Lesson 8:
Introducing Controllers, Layouts, Views and Styling

Objectives

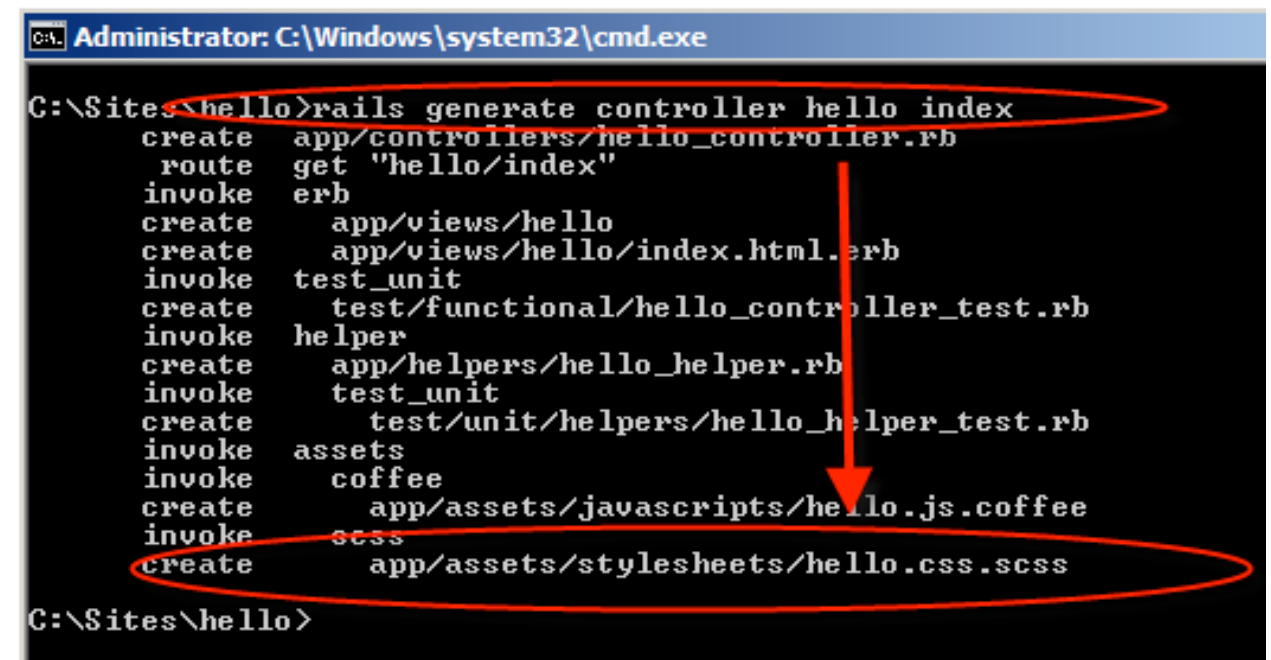Understand Rails CSS handling

Determine the layout for a view

Use view content within a layout

Set a default page

How does generating a controller generate a css file?

Rails 3.1 introduced asset management which provides a centralized place to manage site-wide CSS

The `rails generate controller` command creates a default CSS file for the controller's default.

What is a layout?

A layout is an ERB template which serves as a "master" template

Layouts are defined in app/views/layouts

Rails provides a default `application.html.erb` layout which runs for all requested templates unless another is specified

It also includes a `stylesheet_link_tag` expression which causes links to two CSS files to be inserted and includes a `yield` expression specifying where the requested template content is inserted

What is a layout?

```erb
<!DOCTYPE html>
<html>
<head>
  <title>Hello</title>
    <%= stylesheet_link_tag "application", :media =>
"all" %>
    <%= javascript_include_tag "application" %>
    <%= csrf_meta_tags %>
</head>
<body>
    <%= yield %>
</body>
</html>
```

What CSS is included by the default layout?

Two CSS files are included in a requested template by the default layout from app/assets/stylesheets:

`application.css`: potentially shared by all site pages

`hello.css.scss`: created by rails generate controller for generated view templates

Both are included in templates affected by the default layout.

Sass is an extended version of CSS supported by Rails, which is implemented in .scss files:

http://sass-lang.com/

What CSS is included by the default layout?

Exercise:

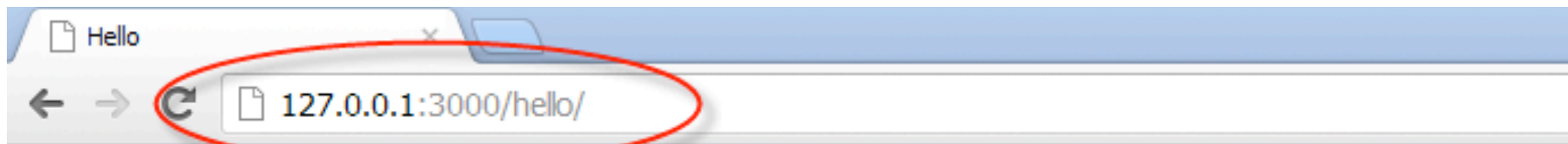Configuring site wide and template specific CSS

What are the options for determining the layout for a view?

Generally, a layout runs for every requested view template. The layout which runs is determined in one of these ways:

1. A layout with a name matching the requested view runs, if available
2. The controller for a view specifies a particular layout using its layout variable
3. The application.html.erb layout runs by default if no other layout is specified

How do you determine the layout based on the controller name?

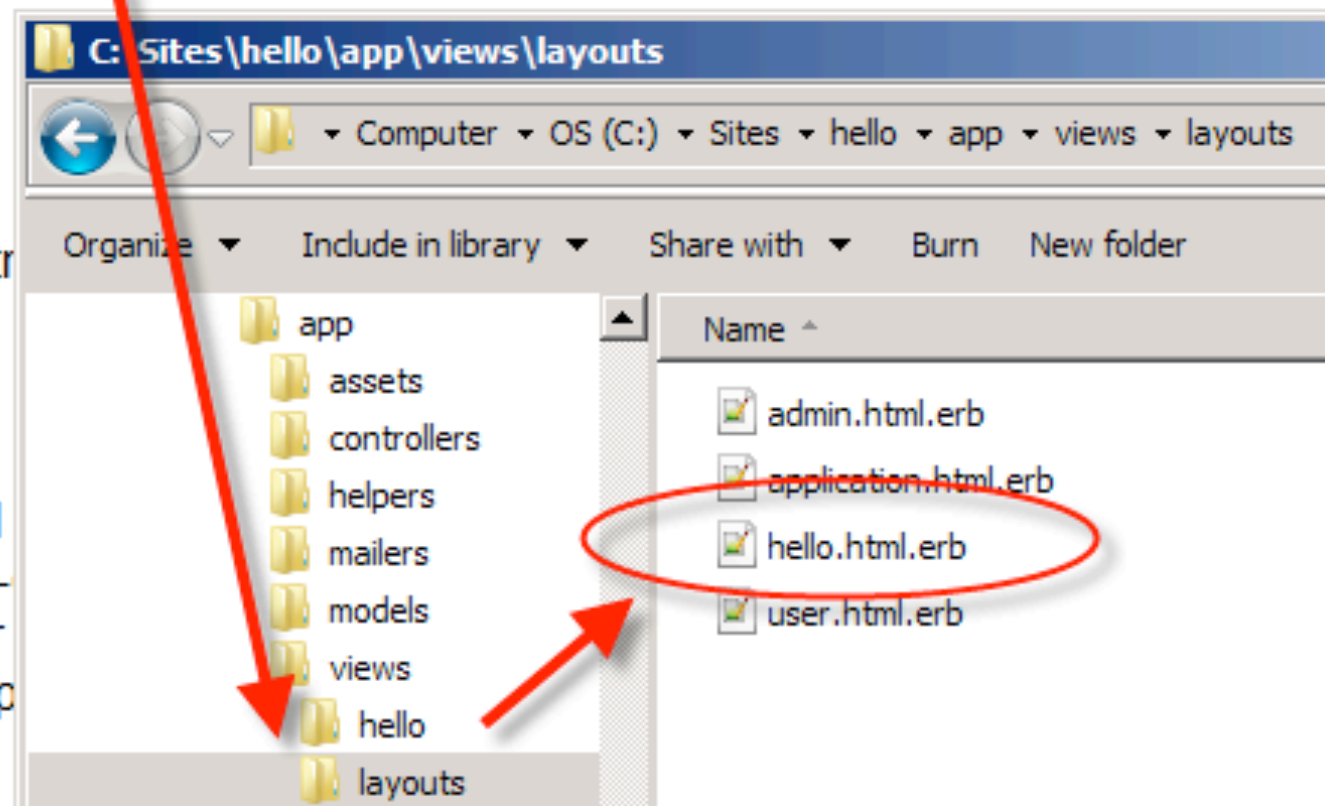Rails looks for a layout matching the requested controller

Exercise:

Creating a view specific layout

How do you determine the layout from within the controller?

A controller can specify the layout for its view by assigning its layout variable. The value could be set as a string or by a method.

```ruby
class HelloController < ApplicationController
    layout "admin"
    def index
    end
end
```

Exercise:

Determining the layout from the controller

How do you assign layout content from a view?

Remember, HTML page structure (e.g., <head>) is normally set in the layout, not the view.

A view templates can implement a content_for method to assign content for use by its layout. To assign content within a view:

```erb
<% content_for :page_title do %>
   Blog
<% end %>
```

To use assigned content within a layout

```erb
<title>Greetings.com - <%= yield :page_title %></title>
```

Exercise:

Assigning layout content from its view

How do you change the Rails home page?

Rails displays content at `public/index.html` as its site root. By default, this is the Rails "Welcome aboard" page.

This page is not a template and cannot include dynamic content.

Uncomment `root :to =>` in config/routes.rb and modify this to assign the desired controller and action

```
# controller is home, action is index
root :to => 'hello#index'
```

Delete the default `public/index.html` site root page and restart the Rails server.

Lab