



Deployment

What is it?

“Software deployment is all of the activities that make a software system available for use.”

Heroku

- A cloud platform that allows you to deploy your code and make it accessible to everyone.

Heroku

- Lets you focus on building your application while they deal with the infrastructure.

Heroku

- Deployment is as simple as push to a Git remote.

Heroku Toolbelt

In order to use Heroku, you need to install their tool belt.

<https://toolbelt.heroku.com>

Heroku

- Login to heroku

```
$ heroku login
```

```
Enter your Heroku credentials.
```

```
Email: schneems@example.com
```

```
Password:
```

```
Could not find an existing public key.
```

```
Would you like to generate one? [Yn]
```

```
Generating new SSH public key.
```

```
Uploading ssh public key /Users/adam/.ssh/id_rsa.pub
```

Let's make a new Rails app and
deploy it to Heroku

Hello World App

- Heroku requires you to use Postgresql

```
$ rails new hello-world --database=postgresql
```

Hello World App

```
$ rails generate controller welcome
```

Hello World App

- In file `app/views/welcome/index.html.erb`

```
<h2>Hello World</h2>
```

```
<p>
```

```
  The time is now: <%= Time.now %>
```

```
</p>
```

Hello World App

- In file `config/routes.rb`

```
get '/' => 'welcome#index'
```

Hello World App

- For serve static assets we need to add the `rails_12factor` gem to our Gemfile

```
gem 'rails_12factor', group: :production
```

Hello World Deploy

- Heroku relies on Git for deployment

```
$ git init
```

```
$ git add .
```

```
$ git commit -m "Initial Rails app"
```

Hello World Deploy

- Now that we've committed our code. We need to create the application on Heroku

```
$ heroku create
```

Hello World Deploy

- When you create a new app in Heroku, it automatically assigns it a name and gives you the URL, for example: `https://boiling-hollows-5707.herokuapp.com`
- You can change with the the following command (where 'newname' is the name you want for your app). This will also update the URL.

```
$ heroku apps:rename newname
```


Hello World Deploy

- Ship it!

```
$ git push heroku master
```

Hello World Deploy

- Now let's see if it works!

```
$ heroku open
```

Not working?

- You can also try following this tutorial from the Heroku Dev Center: <https://devcenter.heroku.com/articles/getting-started-with-rails4>

But what if you already have a Rails application that you want to deploy?

Heroku

- If you have an existing application
- Change 'Gemfile'

`gem 'sqlite3'` → `gem 'pg'`

Heroku

- You will also need to change your 'config/database.yml'

```
default: &default
  adapter: postgresql
  encoding: unicode
  pool: 5
  timeout: 5000
```

```
# For details on connection pooling, see rails configuration
guide
# http://guides.rubyonrails.org/configuring.html#database-
pooling
pool: 5
```

Heroku

- In the same file, rename your databases

```
development:
  <<: *default
  database: my-app_development

test:
  <<: *default
  database: my-app_test

production:
  <<: *default
  database: my-app_production
  password: <%= ENV['MY_APP_DATABASE_PASSWORD'] %>
```

Heroku

- Delete db/development.sqlite3
- Run `bundle install`
- Run `rake db:create`
- Run `rake db:migrate`

Heroku

- And now you're ready to deploy your existing app with Heroku!

```
$ heroku create
```

- And so on...

Practice

- Let's deploy your Music Concert Network app!
- The world needs to know about your fake concerts :)

Prepare your app

- Follow the instructions in these slides for updating your Gemfile and database.yml files
- Delete your sqlite3 database
- Create a new postgresql database
- Run your database migrations and seed the database

Deploy

- Create your app on Heroku

```
$ heroku create
```

Deploy

- Push your app to Heroku

```
$ git push heroku master
```

Deploy

- Manually migrate your database

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

Deploy

- Start your application on Heroku

```
$ heroku ps:scale web=1
```

Success?

- Visit your URL to see if it worked!
- Check the **Heroku Dev Center** if you are having problems

Custom Domains

- You can configure your Heroku app with the domain of your choice.
- Follow the [Heroku Dev Center guide](#) to do so.

References

- ★ http://en.wikipedia.org/wiki/Software_deployment
- ★ <https://www.heroku.com>