

Creating Meaningful HTML & CSS

“There are only two hard problems in Computer Science: cache invalidation and naming things”
–Phil Karlton

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Agenda

- ❖ Semantic HTML
- ❖ BEM Methodology
- ❖ Consistent, performant code
- ❖ Best Practices
- ❖ Takeaways
- ❖ References

Spot the Issue

```
<label class="class">  
  <div>Type 1</div>  
  
  <input type="checkbox" id="label-fancy">  
</label>
```

1. **Error** Element `div` not allowed as child of element `label` in this context.

(Suppressing further errors from this subtree.)

From line 13, column 5; to line 13, column 9

```
ss">↔↔      <div>Type 1
```

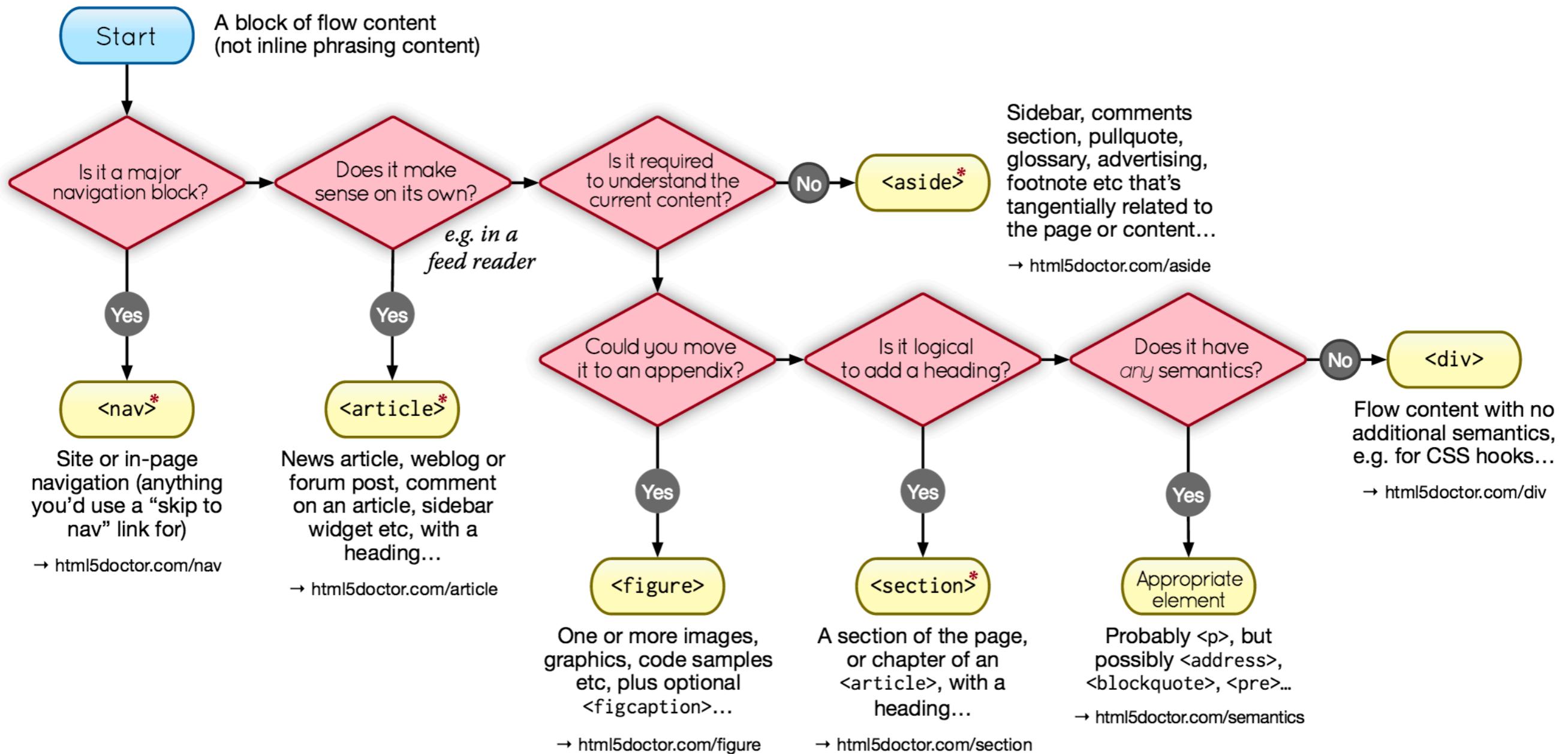
Contexts in which element `div` may be used:

Where [flow content](#) is expected.

Content model for element `label`:

[Phrasing content](#), but with no descendant [labelable elements](#) unless it is the element's [labeled control](#), and no descendant `label` elements.

Semantic HTML



* Sectioning content element

These four elements (and their headings) are used by HTML5's outlining algorithm to make the document's outline
→ html5doctor.com/outline

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For more information:
www.html5doctor.com/semantics

What's wrong?

```
<section class="class">  
    <div class="class1"></div>  
    <div class="class2"></div>  
</section>
```

W3C® Markup Validation Service

Check the markup (HTML, XHTML, ...) of Web documents

Validate by URI Validate by File Upload **Validate by Direct Input**

Validate by direct input

Enter the Markup to validate:

```
<section class="class">  
    <div class="class1"></div>  
    <div class="class2"></div>  
</section>
```

More Options

Check

Warning **Section lacks heading. Consider using h2 - h6 elements to add identifying headings to all sections.**

[From line 1, column 1; to line 1, column 9](#)

<section>↔<div>

Source: https://validator.w3.org/#validate_by_input

Correct Semantics

```
<section class="class">  
  <h1 class="class1"></h1>  
  
  <div class="class2"></div>  
</section>
```

Creating CSS - The BEM way!

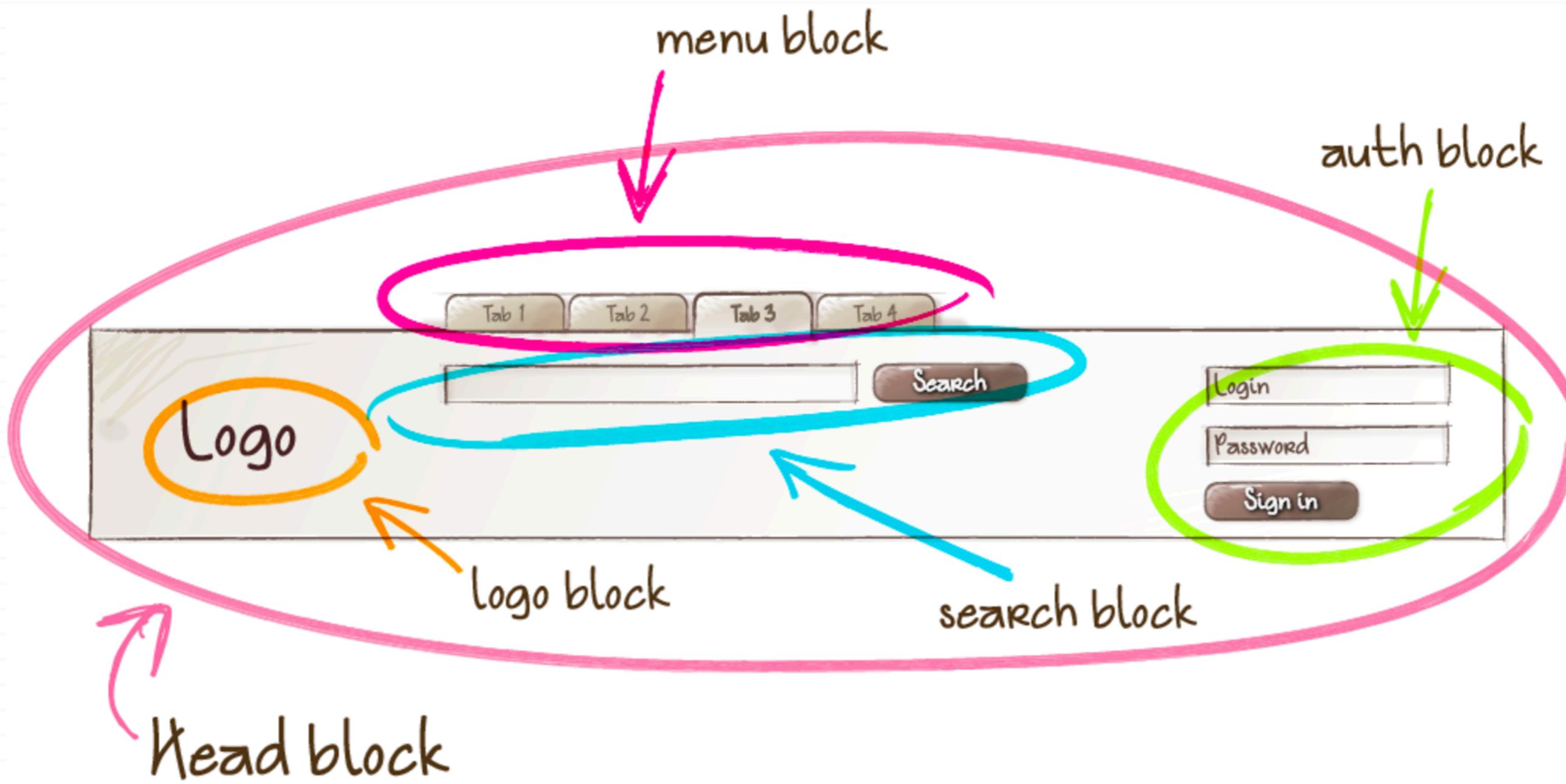
BEM Methodology

- ❖ Block - an independent component
- ❖ Element - part of a block, cannot exist outside of it

block _ element

- ❖ Modifier - modify behavior or state

block _ element--modifier

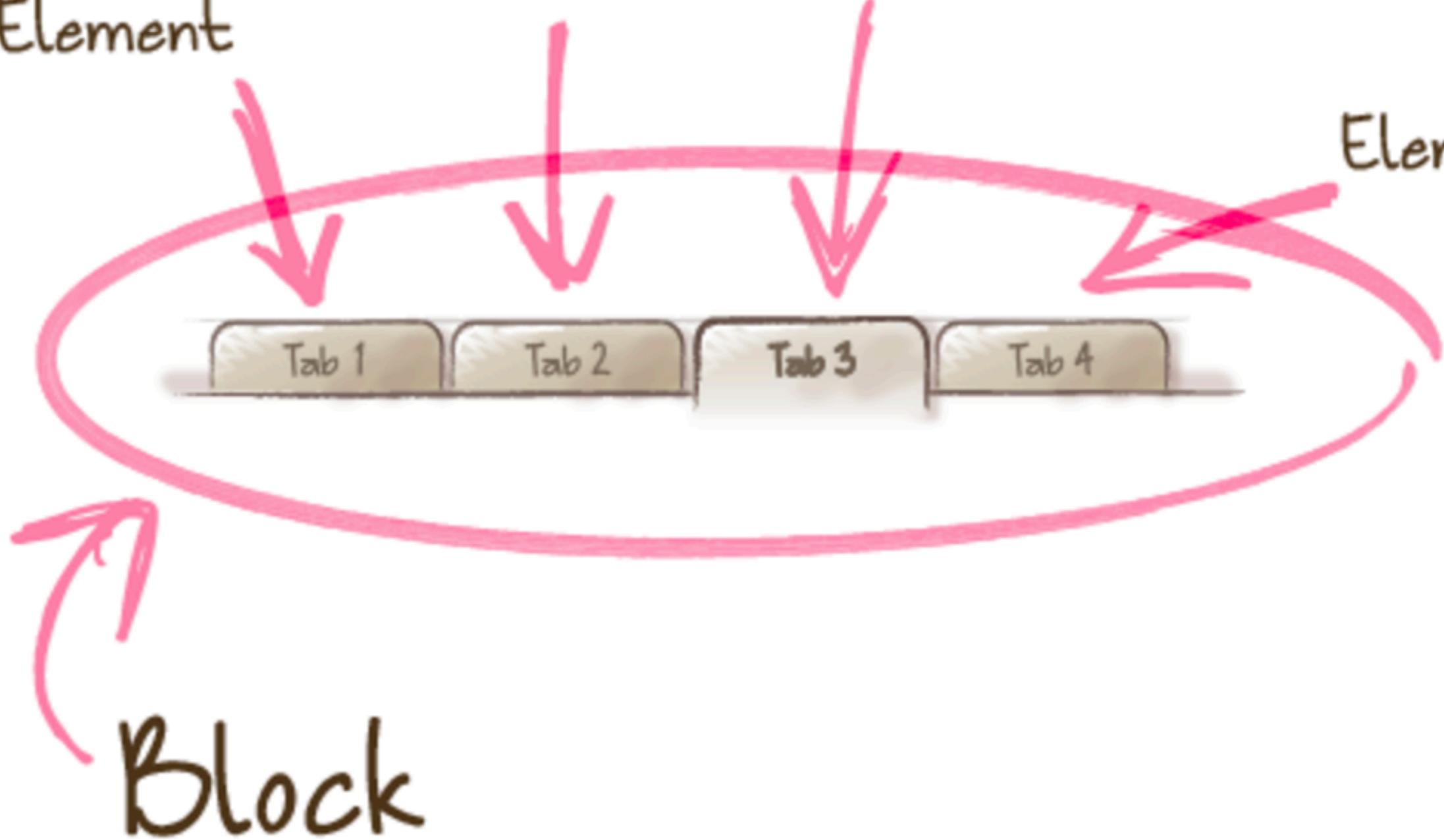


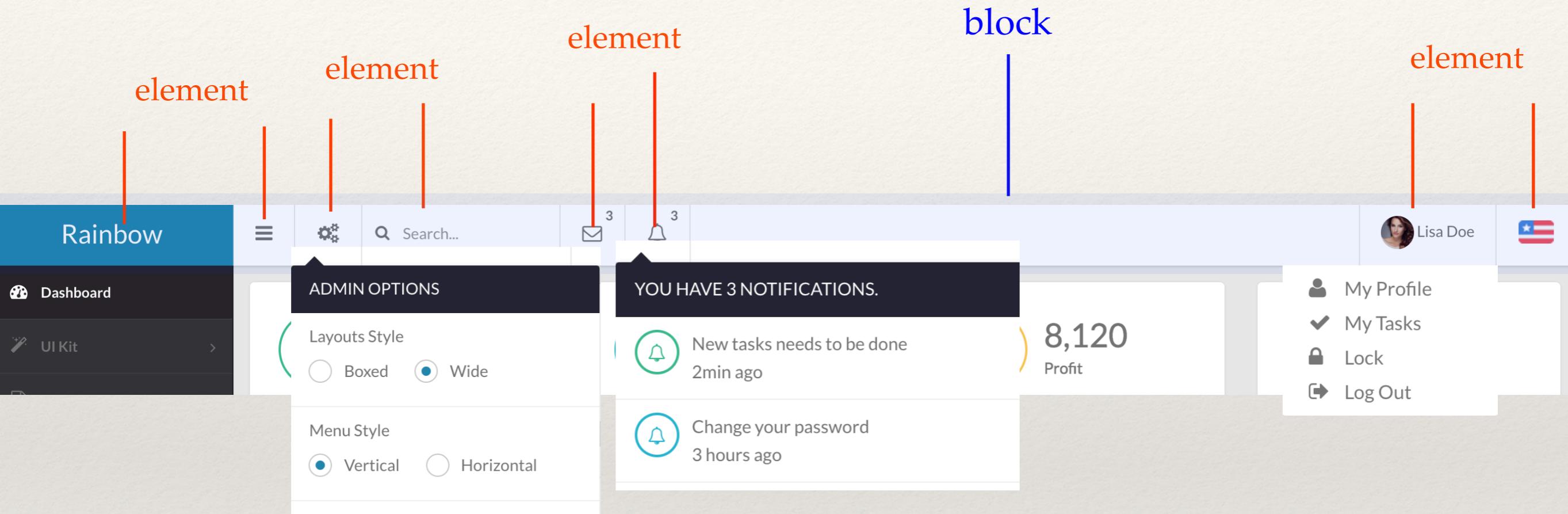
Element

Element

Element

Element





<http://iarouse.com/demo/index.html?product=rainbow>

BEMed HTML

```
<header class="top-nav">  
  <div class="top-nav__item top-nav__item-logo">...</div>  
  <div class="top-nav__item top-nav__item-help-menu">...</div>  
  <div class="top-nav__item top-nav__item-user-info">...</div>  
  <div class="top-nav__item top-nav__item-lang">...</div>  
</header>
```

BEMed CSS

```
.top-nav {
  position: relative;
}

.top-nav__item {
  position: absolute;
  top: 11px;
}

.top-nav__item--logo {
  left: 12px;
}

.top-nav__item--help-menu {
  left: 56px;
}

.top-nav__item--user-info {
  right: 26px;
}

.top-nav__item--lang {
  right: 11px;
}
```

Why BEM?

- ❖ Scalable and reusable
- ❖ Component Based
- ❖ Sets up Front End Architecture
- ❖ Organizes development process
- ❖ Easily searchable classnames

Source: <https://en.bem.info/>

Why BEM?

- ❖ Self-documented
- ❖ Meaningful class names
- ❖ Gives structure but flexibility to customize too
- ❖ Built with enterprise in mind

Who uses BEM?

Yandex

A Alfa·Bank

Google

BuzzFeed

BBC

<epam>

Source: <http://getbem.com/>

How to create consistent, performant code?

- ❖ Embrace
- ❖ Document, document, document
- ❖ Educate

Best Practices

- ❖ Naming convention for directories
- ❖ Modular files
- ❖ Commenting
- ❖ Icon-fonts, svgs, sprites

Best Practices

- ❖ Rem unit, unitless line height
- ❖ Decoupling
- ❖ Linters

Takeaways

- ❖ Give some thought before using semantic tags
- ❖ Write reusable, scalable code
- ❖ Follow best practices and set standards

References

- ❖ [Semantic HTML Flowchart](#)
- ❖ [BEM Website](#)
- ❖ [Choosing font units](#)
- ❖ [Choosing icon fonts](#)
- ❖ [W3C markup validator](#)
- ❖ [Mozilla Developer Network](#)
- ❖ [CSS Tricks](#)
- ❖ [A List Apart](#)
- ❖ [Smashing Magazine](#)