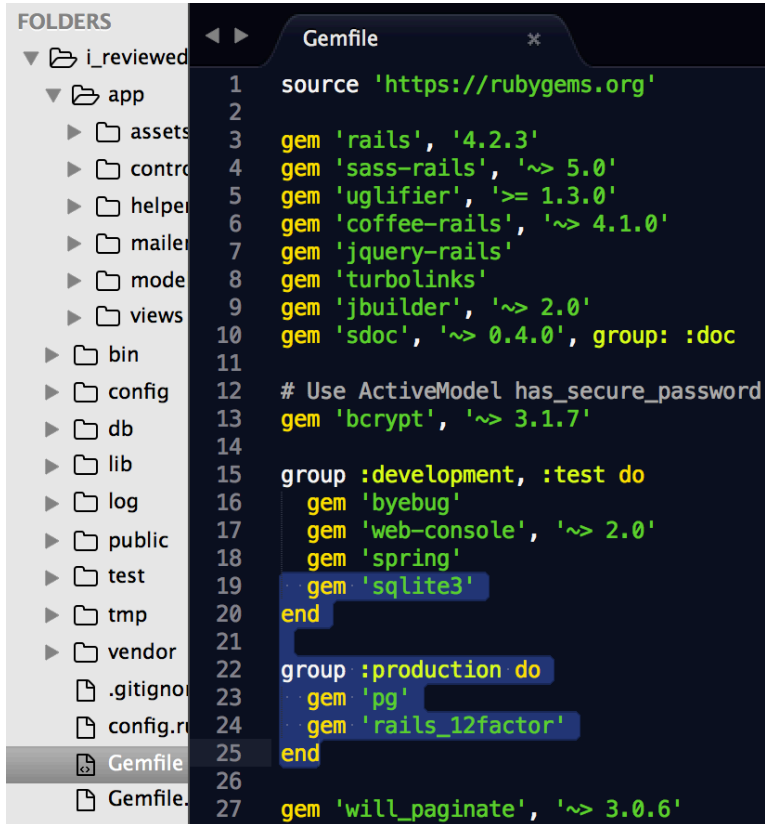


In this lecture, we will discuss...

- ✧ Deploying to Heroku



Heroku Deployment



The screenshot shows a code editor with a file explorer on the left. The file explorer lists folders like 'i_reviewed', 'app', 'assets', 'controllers', 'helpers', 'mailers', 'models', 'views', 'bin', 'config', 'db', 'lib', 'log', 'public', 'test', 'tmp', 'vendor', and files like '.gitignore', 'config.ru', 'Gemfile', and 'Gemfile.lock'. The main editor window shows the 'Gemfile' with the following content:

```
1 source 'https://rubygems.org'
2
3 gem 'rails', '4.2.3'
4 gem 'sass-rails', '~> 5.0'
5 gem 'uglifier', '>= 1.3.0'
6 gem 'coffee-rails', '~> 4.1.0'
7 gem 'jquery-rails'
8 gem 'turbolinks'
9 gem 'jbuilder', '~> 2.0'
10 gem 'sdoc', '~> 0.4.0', group: :doc
11
12 # Use ActiveRecord has_secure_password
13 gem 'bcrypt', '~> 3.1.7'
14
15 group :development, :test do
16   gem 'byebug'
17   gem 'web-console', '~> 2.0'
18   gem 'spring'
19   gem 'sqlite3'
20 end
21
22 group :production do
23   gem 'pg'
24   gem 'rails_12factor'
25 end
26
27 gem 'will_paginate', '~> 3.0.6'
```

```
~/sandbox/i_reviewed$ bundle --without production
```



The screenshot shows a code editor with a file explorer on the left. The file explorer lists folders like 'i_reviewed' and '.bundle', and a file named 'config'. The main editor window shows the 'config' file with the following content:

```
1 ---
2 BUNDLE_WITHOUT: production
3
```



Heroku Deployment

```
~/sandbox/i_reviewed$ git st
On branch master
Your branch is up-to-date with 'origin/master'.
nothing to commit, working directory clean
~/sandbox/i_reviewed$ ls
.          .git          Gemfile.lock  app          config.ru    log          tmp
..         .gitignore    README.rdoc   bin          db           public       vendor
.bundle    Gemfile       Rakefile      config       lib          test
~/sandbox/i_reviewed$ heroku login
Setting up node-v4.2.1... done
Installing core plugin heroku-cli-addons... done
Enter your Heroku credentials.
Email: kalmanh@gmail.com
Password (typing will be hidden):
Logged in as kalmanh@gmail.com
~/sandbox/i_reviewed$ heroku create ireview-books
Creating ireview-books... done, stack is cedar-14
https://ireview-books.herokuapp.com/ | https://git.heroku.com/ireview-books.git
Git remote heroku added
~/sandbox/i_reviewed$
```



Heroku Deployment

```
~/sandbox/i_reviewed$ git push heroku master
Counting objects: 177, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (159/159), done.
Writing objects: 100% (177/177), 29.72 KiB | 0 bytes/s, done.
Total 177 (delta 51), reused 0 (delta 0)
remote: Compressing source files... done.
remote: Building source:
remote:
remote: -----> Ruby app detected
remote: -----> Compiling Ruby/Rails
remote: -----> Using Ruby version: ruby-2.0.0
remote: -----> Installing dependencies using bundler 1.9.7
remote:           Running: bundle install --without development:test
```

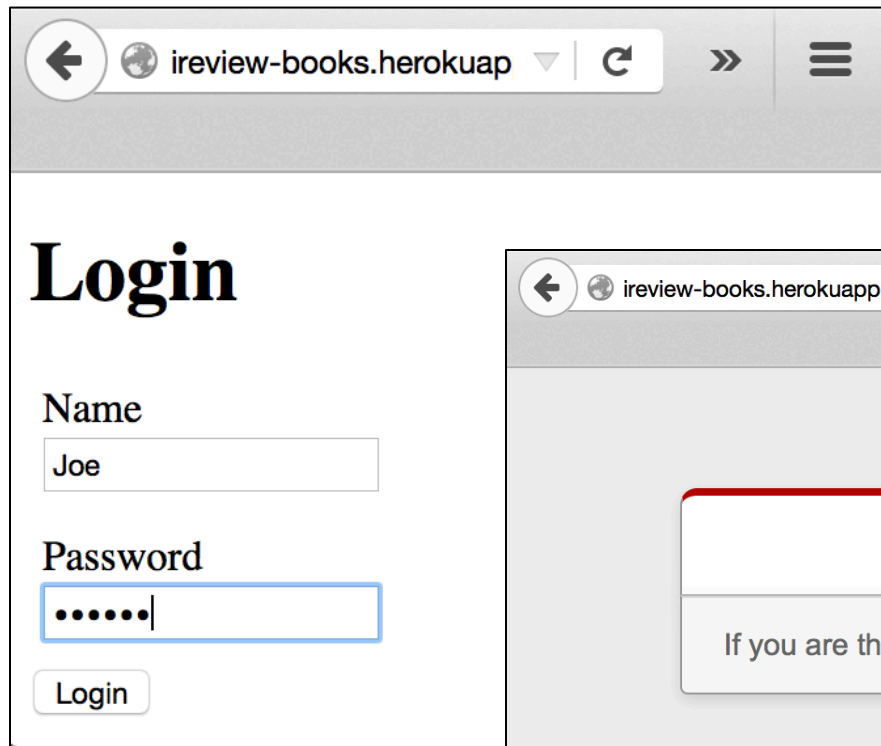


Heroku Deployment

```
remote: -----> Discovering process types
remote:          Procfile declares types -> (none)
remote:          Default types for Ruby -> console, rake, web, worker
remote:
remote: -----> Compressing... done, 29.4MB
remote: -----> Launching... done, v5
remote:          https://ireview-books.herokuapp.com/ deployed to Heroku
remote:
remote: Verifying deploy.... done.
To https://git.heroku.com/ireview-books.git
* [new branch]      master -> master
```



Heroku Deployment



A screenshot of a web browser window. The address bar shows the URL `ireview-books.herokuapp`. The page has a large heading "Login". Below it, there is a "Name" label followed by a text input field containing the text "Joe". Below that is a "Password" label followed by a password input field with masked characters "•••••". At the bottom left is a "Login" button.

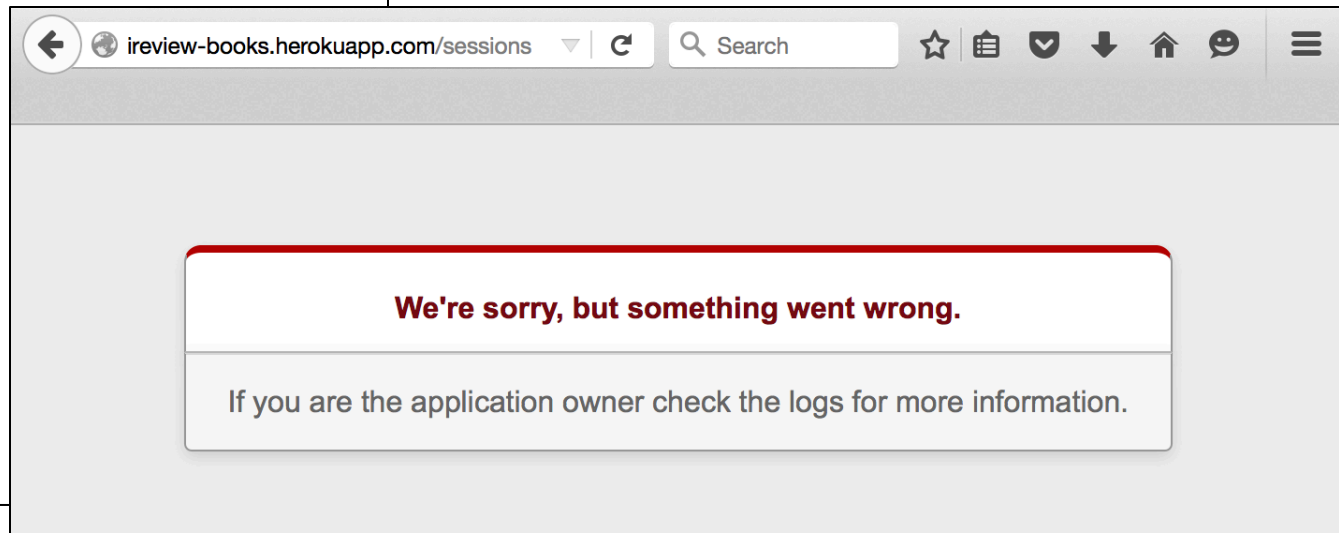
← ireview-books.herokuapp » ☰

Login

Name

Password

Login



Wait For Me...

- ✧ We deployed the app, but what about the database?
- ✧ `$heroku run rake db:migrate`
- ✧ `$heroku run rake db:seed`



Migrations And Seeding On Heroku

```
~/sandbox/i_reviewed$ heroku run rake db:migrate
Running rake db:migrate on ireview-books... up, run.9261
(15.3ms) CREATE TABLE "schema_migrations" ("version" character varying NOT NULL)
(10.1ms) CREATE UNIQUE INDEX "unique_schema_migrations" ON "schema_migrations" ("version")
ActiveRecord::SchemaMigration Load (2.5ms) SELECT "schema_migrations".* FROM "schema_migrations"
Migrating to CreateReviewers (20151015232312)
(1.4ms) BEGIN
== 20151015232312 CreateReviewers: migrating =====
-- create_table(:reviewers)
(23.2ms) CREATE TABLE "reviewers" ("id" serial primary key, "name" character varying, "password_digest" character varying,
"created_at" timestamp NOT NULL, "updated_at" timestamp NOT NULL)
-> 0.0288s
== 20151015232312 CreateReviewers: migrated (0.0311s) =====

SQL (1.4ms) INSERT INTO "schema_migrations" ("version") VALUES ($1) [["version", "20151015232312"]]
(2.5ms) COMMIT
Migrating to CreateBooks (20151015232349)
(1.3ms) BEGIN
== 20151015232349 CreateBooks: migrating =====
-- create_table(:books)
(18.9ms) CREATE TABLE "books" ("id" serial primary key, "name" character varying, "author" character varying, "reviewer_id"
integer, "created_at" timestamp NOT NULL, "updated_at" timestamp NOT NULL)
(11.1ms) CREATE INDEX "index_books_on_reviewer_id" ON "books" ("reviewer_id")
(2.8ms) ALTER TABLE "books" ADD CONSTRAINT "fk_rails_edc0310d15"
FOREIGN KEY ("reviewer_id")
```



Migrations And Seeding On Heroku

```
~/sandbox/i_reviewed$ heroku run rake db:seed
Running rake db:seed on ireview-books... up, run.2793
ActiveRecord::SchemaMigration Load (1.0ms) SELECT "schema_migrations".* FROM "schema_migrations"
Reviewer Load (4.9ms) SELECT "reviewers".* FROM "reviewers"
Book Load (13.0ms) SELECT "books".* FROM "books"
(14.6ms) BEGIN
SQL (82.7ms) INSERT INTO "books" ("name", "author", "created_at", "updated_at") VALUES ($1, $2, $3, $4) RETURNING "id" [{"name", "Eloquent Ruby"
], ["author", "Russ Olsen"], ["created_at", "2015-10-22 16:11:36.972204"], ["updated_at", "2015-10-22 16:11:36.972204"]]
(13.9ms) COMMIT
(13.2ms) BEGIN
SQL (13.8ms) INSERT INTO "books" ("name", "author", "created_at", "updated_at") VALUES ($1, $2, $3, $4) RETURNING "id" [{"name", "Beginning Ruby
"], ["author", "Peter Cooper"], ["created_at", "2015-10-22 16:11:37.196688"], ["updated_at", "2015-10-22 16:11:37.196688"]]
(48.7ms) COMMIT
(9.0ms) BEGIN
SQL (29.9ms) INSERT INTO "books" ("name", "author", "created_at", "updated_at") VALUES ($1, $2, $3, $4) RETURNING "id" [{"name", "Metaprogrammin
g Ruby 2"], ["author", "Paolo Perrotta"], ["created_at", "2015-10-22 16:11:37.325074"], ["updated_at", "2015-10-22 16:11:37.325074"]]
(19.3ms) COMMIT
(2.8ms) BEGIN
SQL (49.8ms) INSERT INTO "books" ("name", "author", "created_at", "updated_at") VALUES ($1, $2, $3, $4) RETURNING "id" [{"name", "Design Pattern
s in Ruby"], ["author", "Russ Olsen"], ["created_at", "2015-10-22 16:11:37.462418"], ["updated_at", "2015-10-22 16:11:37.462418"]]
(44.4ms) COMMIT
```















Heroku Logs

```
2015-10-22T16:07:51.833892+00:00 app[web.1]:
2015-10-22T16:07:51.801124+00:00 app[web.1]: Processing by SessionsController#create as HTML
2015-10-22T16:07:51.832898+00:00 app[web.1]: PG::UndefinedTable: ERROR: relation "reviewers" does not exist
2015-10-22T16:07:51.832900+00:00 app[web.1]: LINE 5:          WHERE a.attrelid = '"reviewers"'::regclass
2015-10-22T16:07:51.832901+00:00 app[web.1]:                      ^
2015-10-22T16:07:51.832902+00:00 app[web.1]: :          SELECT a.attname, format_type(a.atttypid, a.atttypmod),
2015-10-22T16:07:51.832903+00:00 app[web.1]:          pg_get_expr(d.adbin, d.adrelid), a.attnotnull, a.atttypid, a.atttypmod
2015-10-22T16:07:51.832904+00:00 app[web.1]: FROM pg_attribute a LEFT JOIN pg_attrdef d
2015-10-22T16:07:51.832904+00:00 app[web.1]: ON a.attrelid = d.adrelid AND a.attnum = d.adnum
2015-10-22T16:07:51.832905+00:00 app[web.1]: WHERE a.attrelid = '"reviewers"'::regclass
2015-10-22T16:07:51.832906+00:00 app[web.1]: AND a.attnum > 0 AND NOT a.attisdropped
2015-10-22T16:07:51.832906+00:00 app[web.1]: ORDER BY a.attnum
2015-10-22T16:07:51.832907+00:00 app[web.1]:
2015-10-22T16:07:51.833120+00:00 app[web.1]: Completed 500 Internal Server Error in 3ms (ActiveRecord: 1.2ms)
2015-10-22T16:07:51.928494+00:00 heroku[router]: at=info method=POST path="/sessions" host=ireview-books.herokuapp.com request_id=d19918fc-1c0c-43a7-9a6b-02669d4344c5 fwd="192.12.13.14" dyno=web.1 connect=2ms service=99ms status=500 bytes=1754
2015-10-22T16:09:39.443387+00:00 heroku[api]: Starting process with command `bundle exec rake db:migrate` by kalmanh@gmail.com
2015-10-22T16:09:42.454159+00:00 heroku[run.9261]: Awaiting client
2015-10-22T16:09:42.486496+00:00 heroku[run.9261]: Starting process with command `bundle exec rake db:migrate`
2015-10-22T16:09:42.854498+00:00 heroku[run.9261]: State changed from starting to up
2015-10-22T16:09:47.880649+00:00 heroku[run.9261]: Process exited with status 0
2015-10-22T16:09:47.904400+00:00 heroku[run.9261]: State changed from up to complete
2015-10-22T16:11:26.998612+00:00 heroku[api]: Starting process with command `bundle exec rake db:seed` by kalmanh@gmail.com
2015-10-22T16:11:29.859107+00:00 heroku[run.2793]: Awaiting client
2015-10-22T16:11:29.897069+00:00 heroku[run.2793]: Starting process with command `bundle exec rake db:seed`
```



Happy Ending

  ireview-books.herokuapp.com    Search       

Logged in successfully

Logged in as Joe | [Logout](#)

Listing Books

Name	Author	
Eloquent Ruby	Russ Olsen	Show Edit Destroy
Beginning Ruby	Peter Cooper	Show Edit Destroy
Metaprogramming Ruby 2	Paolo Perrotta	Show Edit Destroy
The Ruby Programming Language	David Flanagan	Show Edit Destroy
Book3	Author3	Show Edit Destroy
Book4	Author4	Show Edit Destroy
Book10	Author10	Show Edit Destroy
Book12	Author12	Show Edit Destroy
Book13	Author13	Show Edit Destroy
Book14	Author14	Show Edit Destroy

← Previous / [2](#) [3](#) [4](#) Next →



Summary

- ✧ Use “`bundle --without production`” if you don’t need or can’t install production gems on your local system
- ✧ Don’t forget to run DB commands on the remote server after deployment