to_human method, 60
 number_to_human_size method, 60
 number_to_percentage method, 61

0

object class, 96
object_id method, 7
objects
 instantiating, 31
 state of, 15
odd numbers, 5
offset method, 34
one-to-many relationships, 39
one-way hash, 128
open-source software,
 collaborating on, 84
Open Web Application Security Project
 (OOWASP), 172
operation, canceling current, 4
optimization
 asset pipeline, 176–179

output to screen, 4
OWASP (Open Web Application Security Project), 172

P

Paas (Platform as a Service), 81
page rendering, speed of, 185
paginate method, 184
pagination, and optimization, 183–185
parameters, 49–50
 for methods, 14–15
 passing named, to method, 9
params, from new post form, 53
params hash, 49–50
 :text_post key in, 160
parent model, 106
partials, 67–69
password attribute, checking for, 143
password_confirmation attribute,
 checking for, 143
password digest, 128
passwords
 authentication, 181–182
 hashed version, 128
patch method, 150
PATCH request, 44, 60
patch_via_redirect method, 152
path helpers, 47
Patterns of Enterprise Application Architecture
 (Fowler), 30
PDF format, 51
percentages, 61
performance. *See also* optimization
 caching and, 185–192
 of Ruby on Rails, 175–192
Perl, 3
Personal Package Archive (PPA), 225
pg (PostgreSQL gem), 82
 installing, 230
Phusion Passenger, 226–227
pipe character (|), 13
plaintext files, reading in Ruby, 18
Platform as a Service (PaaS), 81
pluralize helper method, 188
polymorphic associations, 111–112
@post, 72
@post.comments.build, 72
post.comments.find method, 41
PostController, logger statement, 198
post fixtures, 145–146
PostgreSQL, installing, 228–229
PostgreSQL database server, 82
PostgreSQL gem (pg), 82
post_id field, 39

Post index view, 127
post method, 150
post model, 29–30, 117–119
 index and show pages for, 125
post_params method, 50
post:references option, 39
POST request, 44, 46, 51
 adding repository with, 210–211
posts
 authorization to edit, 164
 index page, 61–63
 updating when comment is added, 189
 user's ability to add, 157–161
PostsController, respond_to method, 211
PostsHelper module, 61
posts table, 30
 adding string column to, 37
posts_url, 52
post_via_redirect method, 152, 153
PPA (Personal Package Archive), 225
predicate method, 114
prepend statement, 92–94
:presence validation, 38
presence validation, for email field, 129
<pre> tags, for debug helper output, 196
pretty-printing
 JSON data, 212–213
 in Ruby, 245
printing Ruby code, 203
print messages, by log levels, 198
privileges, of users, 164
production environment
 asset precompilation, 178–179
 default log level, 197–198
production.rb file, 23
programmer, ERB comments for notes, 59
prompt, 4
 return to working, 4
protect_from_forgery method, 171, 221–222
public/assets directory, 178
public directory, 24
public key, 81
pull command (Git), 80
pulling changes to server, 76
push command (Git), 80, 83
pushing changes to server, 76
push method, 95
put method, 150
puts method, 4
put_via_redirect method, 152

Q

Queries, N + 1, 182–183
query_by_attribute method, 102–103

question mark (?), at end of
 method name, 7
quit command (IRB), 4
quotation marks, for strings, 6

R

Rails, 19
 architecture, 22–23
 commands, 25–26
 confirming install, 19
 installing, xxi–xxiii, 230
 principles, 21–22
 scaffolding, 27–28
 testing in, 142–148
rails_12factor gem, for Heroku, 82
Rails application
 assets in, 65
 first, 20–21
 modules in, 89
 structure, 23–25
Rails.application.config.assets.paths
 setting, 177
Rails.cache.fetch method, 187, 188
rails command, 26
Rails console
 launching, 247
 starting, 30
Rails counter cache, 189
Rails development environment,
 preparing, 142
rails generate command, 28
Rails generator, 37
 for controller for comments, 54
 new post form from, 69–70
Rails logger, 197–199
 levels, 197–198
rails new command, 26, 244
 directory structure created by, 23
rails scaffold command, 245
rails server command, 20, 72
rake command, 24, 27, 36
 to precompile assets, 178
rake db:migrate command, 83
random-number generator, 217
read-eval-print loop (REPL), 4
read operation, 32–33
ready function (jQuery), 180
records
 adding to database, 31
 counting, 35
 deleting, 33–34
 updating, 33
red-green-refactor, 154
redirect? helper method, 152

redirection, vs. rendering view, 50–51
 `redirect_to` method, 51
 refactoring code, 25
 reflection, 97
 regular expressions, 103
 remainder, 5
 remote add command (Git), 80
 remote repository, making local copy, 79
 `remove_column` method, 37
 `rename_column` method, 37
 render action method, 51
 render command
 for form partial, 158
 partials and, 67
 rendering view, vs. redirection, 50–51
 repetition, avoiding, 22
 REPL (read-eval-print loop), 4
 repository, 75
 Representational State Transfer (REST),
 43–44
 `require` directive, 176
 `require_self` directive, 66, 176
 `require_tree` directive, 176, 177
 `require_tree .` statement, 66
 resource route, 45
 resources :user sessions statement, 46
 `respond_to :json` method, 219
 `respond_to` method, 53, 211
 `respond_to?` method, 98
 `respond_to_missing?` method, 103–104
 `respond_with` method, 212
 REST (Representational State Transfer),
 43–44
 restricted resources, 46
 return statement, 14
 reverse of subscription, 116–117
 `robots.txt` file, 25
 root route, 47
 route for sign-up page, 129
 `routes.rb` file, 24
 routing, 45–48
 custom routes, 46
 root route, 47
 Ruby, 3
 installing, xxi–xxiv, 225–226
 interactive, 4
 Ruby object model, 89, 95–97
 Ruby on Rails, 19
 application server for, 226–227
 creating directory for, 227–228
 performance, 175–192
 resources on, 258
 Ruby Toolbox, 258

S

Sass, 176
 schema, 36
 `schema_migrations` database table, 36
 `schema.rb` file, 24
 screen, output to, 4
 secret key, for cookies, 234
 `SECRET_KEY_BASE` environment variable, 236
 `SecureRandom` class, 217
 secure shell (SSH), authenticating
 over, 81
 security, 163–173
 authorization attacks, 163–165
 cross-site request forgery (CSRF),
 170–171
 cross-site scripting (XSS), 167–169
 injection attacks, 165–169
 `seeds.rb` file, 24
 self join associations, 106–107
 server. *See also* virtual private servers
 error status codes, 208
 launching, 20
 session hash, 150
 sessions, 132–133
 `set_post` method, 48–49
 setter methods, 16
 setup method, 147, 149
 short circuit operators, 10
 show action, 44, 48, 125
 show method, 23
 show page
 for comments, 254
 for post model, 125
 for users, 154
 sign-up form, adding, 130–131
 sign-up page, adding route for, 129
 sign-up process, for users, 128–132
 single inheritance, 17
 single-table inheritance, 110–111
 size method, 95
 sleep method, 190
 slice, in array, 8
 Smalltalk, 3
 snake case, 11
 snapshot, by Git, 77
 social networking application, 112–120
 comment model, 120
 data model for, 112
 post models, 117–119
 user model, 112–117
 software install, apt-get system for,
 225–226

spaces between words, 6
special characters, in strings, 6
SQL
 commands, 31
 examining output, 181–182
 injection attack, 166–167
 program optimization and, 180–183
SQLite database, 24
square brackets ([]), for array, 7
SSH (secure shell), authenticating
 over, 81
stages in Capistrano, for application
 deployment, 230
staging area, of Git, 77
state of application, 22
status codes, HTTP, 207–208
status command (Git), 78, 79
step command (debugger), 203
stepping into application, 199
strings, 6–7
Strong Parameters, 50, 53, 55
`stylesheet_link_tag` method, 65–66
submit helper, 72
subscription, model to represent, 113
subscriptions table, 114
Subversion, 76
`sum` method, 35
symbols, 7

T

tabs, in strings, 6
`tasks` directory, 24
TDD (test-driven development), 25
 adding features with, 154–161
teardown method, 147
templates, in ERB, 58
test case, 143
`test` directory, 25
 `controllers/posts_controller_test.rb`
 file, 152
 `controllers/text_posts_controller_test.rb`
 file, 157–158, 159
 `controllers/users_controller_test.rb` file,
 151, 154–155
 `fixtures/posts.yml` file, 145–146
 `fixtures/users.yml` file, 144
 `integration/user_flow_test.rb` file, 153
 `models/user_test.rb` file, 142–143, 145
 `test_helper.rb` script, 25
test-driven development (TDD), 25
 adding features with, 154–161
testing, 141–162
 API with Curl, 212
 associations, 115–116
 controllers, 150–152
 data, 39
 helpers, 47
 integration, 152–154
 models, 148–149
 in Rails, 142–148
 using fixtures, 144–146
test log, 145
`test.rb` file, 23
text field, helper for creating, 71–72
text post
 button for creating new, 159
 edit view for, 165
 update method for, 164–165
TextPost
 creating posts of, 157–161
 fixture files for, 145–146
 validation test, 149
TextPost partial
 conditional statement for Edit button,
 191–192
 link to edit section, 165
text post partial, editing, 248
`text_post_params` method, 159, 220
therubyracer gem, 230
timeline, for home page, 137
`timeline_user_ids` method, 137
`tmp` directory, 25
token-based authentication, 209, 216–222
tokens
 for current session, 66
 generating, 216–218
 for request authentication, 218–219
Torvalds, Linus, 76
touch option, for associations, 189
touch `tmp/restart.txt` command, 233
`t.references :author` statement, 108–109
Tumblr, 112
turbolinks, 179–180

U

Ubuntu Linux 14.04 LTS, 224
Ubuntu Linux setup, 225–230
underscore (_), in partial names, 67
undisplay command (debugger), 203
`:uniqueness` validation, 38
uniqueness validation, for email field, 129
unique words, 18
unit tests, 148
unless statement, 12
update action, 44
update method, 33, 51, 53
 for text posts, 164–165

`updated_at` field, 28
updating records, 33
URL helpers, 47, 59–60
URLs
 and mapping actions to verbs, 45
 validation, 118
User associations, 114
`User.authenticate` method, vulnerability to
 SQL injection, 166
User class, creating instance of, 246
user fixtures, 144–145
`user_id` in session, storing, 132–133
user interface. *See* views
user model
 `api_token` string, 216
 for social networking application,
 112–117
`user:references` option, 118
users
 action for creating new, 129–130
 authentication of, 136–137
 privileges of, 164
 sign-up process, 128–132

V

validation, 38–39
 adding to *app/models/comment.rb*
 file, 241
 adding to model, 118
`valid?` method, 39
valid user, 143
`values` method, 9
values of object, displaying, 198
`var` command (debugger), 202
variables, 10–11
 examining values, 202
 initiating only if `nil`, 10
`var instance` command, 202
VCS (version control system), 75
`vendor/assets` directory, 177
`vendor` directory, 25
version control system (VCS), 75
vertical pipe (`|`), 13
views, 22, 57–74
 caching parts of, 189
 layouts, 64–67
view templates, creating, 125
virtual host, 236–237
virtual private servers, 224–230
 Amazon AWS setup, 224–225
 Ubuntu Linux setup, 225–230

W

web APIs, 205–222
web browser, JSON output on, 213
weblog, creating, 20
web pages
 elements, 64
 title of, 258
WEBrick server, 20
web servers, 226–228
`where` method, 32–33, 103
`will_paginate` gem, 184
--without production option, for
 bundler, 231
words, counting in file, 18
`write_with_time` method, 99

X

XML, 22, 51
`X-RateLimit-Limit`, for GitHub API
 requests, 209
XSS (cross-site scripting), 167–169

Y

YAML, 144, 196
 dashes and dots for start and end, 197
`yield` statement, 67, 124

Z

zero index, for array, 8