



Usability: Website layouts CSS frameworks Graphic design (a crash course)

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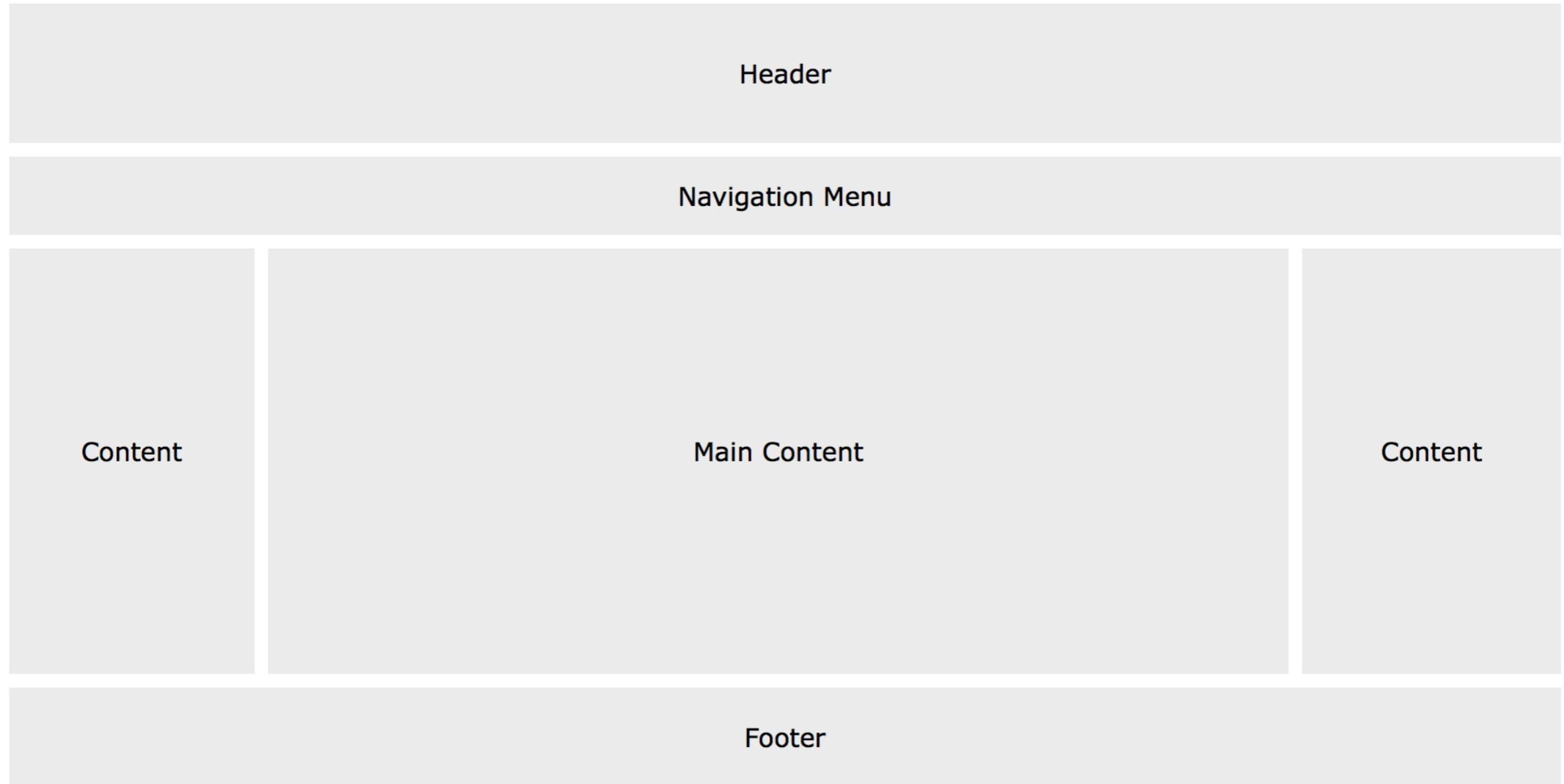
18.04.18

Agenda:

1. Website layouts
2. Displaying on mobile devices
3. Frameworks
4. Bootstrap use-case
5. Colors
6. Icons and graphics
7. Fonts
8. Graphic design

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1. **Website layouts**
2. Displaying on mobile devices
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Website layout example

A website is often divided into headers, menus, content and a footer

Grids
are
everywhere



POP-UP IN BERLIN

New Balance bringt das legendäre Modell "Made 990" zurück – für einen einzigen Tag

Von ANN-KATHRIN RIEDL



GEWAGTE KOMBINATION



RED-CARPET-LOOKS



GOLDENE LIEBLINGE

Sometimes it is obvious...

Guess how many columns are there?



Sometimes it is obvious...

Guess how many columns are there? (4)

The Fight to

Export U.S. Oil

► Debate heats up over the wisdom of banning sales abroad

► "A 'slugfest' between industrial consumers and producers"

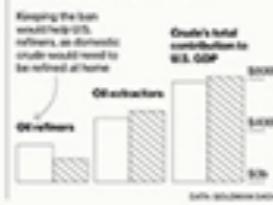
To sell abroad—or stay at home? Those are the terms of a debate roiling the U.S. oil industry. At the heart of the disagreement is a 1973 ban on U.S. oil exports imposed by Congress when domestic reserves were dwindling and the country was still spooked by the 1973 Arab embargo. Thanks to new technology, oil production in the U.S. now tops 8 million barrels a day, the highest since 1980. That's prompted U.S. producers to call for an end to the ban so they can serve new markets. Refiners and other companies want the ban maintained to benefit from the cheap prices of the local oil they use to make gasoline, chemicals, and plastics. "This debate is a major slugfest between industrial consumers and producers of oil," says Michael Webber, deputy director of the Energy Institute at the University of Texas.

A recent development has put a spotlight on the dispute. In late June, the Commerce Department determined

that two Texas companies, Pioneer Natural Resources and Enterprise Products Partners, could start exporting an ultralight type of crude called condensate, which occurs naturally as a gas and condenses into a liquid once drilled out of the ground. Condensate is added to heavier crudes to make them easier to refine, and is a basic ingredient for chemicals. Horizontal drilling has unlocked far more condensate than the U.S. can use. Exporting it should relieve the surplus building up. The two companies had asked Commerce if minimally processed condensate could be classified as a refined product, which can be exported. Commerce said it could but insisted the ruling doesn't open the door to abolishing the ban.

The ruling could be a precursor to rolling it back. In April, Texas Republican congressman Michael McCaul introduced a bill to end the ban, but the likelihood of Congress passing it seems slim, with both houses in near gridlock and powerful industries lined up on either side of the issue. Democratic Senator Mary Landrieu of Louisiana, chair of the Senate Energy and Natural Resources Committee, is perhaps the person in Congress best placed to lead the effort to kill the ban. But she's facing a tough reelection this year and has both refiners and oil producers in her state. Two senators, Robert Menendez (D-N.J.) and Edward Markey (D-Mass.), are asking Commerce why its ruling doesn't violate the ban. And there's some movement from the executive branch. In May, presidential adviser John Podesta said the possibility of allowing crude

Fueling the Economy
Contribution to GDP in 2010
□ Ban on exports stays □ Ban goes



exports is "a topic that's under consideration" at the White House.

The American Petroleum Institute says lifting the export ban would create 300,000 jobs across the economy and cut the trade deficit by \$22 billion by 2016. Energy research firm IHS is even more bullish. Ending the ban by 2016 would help create about 1 million jobs and boost investment in the oil industry by almost \$750 billion. Both say lifting the ban will increase U.S. oil production. Selling U.S. crude abroad, they argue, will lower international prices and make gasoline cheaper in the U.S. "It's time to unlock the benefits of free trade for U.S. consumers and further strengthen our position as an energy superpower," says Kyle Isakower, the Petroleum Institute's vice president for regulatory and economic policy.

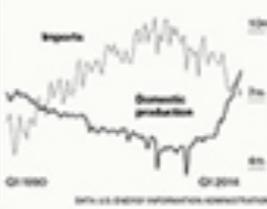
Those against ending the ban point to its economic benefits. Having all that crude trapped in the U.S. has lowered the price of domestic oil compared with crude from overseas. Over the past three years, the average price of West Texas intermediate oil has been \$12 per barrel cheaper than the international benchmark, Brent crude. That gives large consumers of oil such as refiners and chemical companies a big-cost advantage over foreign rivals and has helped the U.S. become the world's top exporter of refined-oil products. Net income at Valero Energy, the biggest refiner in the U.S., has more than doubled since 2008. Lifting the ban could erode that edge by raising the price of U.S. oil, which in turn could push gasoline prices upward. Taking that step is also hard to justify with the U.S. importing more than 7 million barrels a day.

A June 10 Goldman Sachs report suggests keeping the ban in place

for a few more years until the U.S. is so saturated in domestic crude that refiners can't absorb it all. With refineries using about 95 percent of their capacity, there's room to run. "You will know when the U.S. is saturated when domestic crude trades at a much larger discount to international prices," says Damien Courvalin, a Goldman oil analyst who co-authored the report. He disputes producers' concern that the export ban will crash U.S. oil prices and make drilling unprofitable. According to Courvalin, the break-even price to produce oil in the U.S. is \$80. With U.S. oil at around \$100, producers can make money even if the price slips.

The real threat to the U.S. oil boom isn't a lack of exports; it's the lack of efficient ways to move crude around the country, says Philip Verleger, a former director of the office of energy policy at the Department of the Treasury and founder of PKVerleger, a consulting firm in Colorado. Five years into the oil boom, the country is still building pipelines to the new areas of production. The industry has had to rely

A Glut?
Barrels of crude per day



Sometimes it is not obvious
Guess how many columns are there?



Sometimes it is not obvious
Guess how many columns are there? (12)

| Departments All ▾ | Search Reorder Items Sign In Cart

Personal Care Health & Wellness Toys Furniture Baby & Toddler Video Games

[Show all categories](#)

Just in!
New kitchenware
from Ayesha

Ayesha Curry cooking in a kitchen.

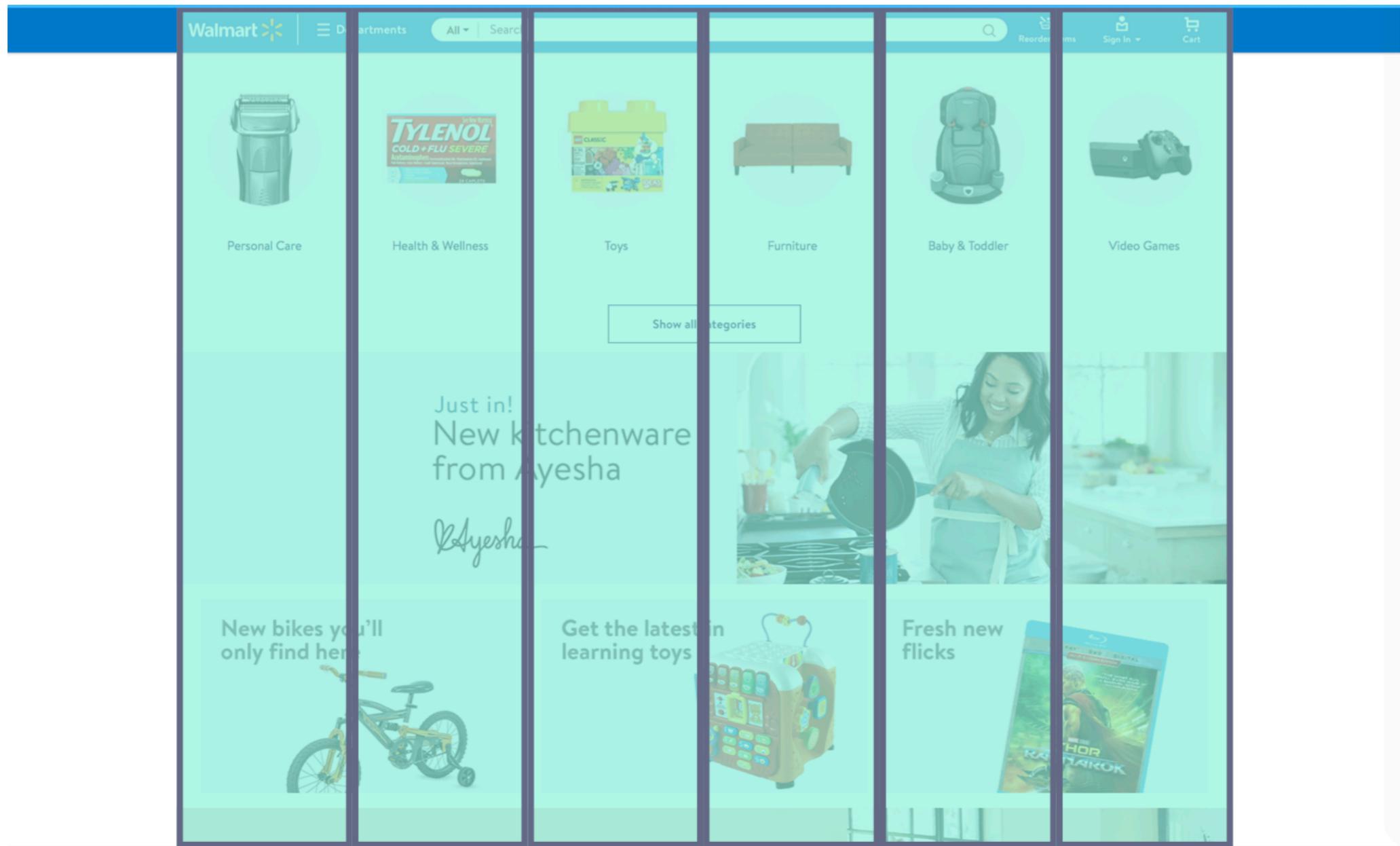
New bikes you'll
only find here
An orange and black bicycle.

Get the latest in
learning toys
A red and orange learning toy with various buttons and screens.

Fresh new
flicks
The cover for the movie Thor: Ragnarok on Blu-ray and DVD.

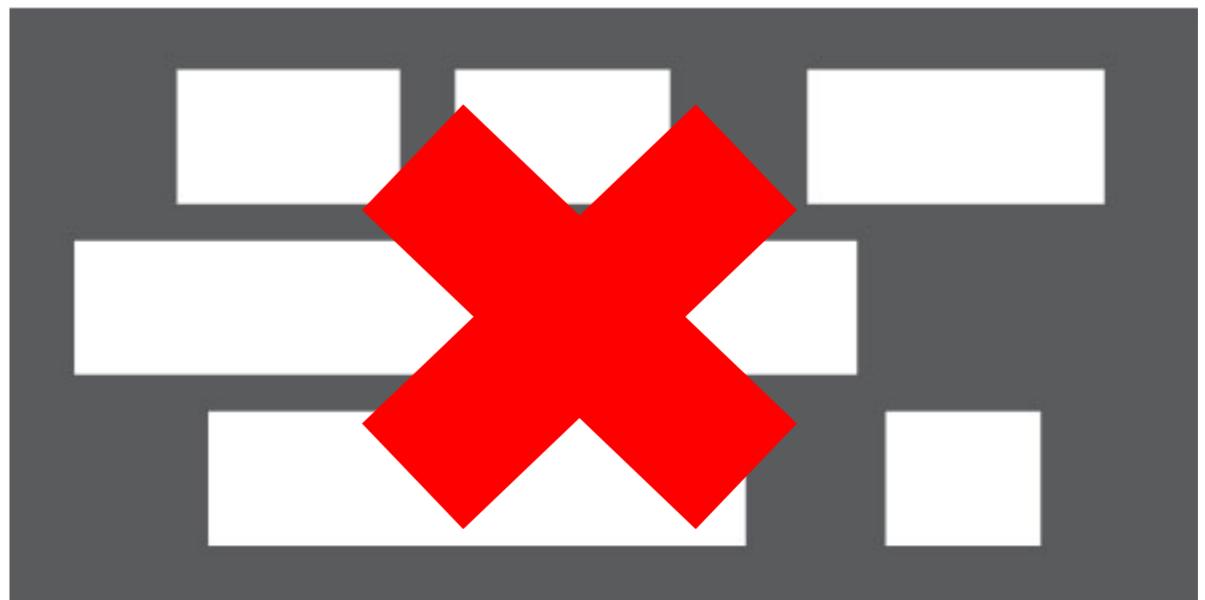
Every good layout uses grids

Guess how many columns are there?



Every good layout uses grids

Guess how many columns are there? (6)



Grids are good

For clarity, order, balance, efficiency, pleasing design,
flexibility etc etc etc...

Basic landscape grids examples

*image credit: <http://www.designersinsights.com/>

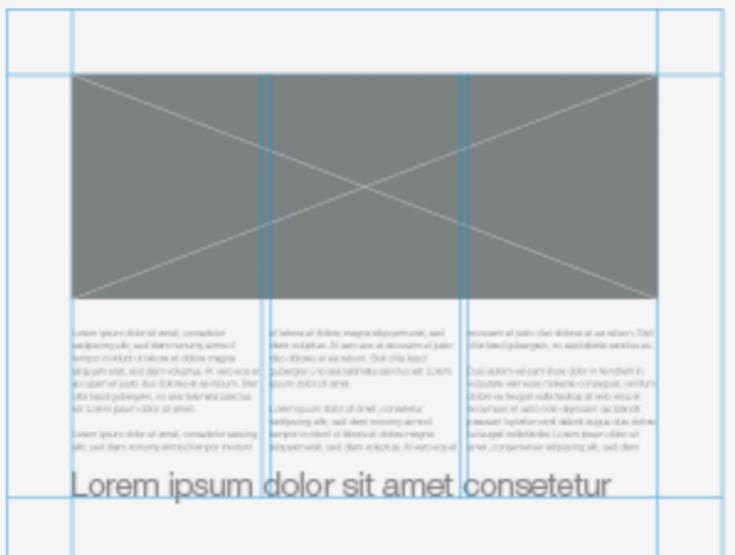
1 column landscape grid



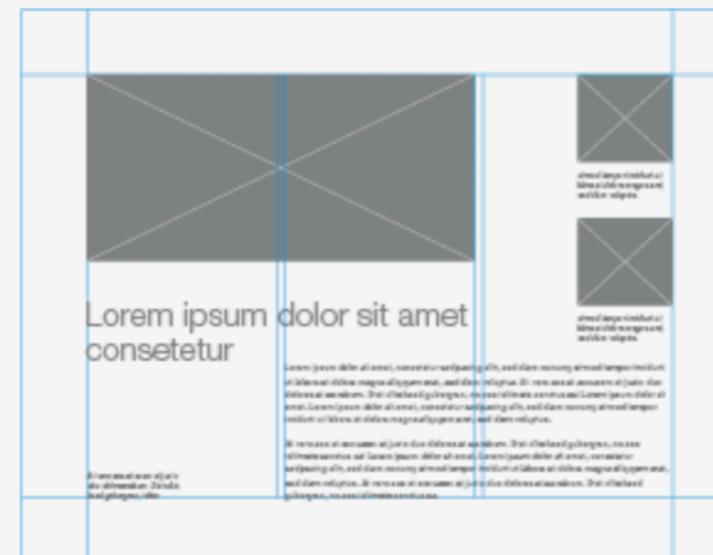
2 column landscape grid



3 column landscape grid



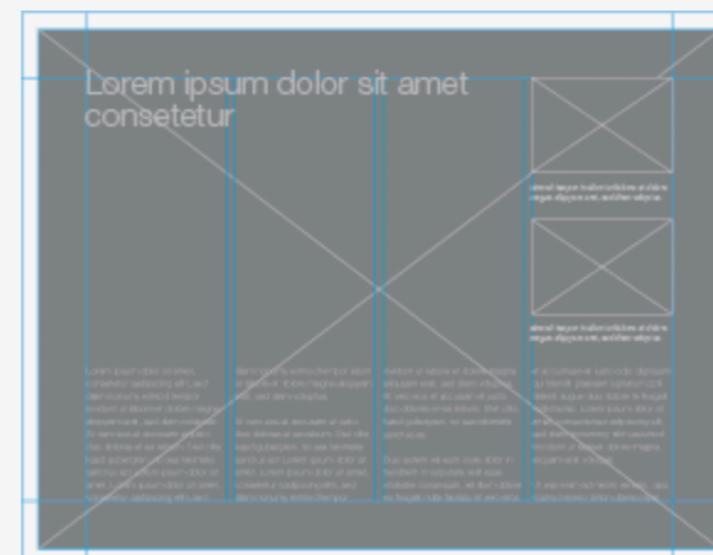
3 column landscape grid



4 column landscape grid



4 column landscape grid



Looks good!
But what about
the mobile devices?

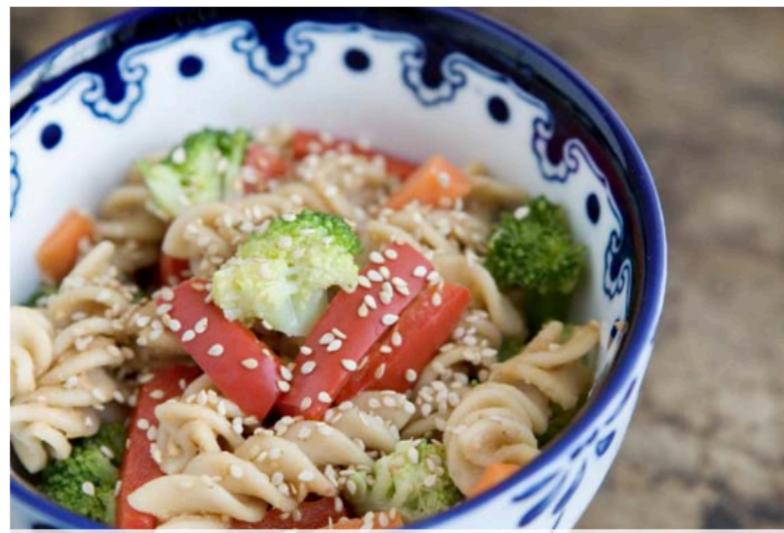
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Transform your content

and eliminate unnecessary parts



What's Cooking?

Browse our gallery for dependably delicious recipes.

* photo by Clare Barboza



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Browse our gallery for dependably delicious recipes.

photo by Clare Barboza

Tastemakers
Feast your eyes & get recipes!

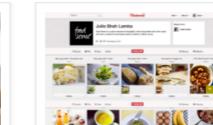
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Contribute
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Sign up for our newsletter to receive a handpicked selection of the best stories, recipes, and news, delivered weekly to your inbox.

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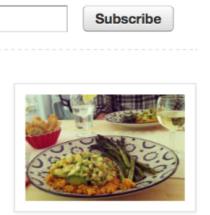
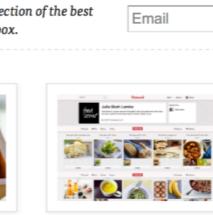
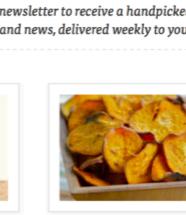
photo by Clare Barboza

Tastemakers

Blog

The A-List

Contribute



Does Samsung make too many phones and tablets?



Galaxy Product	Size	Galaxy Product	Size	Galaxy Product	Size
Y Young	3 inch	S4 Active	5 inch	Note 8.0	8 inch
Ace	3.27 inch	S4 Nexus	5 inch	Tab 3	8 inch
Fame	3.5 inch	Note	5.3 inch	Tab	10.1 inch
Ace 2	3.5 inch	Note 2	5.5 inch	Tab 2	10.1 inch
Ace 3	3.8 inch	Mega	5.8 inch	Tab 3	10.1 inch
S3 Mini	4 inch	Mega	6.3 inch	Note 10.1	10.1 inch
S4 Mini	4.3 inch	Tab 2	7 inch		
S4 Zoom	4.3 inch	Tab 3	7 inch		
S3	4.8 inch	Tab	7.7 inch		

Which?

Does my website has to be responsive?

Does my website has to
be responsive?

YES!

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CSS framework contains of a set of classes which you can use to quickly create a grid layout (and ***much*** more!)

That means:
no more manual *@media* queries

CSS Frameworks

- Bootstrap: <http://getbootstrap.com>
- Foundation: <https://foundation.zurb.com/sites.html>
- Materialize: <http://materializecss.com>
- ...

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Bootstrap is...

- Bootstrap is an open source toolkit for developing with HTML, CSS, and JS
- Really quick tool for prototyping
- If you need to create some basic page - no need to write your own styles, just use existing classes
- Use it as a main structure for responsive page layout

Quick start!

Check documentation at <https://getbootstrap.com>

copy and put in your <head> tag:

```
<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.0/css/bootstrap.min.css" integrity="sha384-9gVQ4dYFwwWSjIDZnLEWnxCjeSWFphJiwGPXr1jddlhOegiu1FwO5qRGvFXOdJZ4" crossorigin="anonymous">
```

Do you need js components?

Place the following code near the end of your pages, right before the closing </body> tag, to enable them.

jQuery must come first, then Popper.js, and then Bootstrap JavaScript plugins.

```
<script src="https://code.jquery.com/jquery-3.2.1.slim.min.js" integrity="sha384-KJ3o2DKtlkvYIK3UENzmM7KCkRr/rE9/Qpg6aAZGJwFDMVNA/GpGFF93hXpG5KkN" crossorigin="anonymous"></script>
```

```
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js" integrity="sha384-ApNbgh9B+Y1QKtv3Rn7W3mgPxhU9K/ScQsAP7hUibX39j7fakFPskvXusvfa0b4Q" crossorigin="anonymous"></script>
```

```
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js" integrity="sha384-JZR6Spejh4U02d8jOt6vLEHfe/JQGiRRSQQxSfFWpi1MquVdAyjUar5+76PVCmYI" crossorigin="anonymous"></script>
```

	Extra small ≤576px	Small ≥576px	Medium ≥768px	Large ≥992px	Extra large ≥1200px
Max container width	None (auto)	540px	720px	960px	1140px
Class prefix	.col-	.col-sm-	.col-md-	.col-lg-	.col-xl-
# of columns	12				
Gutter width	30px (15px on each side of a column)				
Nestable	Yes				
Column ordering	Yes				

Note: use `.container` to work with specified above max container width.

use `.container-fluid` to make the page full-width.

More information: <https://getbootstrap.com/docs/4.1/layout/grid/>

Grid structure

... again

Code structure example

The image shows a screenshot of a Bootstrap code structure example. At the top, there are two horizontal row components. The first row contains two columns labeled "1 of 2" and "2 of 2". The second row contains three columns labeled "1 of 3", "2 of 3", and "3 of 3". Below these rows is a large code block displaying the corresponding HTML and CSS code for creating this layout.

```
<div class="container">
  <div class="row">
    <div class="col">
      1 of 2
    </div>
    <div class="col">
      2 of 2
    </div>
  </div>
  <div class="row">
    <div class="col">
      1 of 3
    </div>
    <div class="col">
      2 of 3
    </div>
    <div class="col">
      3 of 3
    </div>
  </div>
</div>
```

Copy

*image credit: <https://getbootstrap.com/>

Responsive solution

```
<!-- Stack the columns on mobile by making one full-width and the other half-width -->
```

```
<div class="row">
  <div class="col-12 col-md-8">.col-12 .col-
md-8</div>
  <div class="col-6 col-md-4">.col-6 .col-md-4</
div>
</div>
```

```
<!-- Columns start at 50% wide on mobile and bump up to 33.3% wide on desktop -->
```

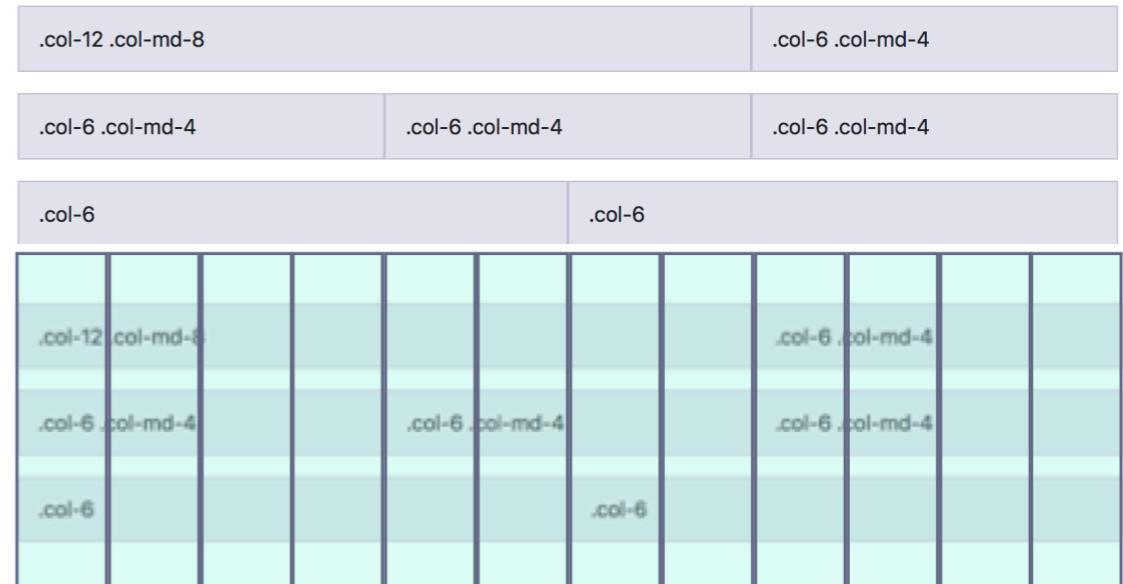
```
<div class="row">
  <div class="col-6 col-md-4">.col-6 .col-md-4</
div>
  <div class="col-6 col-md-4">.col-6 .col-md-4</
div>
  <div class="col-6 col-md-4">.col-6 .col-md-4</
div>
</div>
```

```
<!-- Columns are always 50% wide, on mobile and desktop -->
```

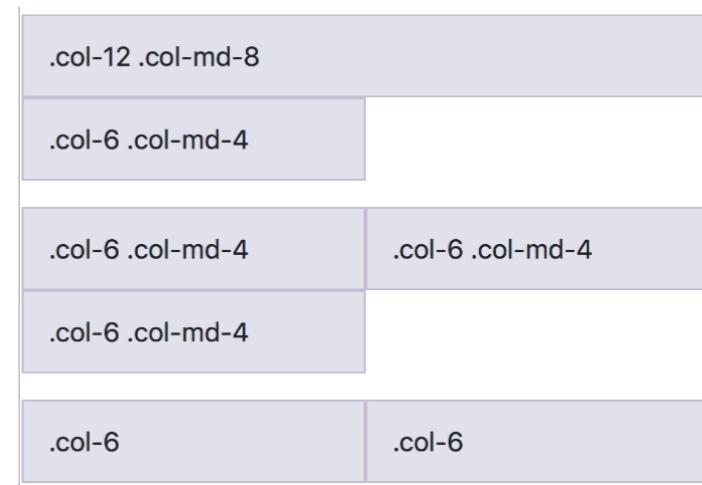
```
<div class="row">
  <div class="col-6">.col-6</div>
  <div class="col-6">.col-6</div>
</div>
```

Note: you can also use `.container-fluid` instead of `.container`. This will make the page full-width.

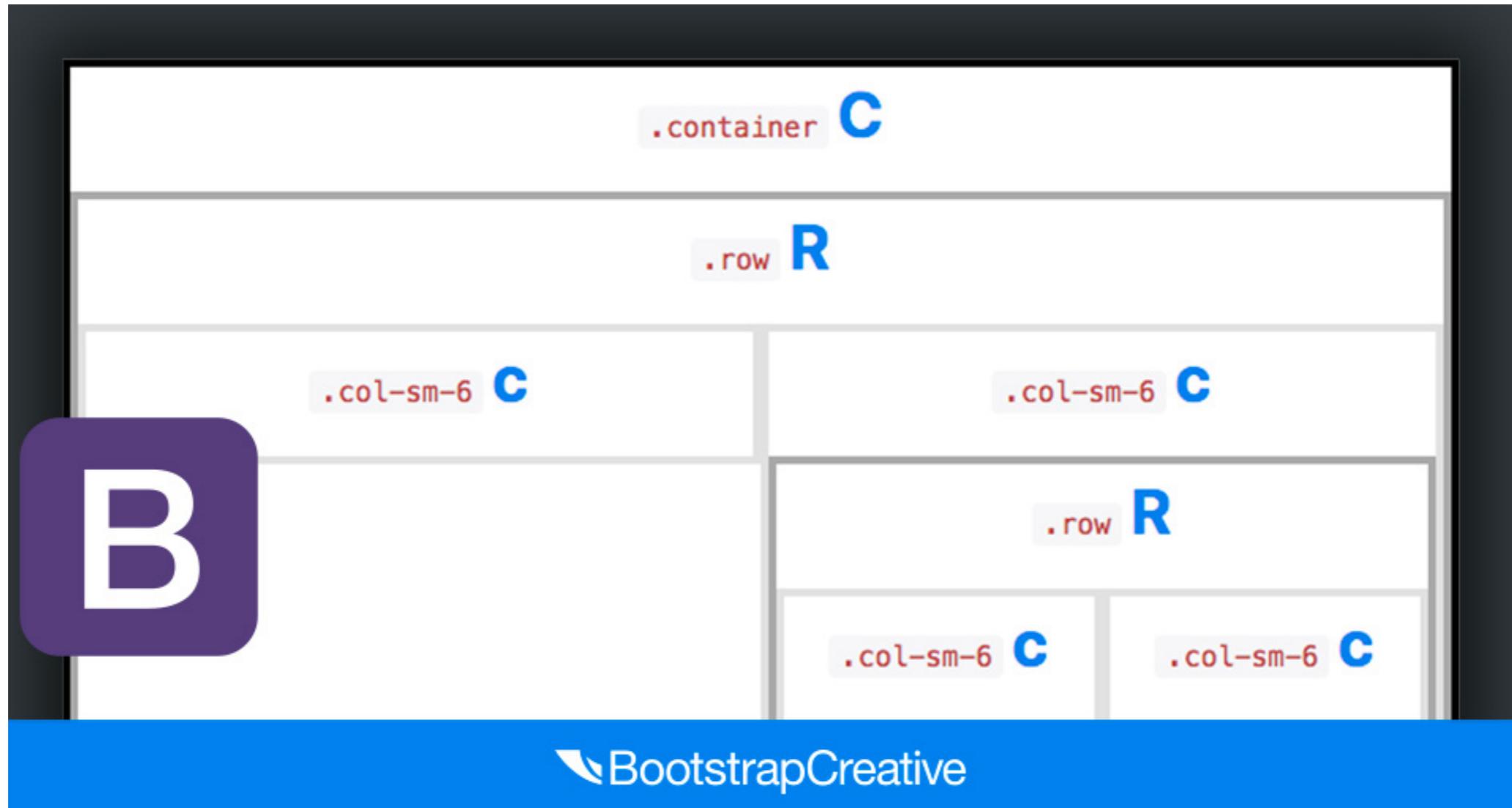
Desktop view:



Mobile view:



And what if I need
more then 12 columns?



Nested columns

Inside every column you can create new `.row`, and there would be again 12 columns available inside it!

Useful text classes

- **Headings:** `<h1>...<h6>`
- **Text sizes:** `.display-1` will be bigger than `.display-4`
- **Text capitalization:** `.text-uppercase` / `.text-lowercase`
- **Text alignment:** `.text-left` / `.text-right` / `.text-center` / `.text-justify`
- **Font weights:** `.font-italic` / `.font-weight-bold` / `.font-weight-normal` / `.font-weight-light` /

Primary Secondary Success Danger Warning Info Light Dark Link

```
<button type="button" class="btn btn-primary">Primary</button>
<button type="button" class="btn btn-secondary">Secondary</button>
<button type="button" class="btn btn-success">Success</button>
<button type="button" class="btn btn-danger">Danger</button>
<button type="button" class="btn btn-warning">Warning</button>
<button type="button" class="btn btn-info">Info</button>
<button type="button" class="btn btn-light">Light</button>
<button type="button" class="btn btn-dark">Dark</button>

<button type="button" class="btn btn-link">Link</button>
```

Buttons component

Fancy larger or smaller buttons? Add `.btn-block`, `.btn-lg` or `.btn-sm` for additional sizes.

Hello, world!

This is an example to show the potential of an offcanvas layout pattern in Bootstrap. Try some responsive-range viewport sizes to see it in action.

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio du.

[View details »](#)

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio du.

[View details »](#)

Heading

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[View details »](#)

Heading

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[View details »](#)

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[View details »](#)

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio du.

[View details »](#)

Link

[Link](#)[Link](#)[Link](#)[Link](#)[Link](#)[Link](#)[Link](#)[Link](#)

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Decomposition

Let's see from what components this page is built.
No custom CSS were used!

Hello, world!

This is an example to show the potential of an offcanvas layout pattern in Bootstrap. Try some responsive-range viewport sizes to see it in action.

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

<div class="col-md-4">

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

<div class="col-md-4">

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

<div class="col-md-4">

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Link

<button class="btn btn-outline-success">

Link

Link

Link

Link

Link

Link

Link

Link

<div class="list-group">

<div class="col-md-9">

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

<div class="col-md-3">

Heading

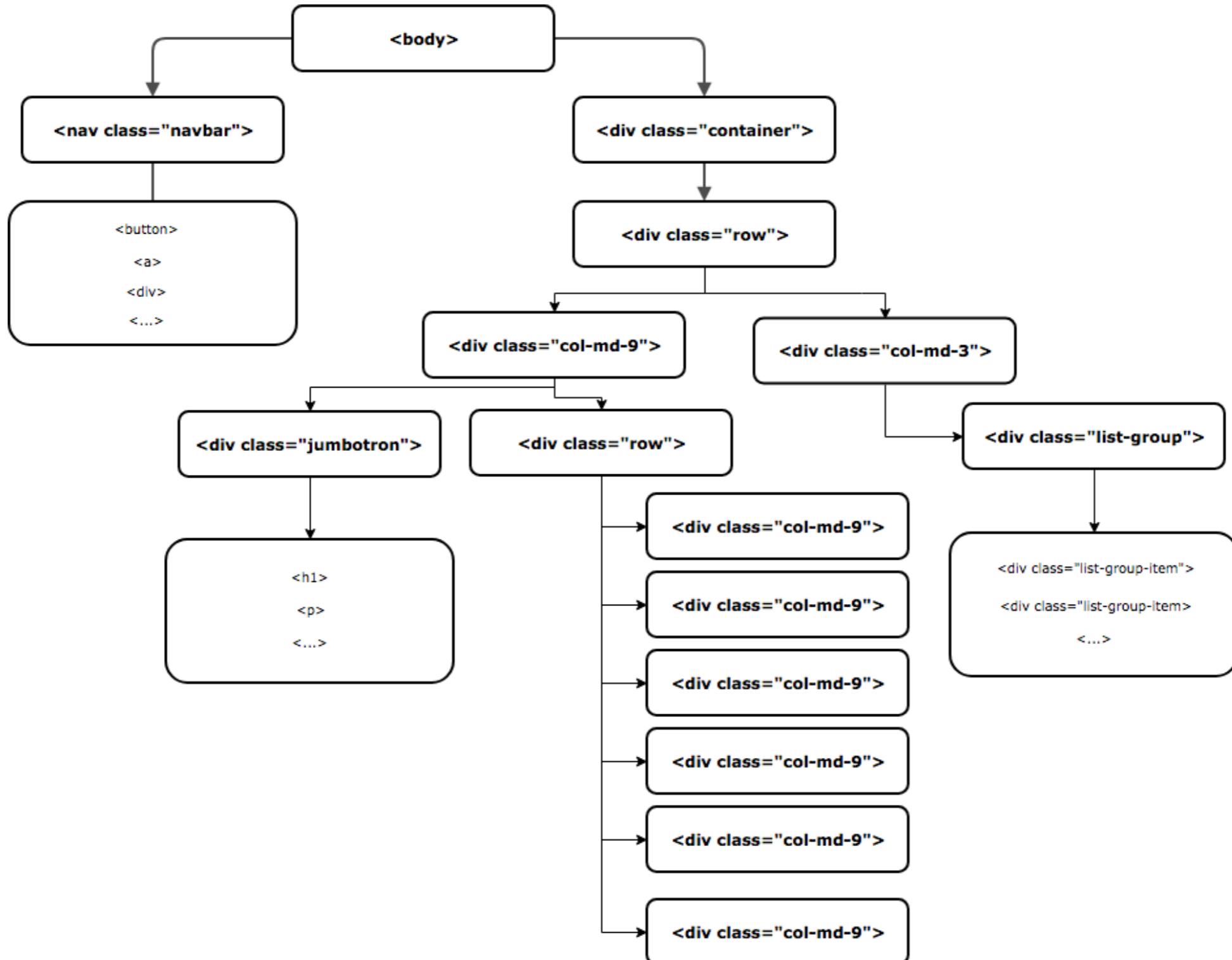
Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

<div class="row">

<div class="container">

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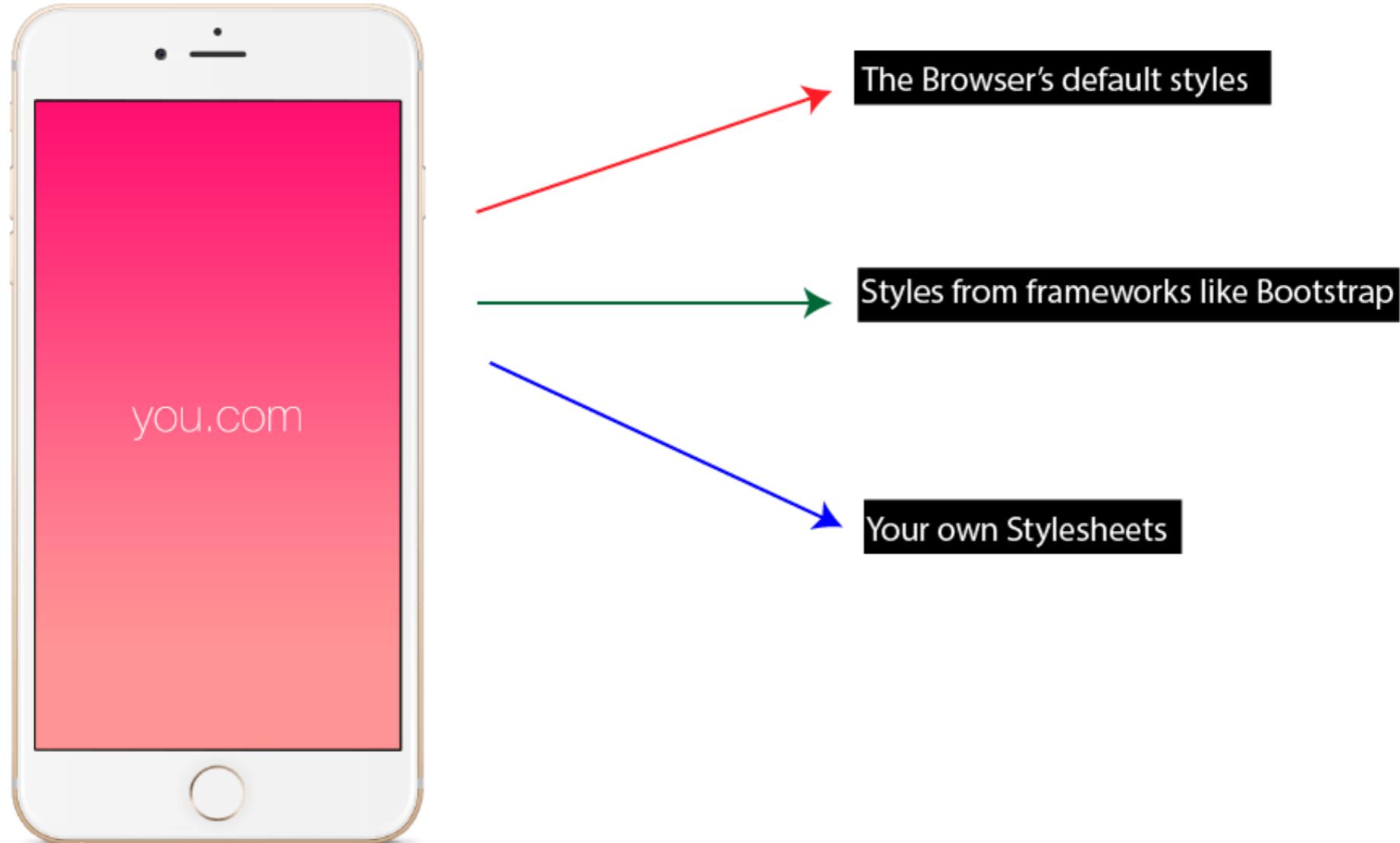
DOM decomposition

tree structure

Does all Bootstrap websites
look the same?

(No.)

Look and feel is affected by?

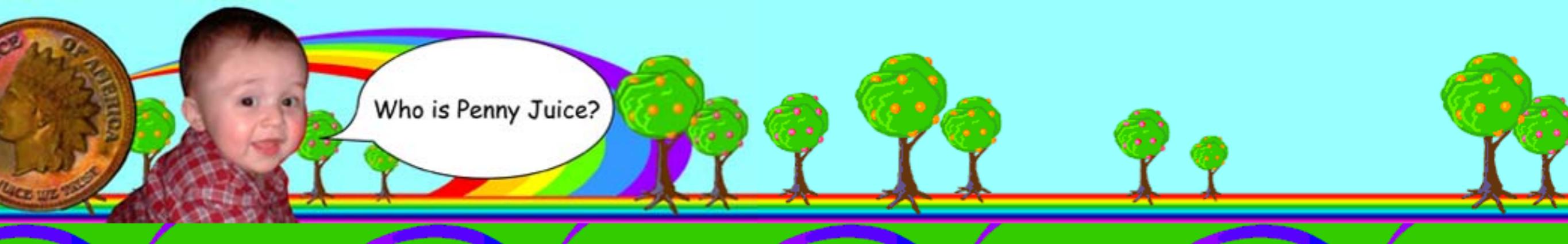


CSS hierarchy

Firstly create main responsive structure with Bootstrap,
and then customize your page as you wish

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People have a lot to say about Penny Juice!

THE CHILDREN AT KID KOLLEGE LOVE THE TASTE OF PENNY JUICE AND DRINK IT WITHOUT ENCOURAGEMENT FROM OUR TEACHERS. PENNY JUICE IS 100% JUICE FROM CONCENTRATE REQUIRING NO REFRIGERATION PRIOR TO MIXING. THE HANDY MIX PITCHER TAKE

CASSIE PENCE - KID KOLLEGE/BILLINGS, MT

"THANK YOU FOR THE OPPORTUNITY TO LET EVERYONE KNOW ABOUT YOUR TERRIFIC COMPANY! IT'S EASY TO STORE AND USE."

MARY CELLA - BLISS ACADEMY EARLY LEARNING CENTER/GREENWOOD VILLAGE, CO

I LOVE THE PROMPTNESS OF SERVICE! "EASY MIXING BOY"

KID'S WORLD LEARNING CENTER/ BROOKINGS, SD

I HAVE BEEN USING PENNY JUICE AT MY CHILDCARE CENTER FOR 2 YEARS. THE CHILDREN LOVE ALL THE FUN COLORS. I HAVE RECOMMENDED PENNY JUICE TO OTHER DAY CARES IN THE AREA.

DANA HOENIGSCHMIDT - KIDS COUNTRY CHILDCARE/ST. FRANCIS, MN

THEY OFFER A GREAT PRODUCT AT A REASONABLE PRICE. THEIR CUSTOMER SERVICE IS EXCEPTIONAL. WE HAVE ENJOYED OUR EXPERIENCE WITH PENNY JUICE FOR THE PAST 3 YEARS. WE LOOK FORWARD TO MANY MORE YEARS OF DOING BUSINESS TOGETHER.

LISA E. INGRAM - ANGELS' NEST, INC./COLORADO SPRINGS, CO

THANK YOU! WE ARE SO GRATEFUL TO HAVE FOUND PENNYJUICE. I AM 110% PLEASED WITH PENNY JUICE.

ROSEMARY - LARAMIE COUNTY HEAD START/CHEYENNE, WY

I LOVE THE VARIETY OF THE FLAVORS AND THE FACT THAT OUR AUTOMATIC SHIPMENTS ARRIVE IN A TIMELY MANNER.

DEBBIE MOORE, DIRECTOR - CHILDREN'S LEARNING CENTER/BOSSIER CITY, LA

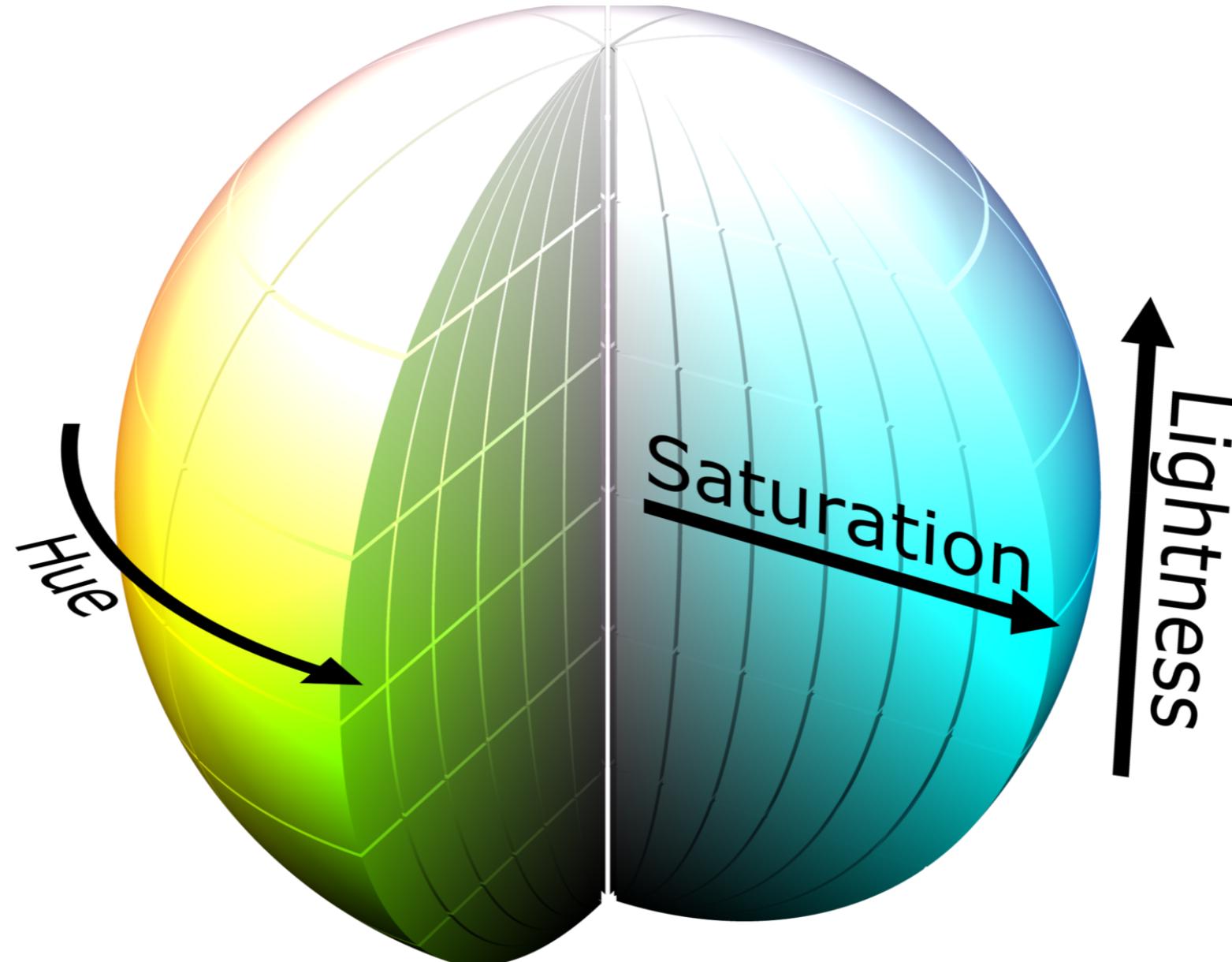
AS THE DIRECTOR OF A UNIVERSITY AFFILIATED, BUT PRIVATELY OWNED CHILD CARE FACILITY TOP QUALITY PRODUCTS THAT ARE ALMOST AS GOOD AS PENNY JUICE ARE EXPENSIVE. PENNY JUICE IS A GREAT ALTERNATIVE. I APPRECIATE THE EASE OF ORDERING ON-LINE OR BY PHONE, KNOWING THAT THE JUICE WILL BE PROMPTLY DELIVERED DIRECTLY TO THE CENTER. I DON'T HAVE TO WORRY ABOUT FINDING PENNY JUICE CONCENTRATE FORM THE GROCERY STORE!

THANKS, PENNYJUICE FOR SAVING ME TIME AND MONEY!

KATIE DAVIS, DIRECTOR/OWNER - UNIVERSITY CHILDREN'S CENTER/SUPERIOR, CO

"PENNY JUICE HAS CERTAINLY BEEN AN ASSET TO OUR FOOD PROGRAM. I AM VERY HAPPY WITH SWITHING TO PENNY JUICE AND WONDER IF THERE IS ANYTHING BETTER. IT IS A GREAT EXCELLENT PRODUCT. HASSLE FREE. IT DOESN'T GET ANY BETTER THAN THAT."

NO



Hue, Brightness, Saturation

*image credit: Wikimedia Commons

Limit yourself to **2 hues***, but
use different values of
saturation and brightness

*black and white doesn't count



Few Hues, Many Values

Where colors are concerned, sometimes less is better.

*image credit: <http://designinginterfaces.com/>

Tips:

- Select primary hue + some bright accent hue
- Within those hues, vary the color value to get a range of bright and dark shades
- Select 3 variations of primary hue and 1 accent hue. Trust me, that's enough for most websites
- You get black and white for free, but grey counts
- Try broken white and very dark grey instead of black and white
- That's alright if you need to add more colors occasionally (for example, red for indicating some errors)
- For inspiration for primary and accent colors for websites check:
<https://material.io/guidelines/style/color.html#color-color-palette>
- DO NOT put an object in one hue on another hue

.text-primary

.text-secondary

.text-success

.text-danger

.text-warning

.text-info

.text-light

.text-dark

.text-muted

.text-white

.bg-primary

.bg-secondary

.bg-success

.bg-danger

.bg-warning

.bg-info

.bg-light

.bg-dark

.bg-white

Bootstrap colors

use as additional colors in case if you struggle to select yours

Agenda:

1. Website layouts
2. Displaying on mobile devices
3. Frameworks
4. Bootstrap use-case
5. Colors
- 6. Icons and graphics**
7. Fonts
8. Graphic design

Icons

Choose one icon library and stick to it!

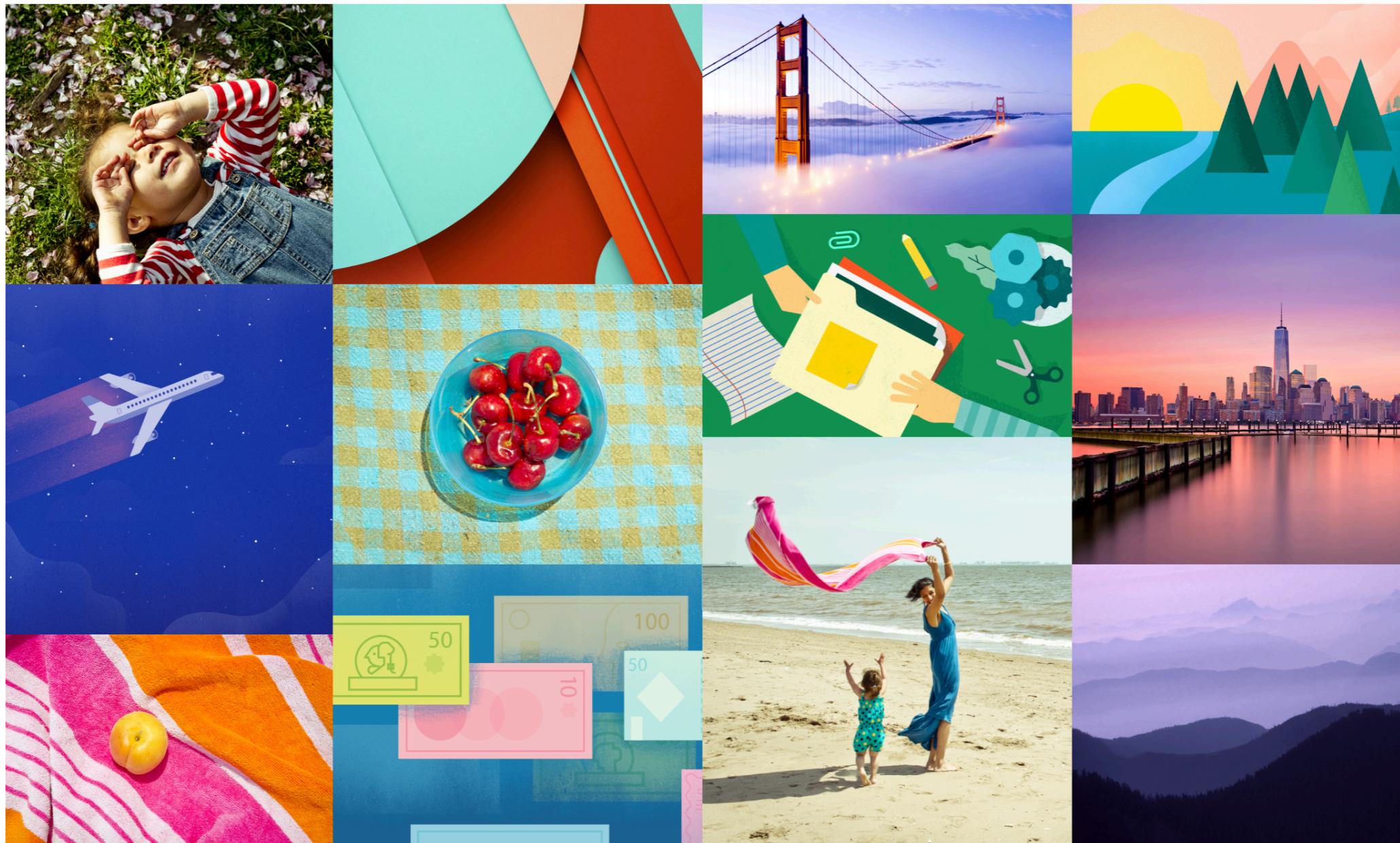
There are different free icon fonts:

- <https://getbootstrap.com/docs/3.3/components/>
- <https://material.io/icons/>
- <https://fontawesome.com/icons?d=gallery>
- <http://glyph.smarticons.co>
- <https://useiconic.com/open/>
- <https://octicons.github.com>

Easy to use:

1. Connect icon font in the <head> tag
2. Place icons with selected classes in the html markup

€ glyphicon glyphicon-euro	€ glyphicon glyphicon-eur	- glyphicon glyphicon-minus	cloud glyphicon glyphicon-cloud	✉ glyphicon glyphicon-envelope	-pencil glyphicon glyphicon-pencil
search glyphicon glyphicon-search	heart glyphicon glyphicon-heart	star glyphicon glyphicon-star	star-empty glyphicon glyphicon-star-empty	user glyphicon glyphicon-user	film glyphicon glyphicon-film
list glyphicon glyphicon-th-list	ok glyphicon glyphicon-ok	remove glyphicon glyphicon-remove	zoom-in glyphicon glyphicon-zoom-in	zoom-out glyphicon glyphicon-zoom-out	off glyphicon glyphicon-off
trash glyphicon glyphicon-trash	home glyphicon glyphicon-home	file glyphicon glyphicon-file	time glyphicon glyphicon-time	road glyphicon glyphicon-road	download-alt glyphicon glyphicon-download-alt
inbox glyphicon glyphicon-inbox	repeat glyphicon glyphicon-repeat	refresh glyphicon glyphicon-refresh	list-alt glyphicon glyphicon-list-alt	lock glyphicon glyphicon-lock	
volume-off glyphicon glyphicon-volume-off	volume-down glyphicon glyphicon-volume-down	volume-up glyphicon glyphicon-volume-up	qrcode glyphicon glyphicon-qrcode	barcode glyphicon glyphicon-barcode	tag glyphicon glyphicon-tag
bookmark glyphicon glyphicon-bookmark	print glyphicon glyphicon-print	camera glyphicon glyphicon-camera	font glyphicon glyphicon-font	bold glyphicon glyphicon-bold	italic glyphicon glyphicon-italic



Imagery is more than decoration

Bold, graphic, and intentional imagery helps to engage the user.

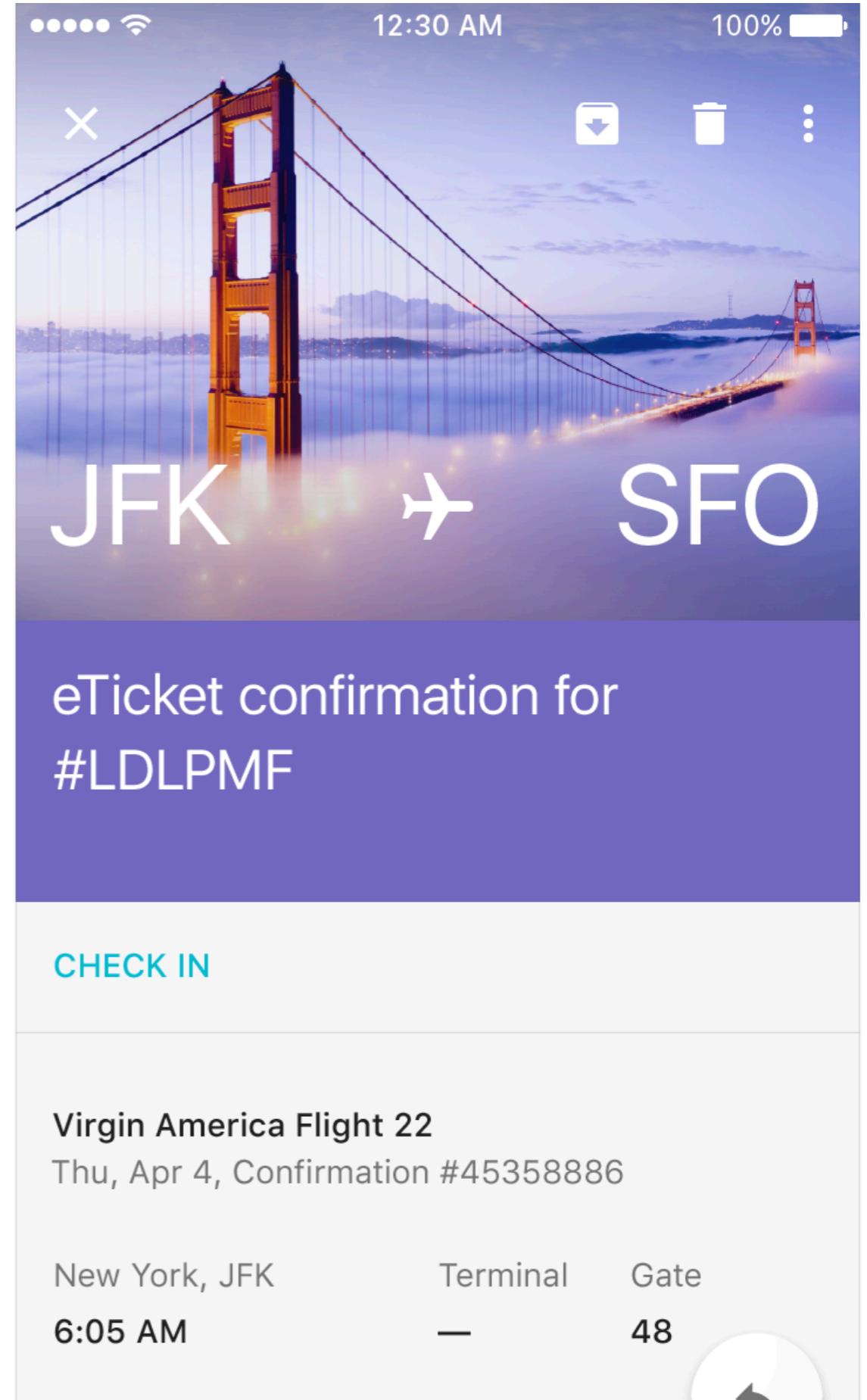
*image credit: <https://material.io/guidelines/style/imagery.html>

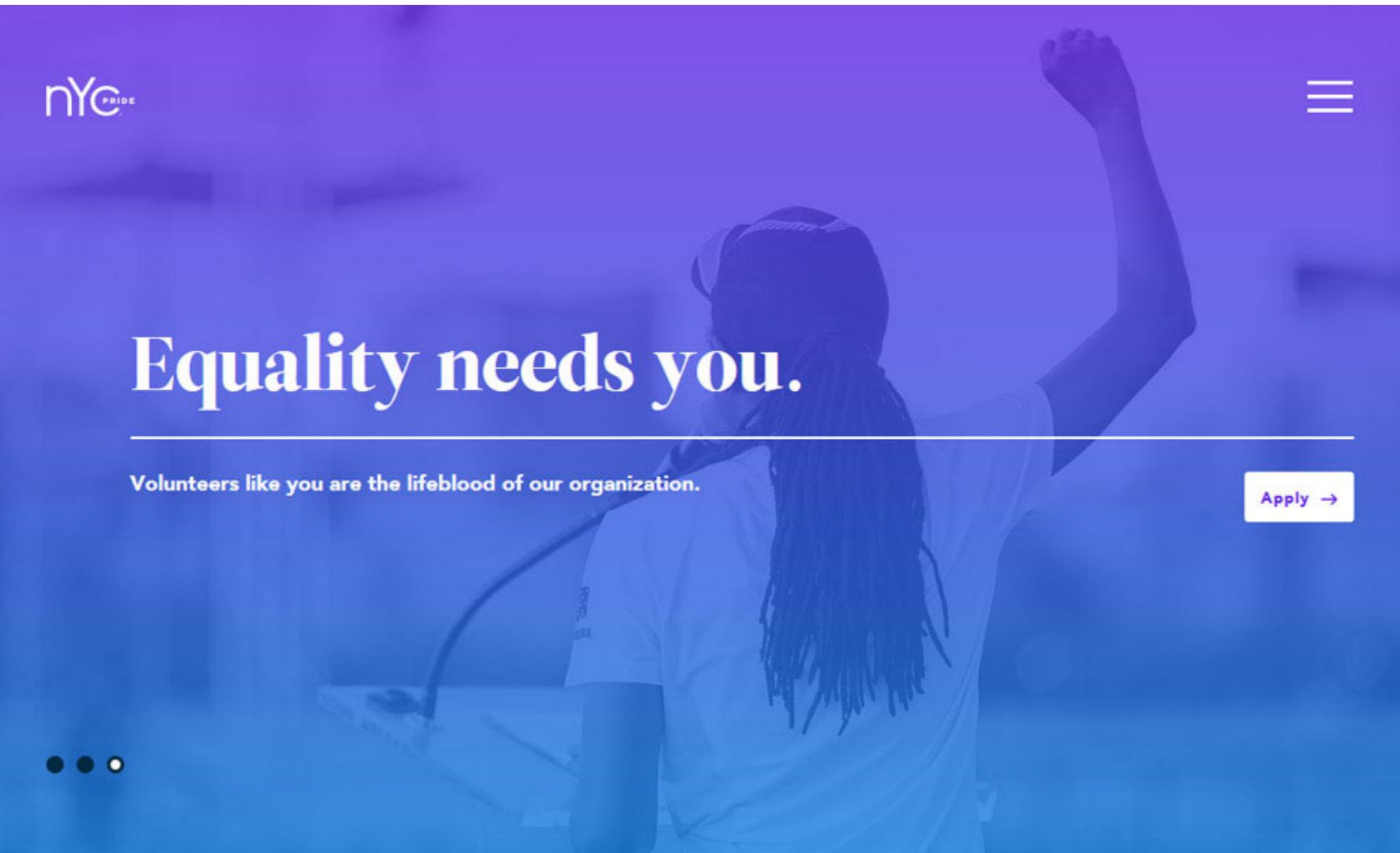
Imagery

The following principles can help you successfully incorporate imagery and bring your apps to life, no matter what the visual brand:

- **Relevant**
- **Informative**
- **Delightful**

More information: <https://material.io/guidelines/style/imagery.html#imagery-principles>





Use deep backgrounds

Place an image or gradient into the page's background.
Play with blur and opacity to create depth on your websites

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How to use fonts?

<https://fonts.google.com> - recommended

1. Select the font family you like (for example: Roboto, Open Sans, Lato, Vollkorn ...)
2. Customize (**regular**, **bold**, *italic*, thin)
3. Embed within <head> tag (for example: `<link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">`)
4. Use in CSS (for example: `.robot{ font-family: 'Roboto', sans-serif};`)

More information:

[https://developers.google.com/fonts/docs/getting started](https://developers.google.com/fonts/docs/getting_started)

Tips:

- Do not use more than 2 font families (but you can use more different customizations)
- Be careful with exotic typefaces
- Readable font is much more important than a beautiful font!
- DO NOT USE *Comic Sans*

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“Design is not just what it looks like and feels like. Design is how it works.”

– Steve Jobs



Questions?

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