



Simplify your workflow with

# Styleguide Driven Development

- ▶ **Revolutionised how we work**
- ▶ **Better understanding of our application**
- ▶ **Shipping faster and more frequently**
- ▶ **Become more consistent**
- ▶ **More adaptable**

# What we'll cover

- ▶ Business problem
- ▶ Problems with software delivery
- ▶ Solution
- ▶ Implementation
- ▶ Review



# Jordan Lewis

@jordanlewiz







envato

market

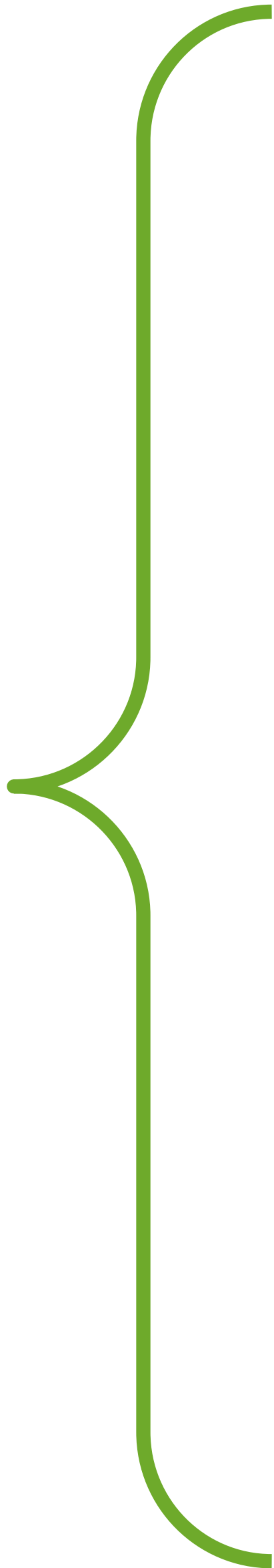
studio

**tuts+**

# Community Earnings

\$250,000,000+

envato market



 themeforest

 codecanyon

 graphicriver

 photodune

 videohive

 3docean

 activeden

 audiojungle



Monthly visits

26,000,000

Item sold every

**5 seconds**

# Developers

45+



Daily deploys

15+



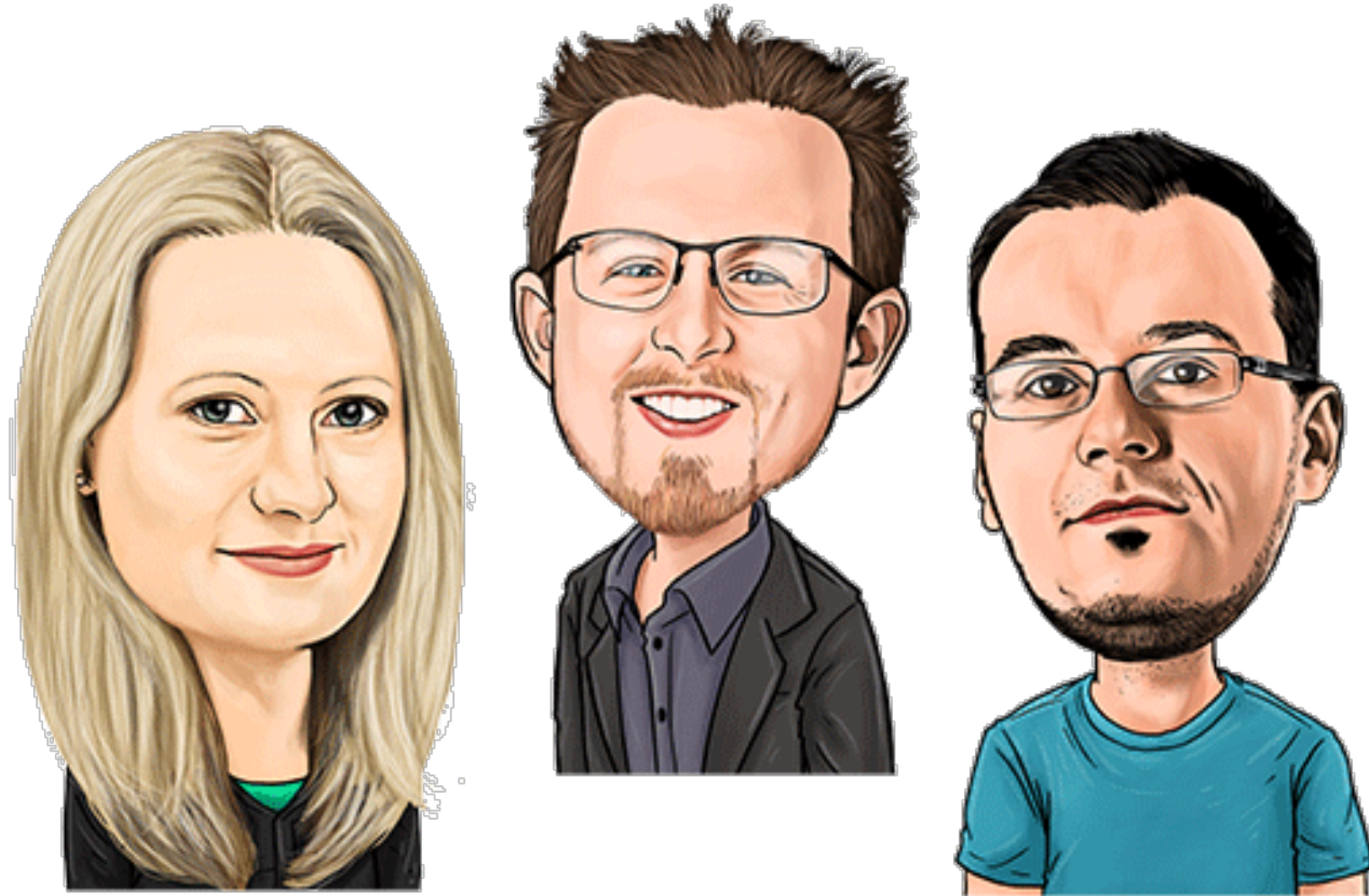
BUSINESS PROBLEM

**Improve the purchase flow**



# Meet the Team

## Backend



## Frontend



## UX



## Product

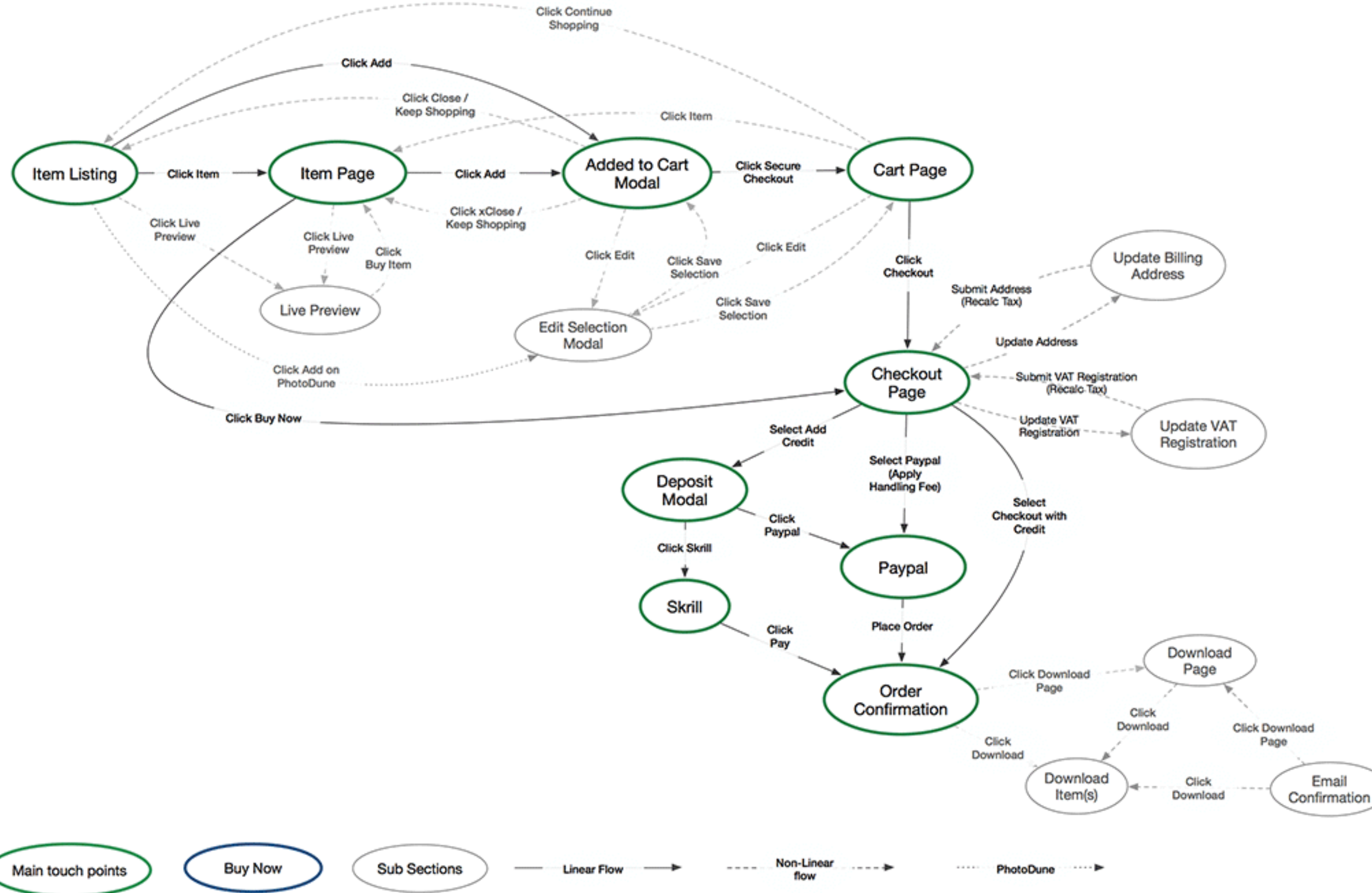


## Designer





# New purchase flow



# Item page

Regular License 

**\$58**


Use, by you or one client, in a single end product which end users **are not** charged for. The total price includes the item price and a buyer fee.

[License details](#) | [Why buy with Envato](#)

 **Add to Cart**

**Buy Now**

# Search results

Wordpress 

6,643 Templates & Themes

Refine your results:

Sort by: Best match | Added: Any date


**Category**

- WordPress 5462
- Site Templates 714
- PSD Templates 303

**Tags**

- clean 3,074
- portfolio 2,968
- responsive 2,465




**Price**

From  To  

**Sales: Show all**

**Rating: Show all**

Software version

- **MiEvent - Responsive Event & Music WordPress Theme**  
in [WordPress](#)  
Enable Responsive Layout: Yes, High Resolution: Yes, Widget Ready: Yes, Compatible Browsers: IE9, IE10, IE11, Firefox, Safari, Opera, Chrome, Compatible With: Bootstrap 3.x, Software Version: WordPress 4.1, Columns: 4+  
\$43  
★★★★★  
5 ratings  
51 Sales
- **Decor - Multipurpose WordPress Theme**  
in [WordPress](#)  
Enable Responsive Layout: Yes, High Resolution: Yes, Widget Ready: Yes, Compatible Browsers: IE9, IE10, IE11, Firefox, Safari, Opera, Chrome, Compatible With: Bootstrap 3.x, Software Version: WordPress 4.1, WordPress 4.0, WordPress 3.9, WordPress 3.8, WordPress 3.7, WordPress 3.6, WordPress 3.5, Columns: 4+  
\$58  
★★★★☆  
5 ratings  
78 Sales
- **Industrix Multipurpose WordPress Theme**  
in [WordPress](#)  
Enable Responsive Layout: Yes, High Resolution: Yes, Widget Ready: Yes, Compatible Browsers: IE8, IE9, IE10, IE11, Firefox, Safari, Opera, Chrome, Compatible With: Bootstrap 3.x, Software Version: WordPress 4.0, Columns: 4+  
\$48  
★★★★☆  
14 ratings  
282 Sales



# Cart page

Home >

## Shopping Cart

Continue Shopping

You have 2 items in your cart

Empty Cart

Item by Pakhnyushchyy



cat

PhotoDune Regular License EXTRA LARGE

PhotoDune / Misc



\$7

Item by mediatail



dog

PhotoDune Extended License EXTRA SMALL

PhotoDune / Misc



\$8

Total \$15

Continue Shopping

Checkout

Your Cart Total

\$15

Checkout

### Questions?

If you have questions about your purchase, or any other issues

[Visit Our Help Center](#)

# Checkout page

[Home](#) > [Shopping cart](#)

## Checkout

### 1 Billing Details





[Edit](#)


Jordan Lewis  
121 level 2 King Street  
Melbourne  
Victoria  
3000  
Australia

### Order Summary

cat	\$7.00
dog	\$8.00
Handling Fee:	\$2.00
<b>Total:</b>	<b>\$17.00</b>

### 2 Payment Method

  
  
  
  
\*Includes \$2 Handling Fee

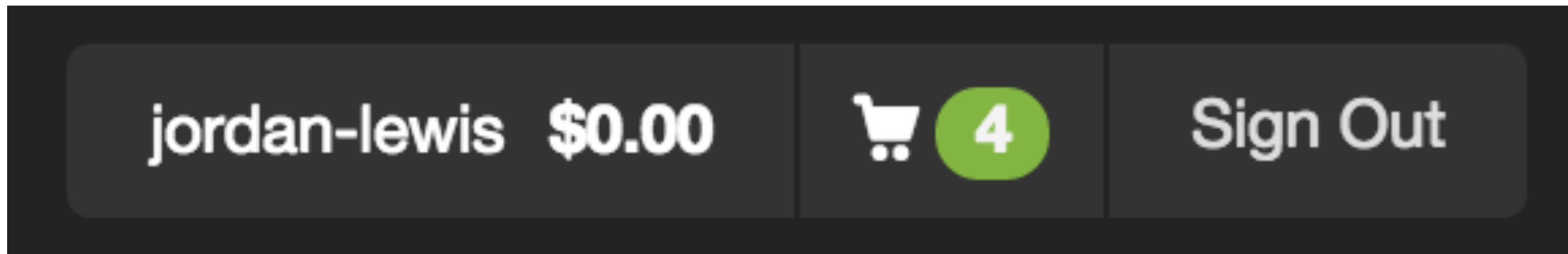
  
Current balance: \$0  
Add credit to checkout

### 3 Review Order

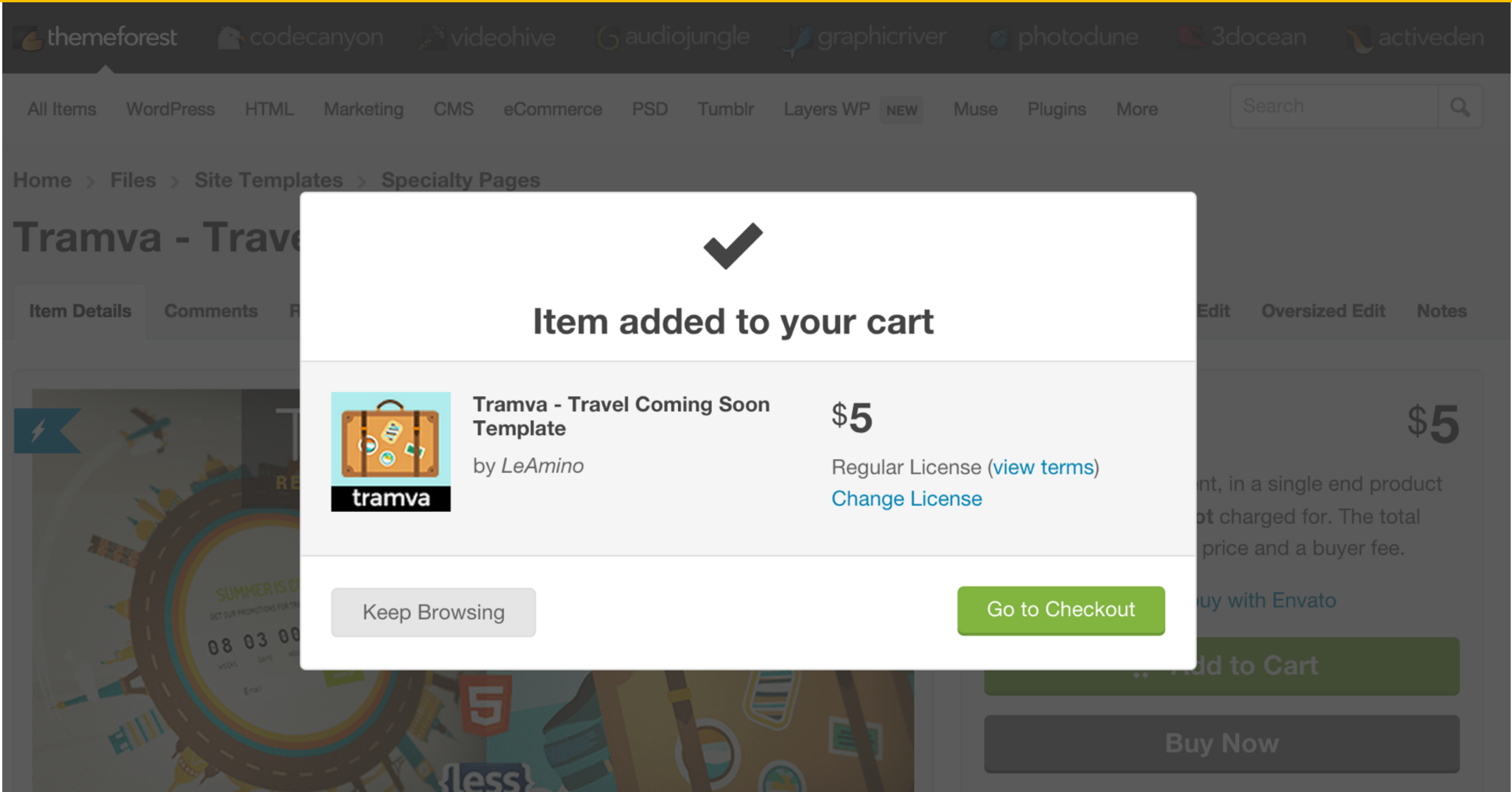
cat — Extra Large	PHOTODUNE REGULAR LICENSE	\$7.00
dog — Extra Small	PHOTODUNE EXTENDED LICENSE	\$8.00
Handling Fee:		\$2.00
<b>Total:</b>		<b>\$17.00</b>

[Checkout with PayPal](#)

# User nav



# Modals





# Order confirmation

## Thank you!

An email confirmation is coming your way.  
The item is now available on your [downloads page](#).

You have bought:

Download

Item by Bloomua



### Website Development Flat Illustration

Regular License

GraphicRiver / Vectors / Conceptual / Technology / Web

\$5

Customize for \$20

## You might also like:





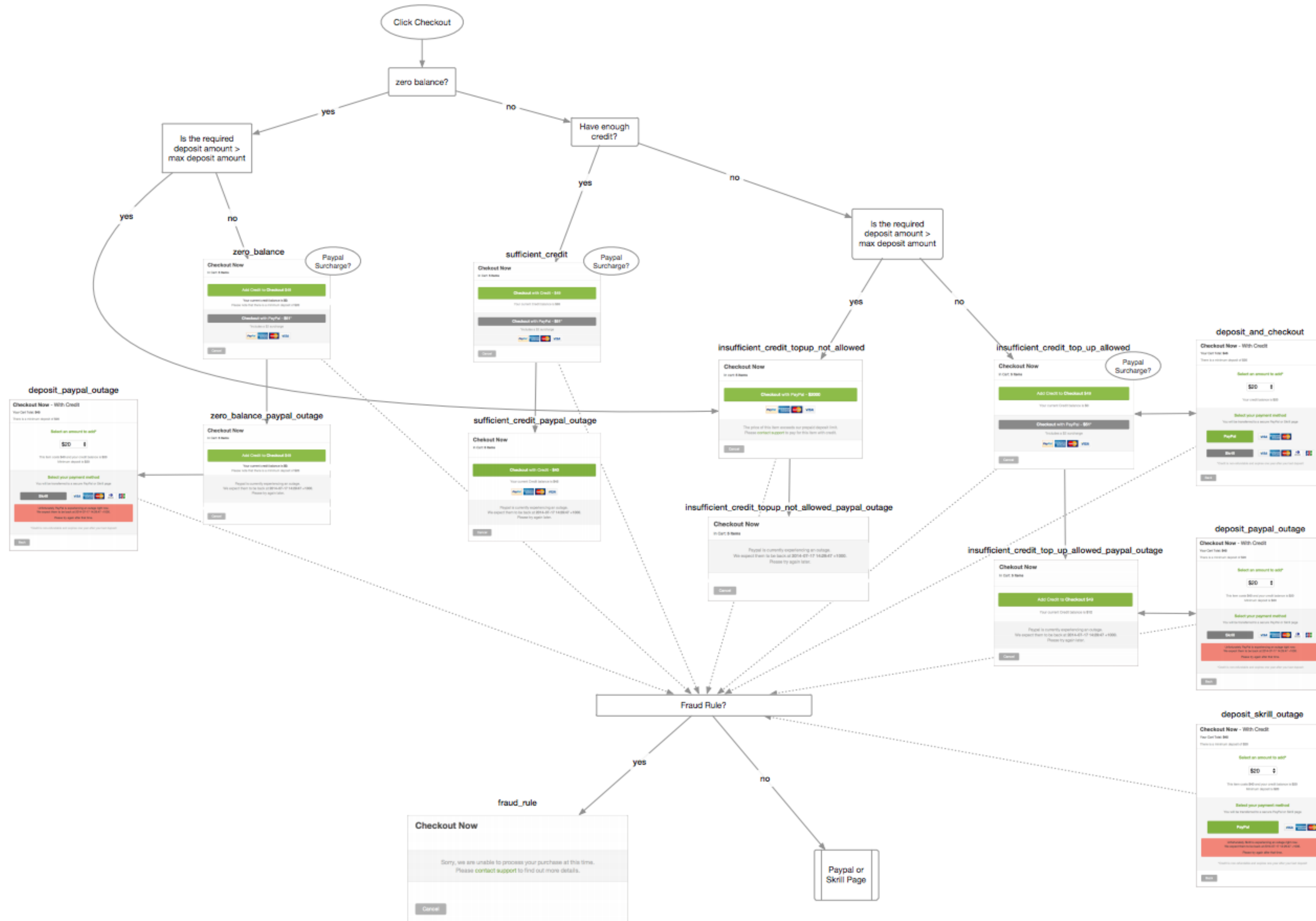
PROBLEMS WITH

# Software delivery

PROBLEM #1:

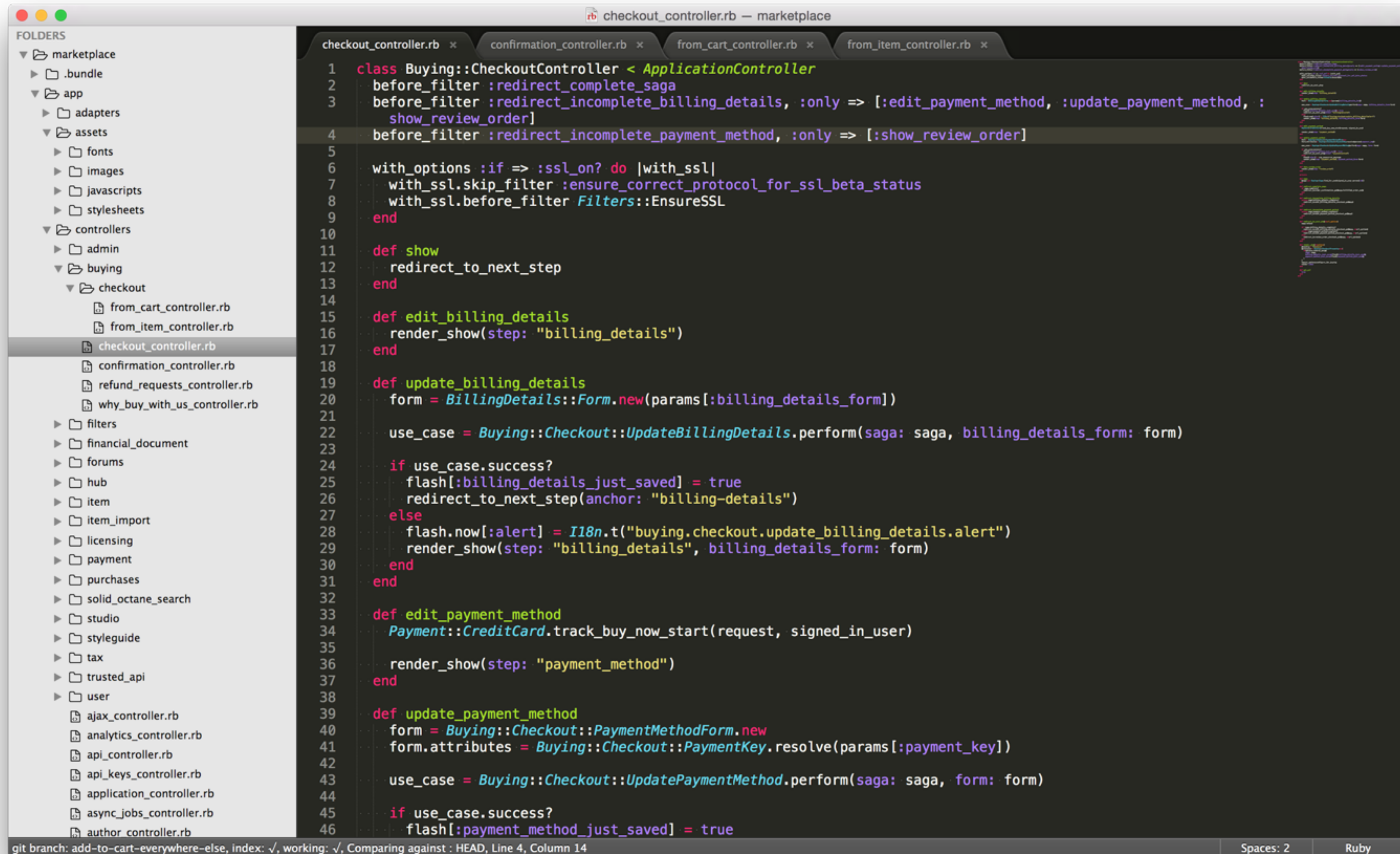
**Lack of shared vision**

# Shared vision: tools





# Shared vision: no documentation



The image shows a code editor window with a sidebar on the left displaying a file tree for a project named 'marketplace'. The sidebar shows a hierarchy of folders including 'app', 'controllers', and 'buying', with 'checkout\_controller.rb' selected. The main editor area displays the code for the 'CheckoutController' class, which inherits from 'ApplicationController'. The code includes several methods: 'show', 'edit\_billing\_details', 'update\_billing\_details', 'edit\_payment\_method', and 'update\_payment\_method'. The 'show' method redirects to the next step. 'edit\_billing\_details' renders the 'billing\_details' step. 'update\_billing\_details' creates a new 'BillingDetails' form and performs an update. 'edit\_payment\_method' tracks a new payment method. 'update\_payment\_method' updates the payment method. The code is written in Ruby and uses a dark theme.

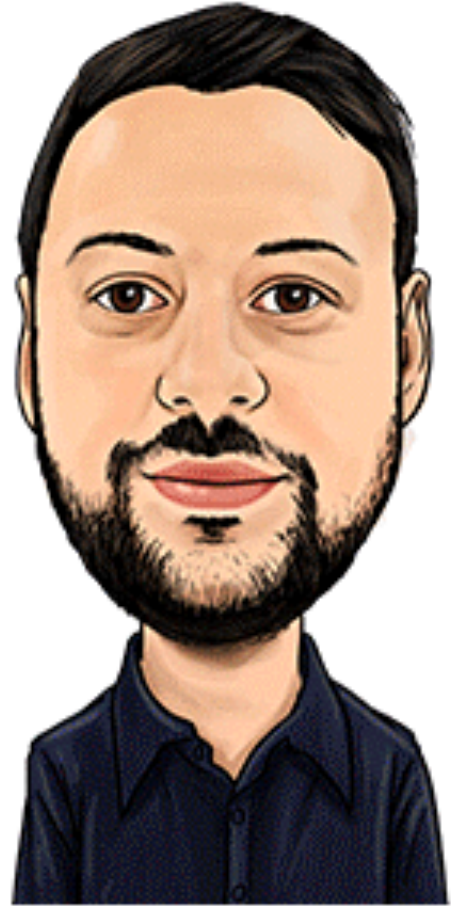
```
1 class Buying::CheckoutController < ApplicationController
2   before_filter :redirect_complete_saga
3   before_filter :redirect_incomplete_billing_details, :only => [:edit_payment_method, :update_payment_method, :
4     show_review_order]
5   before_filter :redirect_incomplete_payment_method, :only => [:show_review_order]
6
7   with_options :if => :ssl_on? do |with_ssl|
8     with_ssl.skip_filter :ensure_correct_protocol_for_ssl_beta_status
9     with_ssl.before_filter Filters::EnsureSSL
10  end
11
12  def show
13    redirect_to_next_step
14  end
15
16  def edit_billing_details
17    render_show(step: "billing_details")
18  end
19
20  def update_billing_details
21    form = BillingDetails::Form.new(params[:billing_details_form])
22
23    use_case = Buying::Checkout::UpdateBillingDetails.perform(saga: saga, billing_details_form: form)
24
25    if use_case.success?
26      flash[:billing_details_just_saved] = true
27      redirect_to_next_step(anchor: "billing-details")
28    else
29      flash.now[:alert] = I18n.t("buying.checkout.update_billing_details.alert")
30      render_show(step: "billing_details", billing_details_form: form)
31    end
32  end
33
34  def edit_payment_method
35    Payment::CreditCard.track_buy_now_start(request, signed_in_user)
36
37    render_show(step: "payment_method")
38  end
39
40  def update_payment_method
41    form = Buying::Checkout::PaymentMethodForm.new
42    form.attributes = Buying::Checkout::PaymentKey.resolve(params[:payment_key])
43
44    use_case = Buying::Checkout::UpdatePaymentMethod.perform(saga: saga, form: form)
45
46    if use_case.success?
47      flash[:payment_method_just_saved] = true
```

git branch: add-to-cart-everywhere-else, index: ✓, working: ✓, Comparing against : HEAD, Line 4, Column 14

Spaces: 2 Ruby



# Shared vision: knowledge silos





PROBLEM #2:

# Understanding UI behaviour

# UI Behaviour: first time visit

Home >

## Welcome to ThemeForest!

You'll need to agree to the Terms & Conditions and Privacy Policy before continuing.

### Your location

Select your country 

Subscribe to Envato Market via Email:

Newsletters — inspiration, ideas, news and your feedback.

Offers — deals, offers and bundles.

We hate spam too! If you don't find our emails useful you can unsubscribe.

I have read, and agree to, the Envato Market's [Terms & Conditions](#) and [Privacy Policy](#).

All good, let's go!

# UI Behaviour: empty states

**Your shopping cart is empty.**

Discover the [most popular items](#) available or browse our [hottest new items](#).



# UI Behaviour: one-off pages

## Thank you!

An email confirmation is coming your way.  
The item is now available on your [downloads page](#).

You have bought:

Download

Item by Bloomua



### Website Development Flat Illustration

Regular License

GraphicRiver / Vectors / Conceptual / Technology / Web

\$5

Customize for \$20

# UI Behaviour: modals

The image shows a screenshot of the Envato Market website. The top navigation bar includes the Envato Market logo, links to Envato Studio, Start selling, Forums, Community, Affiliates, Help, and Admin. The user's account information is displayed as 'jordan-lewis \$256.00' with a shopping cart icon containing the number '3' and a 'Sign Out' link. Below the navigation bar, there are logos for various marketplaces: themeforest, codecanyon, videohive, audiojungle, graphicriver, photodune, 3docean, and activeden. A secondary navigation bar lists categories: All Items, WordPress, HTML, Marketing, CMS, eCommerce, PSD, Tumblr, Layers WP, NEW, Muse, Plugins, and More. A notification banner at the top left asks, 'Is your name Jordan Lewis? Please...'. The main content area features a large green banner with the text '736 Webs... From \$4' and 'for HTML... and more'. A search bar is visible on the right side of the banner. A modal dialog box titled 'Your details' is centered on the screen. It contains a message: 'Just before you jump into your next project, we wanted to double check that we have your name entered correctly in our system. We will only ever ask you this once.' Below the message are two input fields: 'First Name (Given Name) \*' with the value 'Jordan' and 'Last Name (Family Name) \*' with the value 'Lewis'. At the bottom of the modal is a green 'Update' button.

envato market

Envato Studio Start selling Forums Community Affiliates Help Admin jordan-lewis \$256.00 3 Sign Out

themeforest codecanyon videohive audiojungle graphicriver photodune 3docean activeden

All Items WordPress HTML Marketing CMS eCommerce PSD Tumblr Layers WP NEW Muse Plugins More

Is your name Jordan Lewis? Please...

## Your details

Just before you jump into your next project, we wanted to double check that we have your name entered correctly in our system. We will only ever ask you this once.

**First Name (Given Name) \***

**Last Name (Family Name) \***

Update

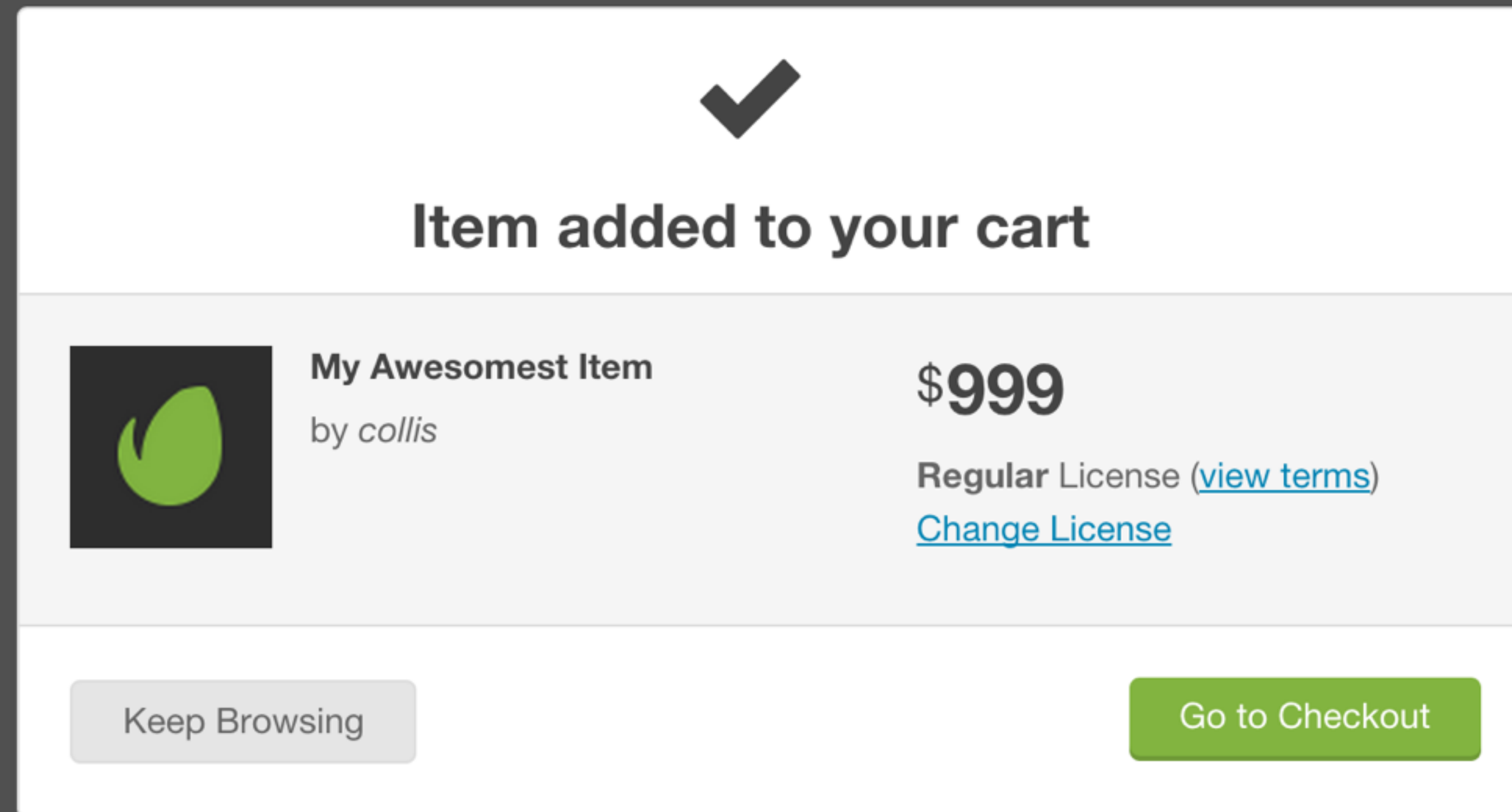
736 Webs... From \$4

for HTML... and more

e.g. 'Resp...

Browse... Items


# UI Behaviour: content length



A success notification modal with a white background and rounded corners, centered on a dark gray background. At the top center is a large black checkmark. Below it, the text "Item added to your cart" is displayed in a bold, dark gray font. The main content area is divided into two horizontal sections. The top section features a square image of a green leaf on a black background on the left. To its right, the text "My Awesomest Item" is in bold, with "by collis" in a smaller, lighter font below it. Further right, the price "\$999" is shown in a large, bold font. Below the price, the text "Regular License" is followed by a blue link "(view terms)" and another blue link "Change License" below it. The bottom section of the modal contains two buttons: a light gray button with rounded corners on the left labeled "Keep Browsing" and a green button with rounded corners on the right labeled "Go to Checkout".

✓

**Item added to your cart**

 **My Awesomest Item**  
by *collis*

**\$999**

Regular License ([view terms](#))  
[Change License](#)

Keep Browsing Go to Checkout

# UI Behaviour: content length



## Item added to your cart



**UNITED KINGDOM - CIRCA 1936: An English One and a Half Pence Brown Used Postage Stamp showing Portrait of King Edward VIII, circa 1936**

by  
*superduperextralongauthorusername*

**\$9,999**

Photodune Extended License

[\(view terms\)](#)

[Change License](#)

Extra Extra Large Size

[Change Size](#)

*This item is licensed Creative Commons*

Keep Browsing

Go to Checkout



# UI Behaviour: error messages

## 1 Billing Details

We do not sell your details or share them without your permission. Read more in our [privacy policy](#).

There was a problem saving your details.

**First Name \*** (Given Name)

**Last Name \*** (Family Name)

**Company Name**

Company name is required

**Country \***

Country is required

**Address line 1 \***

Address line 1 is required

**Address line 2**

**City \***

**State / Province / Region**

**Zip / Postal Code**

City is required

Save and continue



# UI Behaviour: error pages

## Page Not Found

The page you are looking for might have been removed, had its name changed, or is temporarily unavailable.

### Please try the following:

Make sure that the web site address displayed in the address bar of your browser is spelled and formatted correctly.

If you reached this page by clicking a link, [contact us](#) to alert us that the link is incorrectly formatted.

Forget that this ever happened, and go to [the home page](#) :)



# UI Behaviour: edge cases

## Your shopping cart has changed

Something is different from when you loaded the page.

Please update your cart to see the latest details.

[Update Cart](#)

# UI Behaviour: deleted content

! We've removed the following from your cart because it is no longer for sale:

- AMAZACO - Really great Wordpress theme

If you like, you can [look for a similar item](#).

**Your shopping cart is empty.**

Discover the [most popular items](#) available or browse our [hottest new items](#).



# UI Behaviour: 3rd party outages

## 2 Payment Method



Current balance: \$45

- !** Unfortunately PayPal is experiencing an outage right now.  
We expect them to be back at 2015-05-13 16:02:10 +1000.
- Please try again after that time.

# UI Behaviour: localisation

Your Cart Total

**\$52**

**Checkout**

Price displayed excludes VAT.

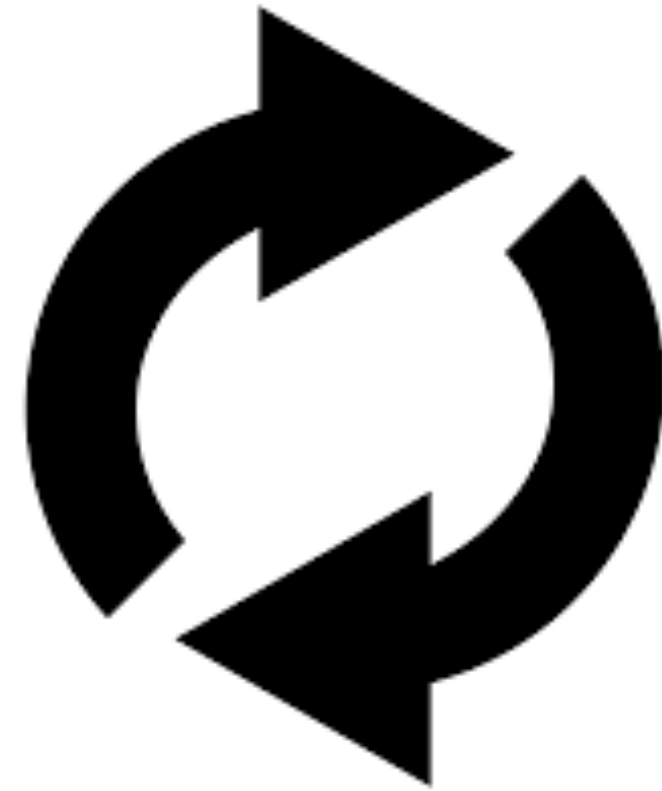
# UI Behaviour:

... you get it!



# UI Behaviour: manual testing

rinse and repeat

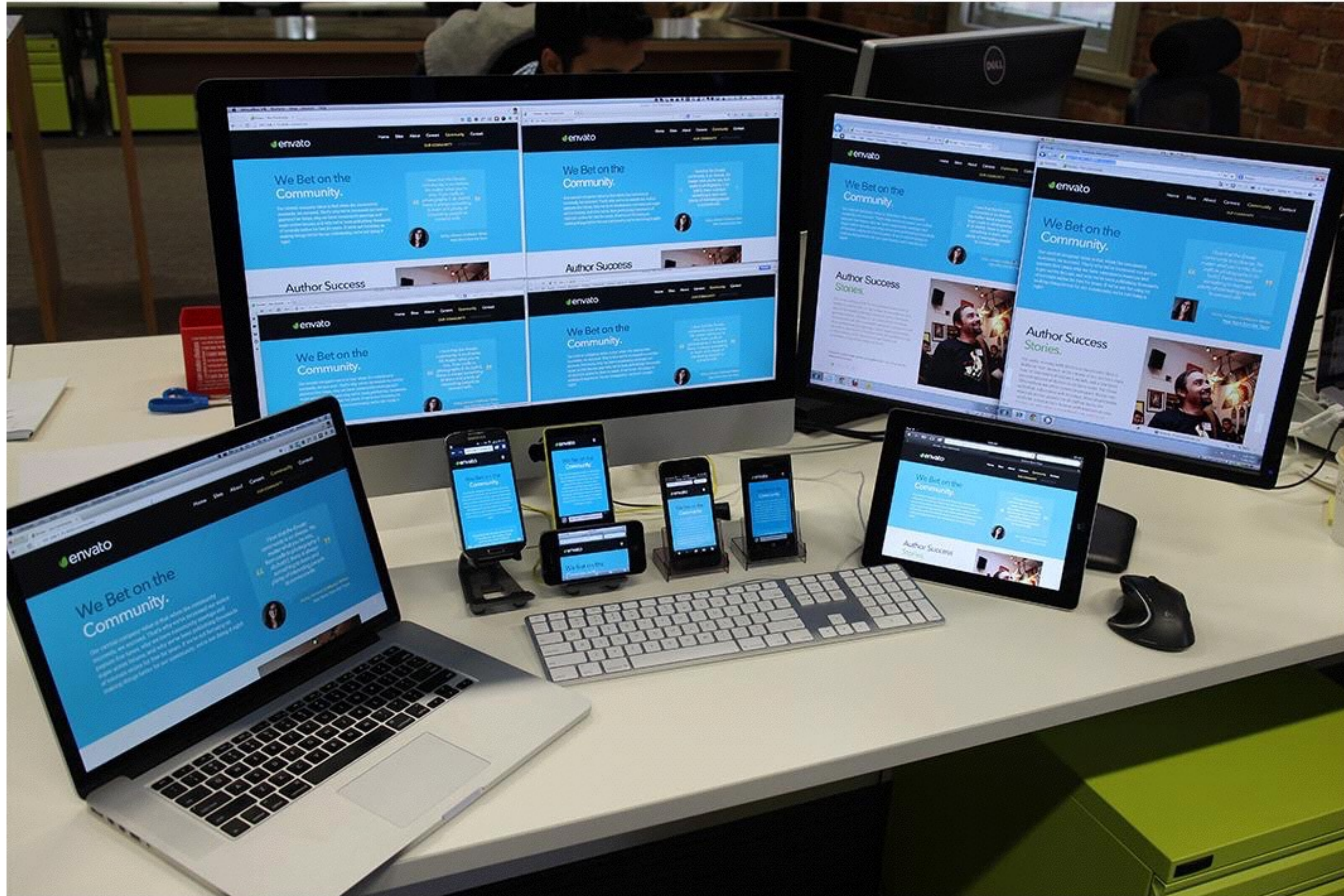


# UI Behaviour: manual testing

**re-creating scenarios is laborious and time consuming**

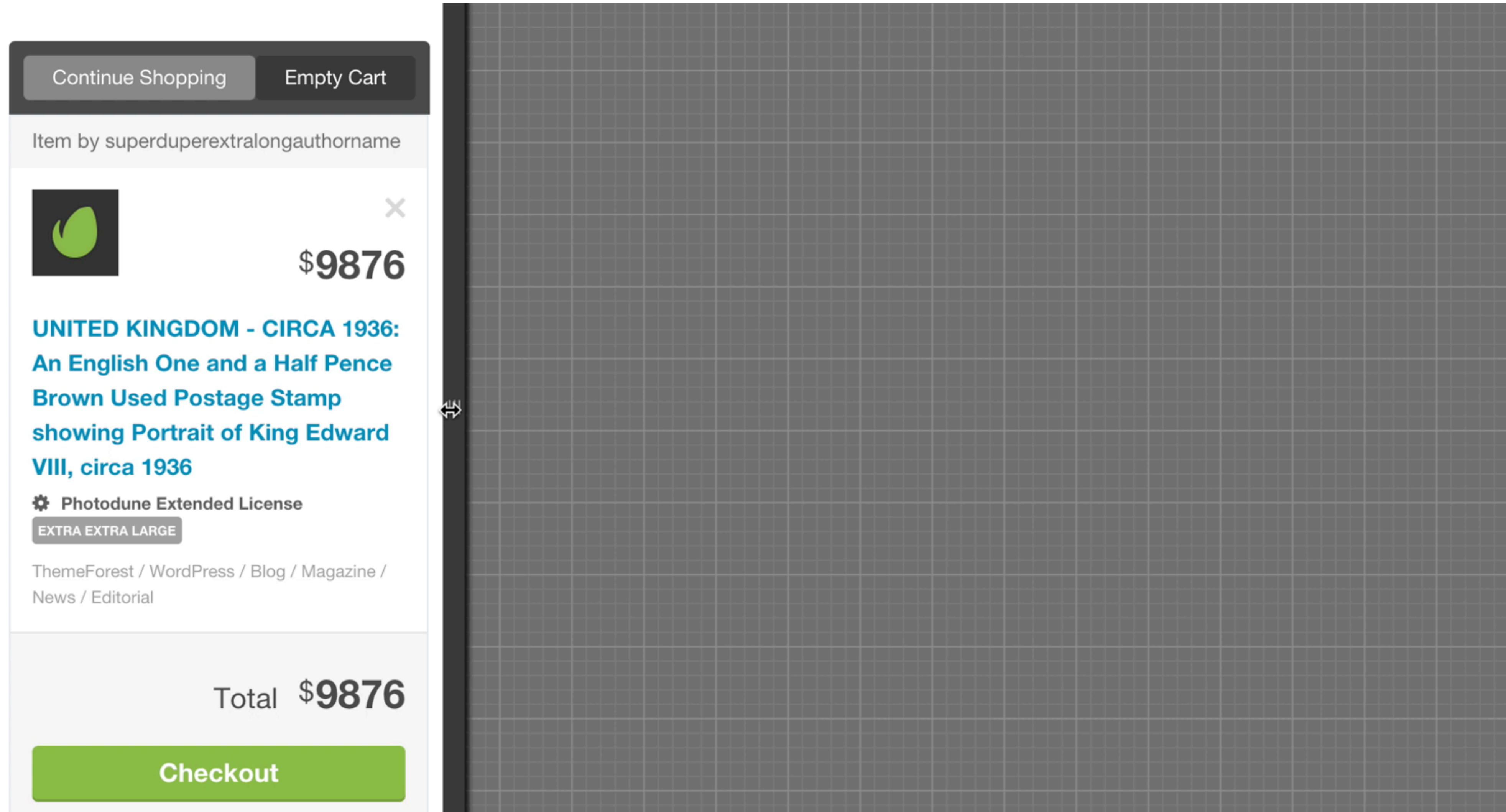


# UI Behaviour: cross-browser testing





# UI Behaviour: responsive



PROBLEM #3:

**Scope creep**

# Scope creep: feature requests



“We need to charge VAT to European buyers.”

– Product Lead

# Scope creep: gaps in the ux

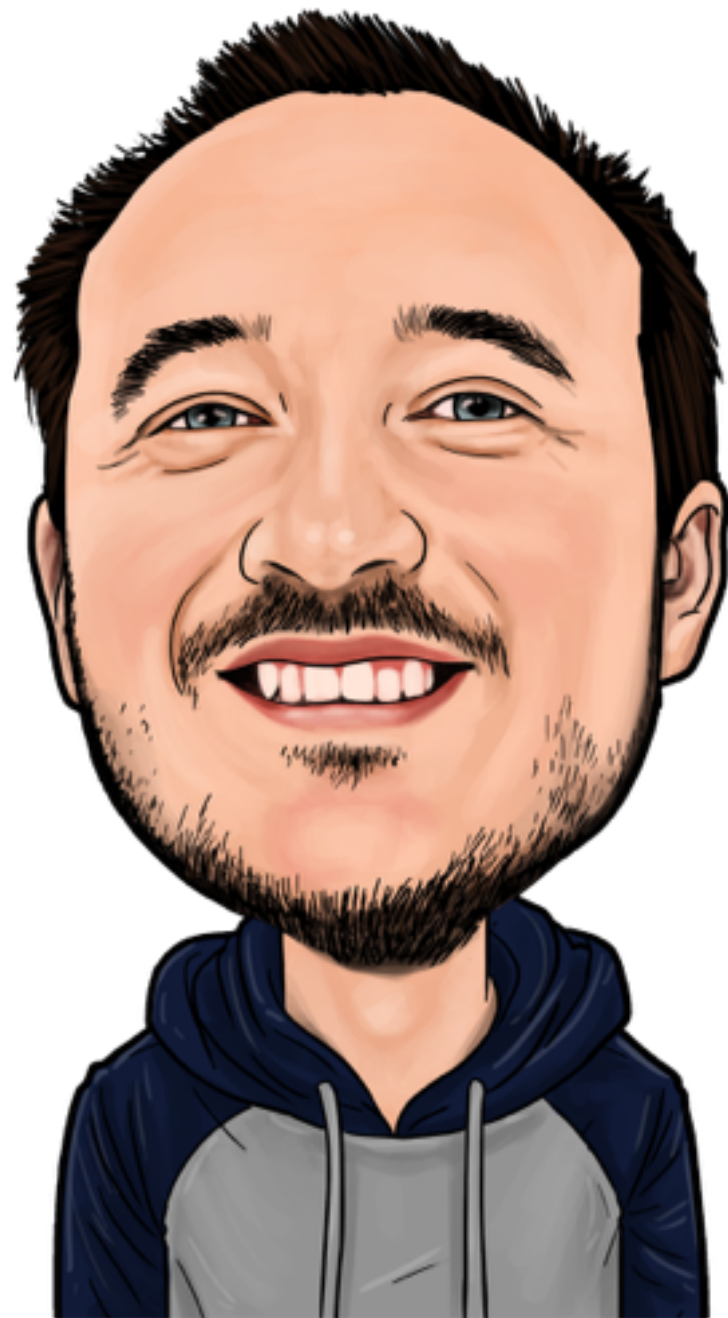


“Shouldn’t we display something when...”

– Frontend Dev



# Scope creep: edge cases



“When I do X, Y then Z, I get a weird error”

– QA Tester

# Scope creep: interactions



“Now that I see it, it doesn’t really work...”

– UX designer

# Scope creep: design changes



“We need to make it pop!”

– Designer



SOLUTION

# Styleguide Driven Development



# Styleguide Driven Development:

**Is a practice that encourages the separation of UX, Design & Frontend from Backend concerns.**

**This is achieved by developing the UI separately in a styleguide.**

SOLUTION:

**Styleguides**

# Styleguides:

- ▶ **Single point of truth**
- ▶ **Documentation**
- ▶ **Maintain consistency**
- ▶ **Save time**

# Styleguides: static vs dynamic

**Static:**

use sample markup

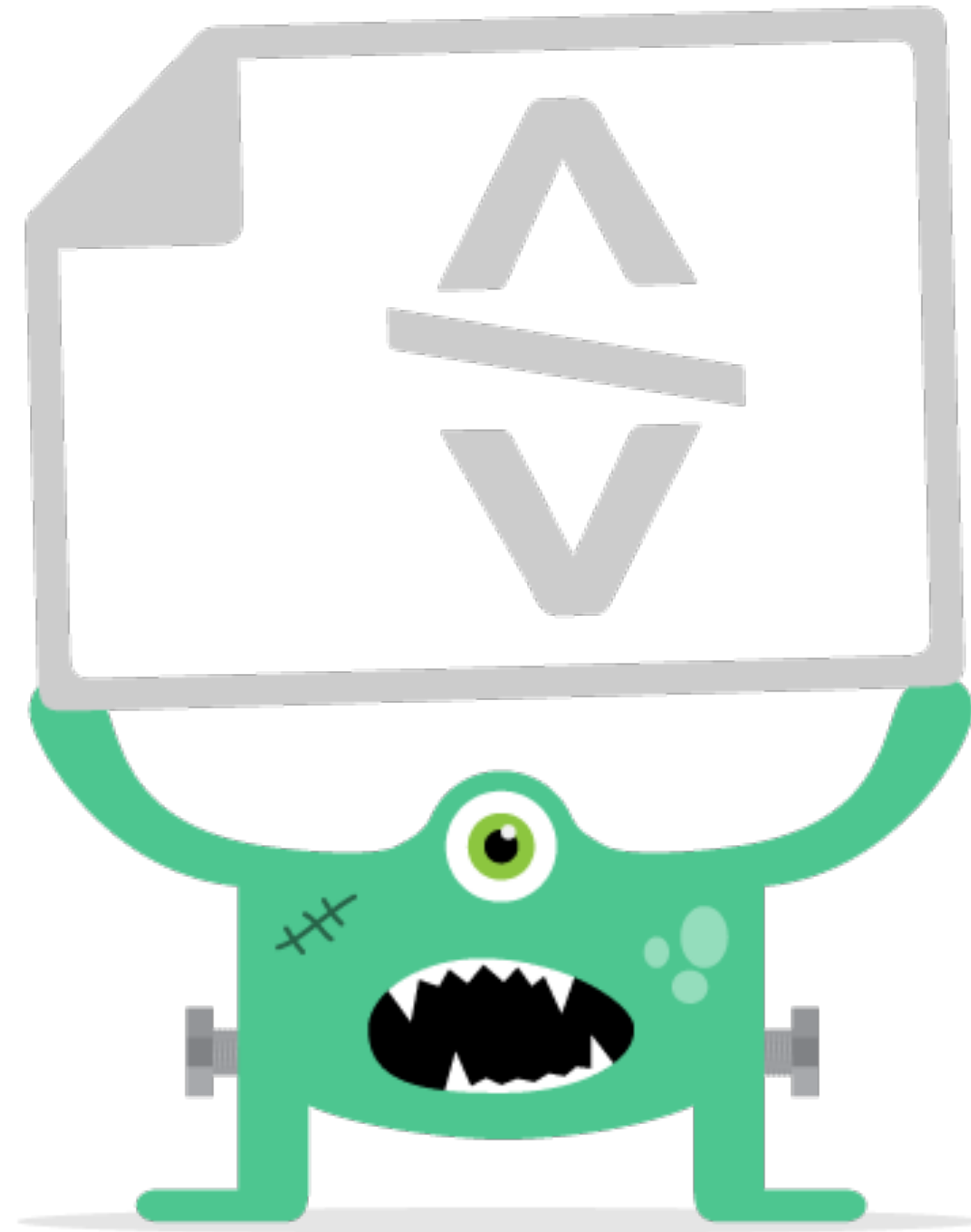
**Dynamic:**

use real components



SOLUTION

# Styleguides: living styleguides



# Styleguides: living styleguides

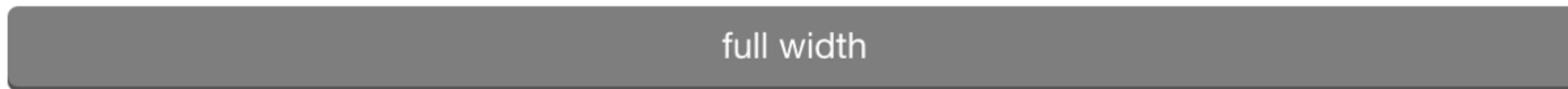
**Any changes to a component in the Styleguide,  
should result in changes to Production.**

SOLUTION:

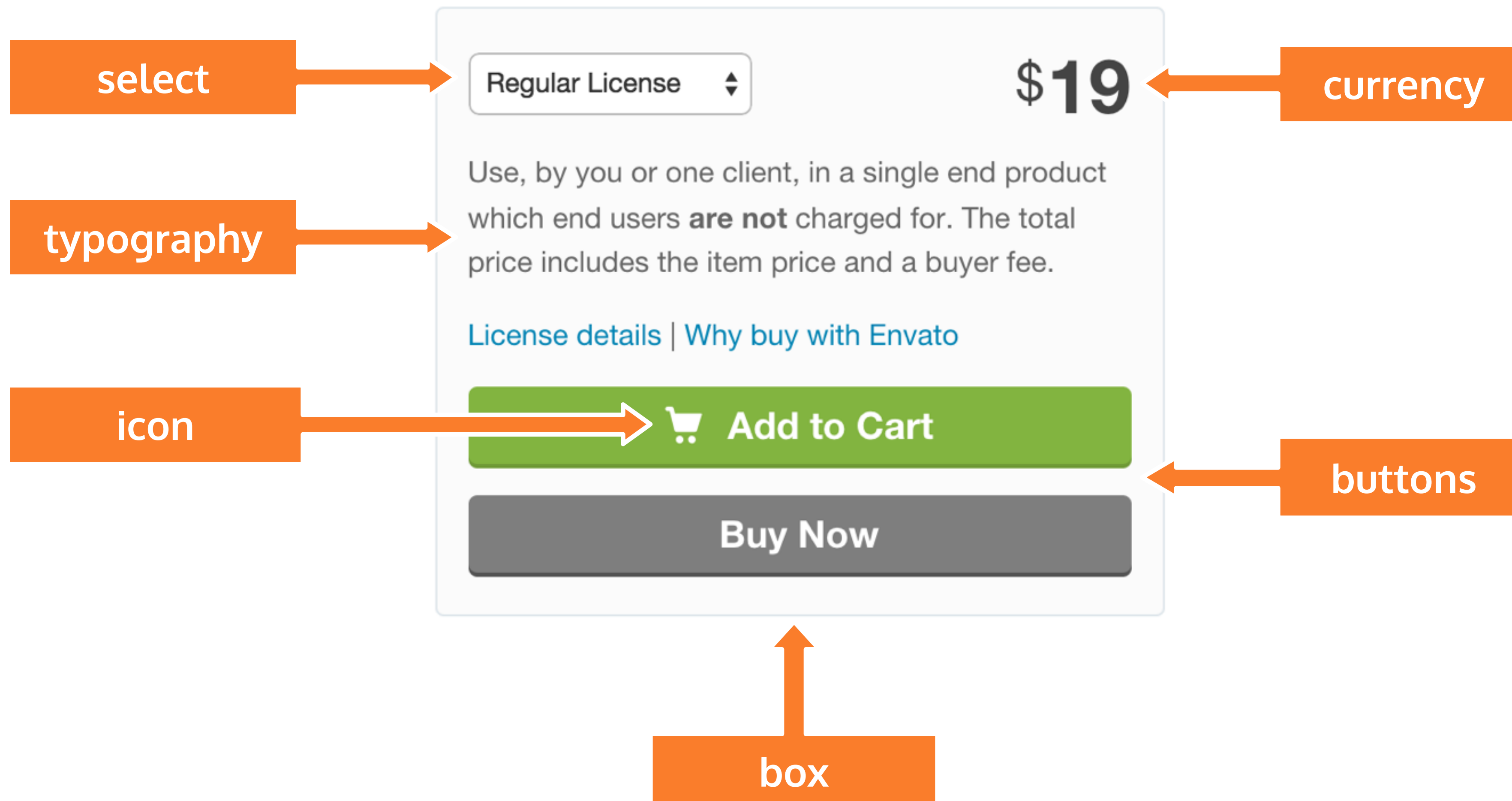
**UI Library**



# UI Library: elements



# UI Library: example



SOLUTION:

# Structure Styleguide

# Structure Styleguides:

**A Structure Styleguide is designed to document an application's UI logic in all of its possible permutations.**



# Structure Styleguides: anatomy

structure

components

envatomarket styleguide

Structures

Shopping Cart

Checkout

Page

Breadcrumb

Billing Detail

Payment Method

Payment Method Credit Cards Enabled

Review Order

Order Summary

Deposit And Buy Modal

Retry Purchase

Order Confirmation

Email

Search

Financial Document

Item

Item Comments

Item Support

Layout

Page

Structures » Checkout

Scenarios:

- Step 1 Enter Billing Details
- Step 2 Select Payment Method
- Step 3 Review Order
- Update Billing Details After Selecting Payment Method

Step 1 Enter Billing Details

**1 Billing Details**

We do not sell your details or share them without your permission. Read more in our [privacy policy](#).

First Name \* (Given Name) Last Name \* (Family Name)

Company Name

Country \*

Please select your country

Address line 1 \*

Address line 2

City \* State / Province / Region Zip / Postal Code

**Order Summary**

Homemade Pumpki...	\$5.00
Angle - Flat Respons...	\$800.00
Avada   Responsive ...	\$58.00
VAT:	\$3.30
<b>Total:</b>	<b>\$866.30</b>

# Structure Styleguides: components

## 1 Billing Details

[Edit](#)

Napoléon Bonaparte  
1 Rue Saint-Charles  
Corse-du-sud  
Ajaccio, 20000  
France

### EU VAT Identification Number:

*Not provided*

## 2 Payment Method



## 3 Review Order

Avada | Responsive Multi-Purpose Theme REGULAR LICENSE \$58.00

Handling Fee: \$2.00

VAT: \$3.30

**Total:** **\$63.30**

[Checkout with PayPal](#)

### Order Summary

Avada | Responsive ... \$58.00

Handling Fee: \$2.00

VAT: \$3.30

**Total:** **\$63.30**

# Structure Styleguides: scenarios

11 scenarios

**1 Billing Details** Edit

Napoléon Bonaparte  
1 Rue Saint-Charles  
Corse-du-sud  
Ajaccio, 20000  
France

**EU VAT Identification Number:**  
*Not provided*

**3 Review Order**


Avada   Responsive Multi-Purpose Theme <small>REGULAR LICENSE</small>	\$58.00
Handling Fee:	\$2.00
VAT:	\$3.30
<b>Total:</b>	<b>\$63.30</b>


[Checkout with PayPal](#)

9 scenarios

16 scenarios

**2 Payment Method**

  
VISA MasterCard AMERICAN EXPRESS

  
Current balance: \$45

**Order Summary**

Avada   Responsive ...	\$58.00
Handling Fee:	\$2.00
VAT:	\$3.30
<b>Total:</b>	<b>\$63.30</b>

6 scenarios

# Structure Styleguides: pages





# Welcome to the Envato Market Styleguide

This is visible to the public.



## Structures

Here you will find the living documentation for the pieces that make up Envato Market. We use real templates from the site and recreate the different states that they might be in.



## UI Library

Everything on our site is formed from basic building blocks like buttons, forms, alert boxes and typography. We use this pattern library to keep track of all of these bits and pieces.

Coming soon

# Structure Styleguides: tooling

- ▶ **Custom solution**
- ▶ **Built inside the application**
- ▶ **Deploying styleguide ... deploys production**

SOLUTION:

**Templates** (not views)

# Templates: the problems with 'views'



**Data Model**



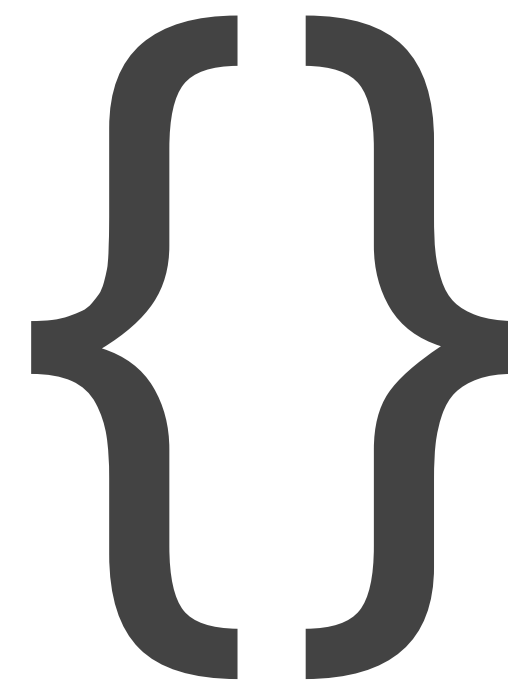
**View**



# Templates: view model



Data Model

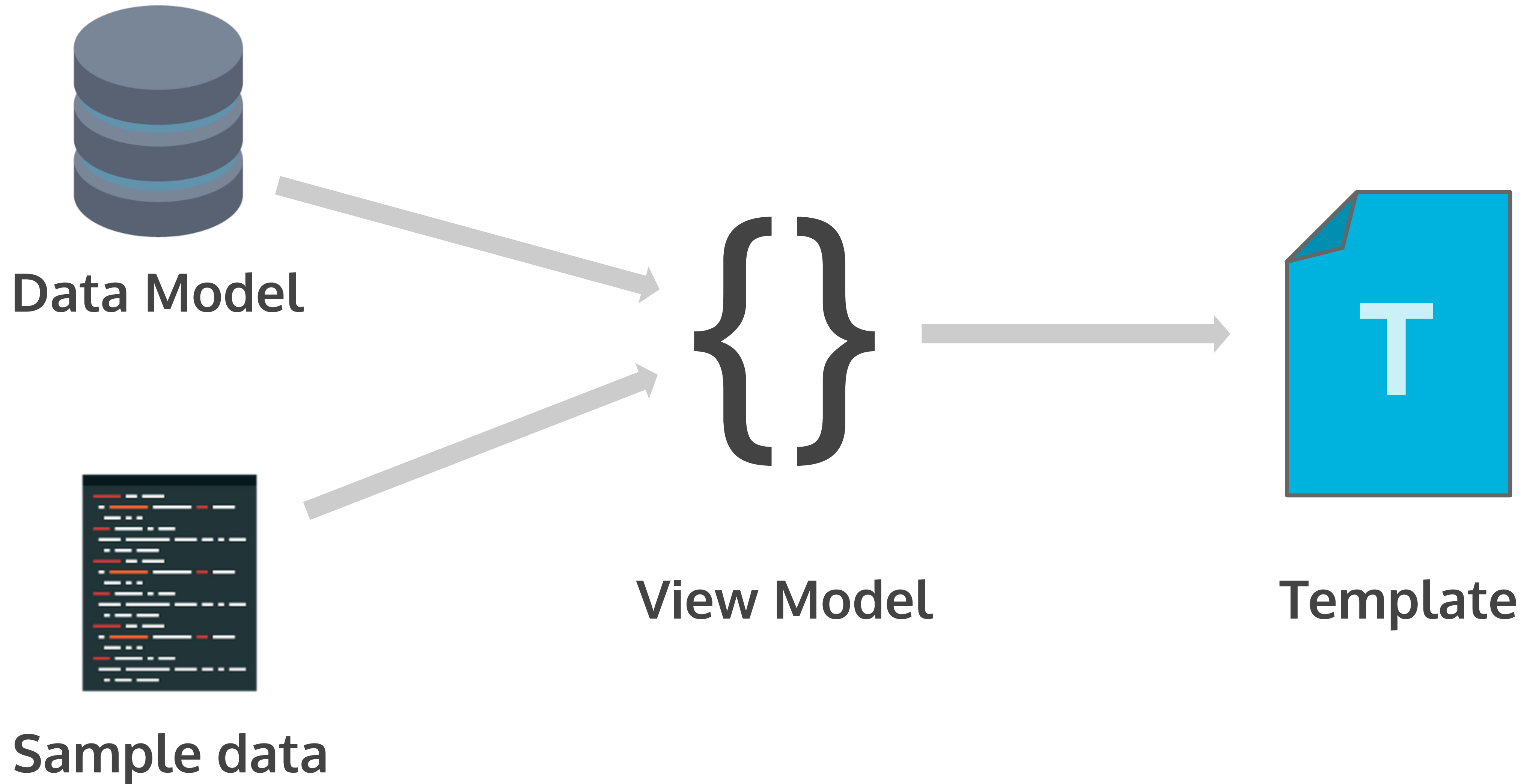


View Model



Template

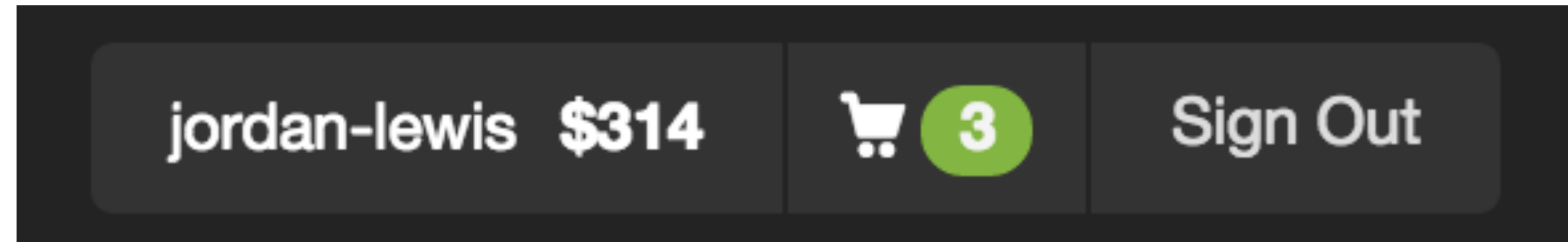
# Templates:



SOLUTION:

# View Models

# View Model: example





# View Model: without (view)

```
<% if @signed_in_user.present? %>  
  <%= @user.username %>  
  <%= @user.balance.format %>  
  <%= @cart.entries_count %>  
  <% if @cart.entries_count == 0 %>  
    ...  
  <% end %>  
<% end %>
```

# View Model: with (template)

```
<% if data.user_signed_in? %>  
  <%= data.username %>  
  <%= data.balance %>  
  <%= data.shopping_cart_count %>  
  <% if data.shopping_cart_empty? %>  
    ...  
  <% end %>  
<% end %>
```

# View Model: defined

```
{  
  :user_signed_in?      => ...  
  :username             => ...  
  :balance              => ...  
  :shopping_cart_count => ...  
  :shopping_cart_empty? => ...  
}
```

# View Model: styleguide implementation

```
{  
  :user_signed_in?      => true,  
  :username             => jordan-lewis,  
  :balance              => $314,  
  :shopping_cart_count => 3,  
  :shopping_cart_empty? => false  
}
```



# View Model: backend implementation

```
{  
  :user_signed_in?      => @signed_in_user.present?,  
  :username             => @user.username,  
  :balance              => @user.balance.format,  
  :shopping_cart_count  => @cart.entries_count,  
  :shopping_cart_empty? => @cart.entries_count == 0  
}
```



IMPLEMENTATION

# Styleguide Driven Development

# SDD: the process

- 1. Define components & scenarios**
- 2. Build**
  - UI directly in styleguide
  - backend
- 3. Assemble the page/feature**

STEP 1:

# Define Components & Scenarios

# Define: what your building




## Review your order

✓ Shopping cart > Review order > Payment

### 1 Billing Details Change

**Billing Address** 3/129 Hyde Street  
Footscray  
Victoria  
3011  
Australia

### 2 Payment Method

**PayPal**    \*includes \$1 Handling Fee

**Envato Credit** (Current balance \$45)  
Add credit to checkout

Unfortunately PayPal is experiencing an outage right now. We expect them to be back at 2014-11-24 15:25:01 +1100.  
Please try again after that time.

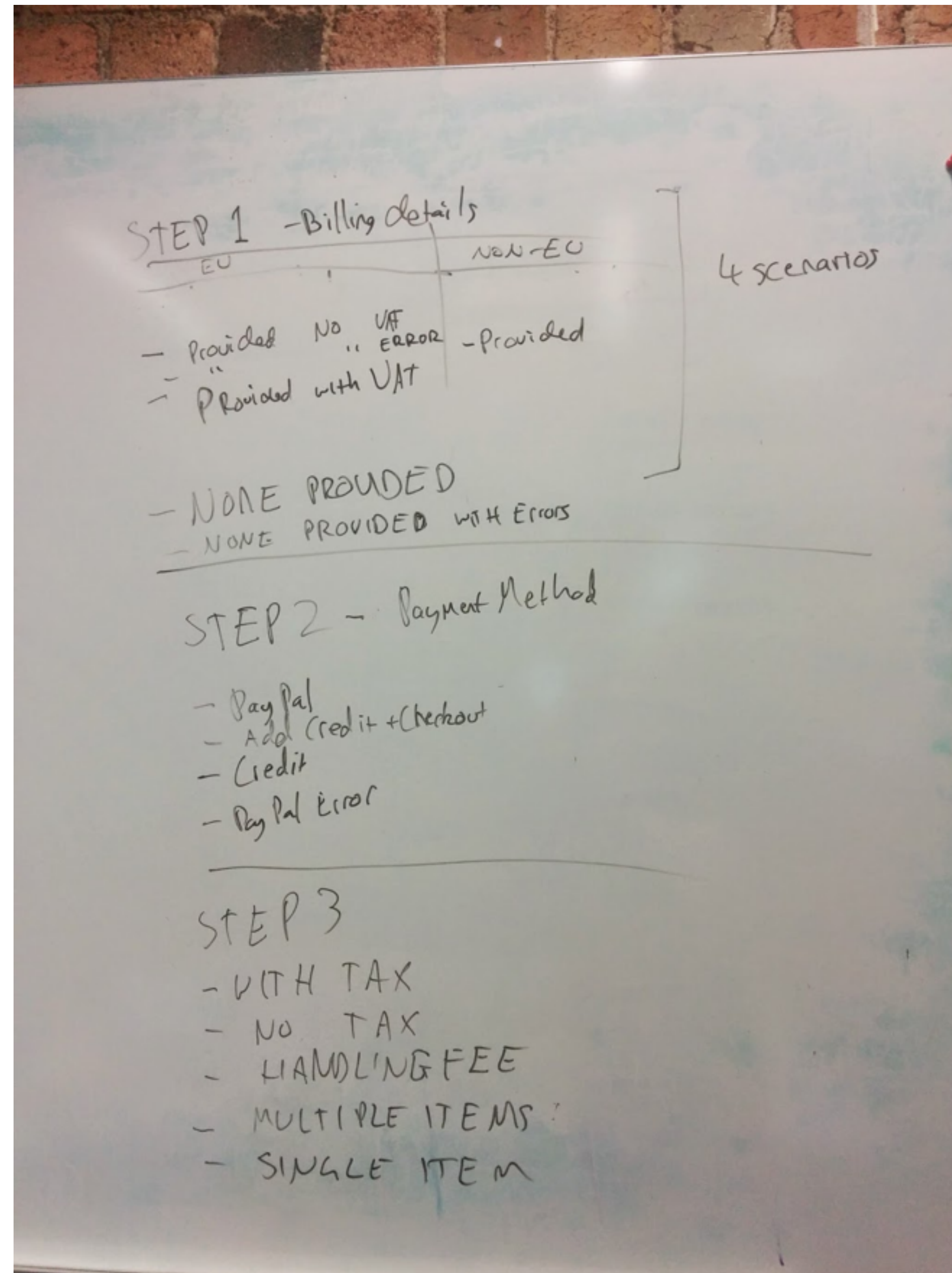
### 3 Order Summary

Florence - A Res...	\$24.00
Avada   Respo...	\$10.00
Arco - PSD Template	\$10.00
Handling fee	\$1.00
Tax	\$3.30
<b>Order total:</b>	<b>\$48.30</b>

Continue



# Define: components and scenarios



# Define: components and scenarios

## Billing details

1. non-eu not-provided
2. non-eu provided
3. eu provided
4. eu provided with VAT
5. provided with errors

## Payment method

1. PayPal
2. PayPal error
3. Credit
4. Add credit + checkout

## Order Summary

1. with tax
2. no tax
3. handling fee
4. single item
5. multiple item

STEP 2:

**Build UI and Backend**

# Build UI: scenarios



1 **Billing Details** Edit

John Smith  
121 King Street  
Level 2  
Melbourne  
Victoria, 3000  
Australia

## Billing details

1. **Provided**
2. Provided Just Saved
3. Provided European With VAT Number
4. Provided European No VAT Number
5. Area51 Outage
6. Area51 Outage European With VAT Number
7. Form Empty
8. Form Country With Predefined Regions
9. Form European
10. Form With Errors
11. Form With VAT Errors

# Build UI: scenarios



1 **Billing Details** Saved Edit

John Smith  
121 King Street  
Level 2  
Melbourne  
Victoria, 3000  
Australia

## Billing details

1. Provided
2. **Provided Just Saved**
3. Provided European With VAT Number
4. Provided European No VAT Number
5. Area51 Outage
6. Area51 Outage European With VAT Number
7. Form Empty
8. Form Country With Predefined Regions
9. Form European
10. Form With Errors
11. Form With VAT Errors



# Build UI: scenarios



The screenshot shows a form titled "Billing Details" with an "Edit" button. The form contains two columns of information. The left column lists the address: "Napoléon Bonaparte", "1 Rue Saint-Charles", "Corse-du-sud", "Ajaccio, 20000", and "France". The right column is labeled "EU VAT Identification Number:" and contains the value "XXXXXXXX6789".

1 Billing Details <span>Edit</span>	
Napoléon Bonaparte 1 Rue Saint-Charles Corse-du-sud Ajaccio, 20000 France	<b>EU VAT Identification Number:</b> XXXXXXXX6789

## Billing details

1. Provided
2. Provided Just Saved
3. **Provided European With VAT Number**
4. Provided European No VAT Number
5. Area51 Outage
6. Area51 Outage European With VAT Number
7. Form Empty
8. Form Country With Predefined Regions
9. Form European
10. Form With Errors
11. Form With VAT Errors

# Build UI: scenarios



The screenshot shows a form titled "Billing Details" with an "Edit" button in the top right corner. The form contains two columns of text. The left column lists an address: "Napoléon Bonaparte", "1 Rue Saint-Charles", "Corse-du-sud", "Ajaccio, 20000", and "France". The right column is labeled "EU VAT Identification Number:" and contains the text "Not provided".

1 Billing Details <span>Edit</span>	
Napoléon Bonaparte 1 Rue Saint-Charles Corse-du-sud Ajaccio, 20000 France	<b>EU VAT Identification Number:</b> <i>Not provided</i>

## Billing details

1. Provided
2. Provided Just Saved
3. Provided European With VAT Number
4. **Provided European No VAT Number**
5. Area51 Outage
6. Area51 Outage European With VAT Number
7. Form Empty
8. Form Country With Predefined Regions
9. Form European
10. Form With Errors
11. Form With VAT Errors

# Build UI: scenarios



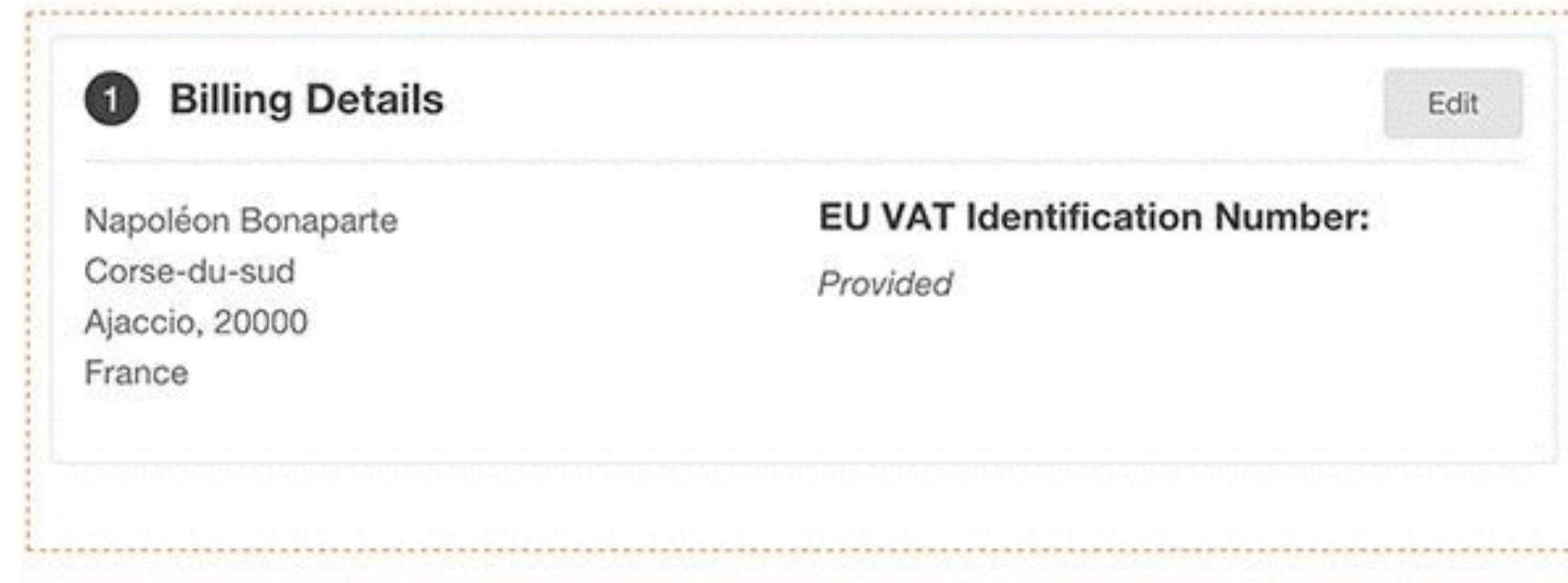
1 Billing Details Edit

John Smith  
Melbourne  
Victoria, 3000  
Australia

## Billing details

1. Provided
2. Provided Just Saved
3. Provided European With VAT Number
4. Provided European No VAT Number
5. **Area51 Outage**
6. Area51 Outage European With VAT Number
7. Form Empty
8. Form Country With Predefined Regions
9. Form European
10. Form With Errors
11. Form With VAT Errors

# Build UI: scenarios



1 **Billing Details** Edit

Napoléon Bonaparte  
Corse-du-sud  
Ajaccio, 20000  
France

**EU VAT Identification Number:**  
*Provided*

## Billing details

1. Provided
2. Provided Just Saved
3. Provided European With VAT Number
4. Provided European No VAT Number
5. Area51 Outage
6. **Area51 Outage European With VAT Number**
7. Form Empty
8. Form Country With Predefined Regions
9. Form European
10. Form With Errors
11. Form With VAT Errors



# Build UI: scenarios

**1 Billing Details**  
We do not sell your details or share them without your permission. Read more in our [privacy policy](#).

**First Name \*** (Given Name) **Last Name \*** (Family Name)

**Company Name**

**Country \***  
Please select your country

**Address line 1 \***

**Address line 2**

**City \*** **State / Province / Region** **Zip / Postal Code**

Save and continue

## Billing details

1. Provided
2. Provided Just Saved
3. Provided European With VAT Number
4. Provided European No VAT Number
5. Area51 Outage
6. Area51 Outage European With VAT Number
7. **Form Empty**
8. Form Country With Predefined Regions
9. Form European
10. Form With Errors
11. Form With VAT Errors



# Build UI: scenarios

## 1 Billing Details

We do not sell your details or share them without your permission. Read more in our [privacy policy](#).

**First Name \*** (Given Name) **Last Name \*** (Family Name)

**Company Name**

**Country \***

Australia

**Address line 1 \***

**Address line 2**

**City \*** **State / Province / Region \*** **Zip / Postal Code \***

Victoria

## Billing details

1. Provided
2. Provided Just Saved
3. Provided European With VAT Number
4. Provided European No VAT Number
5. Area51 Outage
6. Area51 Outage European With VAT Number
7. Form Empty
8. **Form Country With Predefined Regions**
9. Form European
10. Form With Errors
11. Form With VAT Errors

# Build UI: scenarios

## 1 Billing Details

We do not sell your details or share them without your permission. Read more in our [privacy policy](#).

**First Name \*** (Given Name)  **Last Name \*** (Family Name)

**Company Name**

**Country \***

**Address line 1 \***

**Address line 2**

**City \***  **State / Province / Region**  **Zip / Postal Code**

**EU VAT Identification Number**  
n° TVA

## Billing details

1. Provided
2. Provided Just Saved
3. Provided European With VAT Number
4. Provided European No VAT Number
5. Area51 Outage
6. Area51 Outage European With VAT Number
7. Form Empty
8. Form Country With Predefined Regions
9. **Form European**
10. Form With Errors
11. Form With VAT Errors



# Build UI: scenarios

## 1 Billing Details

We do not sell your details or share them without your permission. Read more in our [privacy policy](#).

**There was a problem saving your details.**

**First Name \*** (Given Name) **Last Name \*** (Family Name)

**Company Name**

**Company name is required**

**Country \***

**Country is required**

**Address line 1 \***

**Address line 1 is required**

**Address line 2**

**City \*** **State / Province / Region** **Zip / Postal Code**

**City is required**

## Billing details

1. Provided
2. Provided Just Saved
3. Provided European With VAT Number
4. Provided European No VAT Number
5. Area51 Outage
6. Area51 Outage European With VAT Number
7. Form Empty
8. Form Country With Predefined Regions
9. Form European
10. **Form With Errors**
11. Form With VAT Errors

# Build UI: scenarios

## 1 Billing Details

We do not sell your details or share them without your permission. Read more in our [privacy policy](#).

**There was a problem saving your details.**

**First Name \*** (Given Name) **Last Name \*** (Family Name)

Napoléon Bonaparte

**Company Name**

ACME Inc

**Country \***

France

**Address line 1 \***

1 Rue Saint-Charles

**Address line 2**

Level 2

**City \*** **State / Province / Region** **Zip / Postal Code**

Ajaccio Corse-du-sud 20000

**EU VAT Identification Number**  
n° TVA

abc

**EU VAT Identification Number is invalid**

Save and continue

## Billing details

1. Provided
2. Provided Just Saved
3. Provided European With VAT Number
4. Provided European No VAT Number
5. Area51 Outage
6. Area51 Outage European With VAT Number
7. Form Empty
8. Form Country With Predefined Regions
9. Form European
10. Form With Errors
11. **Form With VAT Errors**

# Build backend: hook up the view model

```
{  
  :user_signed_in?      => @signed_in_user.present?,  
  :username            => @user.username,  
  :balance             => @user.balance.format,  
  :shopping_cart_count => @cart.entries_count,  
  :shopping_cart_empty? => @cart.entries_count == 0  
}
```



# Build: separation of concerns

**Frontend isn't waiting on backend**

**Backend isn't waiting on frontend**

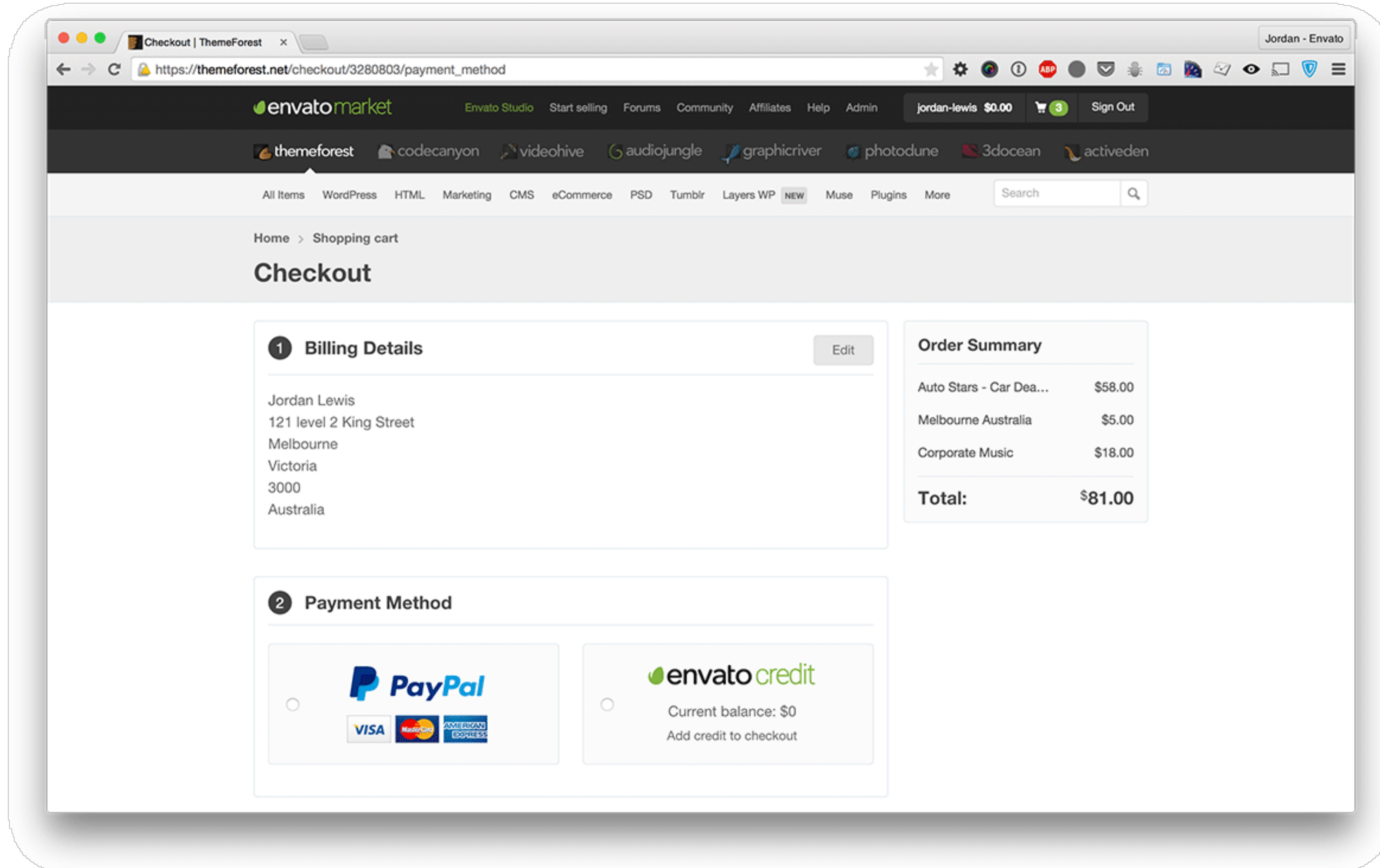
STEP 3:

**Assemble page or feature**

# Assemble: components to build a page



# Assemble: finished product





REVIEW

# The benefits of Styleguide Driven Development



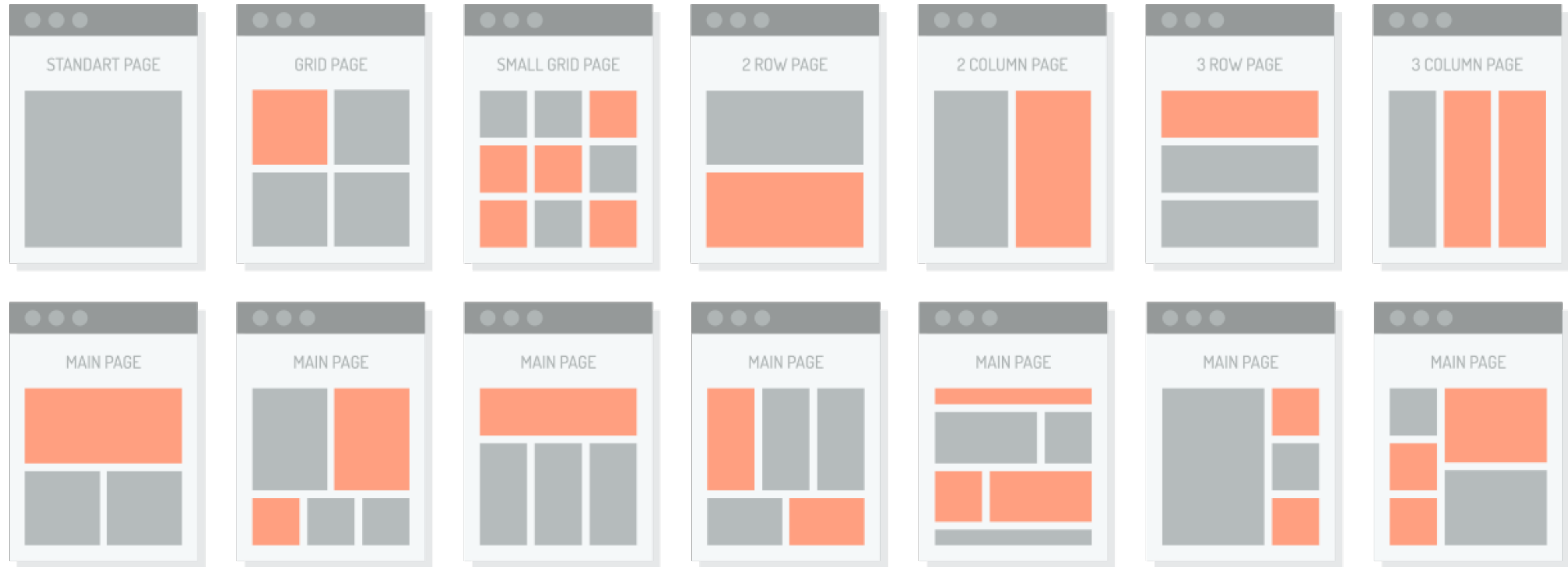
# Benefits: Separate UI and backend



# Benefits: Iterate quickly



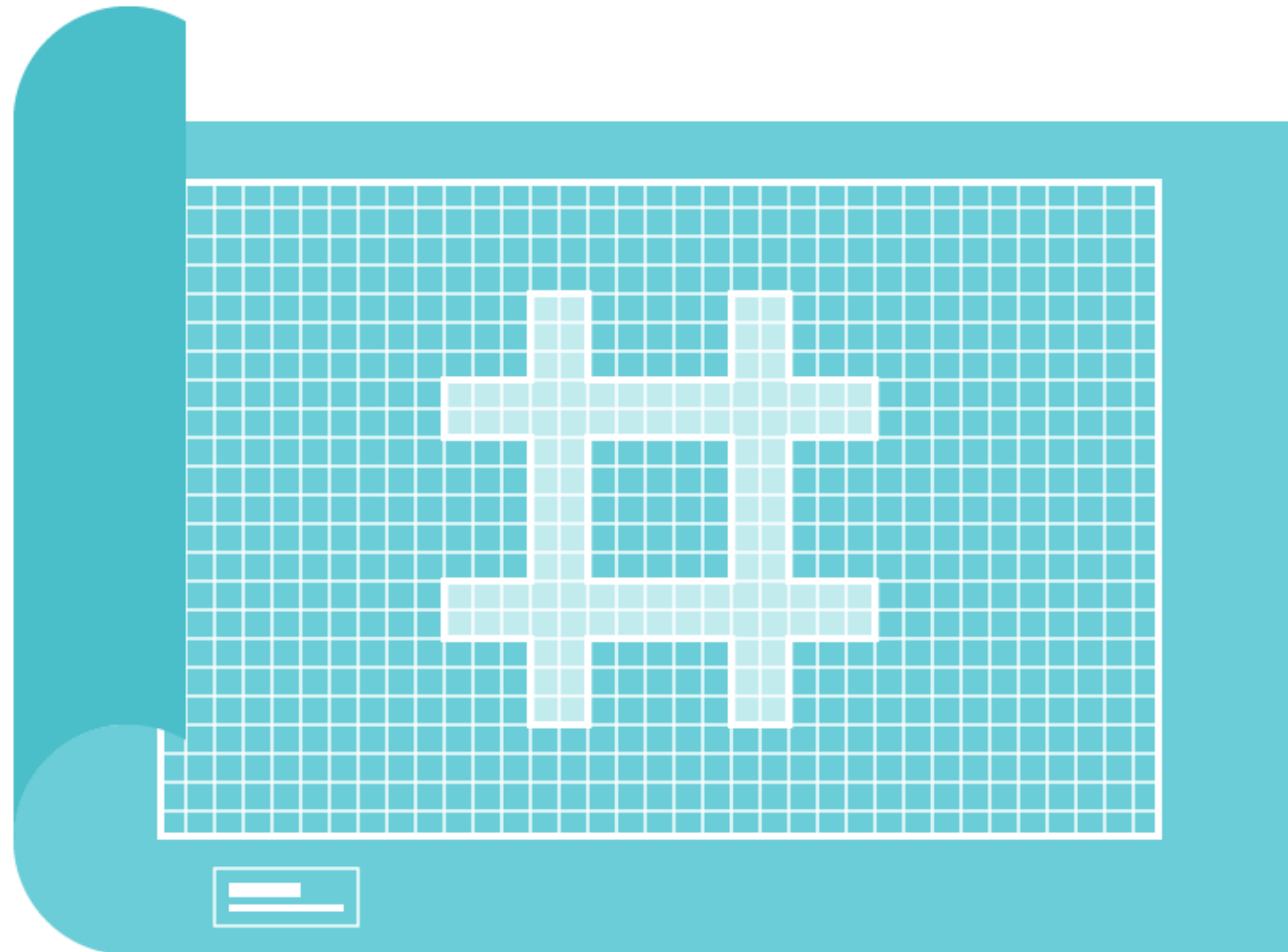
# Benefits: Identify any gaps



# Benefits: Ship faster & more frequently



# Benefits: Free documentation





[market.styleguide.envato.com](https://market.styleguide.envato.com)

# What's next?

- ▶ extract reusable parts
- ▶ open source
- ▶ release UI library
- ▶ visual regression testing
- ▶ enhanced responsive testing
- ▶ add more content

# Thank you!

<http://envato.to/sdd>

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