[Tutorial] Deploy Rottenpotatoes app on Heroku

How to deploy your rails app on Heroku.

Step 0: Get a Heroku account from [Heroku], have rottenpotatoes app in your Cloud9 environment.

Step 1: Install Heroku toolkit on Cloud9.
There's no helpful information on Heroku website. The easiest way to install Heroku is via the Javascript package manager "npm".

```
$ nvm i v8
$ npm install -g heroku
```

To test if Heroku toolkit is installed:

```
$ heroku
```

Step 2: Install Postgresql. This step is only to prevent the error from installing gem 'pg'. For more advanced usage of postgresql, please read this article.

```
$ sudo yum install postgresql postgresql-server postgresql-devel
  postgresql-contrib postgresql-docs
```

Step 3: Some modifications to files. (Heroku does not support Sqlite3 database.)
In */config/database.yml*, comment/delete everything, add the following code :
(Updated on Thu, 06 Feb 2020 21:42:57-0600 so that you don't have to undo this when switching from development to production environments and back again… let me know if you've any problems if you make the switch)

```
default: &default
  adapter: postgresql
  encoding: unicode
  pool: 5

development:
  <<: *default
  adapter: sqlite3
  database: db/development.sqlite3

test:
  <<: *default
  database: myapp_test
```

```
production:
  <<: *default
  database: myapp_production
  username: myapp
  password: <%= ENV['MYAPP_DATABASE_PASSWORD'] %>
```

In */Gemfile*, ensure that

```
gem 'sqlite3'
```

is this under group :development and pg is under :production (Updated on Thu, 06 Feb 2020 so that you don't have to undo this when switching from development to production environments and back again).

```
gem 'pg', '~> 0.21'

group :development do
    gem 'sqlite3'
end

group :production do
    gem 'pg', '~> 0.21'
end
```

then in command line, run

```
$ bundle install
```

Step 4: Push app to Heroku
Login Heroku:

```
$ heroku login
```

then enter your credentials.
To save the previous changes to git:

```
$ git init
$ git add .
$ git commit -m "<your message>"
```

Create an empty Heroku app:

```
$ heroku create
```

Push everything to Heroku app:

```
$ git push heroku master
```

Step 5: Data migration. (We have not created postgresql db on Cloud9, so we have to migrate the data into a postgresql db on Heroku.)

```
$ heroku run rake db:migrate
$ heroku run rake db:seed
```

Step 6: Check if your app works on Heroku

```
$ heroku open
```

The error massage says the web browser cannot be opened, but you can copy and open the URL in your web browser.

```
▸    Error opening web browser.
▸    Error: Exited with code 3
▸
▸    Manually visit https://your-random-app-name.herokuapp.com/ in your browser.
```

The oringinal web page should look like

Rotten Potatoes!

All Movies

Movie Title	Rating	Release Date	More Info
Aladdin	G	1992-11-25 00:00:00 UTC	More about Aladdin
The Terminator	R	1984-10-26 00:00:00 UTC	More about The Terminator
When Harry Met Sally	R	1989-07-21 00:00:00 UTC	More about When Harry Met Sally
The Help	PG-13	2011-08-10 00:00:00 UTC	More about The Help
Chocolat	PG-13	2001-01-05 00:00:00 UTC	More about Chocolat
Amelie	R	2001-04-25 00:00:00 UTC	More about Amelie
2001: A Space Odyssey	G	1968-04-06 00:00:00 UTC	More about 2001: A Space Odyssey
The Incredibles	PG	2004-11-05 00:00:00 UTC	More about The Incredibles
Raiders of the Lost Ark	PG	1981-06-12 00:00:00 UTC	More about Raiders of the Lost Ark
Chicken Run	G	2000-06-21 00:00:00 UTC	More about Chicken Run

Add new movie

Now you have started your rottenpotatoes application on Heroku.

Debugging

Make sure you're testing in incognito mode too. You want to observe the effects of first arriving on the page and not relying on session information to populate things such as queries (ex. Homework 2). For instance, what if the user doesn't yet have a session started… What should happen? How should the movie list be displayed to the user?

You need to know where things break. In the worst case, you can download the homework starter files again, confirm that it runs in AWS, update the database.yml file, and then confirm that you can deploy on heroku. You should have no issues with this. Thereafter, you could begin moving things over from your old app folder (models, views, controls, assets) and figure out what broke your app.

If things aren't working, sometimes running `heroku run rails console` will provide a better error message.
- If you see something about postgres gem needing to be added to the gem file, move `gem 'pg', '~> 0.21'` outside of :production and into the global area.