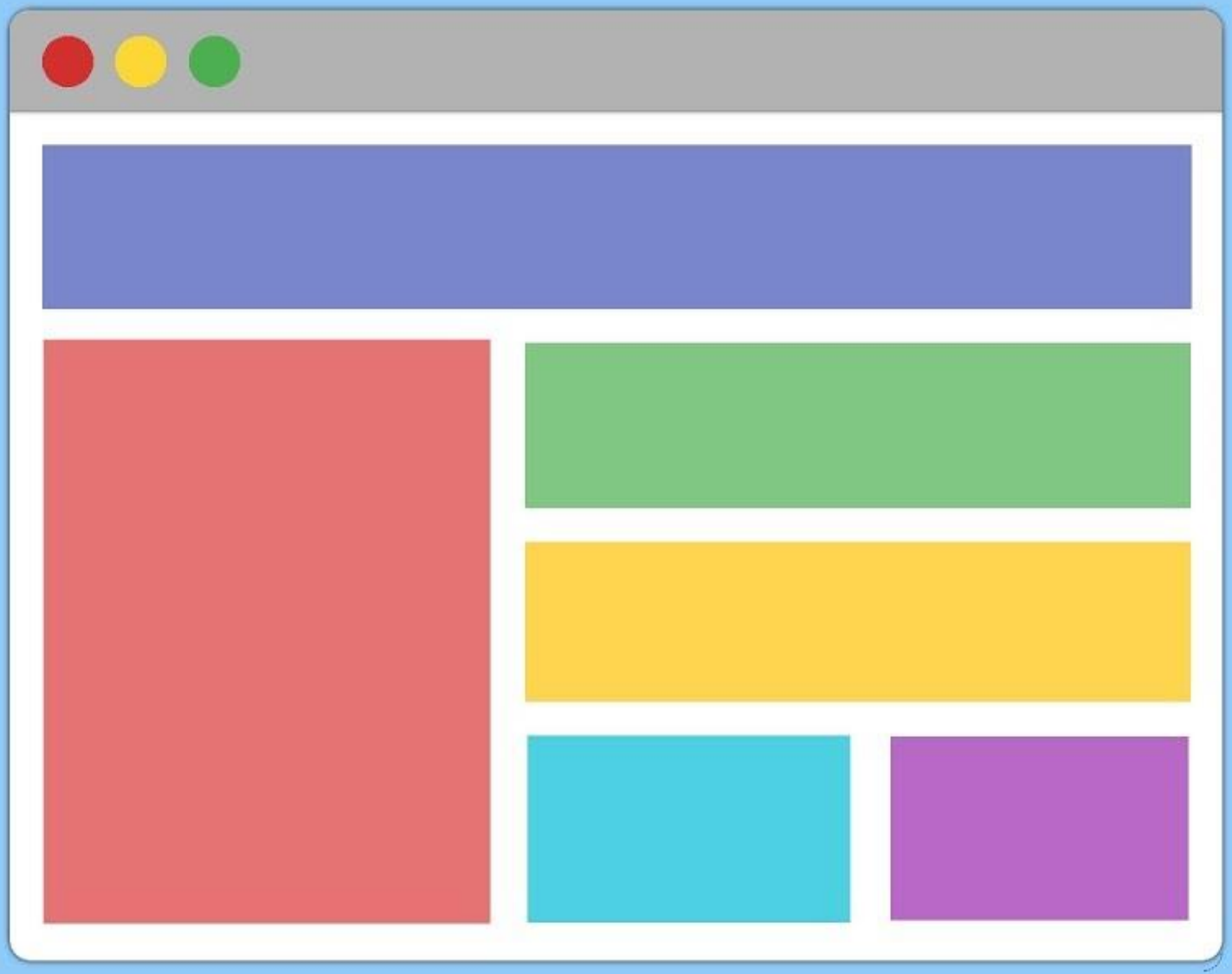


CSS LAYOUTS

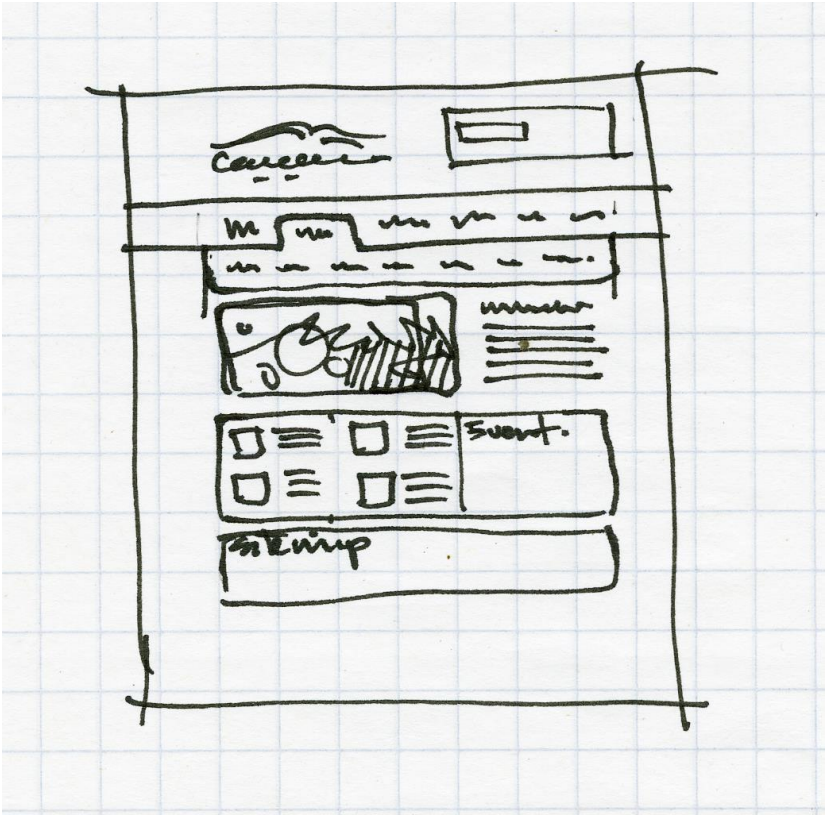
Agenda

- Layouts
  - the holy grail
  - side menu
  - stripes
- More CSS
  - opacity - rgba
  - font family and fallbacks
  - background properties: repeat, size, position
  - the box model
  - Id attribute
- A bit more HTML
  - link to anchor
  - css file
- Arranging the resources: How to use a separate CSS spreadsheet

Website Construction

How do we build a website from scratch?

- Choose a layout
- Lay the HTML foundation
- Implement each part separately



Choosing a layout

The vast majority of websites these days use one of three basic layouts:

The Holy grail

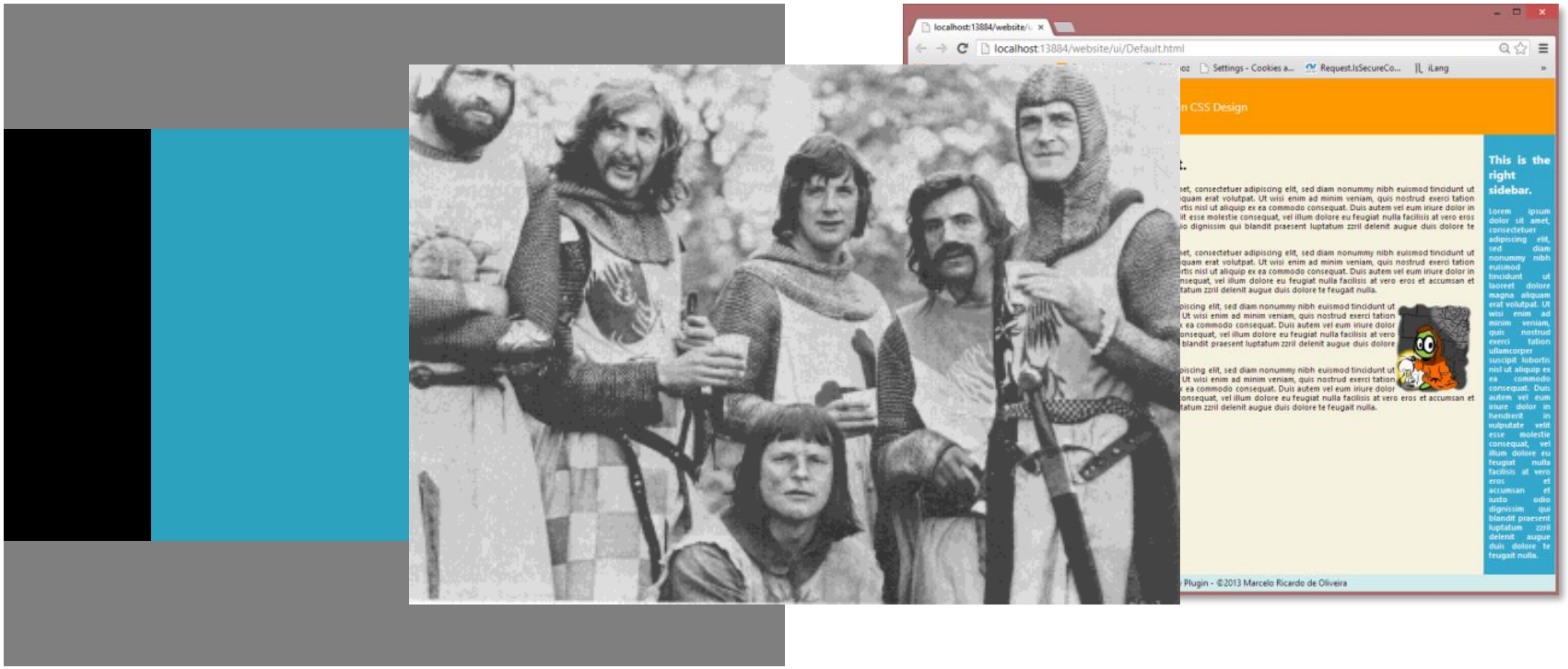
The Side-menu layout

The Stripes layout

The holy grail

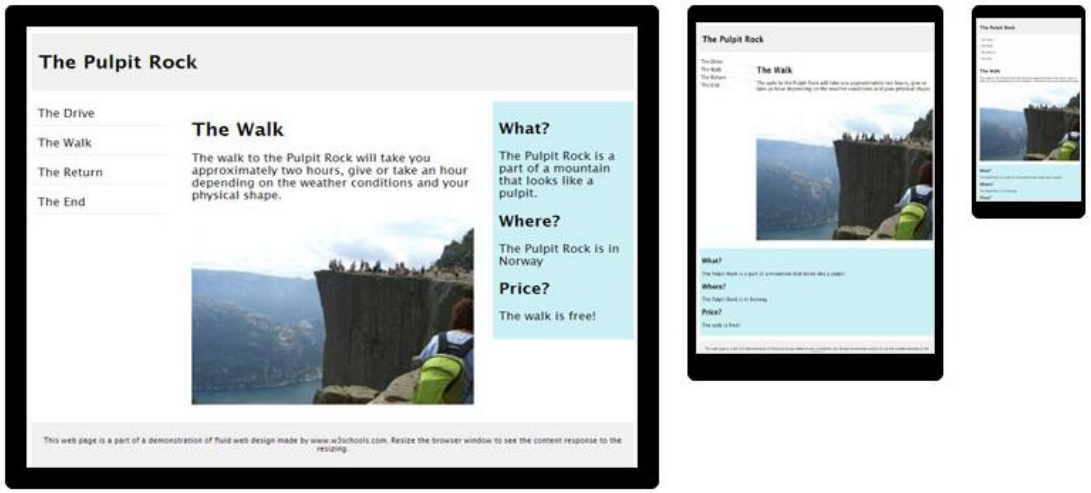
Used to be the most famous layout,

After the introduction of mobile web this layout failed to meet the responsiveness requirements



What is Responsive Web Design?

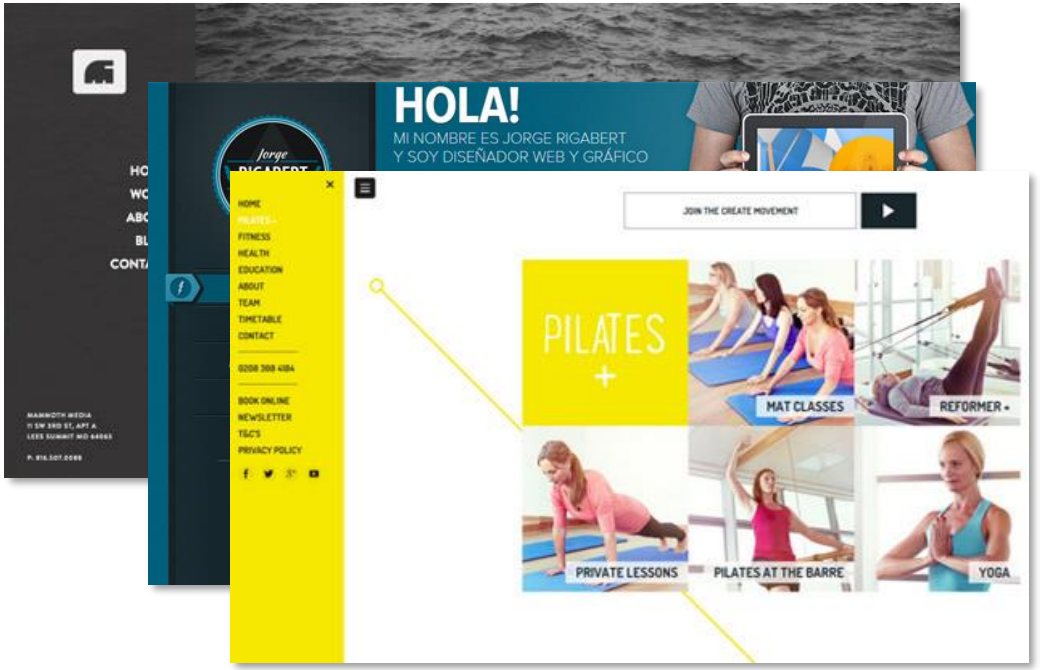
- **Make** your app/website usable on any device, with any screen size



Side Menu

A very popular layout

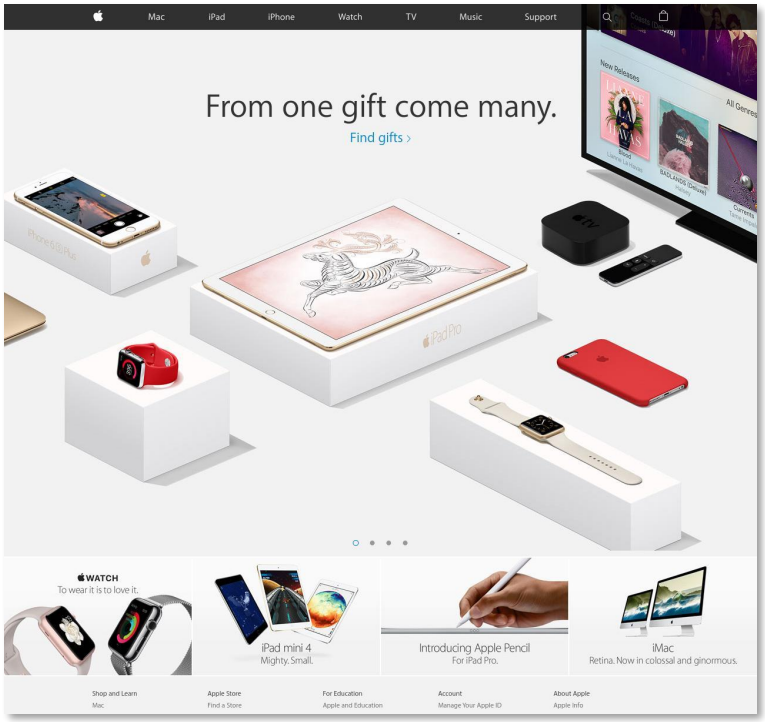
In order to achieve responsiveness in mobile phones the layout transforms to stripes layout when shrunk



Stripes Layout

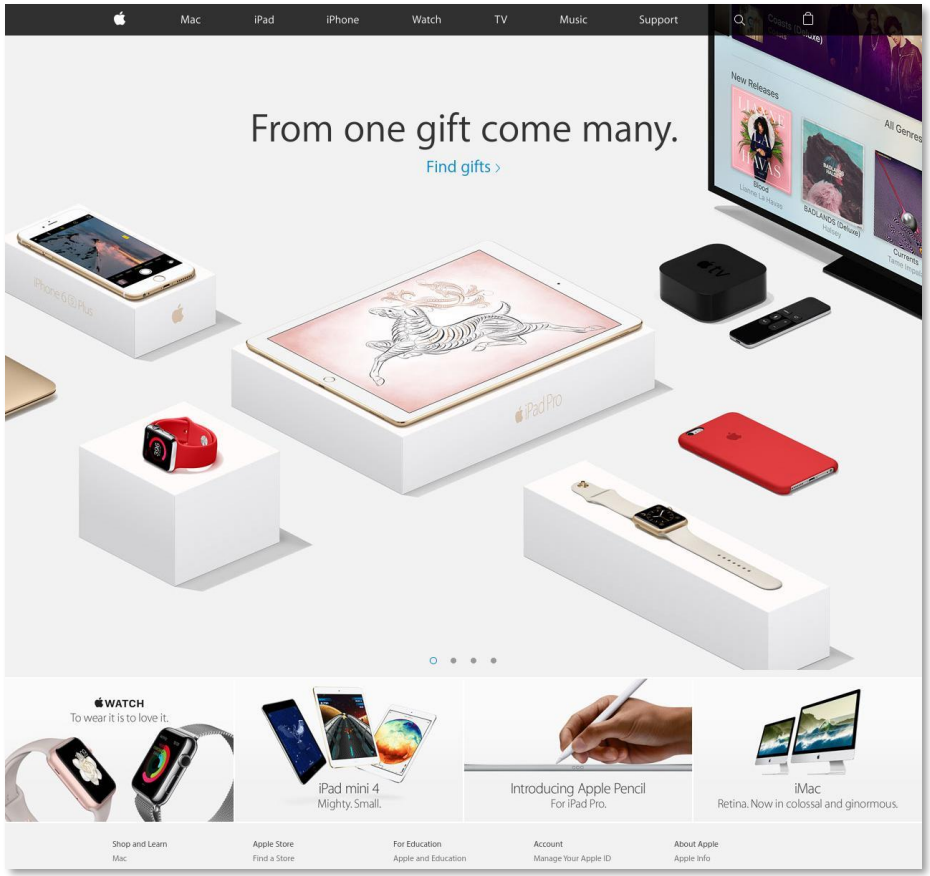
The most popular website layout

Responsive by nature



Laying the Foundations

We will choose the stripes layout, and start building the Apple website (from a while ago..)



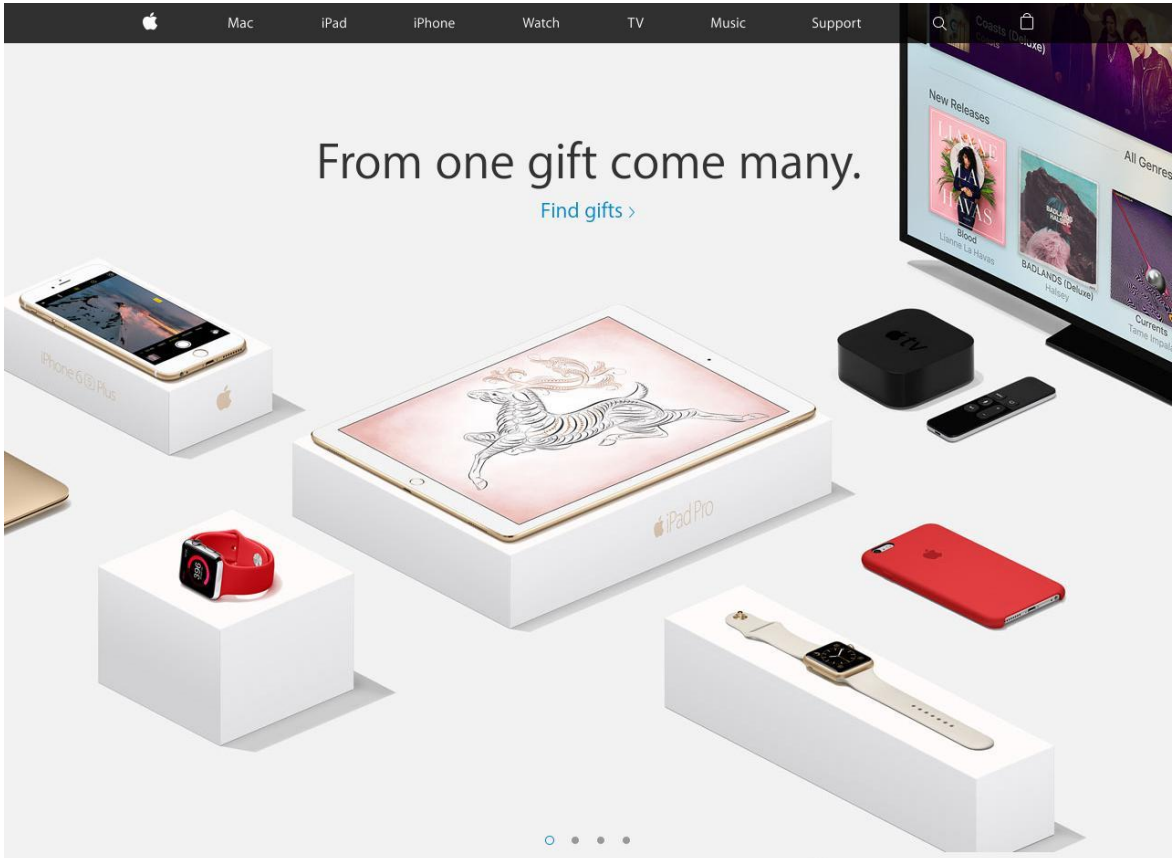
Laying the Foundations

Menu

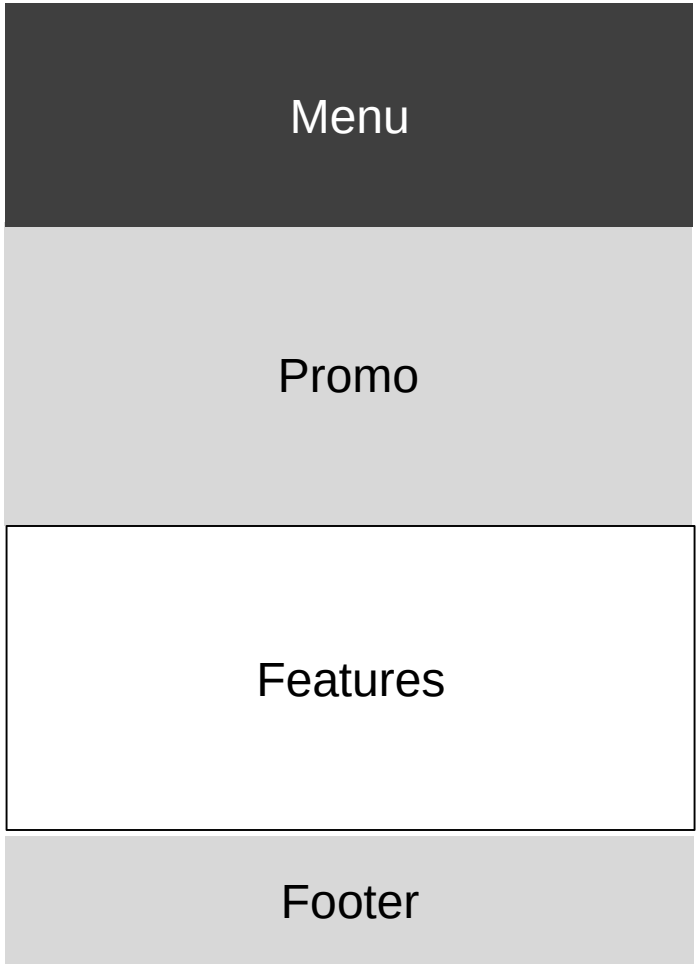
Promo

Features

Footer



Laying the Foundations



In a “Stripes Layout” every div is a stripe…

```
<body>
  <div class="stripe"></div>
  <div class="stripe"></div>
  <div class="stripe"></div>
  <div class="stripe"></div>
</body>
```

Laying the Foundations

HTML5 section tag

```
<body>
  <div class="stripe"></div>
  <div class="stripe"></div>
  <div class="stripe"></div>
  <div class="stripe"></div>
</body>
```

Can be replaced by
<section></section>

Laying the Foundations

Menu

Promo

Features

Footer

Adding the .stripe class in CSS

```
.stripe{
    border:1px solid blue;
}
```

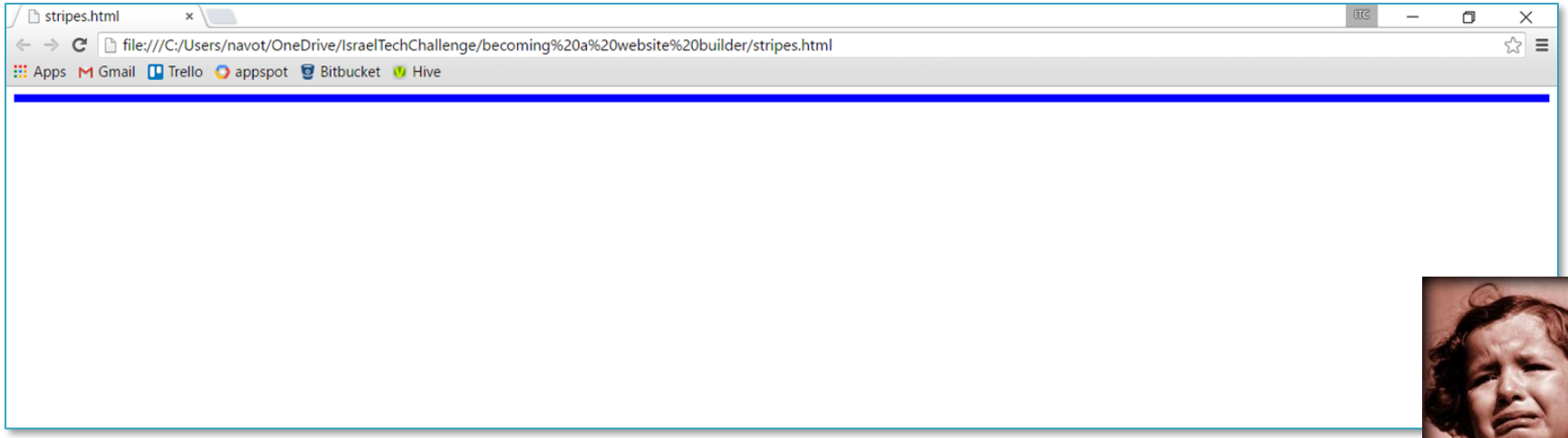
It is a good practice to highlight your main elements

You can do that by changing the border color, or the background color to something visible

We will remove it when we are done…

Laying the Foundations

And the result:

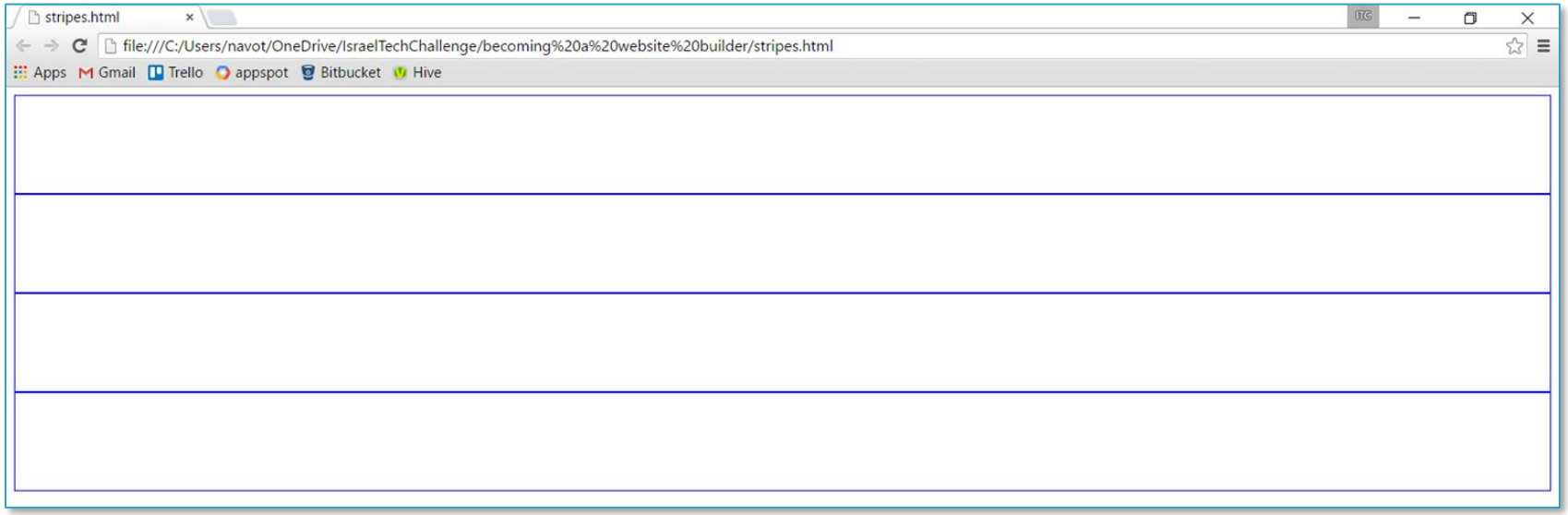


The default height of a is “auto” which means its height will be adjusted to its’ content.

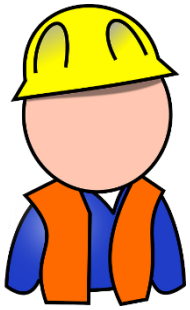
Laying the Foundations

We currently have no content inside our s, so we will set the height manually

```
<style>
.stripe{
    border:1px solid blue;
    height:100px;
}
</style>
```

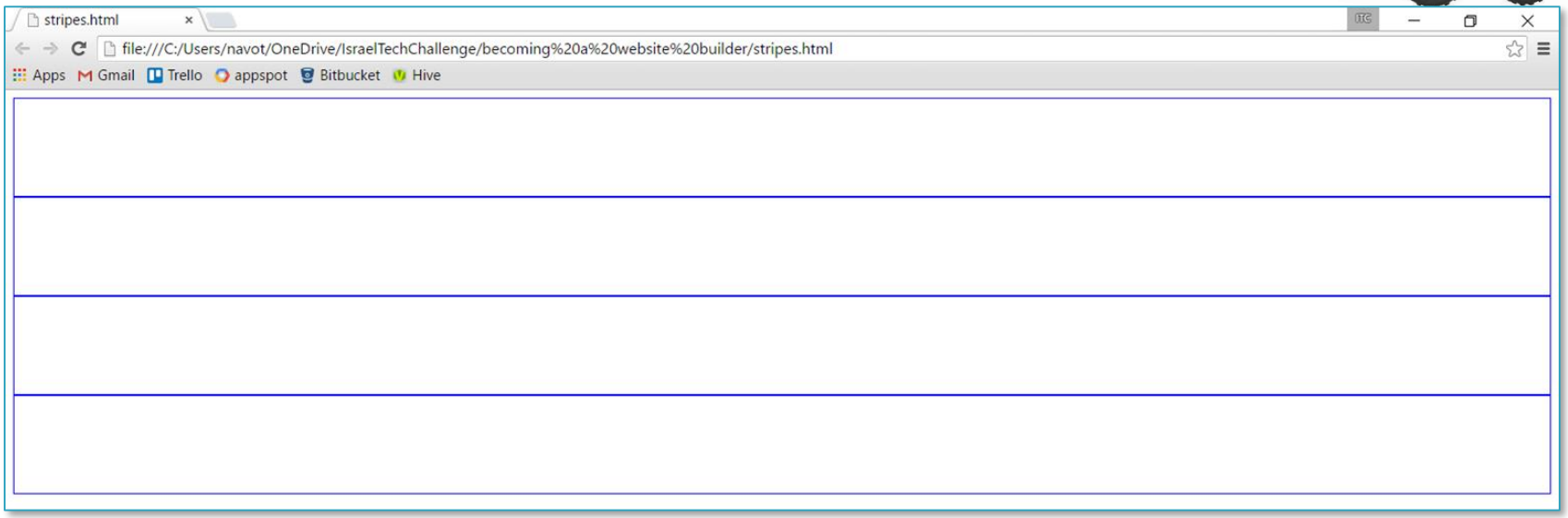


Laying the Foundations



Shouldn't we do the same with their width?

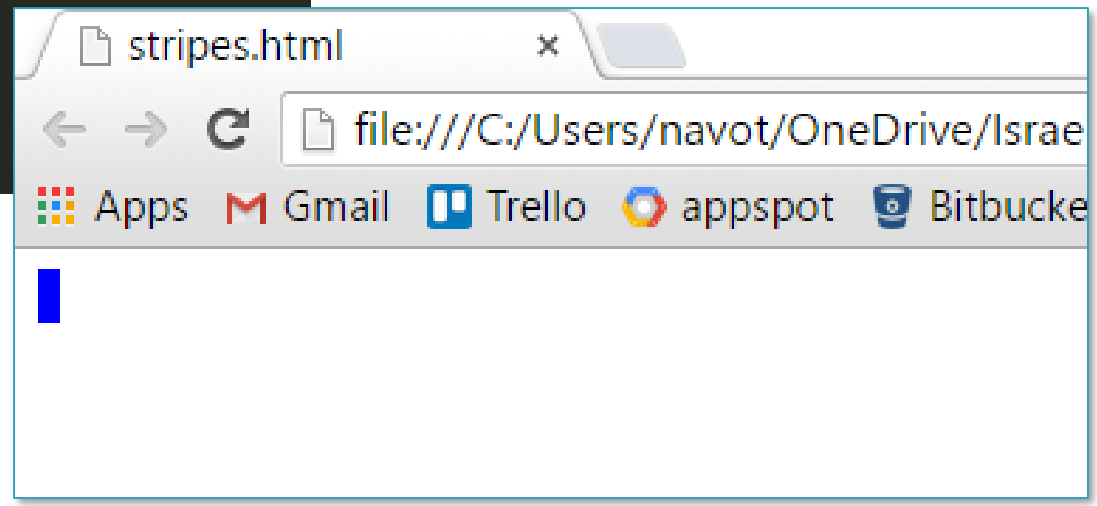
The stripe's width is filling its parent's width, because is a block element

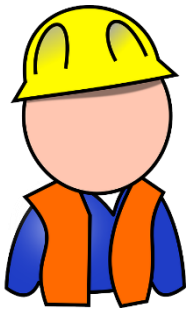


Laying the Foundations

What will happen if we change the value to “inline”?

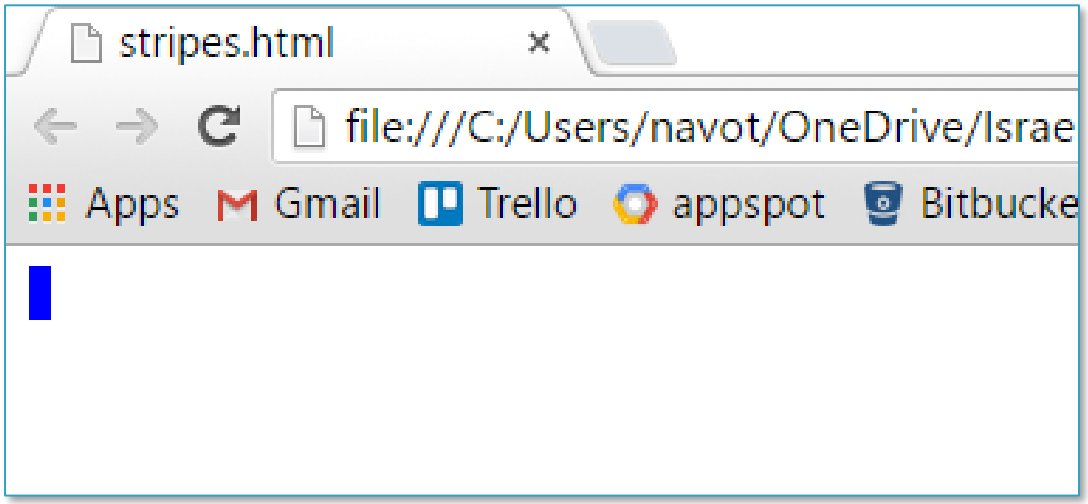
```
.stripe{
    border:1px solid blue;
    height:100px;
    display:inline;
}
```



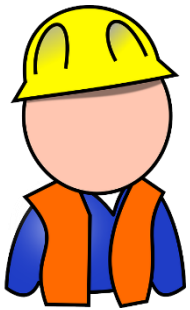


What happened to the 100px height?

Laying the Foundations



Inline elements width and height properties are adjusted by the elements content



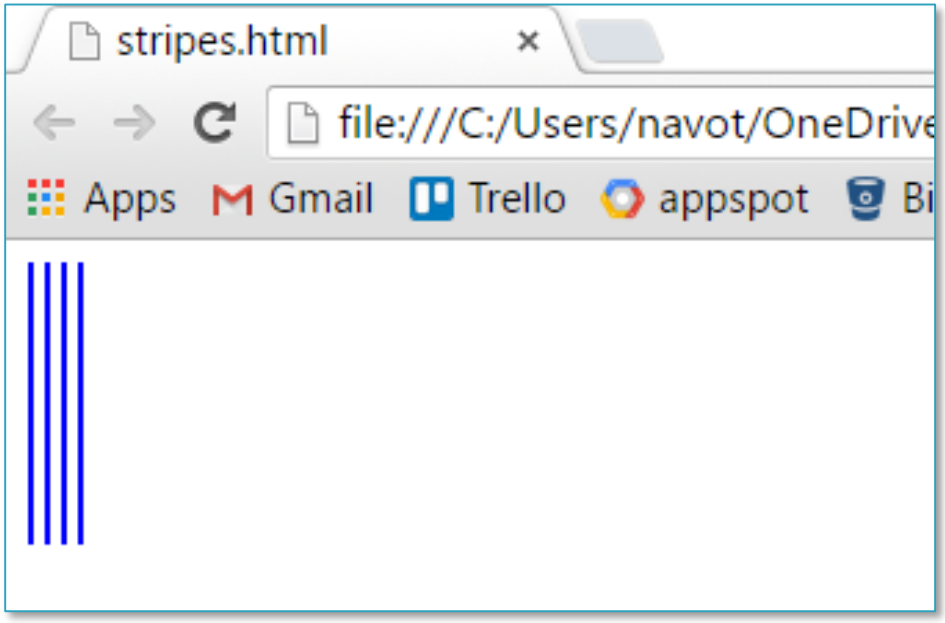
Wait, so why the height is not zero?

The font-size property takes up space even if there are no text inside…

Laying the Foundations

If we want the height we set to affect the element, we need to change the value of display to “inline-block”

```
.stripe{
    border:1px solid blue;
    height:100px;
    display:inline-block;
}
```

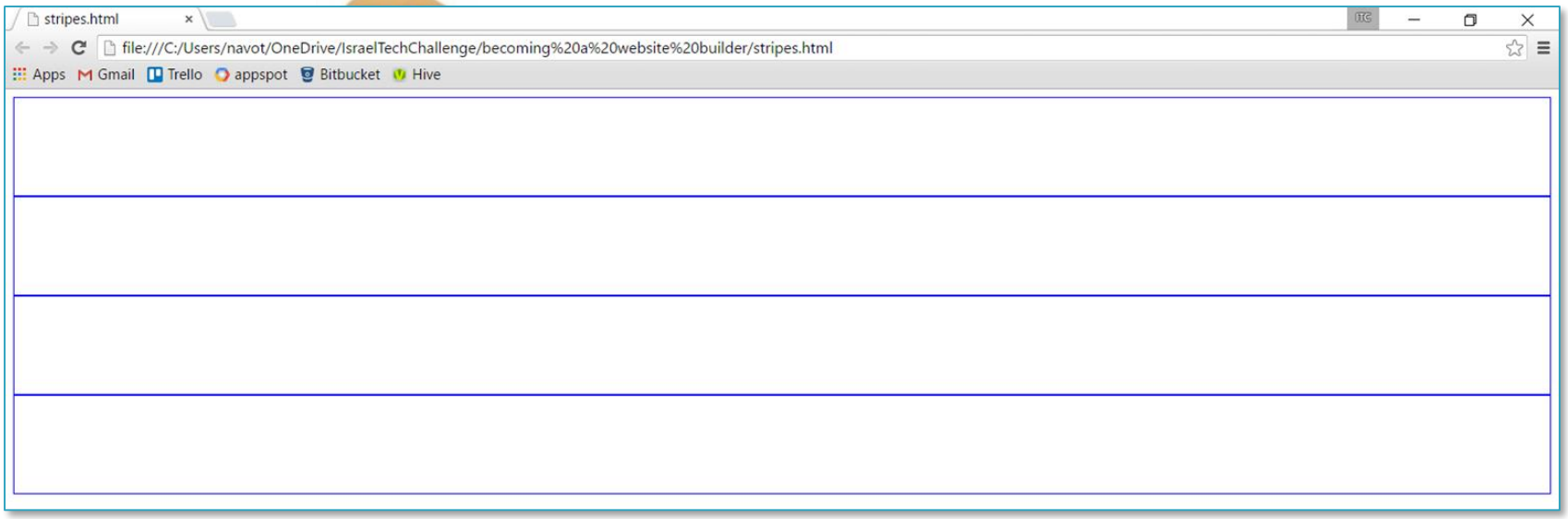


Q?

Laying the foundations

AAAnd… back to our original CSS

```
<style>
.stripe{
    border:1px solid blue;
    height:100px;
}
</style>
```



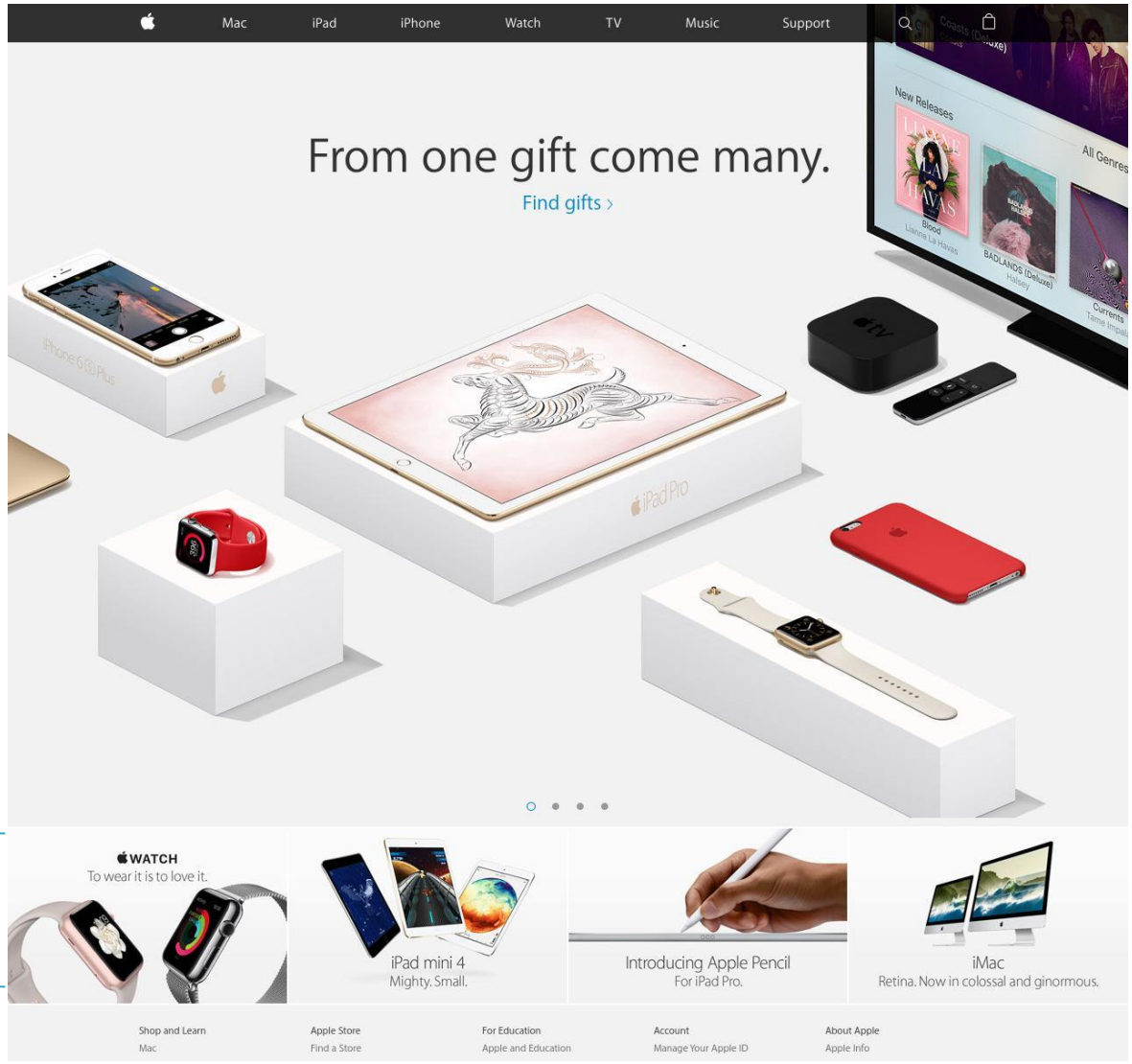
Naming the stripes

Menu

Promo

Featured

Footer

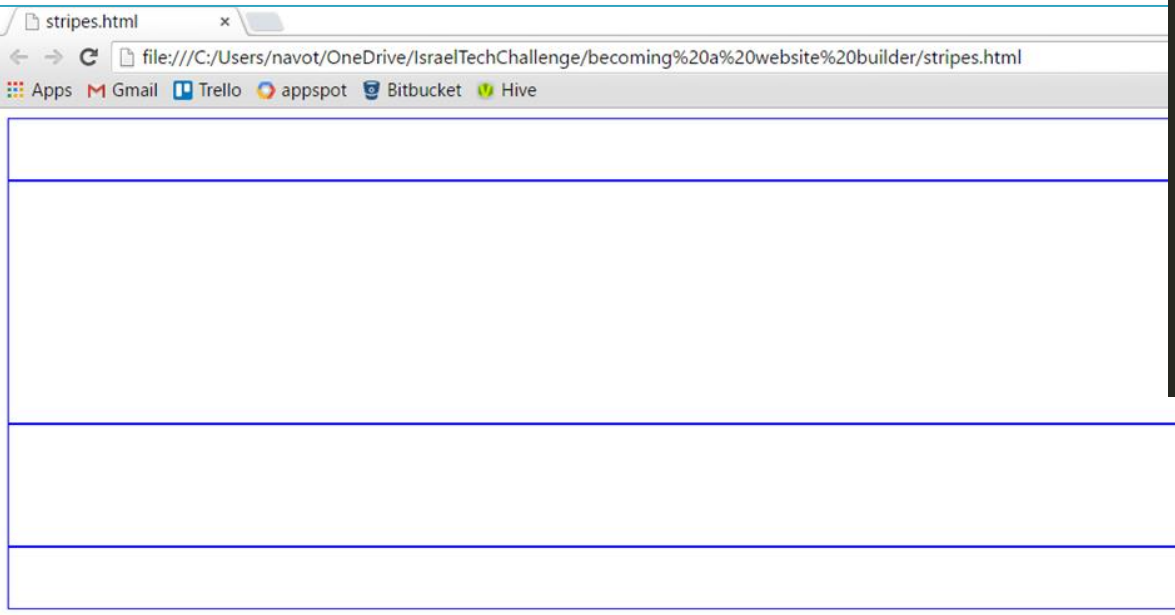


Naming the stripes

```
<div class="menu stripe"></div>
<div class="promo stripe"></div>
<div class="featured stripe"></div>
<div class="footer stripe"></div>
```

And setting an initial height

```
.stripe{
    border:1px solid blue;
}
.menu.stripe{
    height:50px;
}
.promo.stripe{
    height:200px;
}
.featured.stripe{
    height:100px;
}
.footer.stripe{
    height:50px;
}
```



Building the Menu

Now we implement each stripe separately

Starting from the menu

```
<div class="menu stripe">
        <span class="menu-entry">
            <img class="logo" src="./apple.png"/>
        </span>
        <span class="menu-entry">Mac</span>
        <span class="menu-entry">ipad</span>
        <span class="menu-entry">iphone</span>
        <span class="menu-entry">TV</span>
        <span class="menu-entry">Support</span>
        <span class="menu-entry">Where to Buy</span>
</div>
```

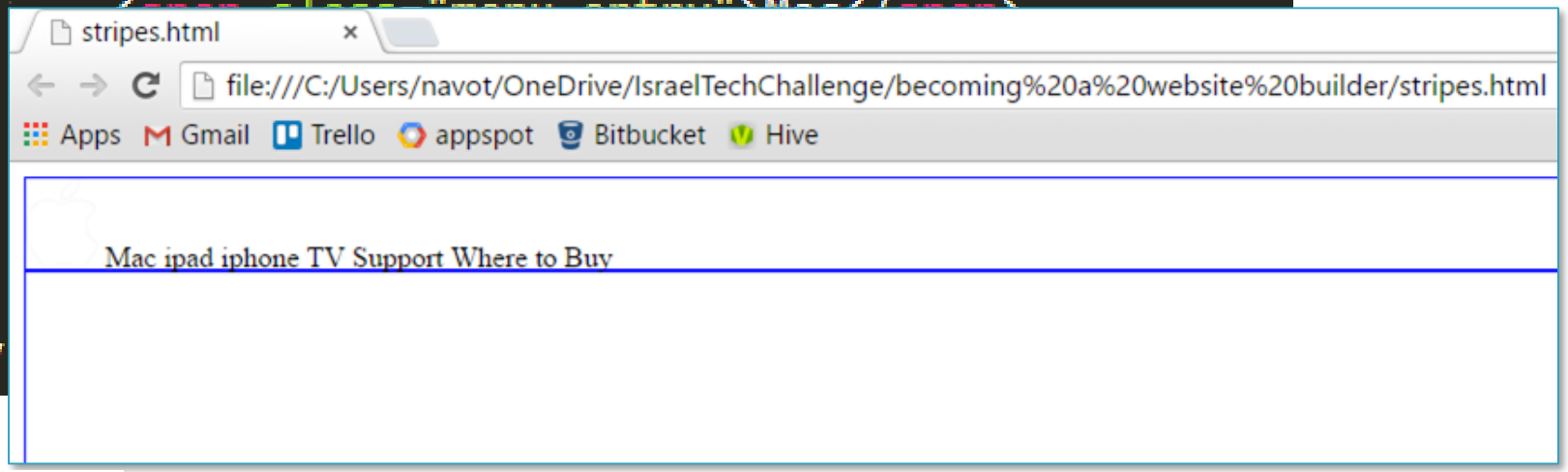
Can be replaced by
<nav></nav>

Building the Menu

Now we implement each stripe separately

Starting from the menu

```
<div class="menu stripe">
    <span class="menu-entry">
        <img class="logo" src="./apple.png"/>
    </span>
```



Where is the logo? It’s white…

Styling the Menu

Are we there yet?

Mac ipad iphone TV Support Where to Buy

Mac iPad iPhone Watch TV Music Support

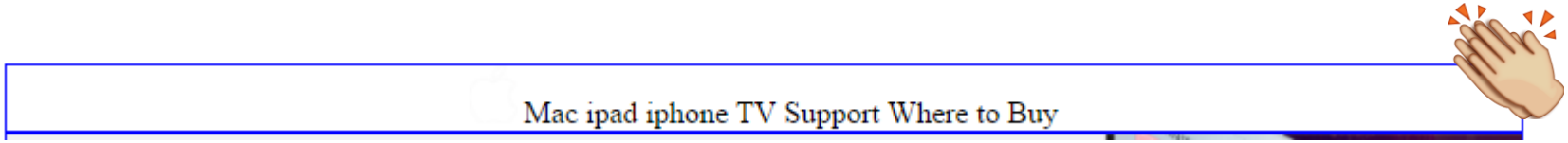
Not really….

Styling the Menu

First,
We will center the menu entries

```
.menu.stripe{
    text-align:center;
}
```

Notice!
We removed the height property because we now have content



Now we will match the original menu colors

```
.menu.stripe{
    text-align:center;
    background: rgba(0,0,0,0.8);
    color: white;
}
```

Huh?

Background-color

What is rgba?

Red, green, blue, alpha

```
background: rgba(0,0,0,0.8);
```

This is the opacity index

you can use it to set the transparency of the color

Value range is from 0 – transparent to 1 (default).

This is a feature of CSS3, and Is supported on most modern browsers

but not on IE 8 or below (released in 2009)

We can use rgb(0,0,0) as a fallback (without the alpha index)

```
background: rgb(0, 0, 0); /* The Fallback */
background: rgba(0, 0, 0, 0.8);
```

Styling the Menu

Fonts!
We will still them from the apple website using the inspect tool in the developers console

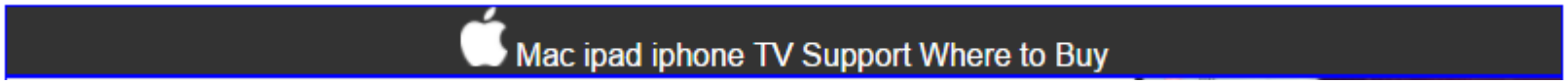
```
.menu.stripe{
    text-align:center;
    background: rgba(0,0,0,0.8);
    color: white;
    font-family: "Myriad Set Pro","Helvetica Neue","Helvetica","Arial",sans-serif;
}
```

Fallbacks
In case your computer does not have the font….

Font family

- The font is being rendered on the page based on:
  - The font files in the website (like images)
  - the fonts that exist on a the computer
- In case that the first font is not found, the browser moves on to the 2nd , 3rd and so on
- When specifying a font stack, we should always have a generic font family at the end
  - serif
  - sans-serif
  - cursive
  - fantasy
  - monospace
- For more information, see here

Styling the Menu



We are getting closer!

The only thing missing is space between the entries

Styling the Menu

To get space between the entries we can use margin

```
.menu.stripe .menu-entry{
    margin:20px;
}
```

Notice!
The margin does not affect the height of the stripe
That's because inline elements can only get horizontal spacing

Styling the Menu

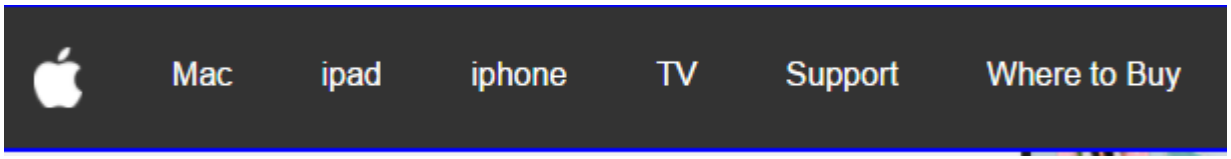
 elements are inline by default.
We can only change their horizontal margin

In order to change the vertical margin we use display:inline-block;

Styling the Menu

Last thing!
Using the vertical-align property on the image
We can place the links relative to the middle of the image

```
.menu.stripe img.logo{
    height:30px;
    vertical-align: middle;
}
```



Oops! We can do that only with inline elements…
Vertically aligning elements in CSS is a hard task (next week)

Q?

Links

A menu usually contains links.

So let's Take a minute to learn more about links!

link to other pages

If we want to link outside our website, we should use

```
<a href="http://apple.com">apple</a>
```

If we have more than 1 page in our website, we can just write the name of the file

```
<a href="mac.html">mac</a>
```

link to the same page?

If we want to jump to an element further down the page, we need to tell the <a> element to go there – It's called **anchor.**

```
<a href="#feature">apple</a>
```

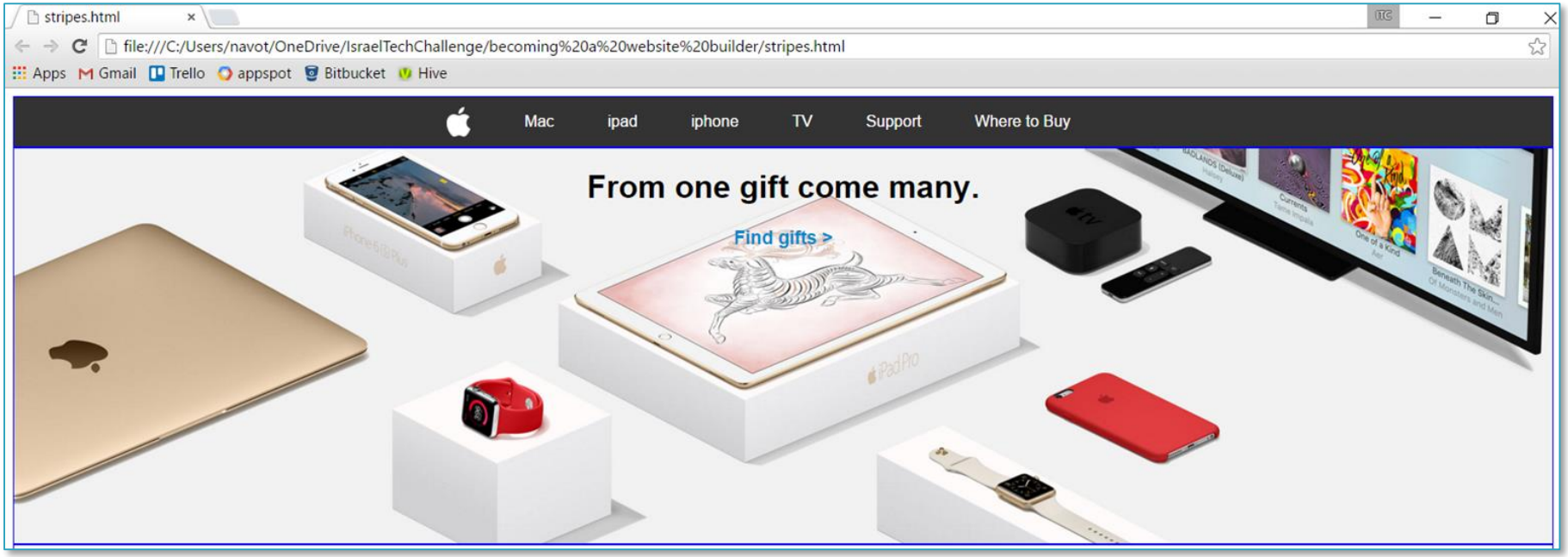
To connect the two, we need to use a new HTML attribute called ID

```
<div class="featured stripe" id="feature">
```

It's a unique identifier for HTML elements
(unlike class, that can be used multiple times)
Also must start with a letter

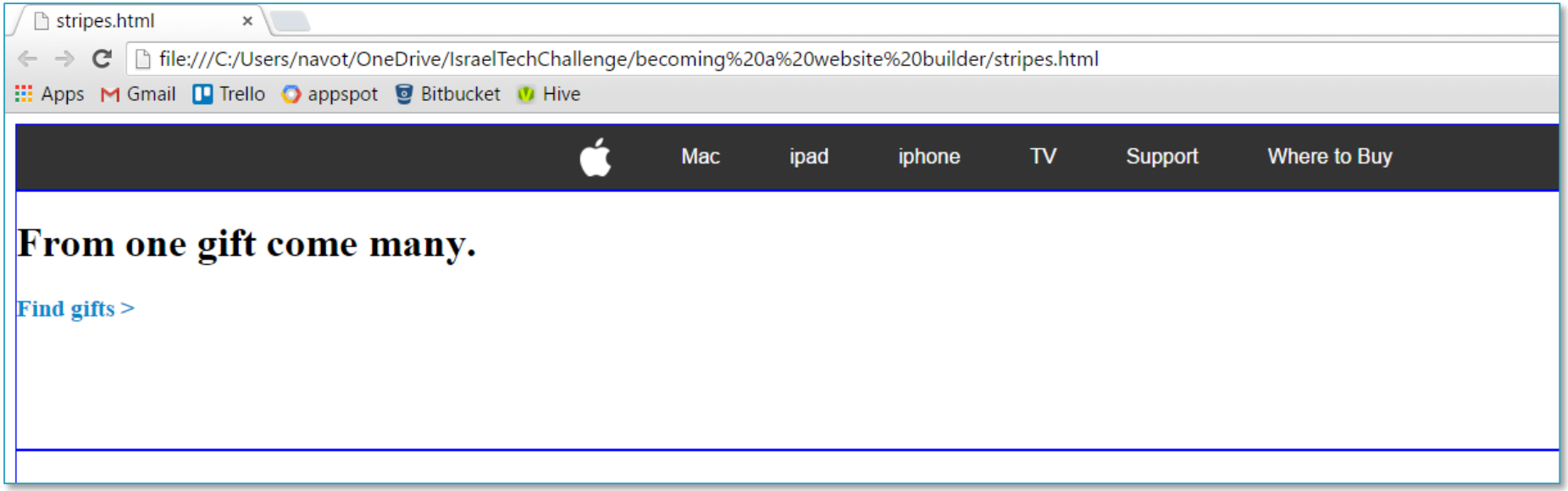
Q?

Building the promo



Building the promo

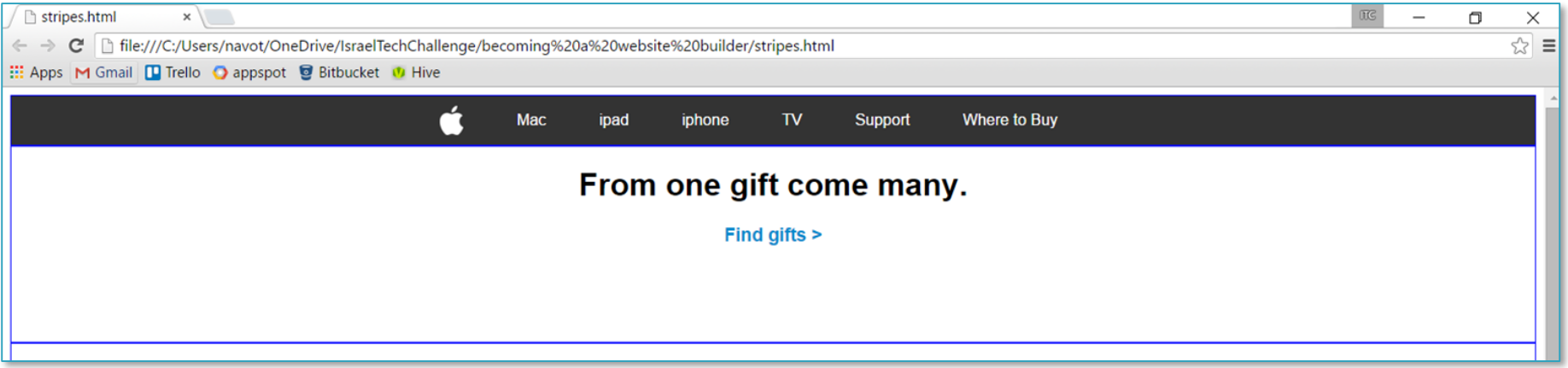
```
<div class="promo stripe">
  <h1>From one gift come many. </h1>
  <h3>Find gifts > </h3>
</div>
```



Styling the promo

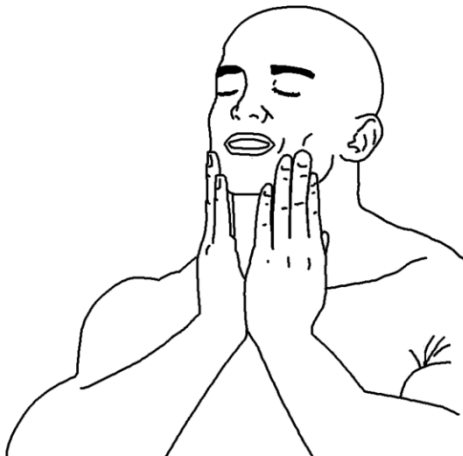
```css
.stripe{
    border:1px solid blue;
}

.menu.stripe{
    height:50px;
    background: rgba(0,0,0,0.8);
    color:white;
    font-family: "Myriad Set Pro","Helvetica Neue","Helvetica","Arial",sans-serif;
    text-align:center;
}

.promo.stripe{
    height:200px;
    font-family: "Myriad Set Pro","Helvetica Neue","Helvetica","Arial",sans-serif;
    text-align:center;
}
```

Can you see the problem? How to solve the duplication?



Styling the promo

```
.stripe{
    border:1px solid blue;
    font-family: "Myriad Set Pro","Helvetica Neue","Helvetica","Arial",sans-serif;
    text-align:center;
}

.menu.stripe{
    height:50px;
    background: rgba(0,0,0,0.8);
    color:white;
}

.promo.stripe{
    height:200px;
}
```



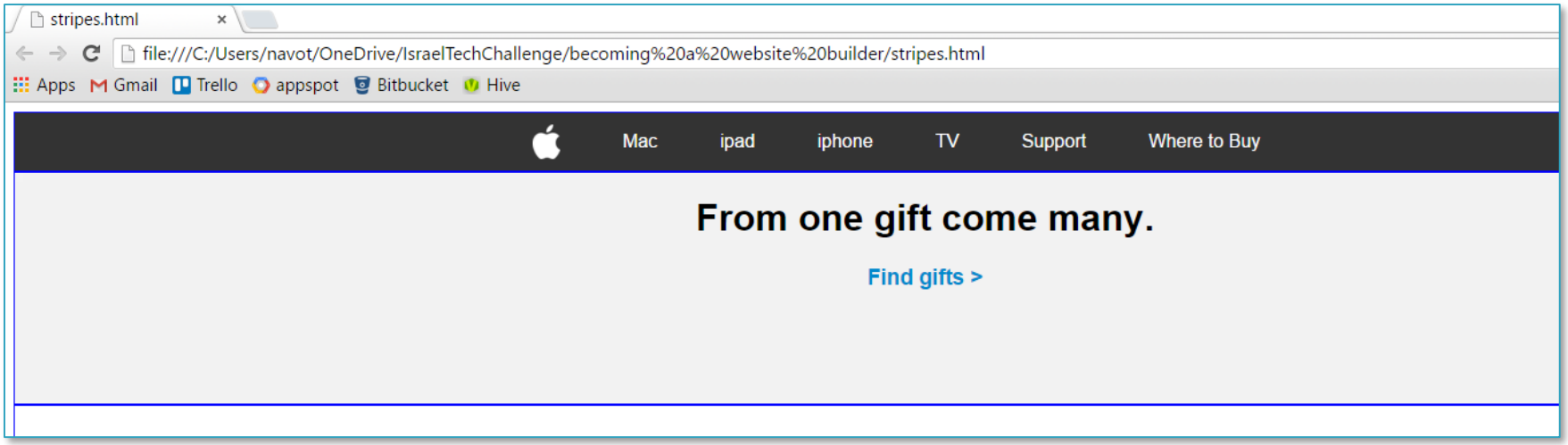
Styling the promo

The image behind the promo can be created using style only

The background style property is very powerful and can help us in many cases, without adding an image tag

Styling the promo

```
.promo.stripe{
    height:200px;
    background-image:url('./appleпromo.jpg');
}
```



Where is the image?

The image is too big!
We can only see its top

Background-size

Contain: Scale the image to the largest size such that both its width and its height can fit inside the content area

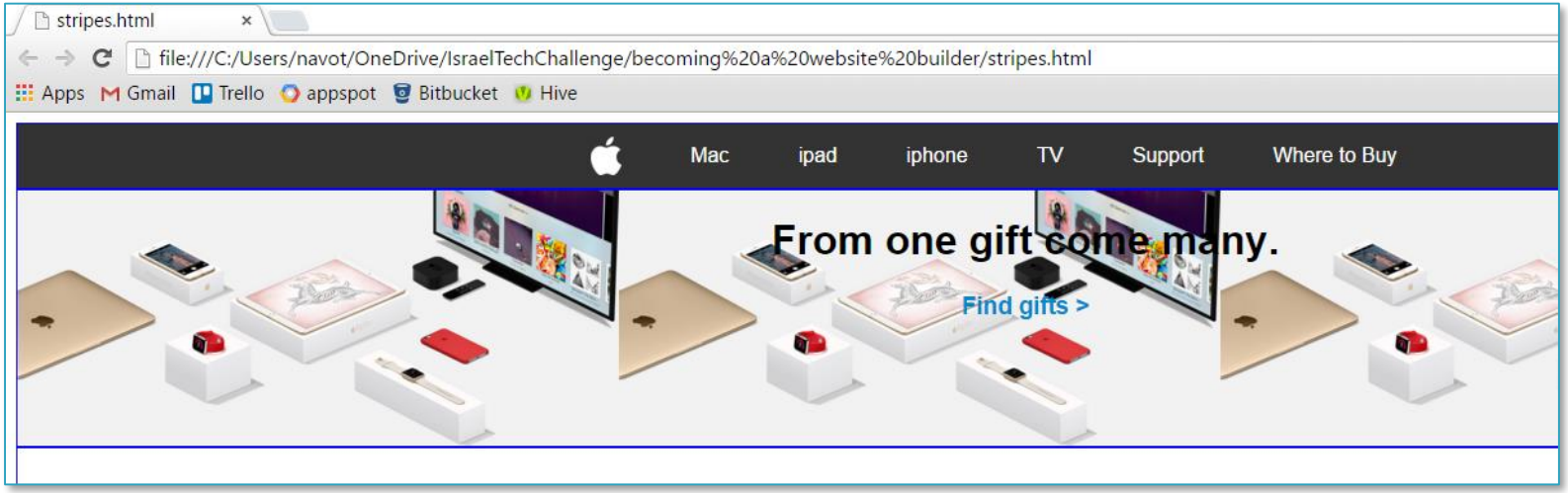
Use when the subject in the image is important

Cover: Scale the background image to be as large as possible so that the background area is completely covered by the background image. Some parts of the background image may not be in view within the background positioning area

Use for ambience background

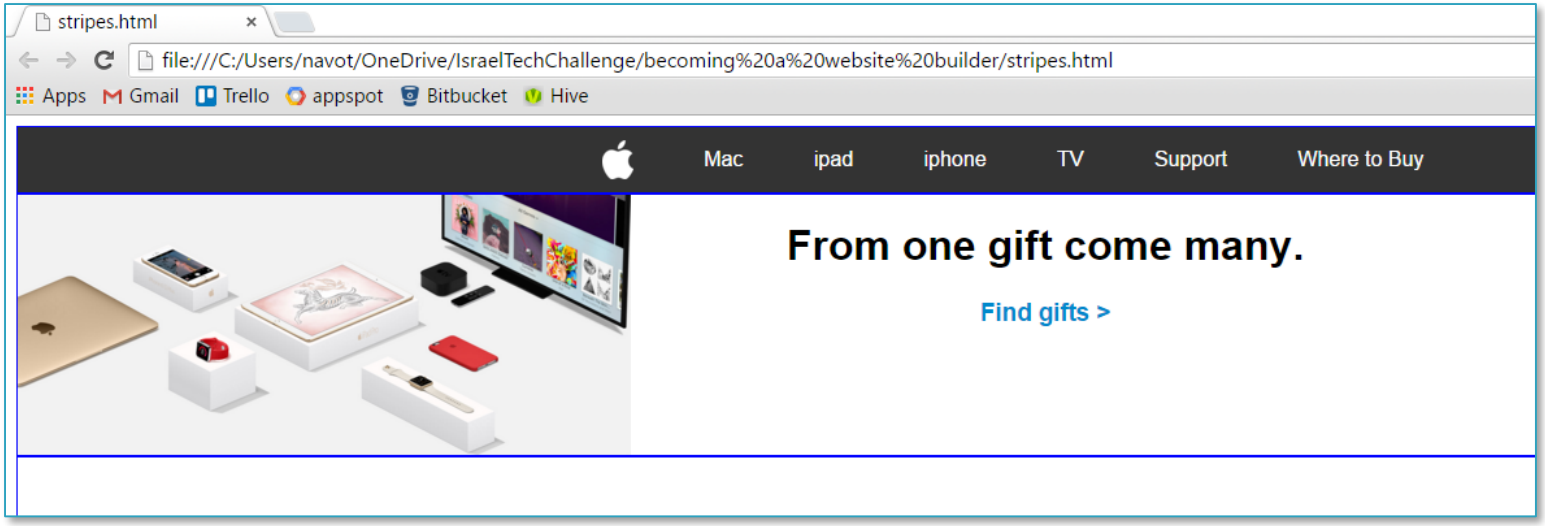
Contain

```css
.promo.stripe{
    height:200px;
    background-image:url('./appleпromo.jpg');
    background-size: contain;
}
```



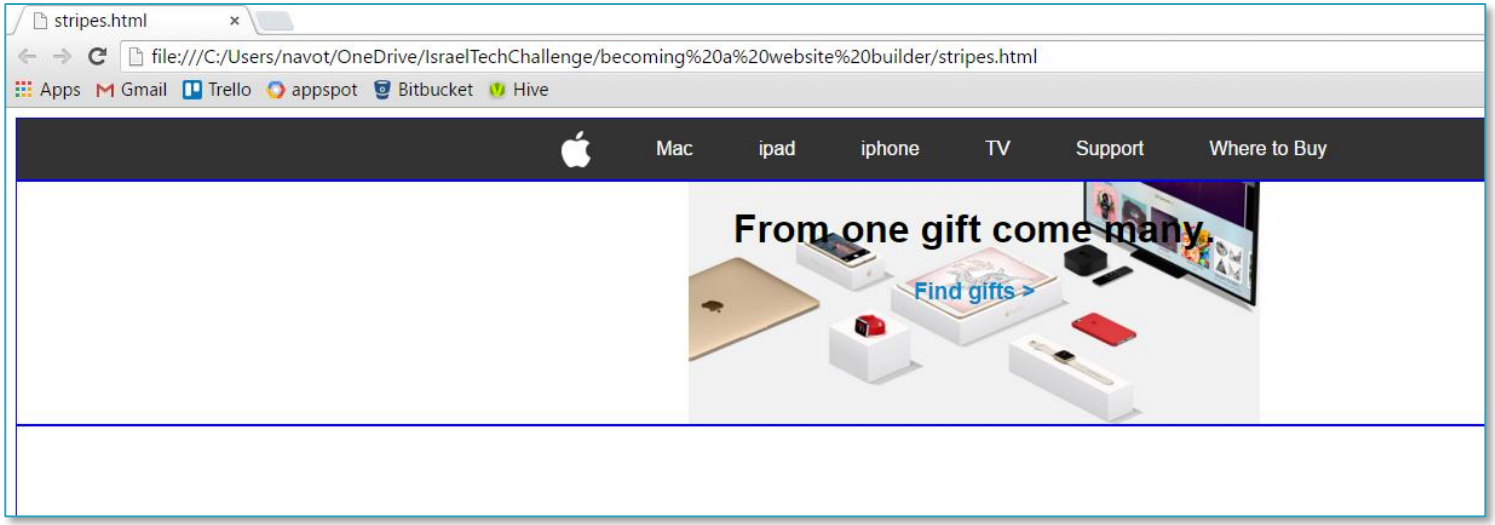
Contain

```
.promo.stripe{
    height:200px;
    background-image:url('./appleпromo.jpg');
    background-size: contain;
    background-repeat: no-repeat;
}
```



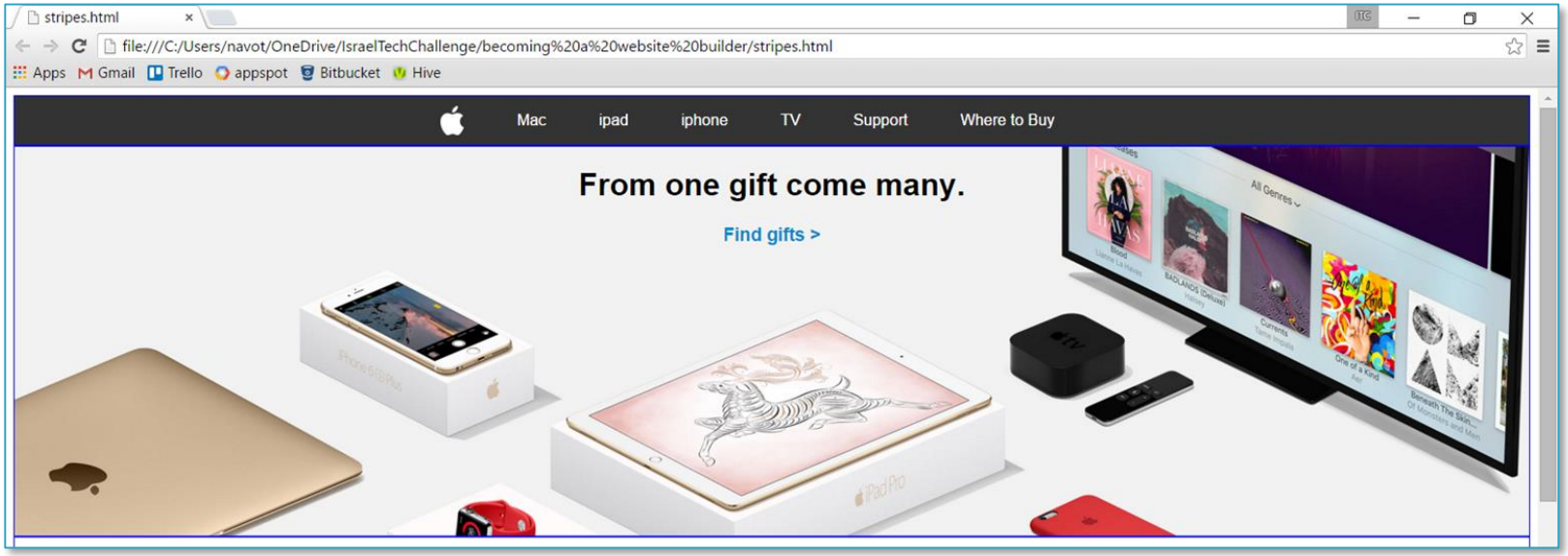
Contain

```
.promo.stripe{
    height:200px;
    background-image:url('./appleпromo.jpg');
    background-size: contain;
    background-repeat: no-repeat;
    background-position:center;
}
```



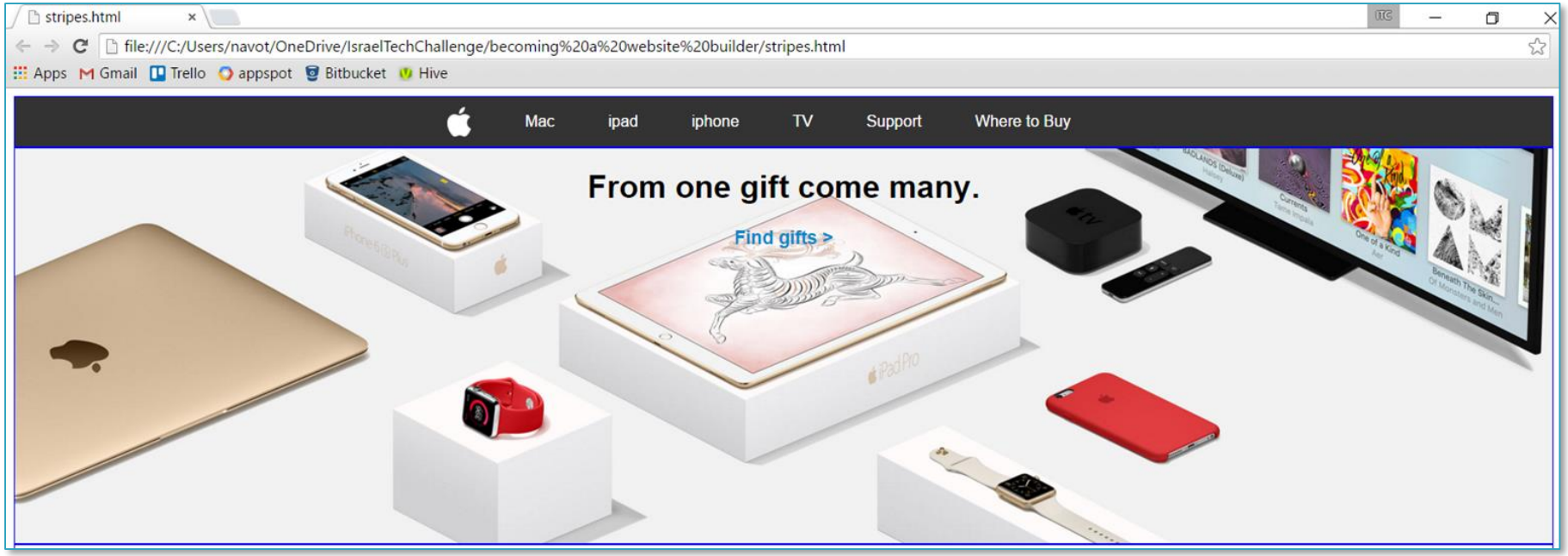
Cover

```
.promo.stripe{
    height:400px;
    background-image:url('./applepromo.jpg');
    background-size: cover;
}
```



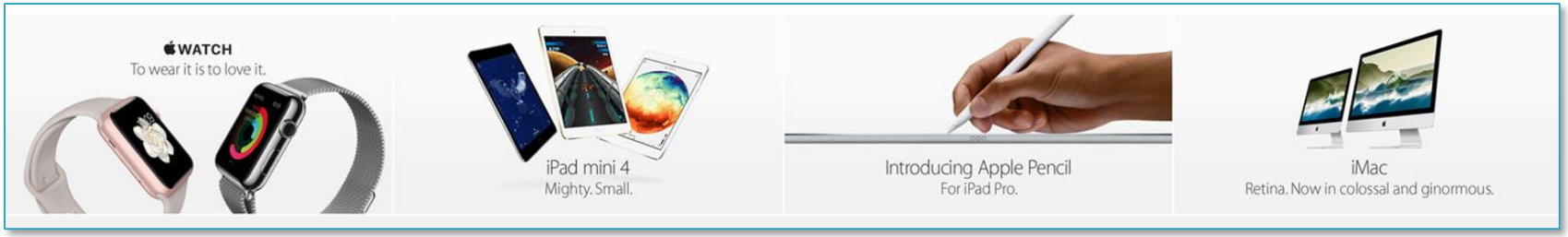
Cover

```
.promo.stripe{
    height:400px;
    background-image:url('./appleпromo.jpg');
    background-size: cover;
    background-position:center;
}
```



Q?

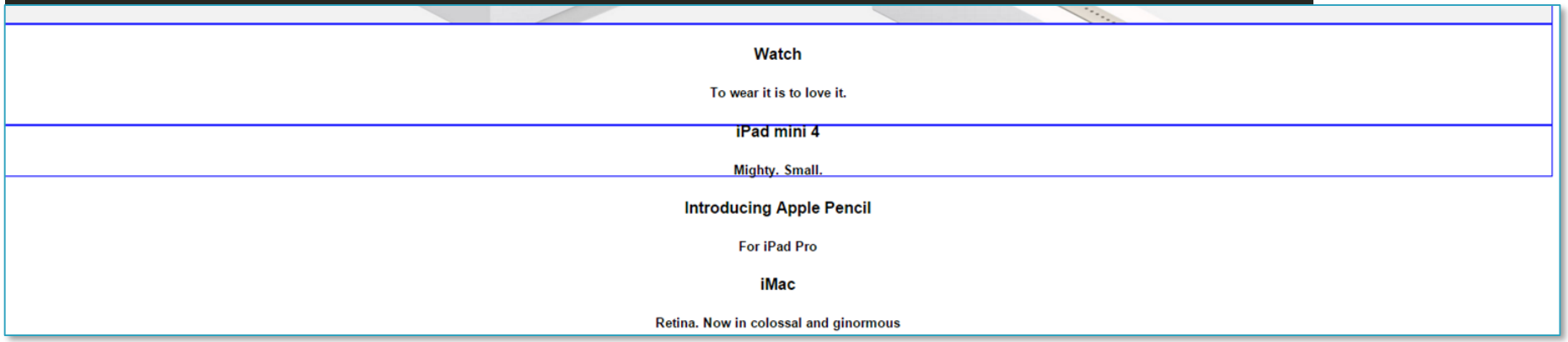
Building the Featured



Building the Featured

```
<div class="featured stripe">
  <div class="featured-item">
      <h4 class="title">Watch</h4>
      <h5 class="subtitle">To wear it is to love it.</h5>
  </div>
  <div class="featured-item">
      <h4 class="title">iPad mini 4</h4>
      <h5 class="subtitle">Mighty. Small.</h5>
  </div>
  <div class="featured-item">
      <h4 class="title">Introducing Apple Pencil</h4>
      <h5 class="subtitle">For iPad Pro</h5>
  </div>
```

But they are one after the other.
How can we arrange them in a line?



Styling the Featured

```css
.featured.stripe{
    height:100px;
}

.featured.stripe .featured-item{
    display:inline-block;
}
```

Watch **iPad mini 4** **Introducing Apple Pencil** **iMac**

To wear it is to love it. Mighty. Small. For iPad Pro Retina. Now in colossal and ginormous

Styling the Featured

- Using the border coloring method to see our s

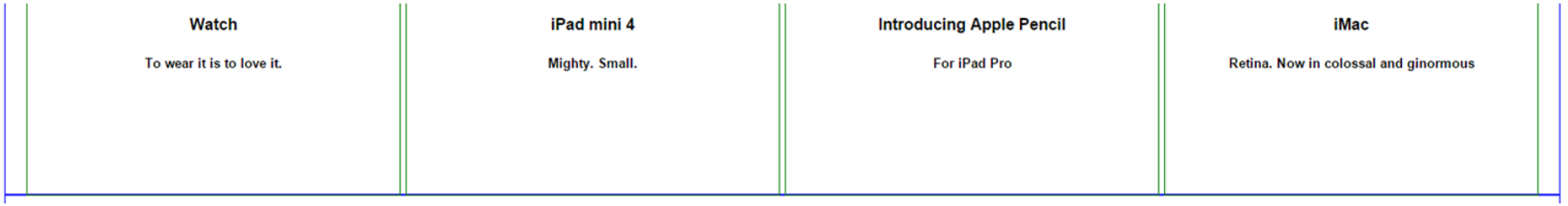
```
.featured.stripe .featured-item{
    display:inline-block;
    border:1px solid green;
}
```

Styling the Featured

In order to have even item's width we can either give them a specific width or use percentage

```
.featured.stripe{
    height:200px;
}

.featured.stripe .featured-item{
    display:inline-block;
    border:1px solid green;
    width:24%;
    height:inherit;
}
```

We want the item's height to equal the parent's (stripe) height so we set it to inherit



Styling the Featured

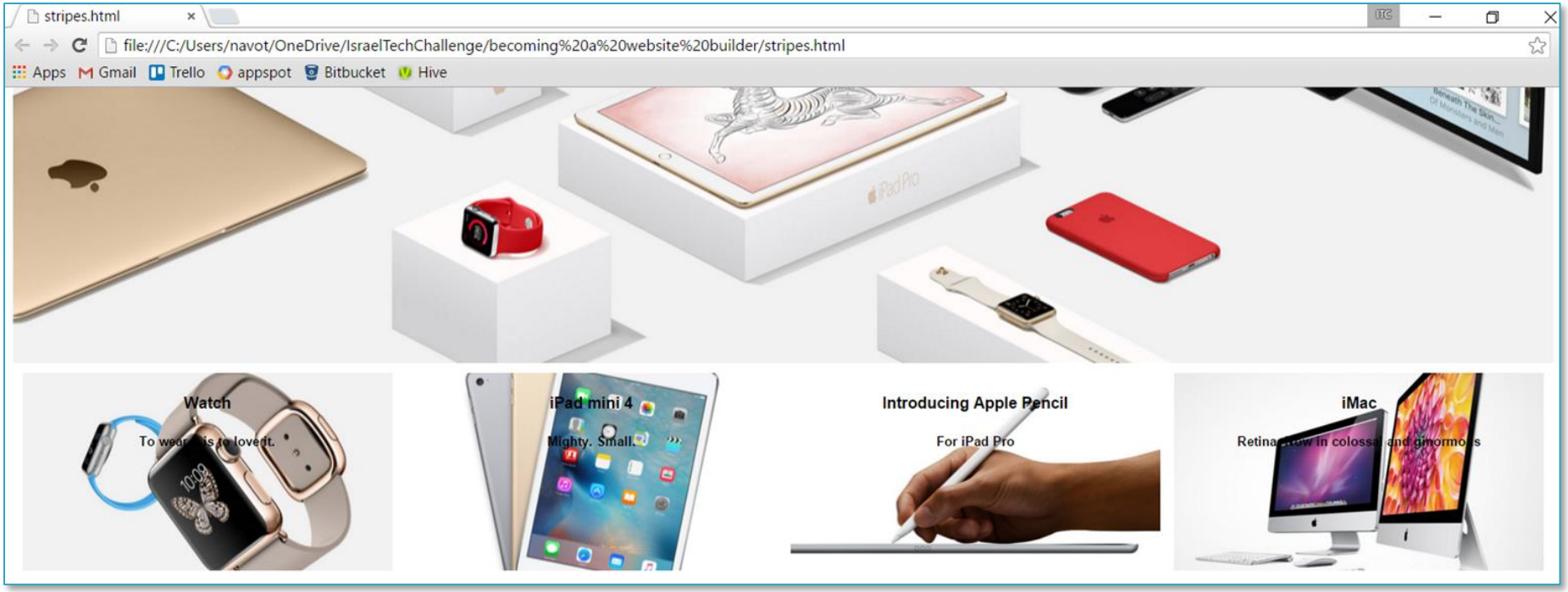
Finally we add the featured images
We add a class name for each featured
And add the images as backgrounds

```
<div class="featured stripe">
  <div class="featured-item iwatch">
      <h4 class="title">Watch</h4>
      <h5 class="subtitle">To wear it is to love
  </div>
  <div class="featured-item ipad">
      <h4 class="title">iPad mini 4</h4>
      <h5 class="subtitle">Mighty. Small.</h5>
  </div>
  <div class="featured-item pencil">
      <h4 class="title">Introducing Apple Pencil<
      <h5 class="subtitle">For iPad Pro</h5>
  </div>
  <div class="featured-item imac">
      <h4 class="title">iMac</h4>
      <h5 class="subtitle">Retina. Now in colossa
  </div>
</div>
```

```
.featured.stripe{
    height:200px;
}

.featured.stripe .featured-item{
    display:inline-block;
    width:24%;
    height:inherit;
    background-size: cover;
    background-repeat: no-repeat;
    background-position: center;
    margin: 10px 5px;
}

.featured.stripe .featured-item.iwatch{
    background-image:url('./iwatch.jpg');
}
.featured.stripe .featured-item.ipad{
    background-image:url('./ipadmini4.png');
}
.featured.stripe .featured-item.pencil{
    background-image:url('./pencil.jpg');
}
.featured.stripe .featured-item.imac{
    background-image:url('./imac.jpg');
}
```

Styling the Featured

We are closer, but we will leave the rest for you!



Q?

Arranging the Resources

```
.stripe{
    font-family: "Myriad Set Pro","Helvetica Neue","Helvetica","Arial",sans-serif;
    text-align:center;
}

.menu.stripe{
    height:50px;
    background: rgba(0,0,0,0.8);
    color:white;
}

.promo.stripe{
    height:400px;
    background-image:url('../images/appleprom o.jpg');
    background-size: cover;
    background-position:center;
}

.menu.stripe img.logo{
    height:30px;
}

.menu.stripe .menu-entry{
    margin-right: 50px;
    vertical-align: middle;
    margin-top: 10px;
    display: inline-block;
}

.promo.stripe h3{
    color:#08C;
}

.featured.stripe{
    height:200px;
}
```

```
.featured.stripe .featured-item.iwatch{
    background-image:url('../images/iwatch.jpg');
}
.featured.stripe .featured-item.ipad{
    background-image:url('../images/ipadmini4.png');
}
.featured.stripe .featured-item.pencil{
    background-image:url('../images/pencil.jpg');
}
.featured.stripe .featured-item.imac{
    background-image:url('../images/imac.jpg');
}


.footer.stripe{
    height:50px;
}
```

Our <style> tag has grown and it's now difficult to maintain our document

Arranging the Resources

It is time to use a separate file

We will create a new folder called css, and inside that folder a new file called apple.css

Copy all the <style> tag **content** into apple.css and save

Arranging the Resources

In our .html file, replace the style tag with a link

```
<head>
   <link rel="stylesheet" type="text/css" href="./css/apple.css">
</head>
```

This will tell the browser to load the style from a file

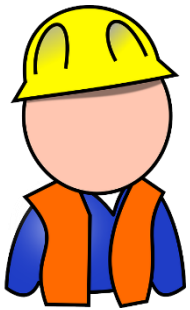
- This will be loaded and rendered before the <body> tag, so that the browser will know how to design the different HTML elements

We can have as many style sheets as we'd like

Arranging the Resources

We will create a separate folder for the images, and move all of our images there

Name	Date modified	Type	Size
css	14-Nov-15 11:45	File folder	
images	14-Nov-15 11:44	File folder	
stripes	14-Nov-15 11:47	Chrome HTML Do...	2 KB



We must not forget to update our image references!

Arranging the Resources

First in the HTML doc

```
<span class="menu-entry">
  <img class="logo" src="./images/apple.png"/>
</span>
```

Arranging the Resources

And in the CSS file as well

```
.featured.stripe .featured-item.iwatch{
    background-image:url('../images/iwatch.jpg');
}
.featured.stripe .featured-item.ipad{
    background-image:url('../images/ipadmini4.png');
}
.featured.stripe .featured-item.pencil{
    background-image:url('../images/pencil.jpg');
}
.featured.stripe .featured-item.imac{
    background-image:url('../images/imac.jpg');
}
```

Arranging the Resources

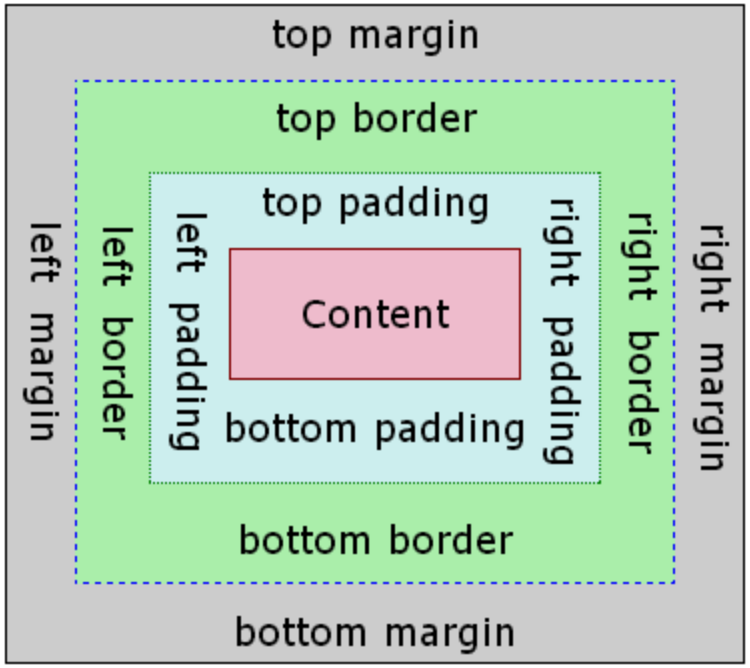
What is the difference?

```
.featured.stripe .featured-item.iwatch{
    background-image:url('../images/iwatch.jpg');
}
```

```
<span class="menu-entry">
  <img class="logo" src="./images/apple.png"/>
</span>
```

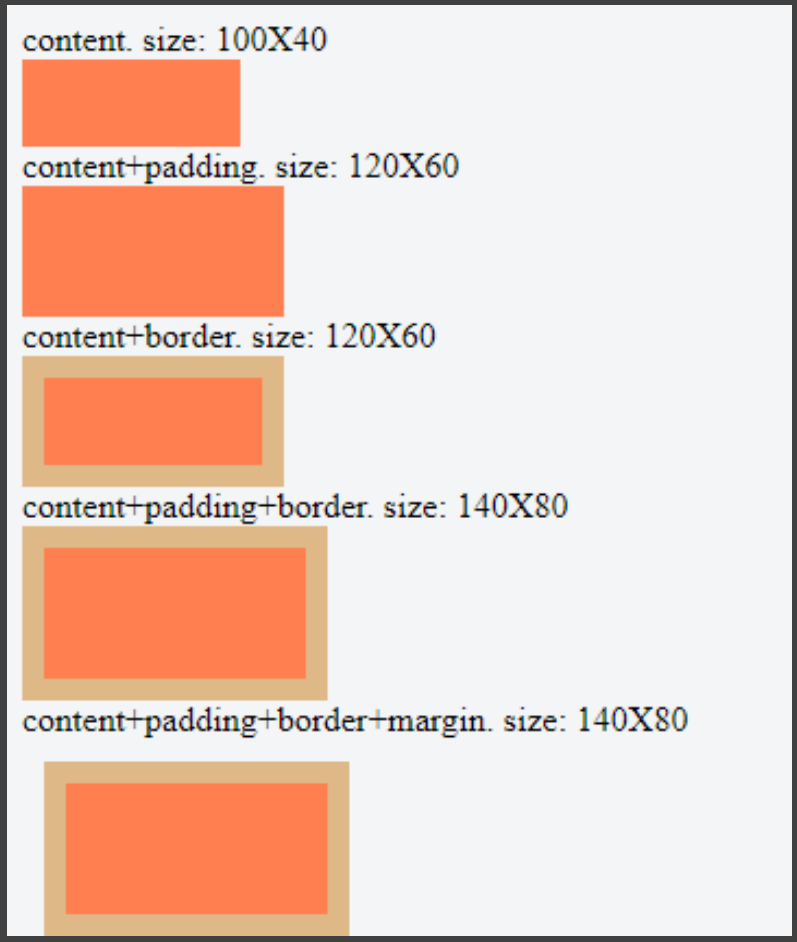
The CSS is located in an inner folder

The box model



Box model Example

```
HTML:
content. size: 100X40
<div></div>


content+padding. size: 120X60
<div class="padding"></div>


content+border. size: 120X60
<div class="border"></div>


content+padding+border. size: 140X80
<div class="padding border"></div>


content+padding+border+margin. size: 140X80
<div class="padding border margin"></div>
```



The box model

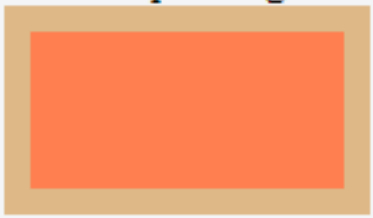
```
CSS:

div {
        width: 100px;
        height: 40px;
        background: coral;
}
.padding {
        padding: 10px;
}
.border {
        border: 10px solid burlywood;
}
.margin {
        margin: 10px;
}
```

content. size: 100X40

content+padding. size: 120X60

content+border. size: 120X60

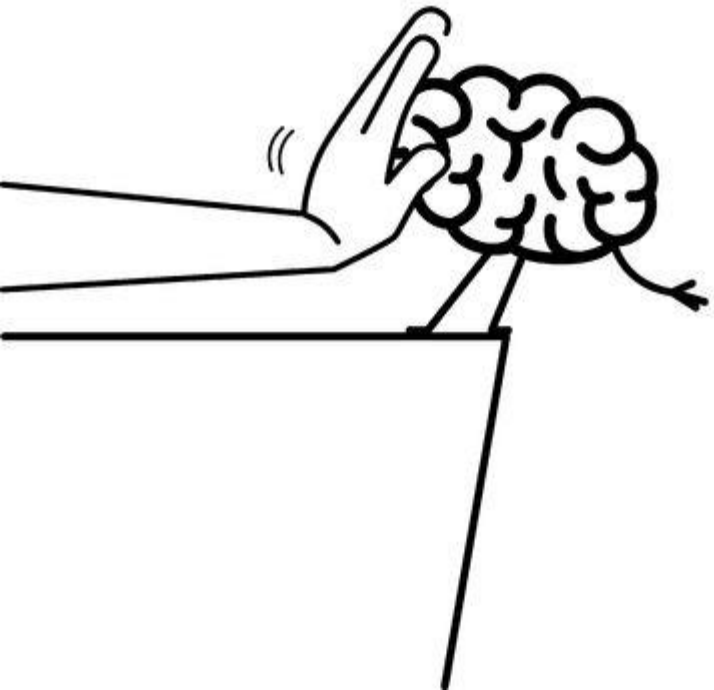
content+padding+border. size: 140X80



content+padding+border+margin. size: 140X80

Q?

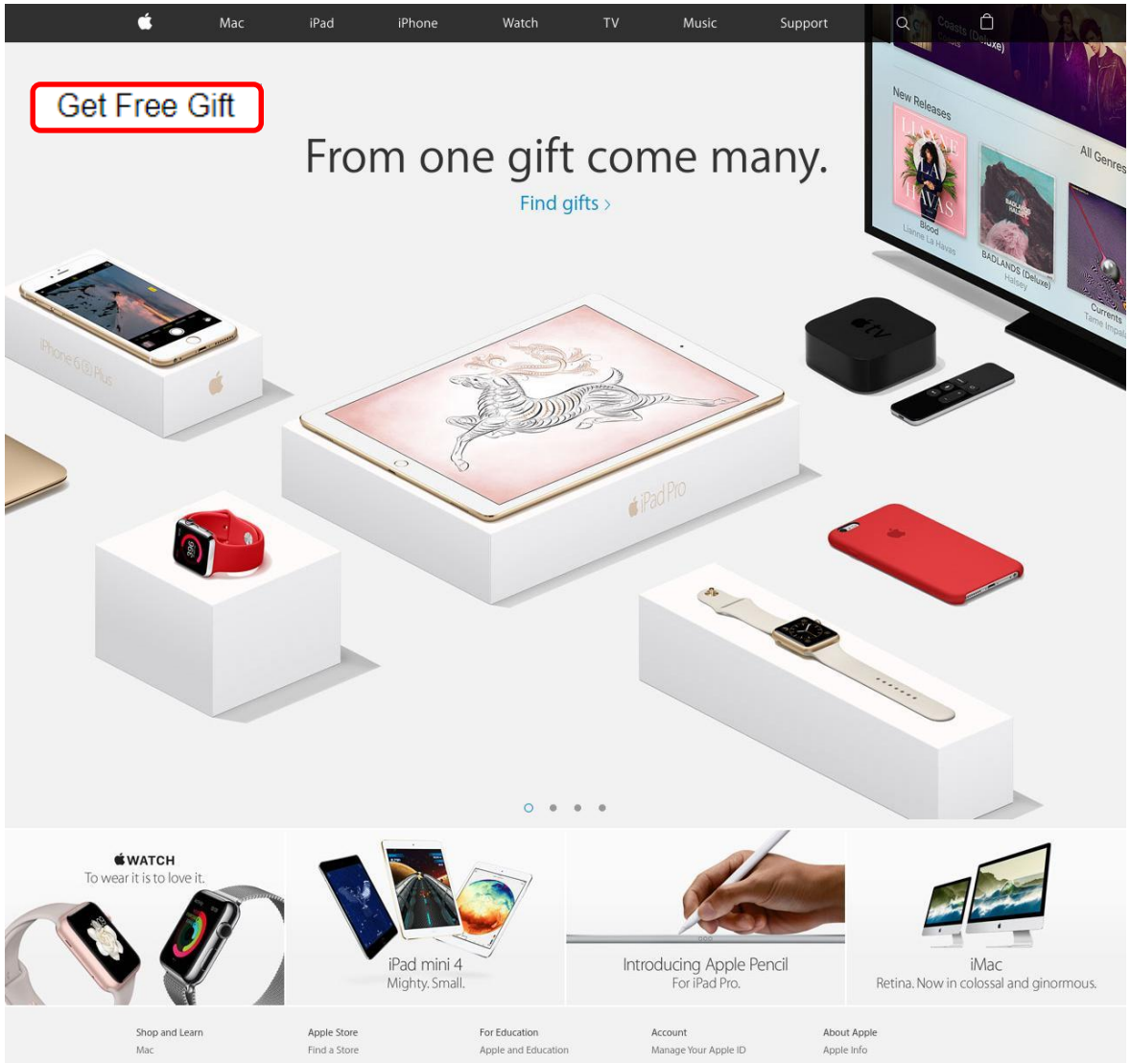
Had Enough?



Adding a Free Gift Link

This month there is a special offer a free gift. We want to add a link to the free gift page.

We want the button to be 1/8 from the width of the screen.



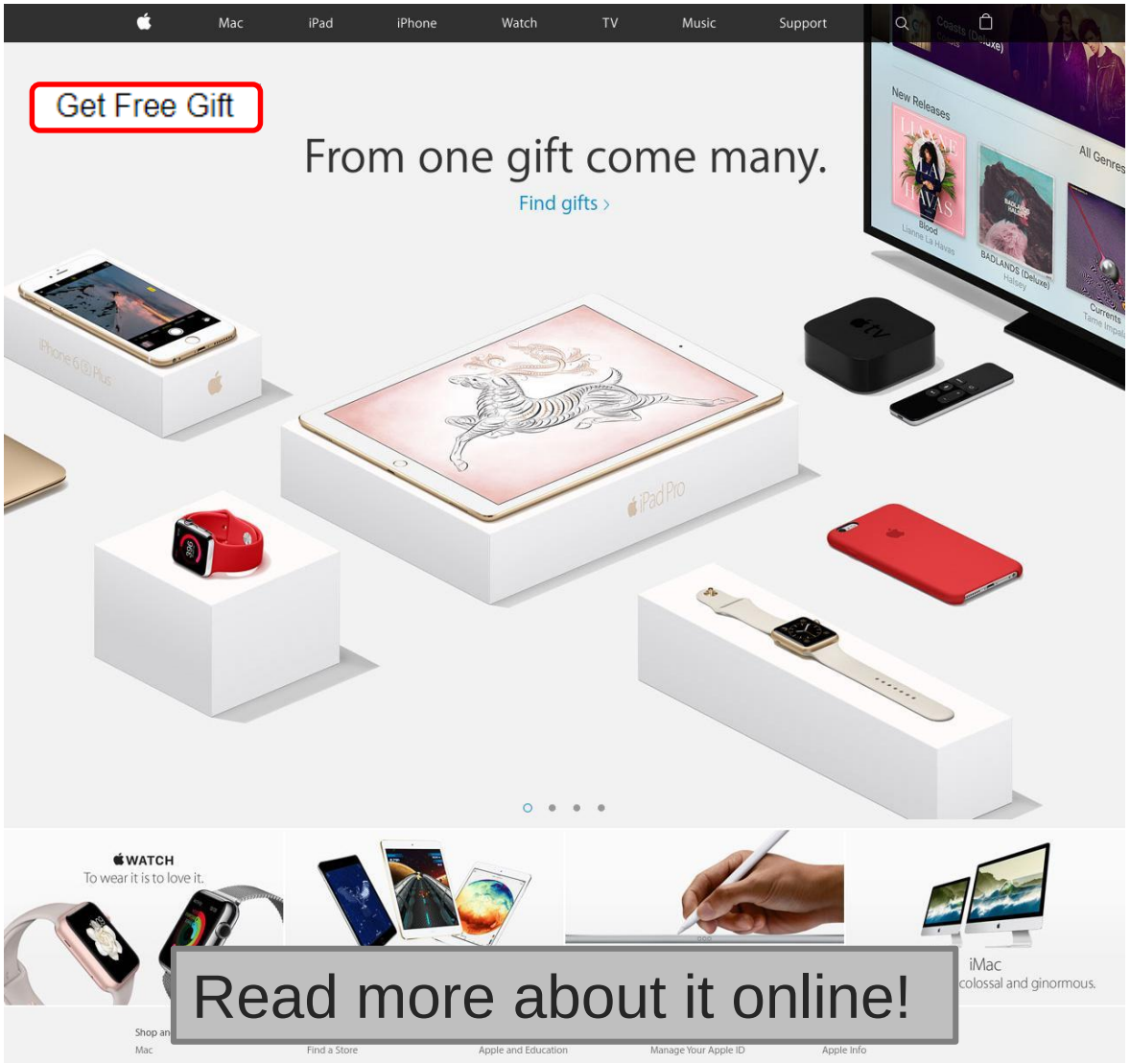
Calc Function

We can use calc and % to achieve that.

CSS:

```
.promo .free-gift {
  position: absolute;
  width: calc(100%/8);
  padding: 3px;
  top: 15px;
  left: 10px;
}
```

Calc is a function that can calculate simple math expressions! Including %!

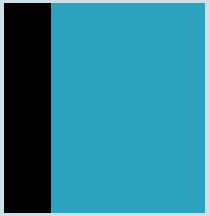


Summary

- You needed to understand:
  - The steps in planning and building a webpage
  - How to use additional style properties (background color, font family and more)
- You need to remember:
  - The box model
- You need to be able to do:
  - Create page layout based on stripes
  - Separate the CSS to it’s own file and reference it
  - Move images to another folder and reference to them

Cheat Sheet

Layouts

The holy grail	side menu	stripes
		

- **Opacity** – rgba = (red,green,blue,alfa[0-1])
- Font family fallbacks

Link to anchor

- `Address:<a href="http://apple.com">apple</a>`
- `Page: <a href="mac.html">mac</a>`
- `Element: <a href="#feature">apple</a>`

Paths

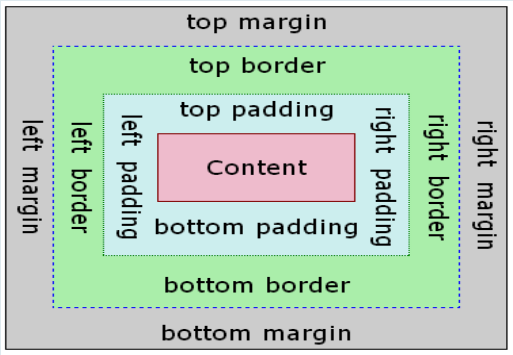
Start from current directory (html):

./images/logo.jpg

Go one directory up (css):

../images/logo.jpg

The box model



Display property and height/width

Block (div)

- The default height of a is “auto” (0 when empty)
- Default width is filling its parent’s width

Inline (span)

- width and height are adjusted by the elements content
- font-size property takes up space even if there are no text inside
- Can only have horizontal margin

Inline-block

- width and height are affecting

Background Image

background-size [contain, cover]
background-repeat [no-repeat]
background-position [center]
background-image: url(‘./logo.jpg’)