

Responsive Basics



Learning Objectives

- **Understand** what responsive design is
- **Know** the difference between fixed and responsive layouts
- **Understand** the difference between fluid and elastic layouts
- **Apply** media queries to achieve a responsive layout

Agenda

- Review
- Responsive Design
 - History
 - Approaches
 - Components
- Media Queries

Review



Responsive Design



What is it?

Well, firstly, what is the web?

Designing websites that respond to the needs of users
and the devices that they are using

Responsive websites respond to their environments

History

Most people think that the term "Responsive Web Design" came from [this article here](#)

It was posted on A List Apart on May 25, 2010 and written by Ethan Marcotte ([twitter](#) and [personal website](#))

What was it in response to?

"Aim for eternity" - Christopher Wren

We can't break the web

Making things future-proof

Layout Types



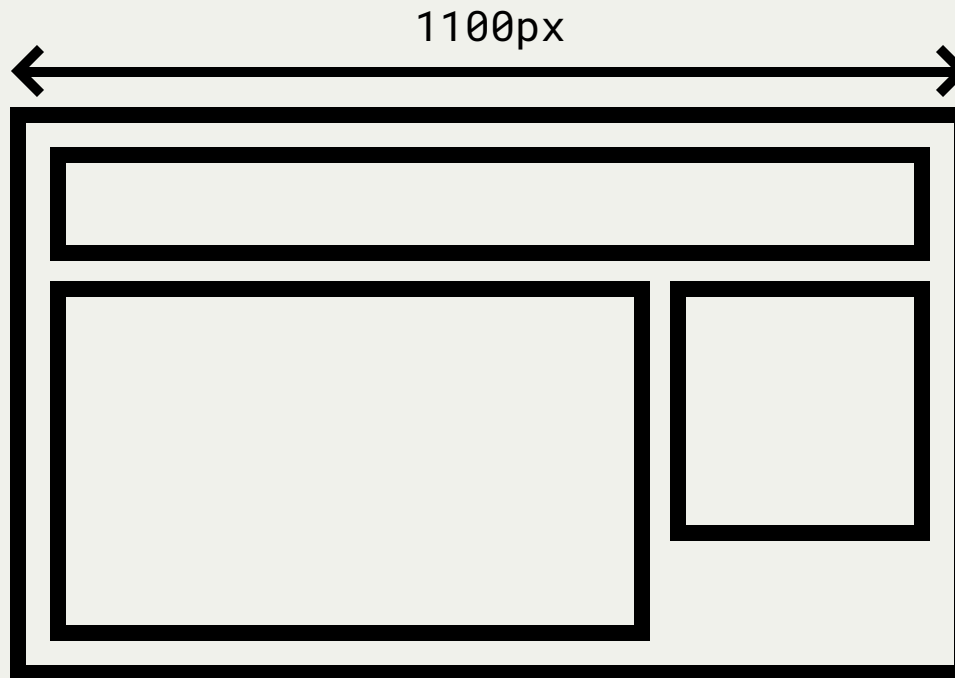
Fixed Layout

A website that has a fixed width, often attached to a containing element

The containing element is set to not move or change size

Can be **adaptive**, multiple fixed-width layouts

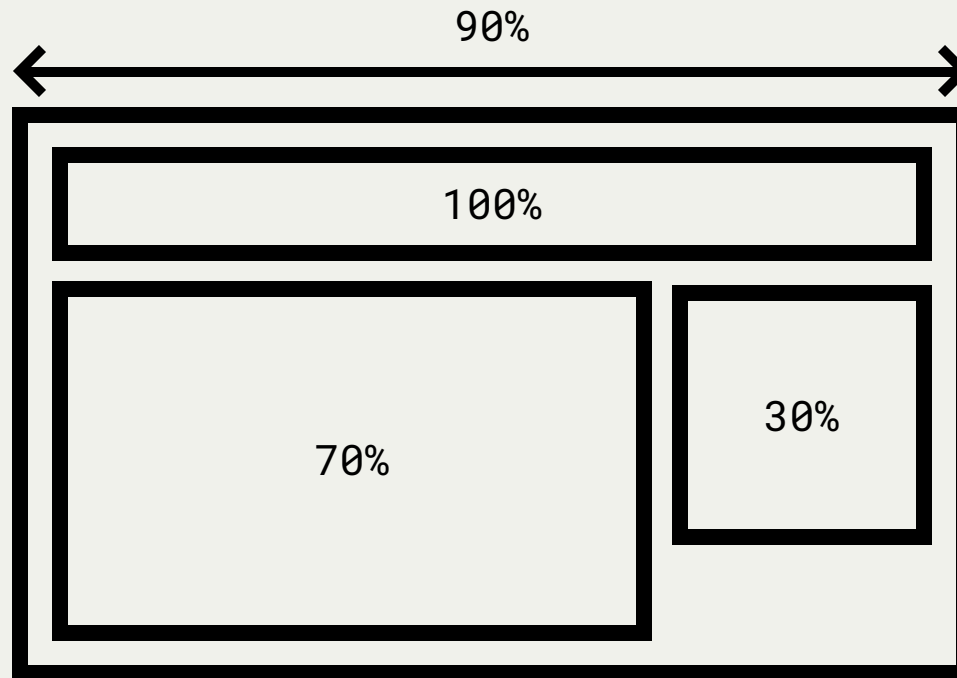
Fixed Layout



Fluid Layout

A website that uses things like percentages to adapt to the screen that it is being viewed on

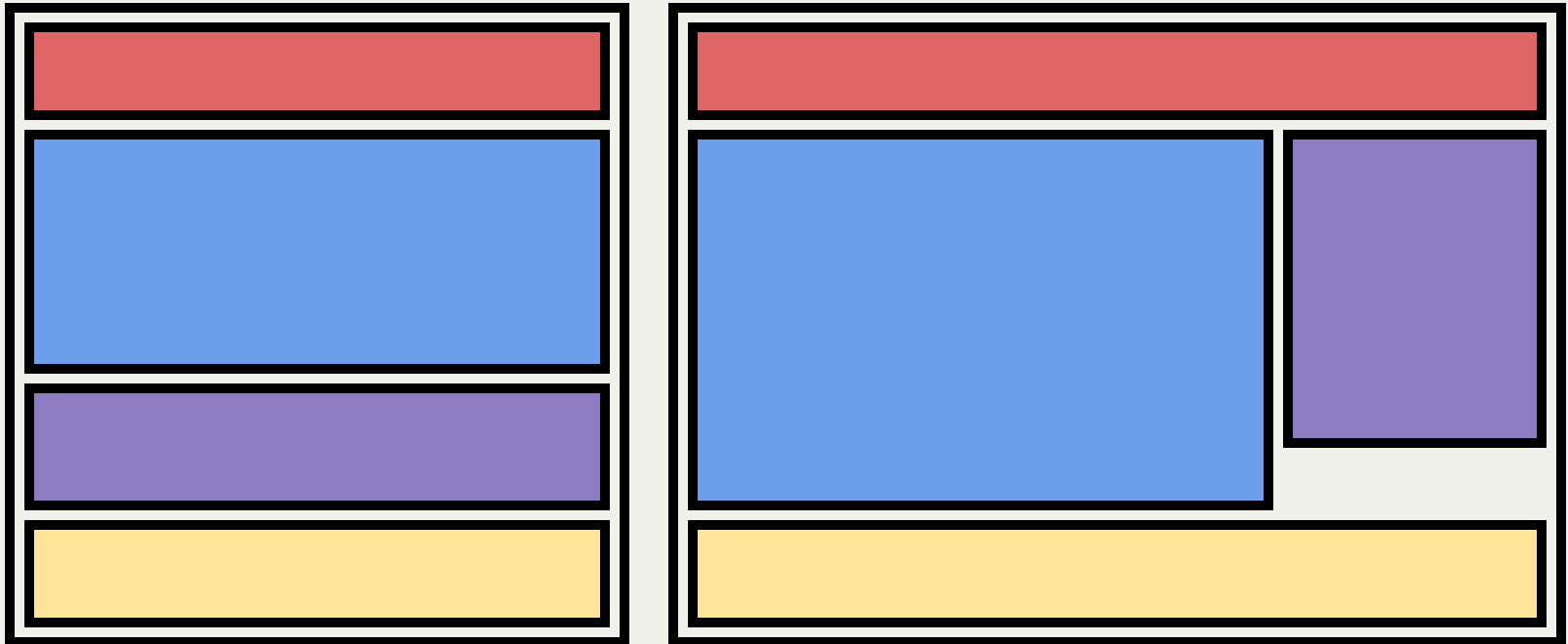
Fluid Layout



Responsive Layouts



Responsive Layouts



Examples

- Ethan Marcotte
- Resizer
- Quartz
- CSS Conf
- General Assembly
- The Forecaster
- A whole heap more

Approaches



Approaches

- Desktop-down design
- Mobile-first design
- Content-first design

Key Components



Components

- Viewports
- Fluid Sizing of Elements
- Grids
- Units
- Media Queries

Viewports



Viewports

- Viewports meaning the browser window itself
- In order to provide the best possible experience, mobile devices scaled websites
 - Meaning they fit the whole website on a smaller screen
- No Viewport vs. Viewport

Viewports

```
<meta name="viewport" content="width=device-width, initial-scale=1.0">
```

width=device-width

Don't scale the website, use the device width to determine how it looks

initial-scale=1.0

Don't zoom in by default

Fluid Sizing



Fluid Sizing

This just means make the sizing of the elements adapt to the browser

When adding elements to the page, be careful to not hard-code their sizing

This could just be the differences between setting widths and max-widths and is particularly important for images

Responsive Images

You can make an image scale by using a combination of any ***width***, ***max-width*** and ***height: auto***.

The browser will do the scaling for you

```
img {  
  width: 500px;  
  max-width: 100%;  
  height: auto;  
}
```

Grids



Grids

Breaking a page down into horizontal segments can make it easy to make sites responsive

Particularly a responsive grid system!

Units



Units

- em
- rem
- percentages
- vw
- vh
- vmin
- vmax

Media Queries



What are they?

A syntax for attaching some styles based on some conditions

They often use ***breakpoints***

```
@media ( condition ) { ... }
```


Examples

```
@media (min-width: 700px) {  
    ...  
}  
  
@media (min-width: 700px) and (orientation: landscape) {  
    ...  
}  
  
@media (min-width: 700px), handheld and (orientation: landscape) {  
    ...  
}  
  
@media only screen and (color) {  
    ...  
}  
  
@media (not (tv)) {  
    ...  
}
```

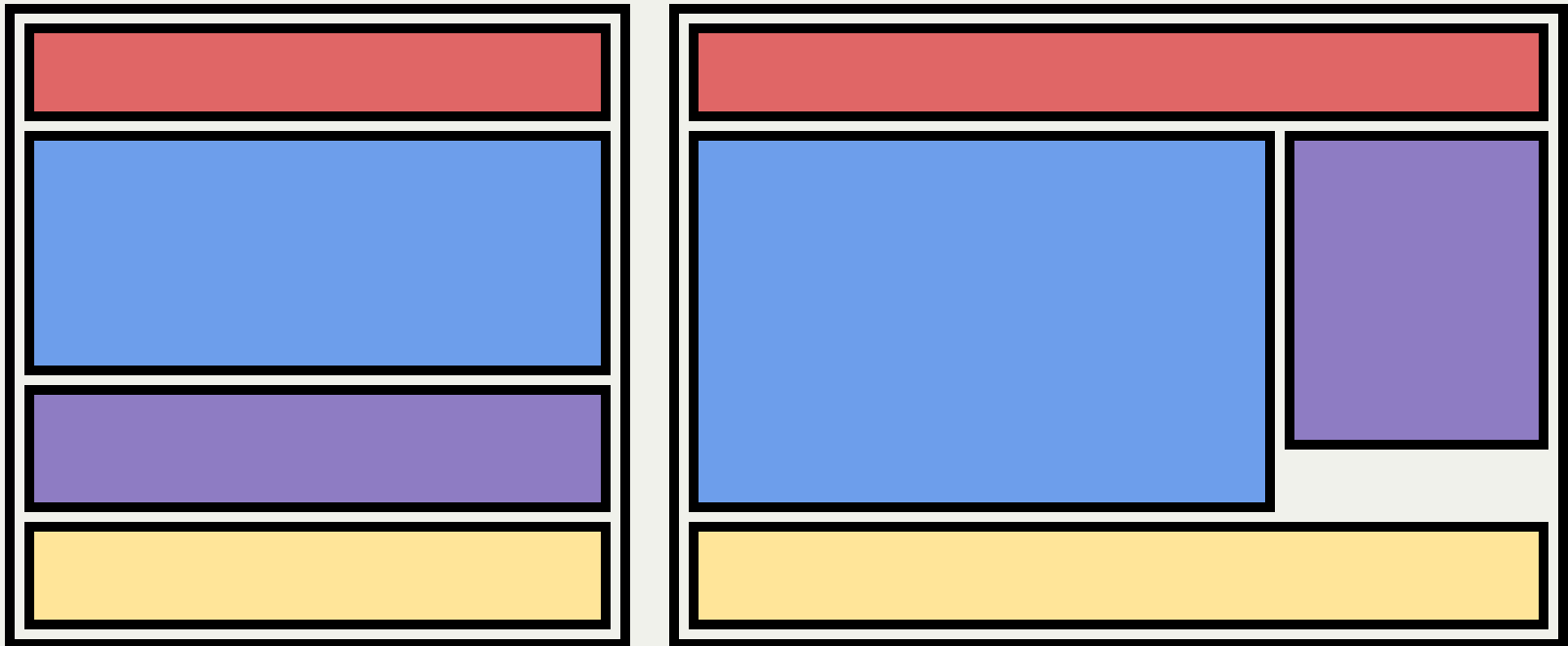
Common Parameters

- min-width
- max-width
- min-height
- max-height
- orientation

```
@media (max-width: 480px) {}
```

```
@media (min-width: 769px) and (max-width: 1280px) {}
```

Try and build this!



Red: #e06666

Blue: #6d9eeb

Purple: #8e7cc3

Yellow: #ffe599

EIGEN GRAU: #16161D

Responsive Tools



Some Tools

- [Screensiz.es](#)
- [MQTest.io](#)
- [Google Resizer](#)
- [Browser Stack](#)
- [Device Mode](#)
- [Discover DevTools](#)

Exercise

Homework

- Finish the exercise
- Potentially this
- Make a responsive website

Next class?

- Responsive Design!

Q & A



Feedback Time

Lesson 7: Responsive Basics

<https://ga.co/fewd32syd>

Thanks!

