





UI Engineering Studio. Day 4

# Bootcamp:

## Responsive Design

## Responsive Design

Responsive design is the practice of designing a website so it looks and works properly on a range of different devices — particularly mobile phones and tablets as well as desktops and laptops.

- Mozilla Web Docs



ViewPort

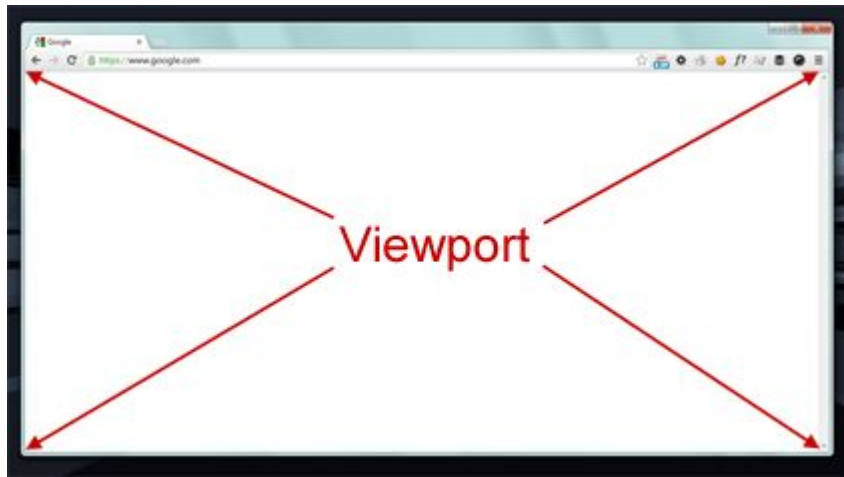
Units

Media Queries

Homework

## UI Boot Camp: Responsive Design

# Viewport



- Width
- Height
- Initial-scale
- Minimum-scale
- Maximum-scale
- User-scalable

Ex:

```
<meta name="viewport" content="user-scalable=no,  
width=device-width, initial-scale=1">
```

## UI Boot Camp: Responsive Design

# Portrait vs Landscape

Source: [MDN web docs](#)

Portrait

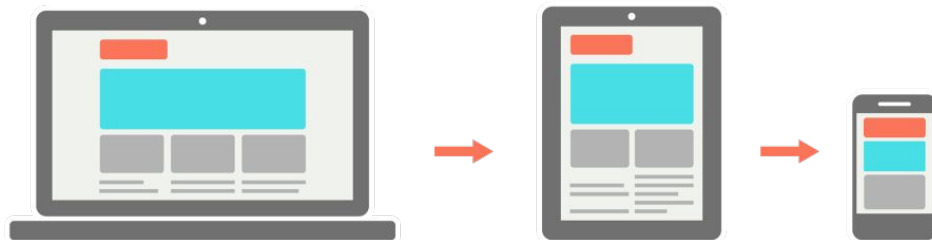


Landscape



## UI Boot Camp: Responsive Design

Desktop First ->

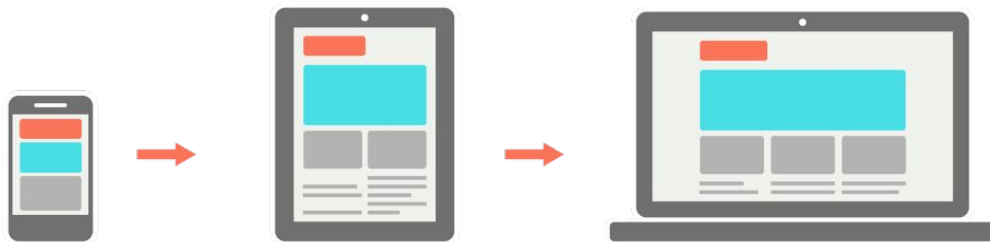


Responsive Web Design

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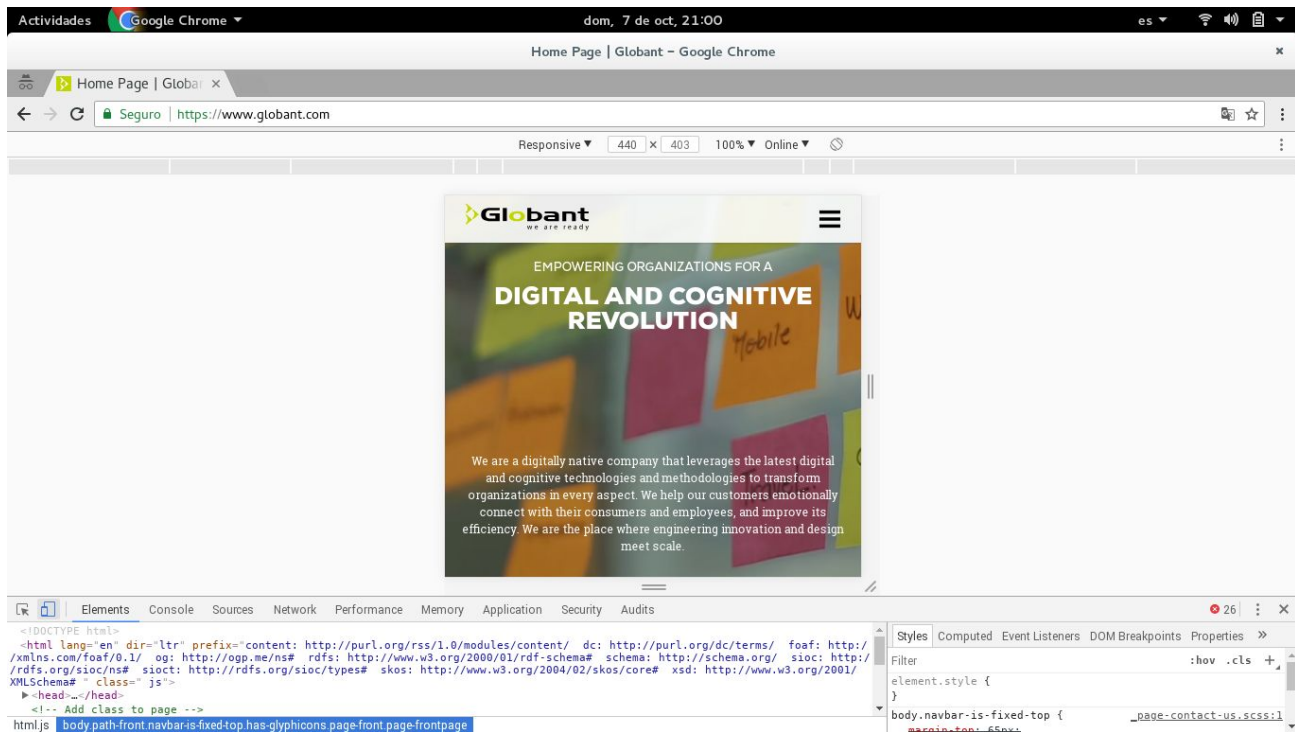
Mobile First Web Design

Mobile First ->



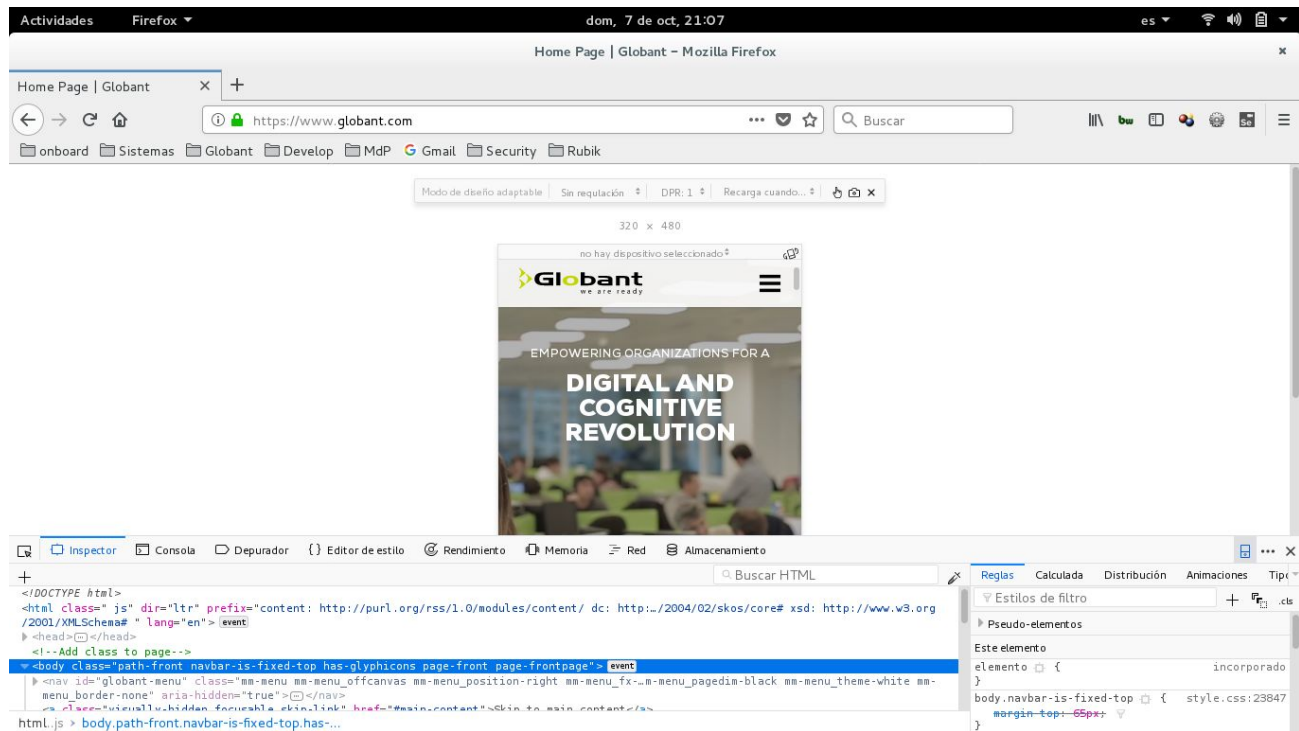
# UI Boot Camp: Responsive Design

## DevTools



# UI Boot Camp: Responsive Design

## DevTools





## UI Boot Camp: Responsive Design

# Patterns

- Tiny Tweaks
- Mostly Fluid
- Column Drop
- Layout Shifter
- Off Canvas

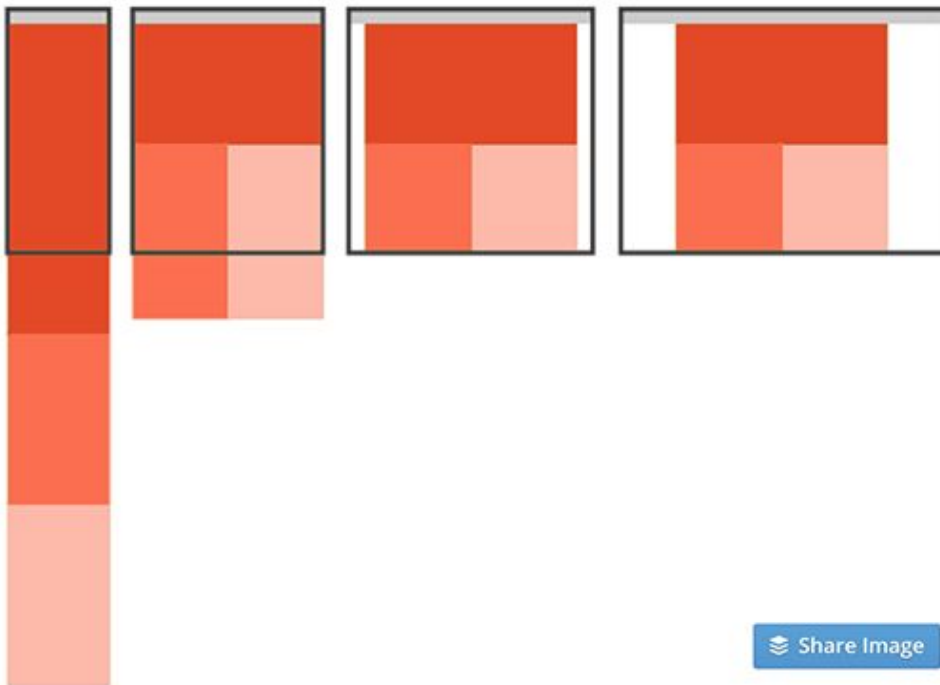
## UI Boot Camp: Responsive Design Patterns

Tiny Tweaks



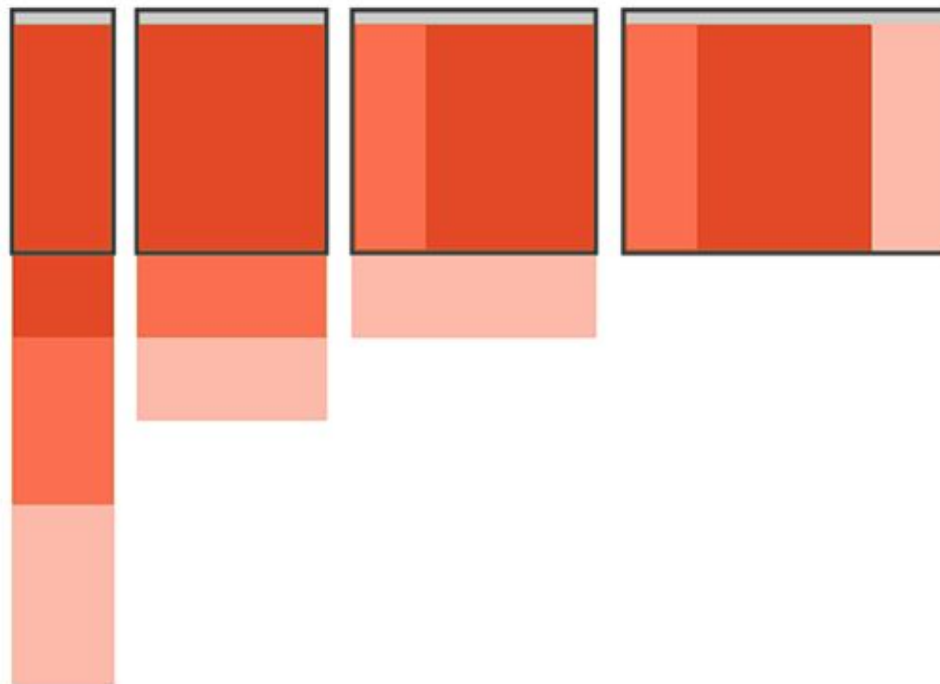
## UI Boot Camp: Responsive Design Patterns

Mostly Fluid



## UI Boot Camp: Responsive Design Patterns

### Column Drop



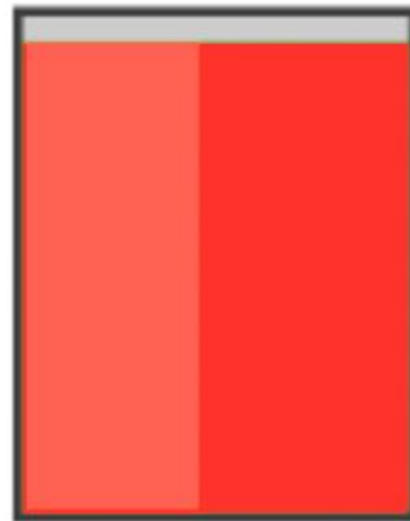
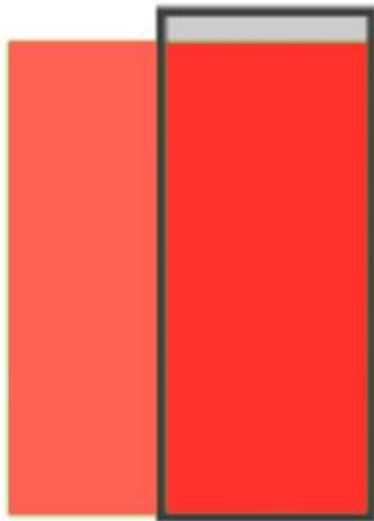
## UI Boot Camp: Responsive Design Patterns

### Layout Shifter



## UI Boot Camp: Responsive Design Patterns

Off Canvas



## UI Boot Camp: Responsive Design

# Css Units

| Unit        | Description   |
|-------------|---|
| em<br>font) | Relative to the font-size of the element (2em means 2 times the size of the current font) |
| rem         | Relative to font-size of the root element   |
| vw          | Relative to 1% of the width of the viewport   |
| vh          | Relative to 1% of the height of the viewport  |
| vmin        | Relative to 1% of viewport's smaller dimension  |
| vmax        | Relative to 1% of viewport's larger dimension   |
| %           | Relative to the parent element  |

If the viewport is 50cm wide, 1vw = 0.5cm.

## UI Boot Camp: Responsive Design

# Media Queries

Media queries are useful when you want to modify your site or app depending on a device's general type (such as print vs. screen) or specific characteristics and parameters (such as screen resolution or browser viewport width).

```
1  /** Desktop Layout Sizes */
2  @media only screen and (min-width:1025px) {}
3
4  /** Tablet (Landscape) */
5  @media only screen and (min-width:769px) and (max-width:1024px) {}
6
7  /** Tablet (Portrait) */
8  @media only screen and (min-width:581px) and (max-width:768px) {}
9
10 /** Phone (Landscape) */
11 @media only screen and (min-width:321px) and (max-width:580px) {}
12
13 /** Typical Phone (Portrait) */
14 @media only screen and (max-width:320px) {}
```



## UI Boot Camp: Responsive Design

# Media Queries

## MEDIA QUERIES



### Mobile First

```
@media screen type and (max-width: 320px) { }  
@media screen type and (max-width: 480px) { }  
@media screen type and (max-width: 768px) { }  
@media screen type and (max-width: 1024px) { }
```

### Desktop First

```
@media screen type and (min-width: 1024px) { }  
@media screen type and (min-width: 768px) { }  
@media screen type and (min-width: 480px) { }  
@media screen type and (min-width: 320px) { }
```

## UI Boot Camp: Responsive Homework:

<http://flexboxfroggy.com>



# UI Boot Camp: Responsive Homework:

1366 pixels:



[source](#)

936 pixels:

