Agile Web Development with Rails, Chapter 11: Task F: Add a Dash of Ajax

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Based on the book by Sam Ruby.

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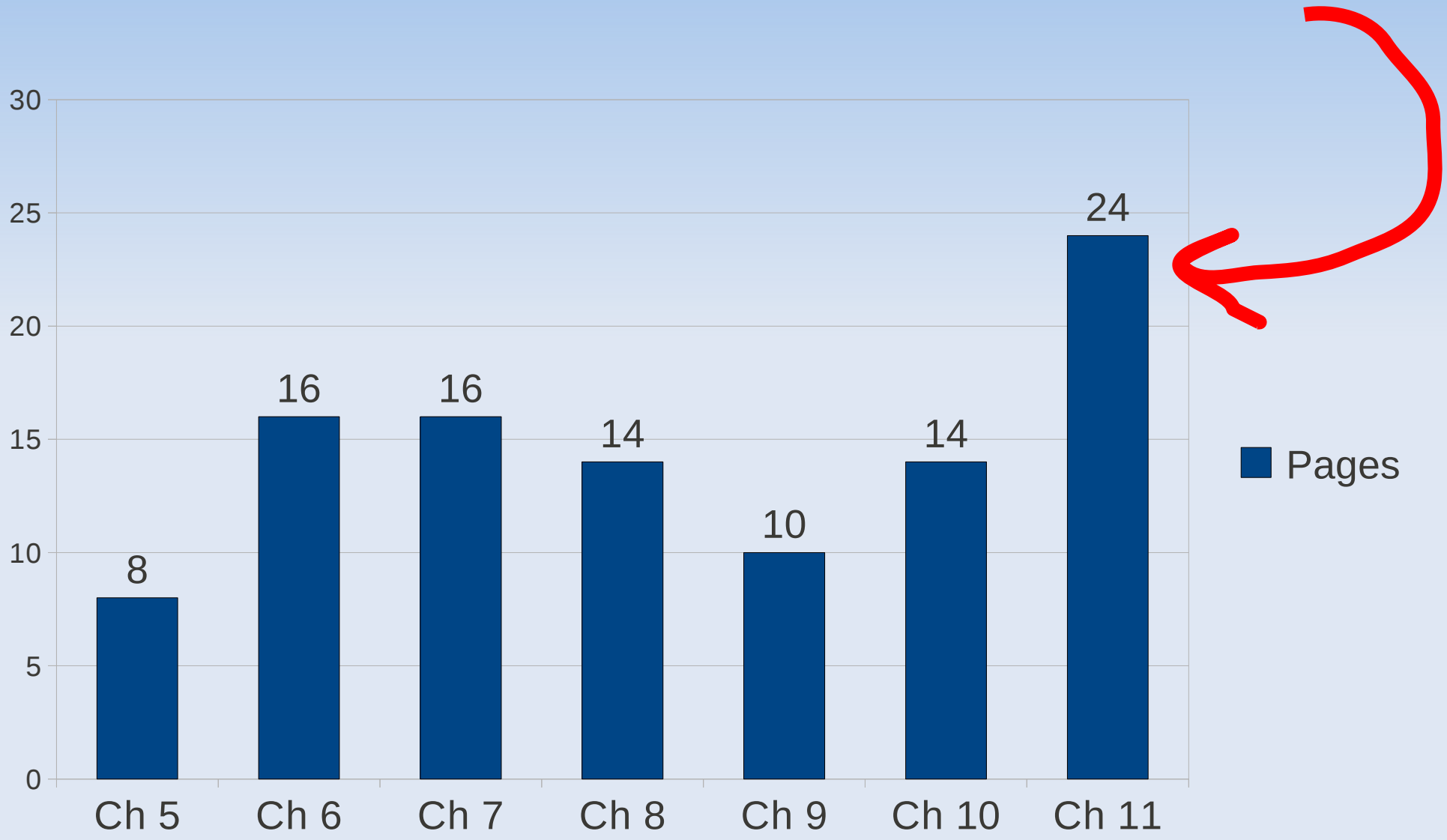
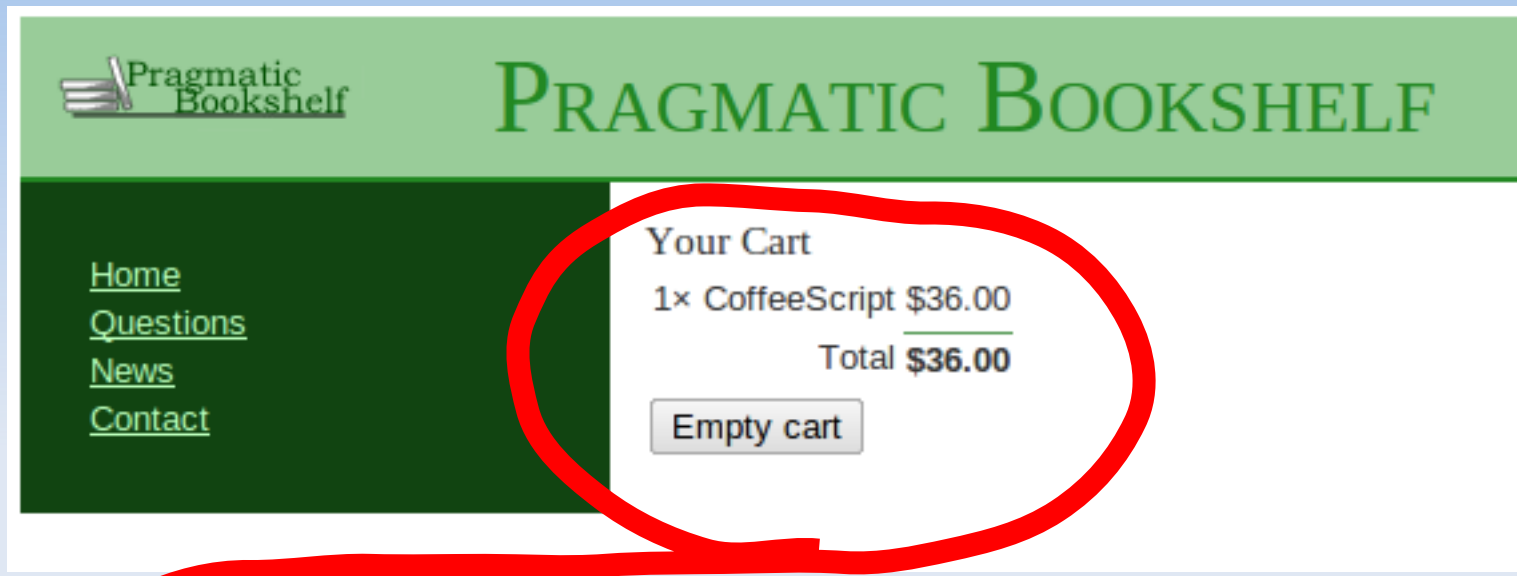
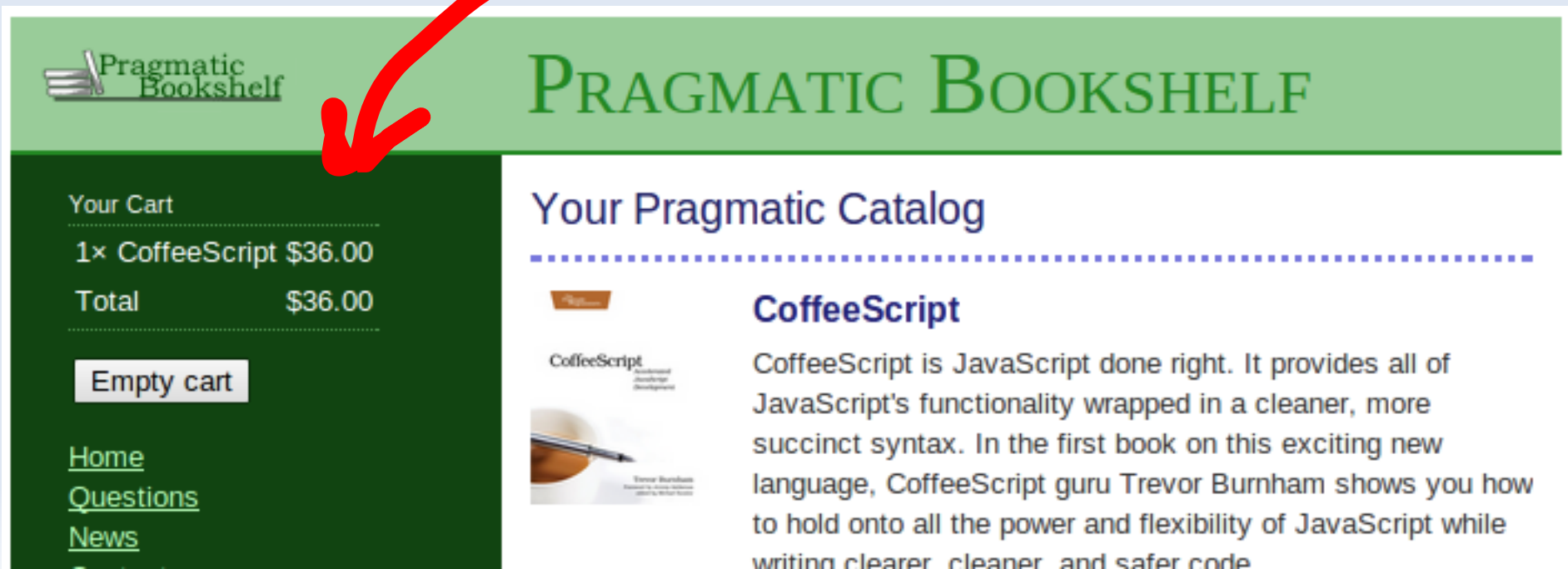
This was a long chapter!



Iteration F1: Moving the Cart

- Our goal:





Iteration F1: Moving the Cart

- app/views/carts/show.html.erb:

```
<%= render @cart %>
```

- app/views/layouts/application.html.erb:

```
<!DOCTYPE html>
<html>
...
<body class="<%= controller.controller_name %>">
  <div id="banner">...</div>
  </div>
  <div id="columns">
    <div id="side">
      <div id="cart"><%= render @cart %></div>
      ...
    </div>
    <div id="main"><%= yield %></div>
  </div>
</body></html>
```

Iteration F1: Moving the Cart

- `"render @cart"` renders app/views/carts/_cart.html.erb:

```
<div class="cart_title">Your Cart</div>
<table>
  <%= render cart.line_items %>
  <tr class="total_line">
    <td colspan="2">Total</td>
    <td class="total_cell">
      <%= number_to_currency cart.total_price %>
    </td>
  </tr>
</table>

<%= button_to 'Empty cart', cart, method: :delete,
    confirm: 'Are you sure?' %>
```

Iteration F1: Moving the Cart

- Also need to set @cart in the StoreController#Index:

```
class StoreController < ApplicationController
  def index
    @products = Product.order(:title)
    @cart = current_cart
  end
end
```

- Also need to adjust the stylesheet so the cart looks good in both contexts.

Iteration F1: Moving the Cart

- app/controllers/line_items_controller.rb:

```
def create
  @cart = current_cart
  product = Product.find(params[:product_id])
  @line_item = @cart.add_product(product.id)
  respond_to do |format|
    if @line_item.save
      format.html { redirect_to store_url }
      format.json { render json: @line_item,
        status: :created, location: @line_item }
    else
      format.html { render action: "new" }
      format.json { render json: @line_item.errors,
        status: :unprocessable_entity }
    end
  end
end
```

Iteration F1: Moving the Cart

- Done with Iteration F1!

Iteration F2: Creating an Ajax cart

- Ajaxify the button simply by saying remote:true in app/views/store/index.html.erb:

```
<h1>Your Pragmatic Catalog</h1>
<% @products.each do |product| %>
  <div class="entry">
    <%= image_tag(product.image_url) %>
    <h3><%= product.title %></h3>
    <%= sanitize(product.description) %>
    <div class="price_line">
      <span class="price"><%=
number_to_currency(product.price) %></span>
      <%= button_to 'Add to Cart',
        line_items_path(product_id: product),
        remote: true %>
    </div>
  </div>
<% end %>
```

Iteration F2: Creating an Ajax Cart

- Prevent the create action from redirecting in line_items_controller.rb:

```
def create
  @cart = current_cart
  product = Product.find(params[:product_id])
  @line_item = @cart.add_product(product.id)

  respond_to do |format|
    if @line_item.save
      format.html { redirect_to store_url }
      format.js
      format.json { render json: @line_item,
        status: :created, location: @line_item }
    else
      format.html { render action: "new" }
      format.json { render json: @line_item.errors,
        status: :unprocessable_entity }
    end
  end
end
```

Iteration F2: Creating an Ajax Cart

- Instead of redirecting, Rails renders app/views/line_items/create.js.erb:

```
$('#cart').html("<%= j render @cart %>");
```

Iteration F3: Highlighting Changes

- First, assign an instance variable in line_items_controller.rb:

```
def create
  @cart = current_cart
  product = Product.find(params[:product_id])
  @line_item = @cart.add_product(product.id)

  respond_to do |format|
    if @line_item.save
      format.html { redirect_to store_url }
      format.js { @current_item = @line_item }
      format.json { render json: @line_item,
        status: :created, location: @line_item }
    else
      format.html { render action: "new" }
      format.json { render json: @line_item.errors,
        status: :unprocessable_entity }
    end
  end
end
```

Iteration F3: Highlighting Changes

- Modify app/views/line_items/_line_item.html.erb to use it:

```
<% if line_item == @current_item %>
<tr id="current_item">
<% else %>
<tr>
<% end %>
  <td><%= line_item.quantity %>&times;</td>
  <td><%= line_item.product.title %></td>
  <td class="item_price">
    <%= number_to_currency(line_item.total_price) %>
  </td>
</tr>
```

Iteration F3: Highlighting Changes

- Modify app/views/line_items/create.js.erb to highlight the new item:

```
$('#cart').html("<%=j render @cart %>");

$('#current_item').
  css({'background-color':'#8f8'}).
  animate({'background-color':'#141'}, 1000);
```

Iteration F4: Hiding an Empty Cart

- app/views/layouts/application.html.erb:

```
<div id="cart"
    <% if @cart.line_items.empty? %>
        style="display: none"
    <% end %>
  >
  <%= render(@cart) %>
</div>
```

```
<%= hidden_div_if(@cart.line_items.empty?, id: 'cart') do %>
   <%= render @cart %>
<% end %>
```

```
#cart{:style=>('display:none;' if @cart.line_items.empty?)}
  = render @cart
```

Iteration F4: Hiding an Empty Cart

- Also need to get rid of the "Your cart is currently empty." notice we generated when emptying the cart.

Iteration F4: Hiding an Empty Cart

- app/views/line_items/create.js.erb:

```
if ($('#cart tr').length == 1)
  $('#cart').show('blind', 1000);

$('#cart').html("<%=j render @cart %>");

$('#current_item').
  css({'background-color':'#8f8'}).
  animate({'background-color':'#141'}, 1000);
```

Iteration F5: Making Images Clickable

- app/assets/javascripts/store.js.coffee:

```
$ ->
  $('.store .entry > img').click ->
    $(this).parent().find(':submit').click()
```

Testing Ajax Changes

- First, fix the tests that were breaking.
- Next, test the new Ajax stuff we added.

Testing Ajax Changes

- test/functional/line_items_controller_test.rb:

```
test "should create line_item via ajax" do
  assert_difference('LineItem.count') do
    xhr :post, :create, product_id: products(:ruby).id
  end

  assert_response :success
  assert_select_jquery :html, '#cart' do
    assert_select 'tr#current_item td', /Programming Ruby 1.9/
  end
end
```

```
$('#cart').html("<%=j render @cart %>");
```

app/views/line_items/create.js.erb

Testing Ajax Changes

- test/functional/store_controller_test.rb:

```
test "markup needed for store.js.coffee is in place" do
  get :index
  assert_select '.store .entry > img', 3
  assert_select '.entry input[type=submit]', 3
end
```

The End