

Media Query

What is media query

Media query is a CSS technique introduced in CSS3.

It uses the `@media` rule to include a block of CSS properties only if a certain condition is true.

Motivation for media query

It is used for responsive web design

Css syntax

```
@media not|only mediatype and (mediafeature and|or|not mediafeature) {  
  CSS-Code;  
}
```

Not relevant to browser that support media query

Media Types

Value	Description
all	Default. Used for all media type devices
print	Used for printers
screen	Used for computer screens, tablets, smart-phones etc.
speech	Used for screenreaders that "reads" the page out loud

Mobile first vs desktop first

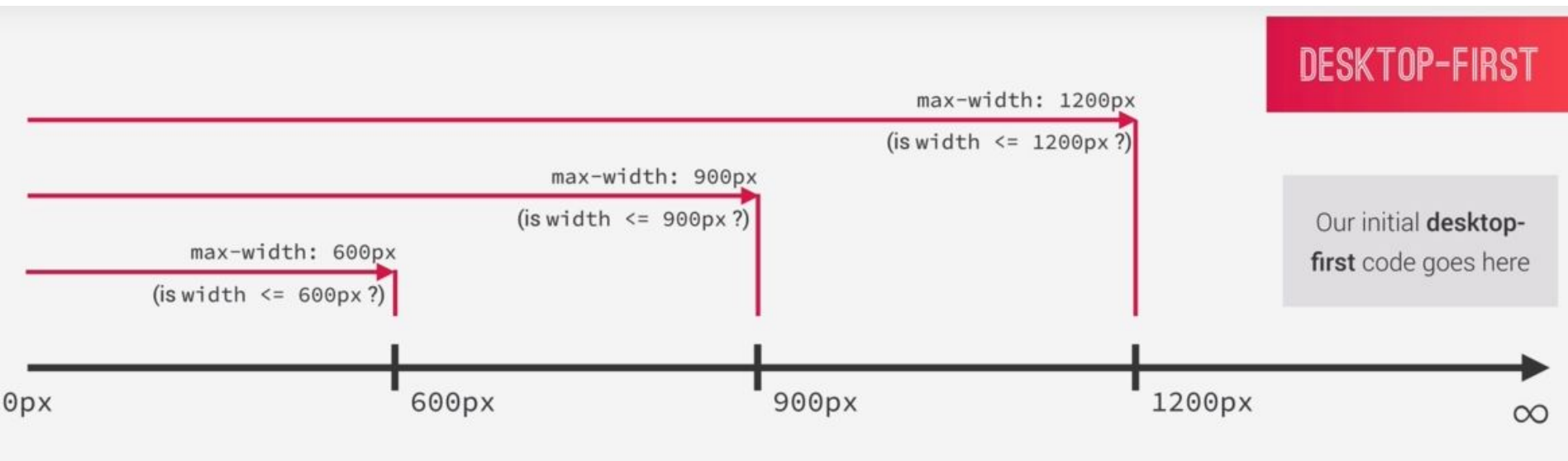
Desktop first

- start by doing ui for large screens e.g. for PC , then use media queries to fit for small screens
- Use max-width in media queries

Mobile first

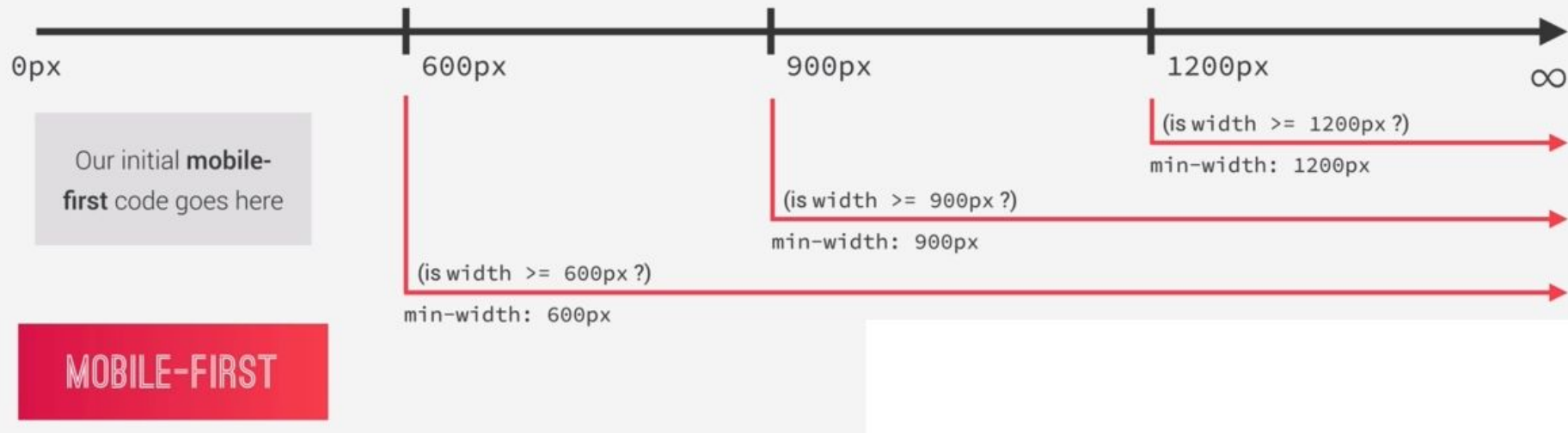
- start by doing ui for small screens e,g, for mobile phone , then use media queries to fit for large screens
- Use min-width in media queries
- This force us to make the app with essential features only

Desktop first - media queries (max-width)



עבור מסך ברוחב 500 פיקסלים יכולים להיות עיצובים שונים
לפי ה breakpoint (כאן יש 3) אז מי גובר ? מי שרשום אחרון
בcss וזה כללית נכון לכל property אחר בcss

Mobile first - media queries (min-width)



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Mobile first vs Desktop first

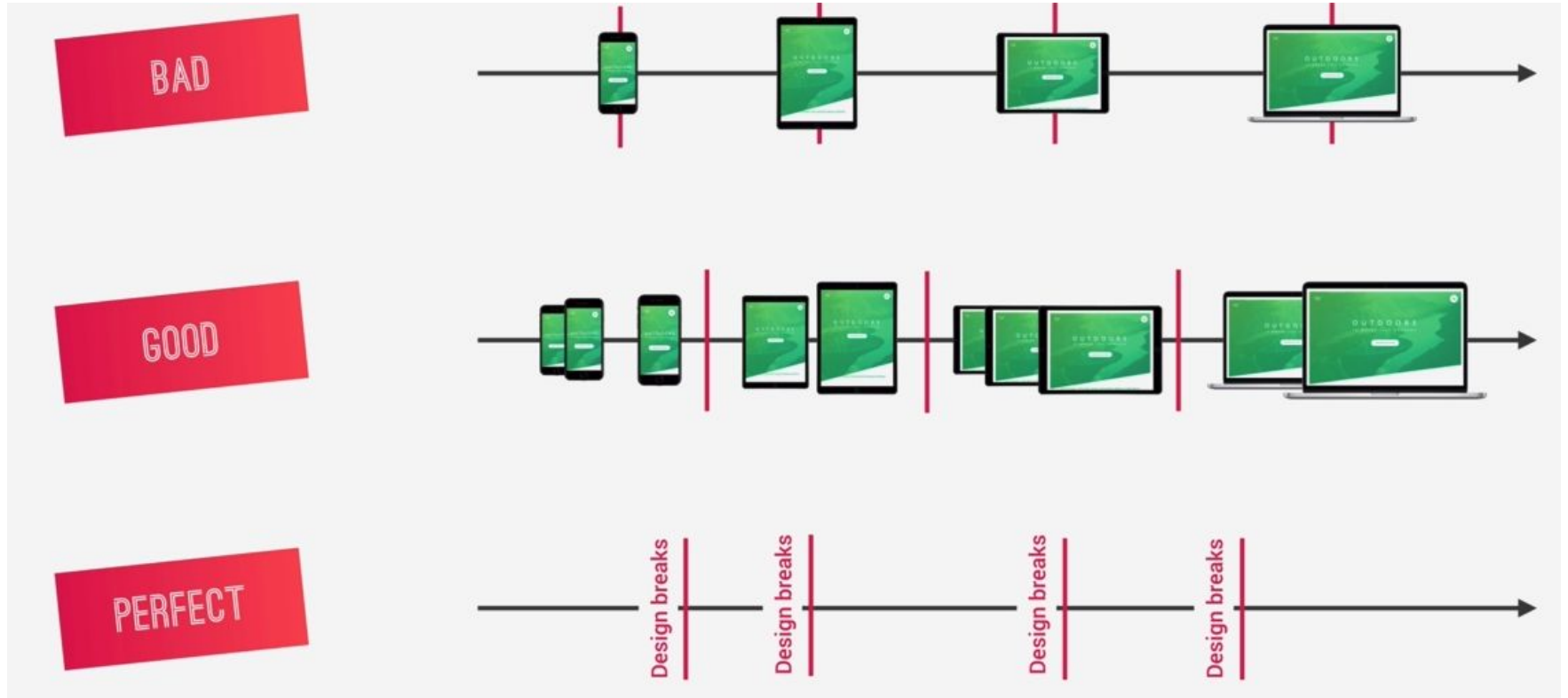
PROS

- 100% optimised for the mobile experience;
- Reduces websites and apps to the absolute essentials;
- Results in smaller, faster and more efficient products;
- Prioritizes content over aesthetic design, which may be desirable.

CONS

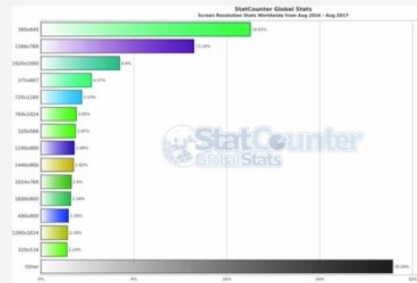
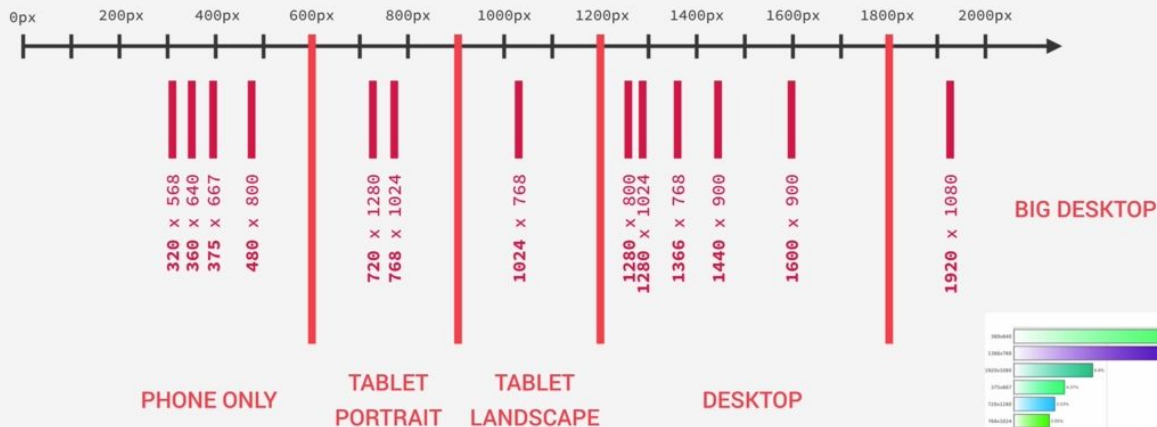
- The desktop version might feel overly empty and simplistic;
- More difficult and counterintuitive to develop;
- Less creative freedom, making it more difficult to create distinctive products;
- Clients are used to see a desktop version of the site as a prototype;
- Do your users even use the mobile internet? What's the purpose of your website?

Breakpoints



Select breakpoints

SELECTING OUR BREAKPOINTS: A GOOD APPROACH



[<http://gs.statcounter.com/screen-resolution-stats#monthly-201608-201708-bar>]



Background sample - OK

```
<style>
```

```
.p1 {
```

```
background-color: aqua;
```

```
}
```

Default color is aqua

```
/* Change the background color of the class .p1 element to orange  
when the browser window is 800px wide or less: */
```

```
@media only screen and (max-width: 800px) {
```

```
.p1 {
```

```
background-color: orange;
```

```
}
```

```
}
```

```
</style>
```

Color is orange when the browser window is below 800px

breakpoint

**Order is important as for any
contradicting css properties**

[background-ok.html](https://nathankrasney.com/background-ok.html)

Background sample - wrong

```
<style>
```

```
/* this will have no effect !!!!! because the order is wrong */
```

```
@media only screen and (max-width: 800px) {
```

```
.p1 {
```

```
background-color: orange;
```

```
}
```

```
}
```

breakpoint



Color is orange when the browser window is below 800px

```
.p1 {
```

```
background-color: aqua;
```

```
}
```

```
</style>
```

Order is important as for any contradicting css properties

[background-wrong.html](https://nathankrasney.com/background-wrong.html)

Layout sample

.....

/* For desktop: */

```
.col-3 {  
  width: 25%;  
}
```

```
.col-6 {  
  width: 50%;  
}
```

```
@media only screen and (max-width: 768px) {
```

/* For mobile phones: */

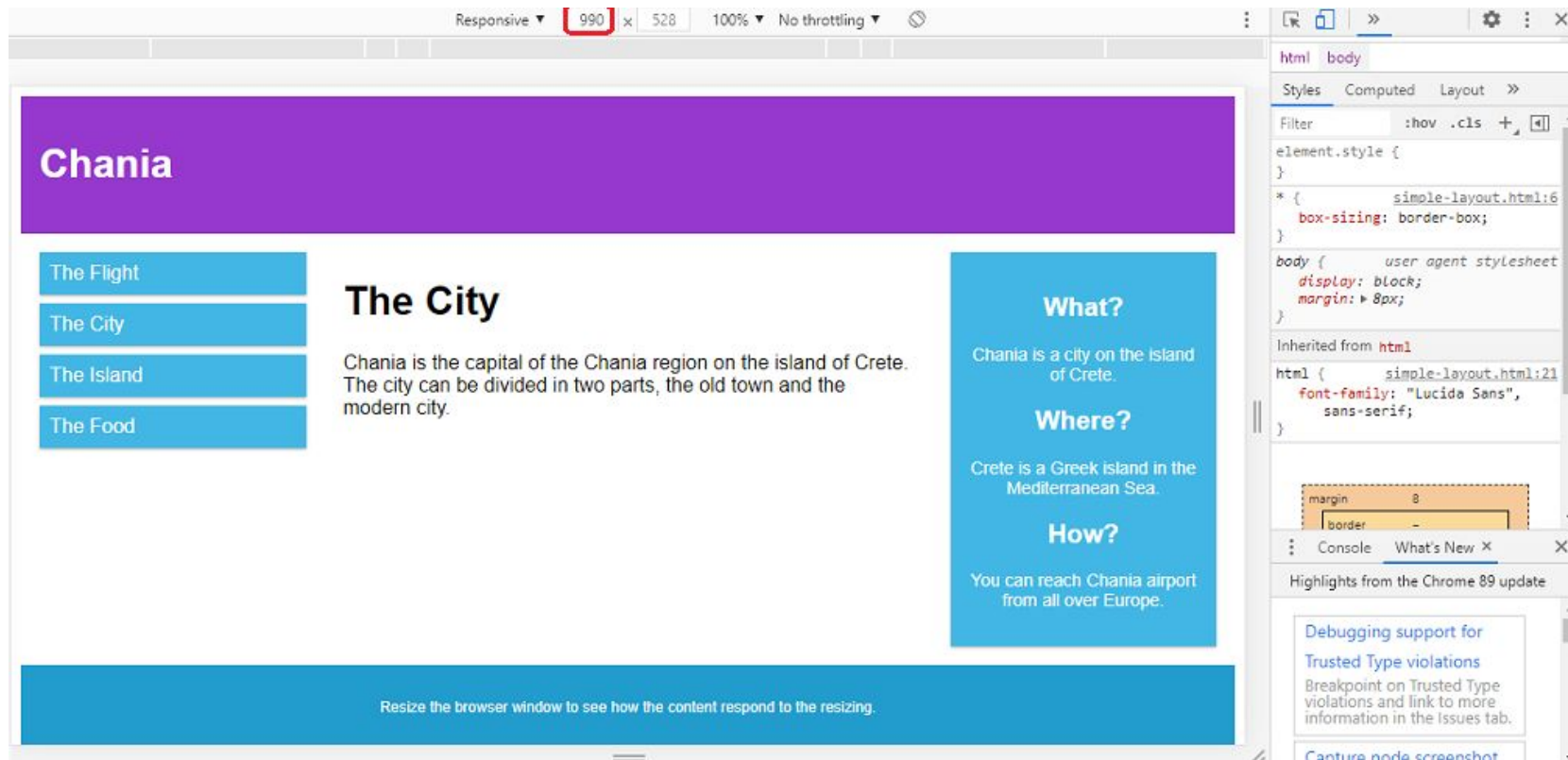
```
.col-3 , .col-6 {  
  width: 100%;  
}
```



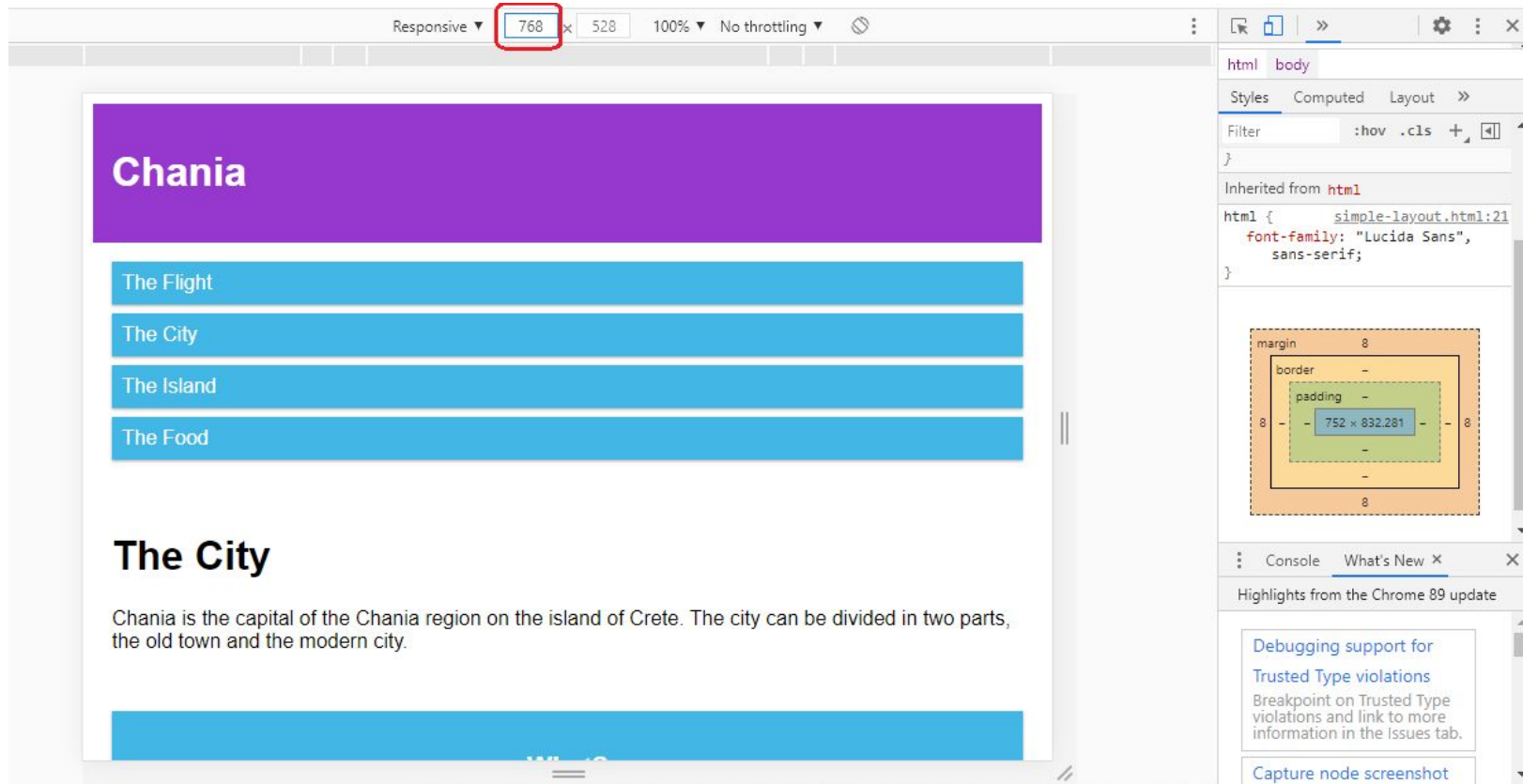
breakpoint

[simple-layout.html](https://nathankrasney.com/simple-layout.html)

Layout sample - width > 768px



Layout sample - width \leq 768px



hide

```
style>
.example {
  background-color: yellow;
  padding: 20px;
}
```

```
@media screen and (max-width: 600px) {
  .example {
    display: none;
  }
}
</style>
```



breakpoint

[hide.html](#)

font

<style>

```
.example {  
  background-color: lightgrey;  
  padding: 80px;  
  font-size: 80px;  
}
```

```
@media screen and (max-width: 600px) {  
  .example {  
    font-size: 30px;  
  }  
}
```



breakpoint

<font.html>

Test media queries

The screenshot shows a web browser in responsive mode. The browser window displays a website with the text "OUTDOORS IS WHERE LIFE HAPPENS" and a "DISCOVER OUR TOURS" button. The browser's developer tools are open, showing the "Elements" panel with the HTML structure and the "Styles" panel with a media query.

Browser Window:

- Responsive mode: 868 x 243
- 100% zoom, No throttling
- URL: `html.gr_127_0_0_1` 868 x 4459.8

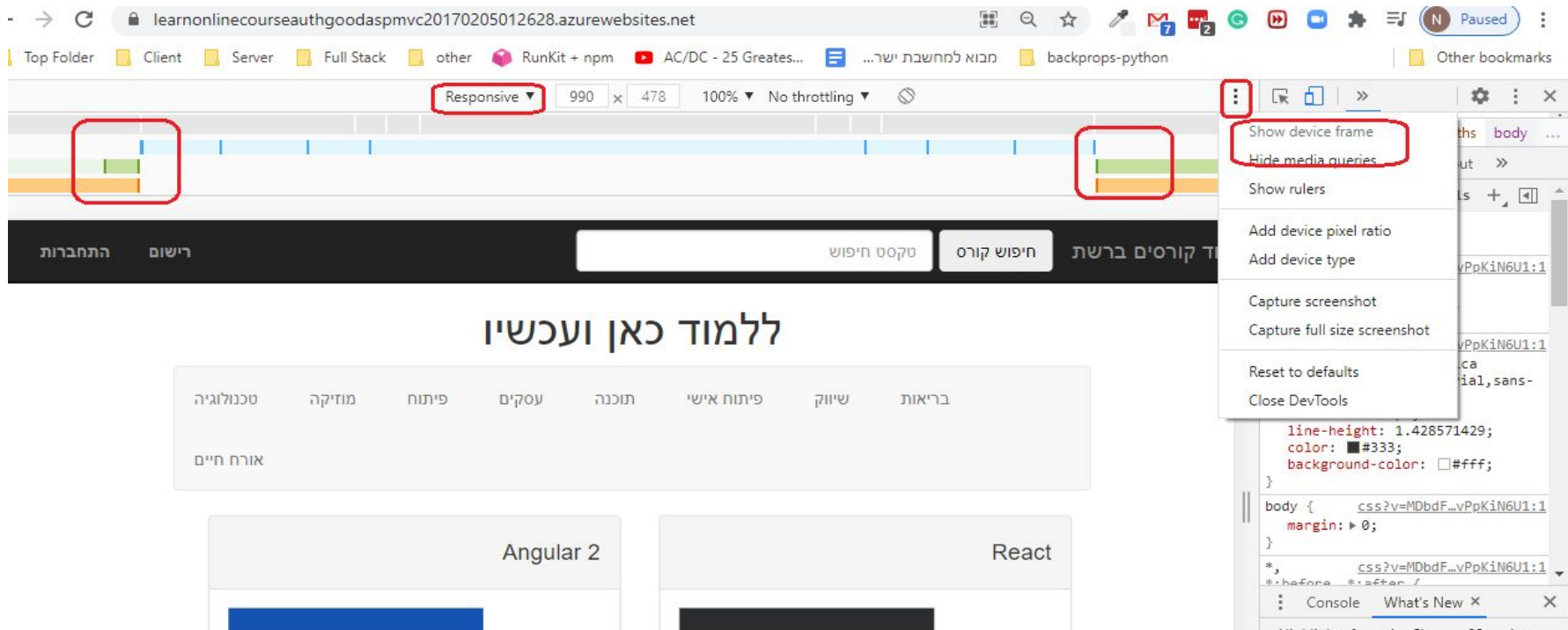
Elements Panel:

```
<html lang="en" class="gr_127_0_0_1"> == $0
<head>...</head>
<body data-gr-c-s-loaded="true" cz-shortcut-listen="true">
  <div class="navigation">...</div>
  <!-- div will do but header has better semantic -->
  <header class="header">
    <div class="header__logo-box">...</div>
    <div class="header__text-box">
      <!-- h1 is looked by SEO -->
```

Styles Panel:

```
@media (max-width: 56.25em)
html {
  font-size: 50%;
```

Show media queries



Show media queries source

Breakpoint at 600

The screenshot shows the Chrome DevTools interface with the 'Responsive' tab selected. A blue bar at the top indicates a breakpoint at 600px. A red box highlights the 'Reveal in source code' button. A blue arrow points from the 'Breakpoint at 600' text to the 600px mark on the bar. The main content area displays a large 'Example DIV.' text. The right sidebar shows the 'Elements' panel with the 'body' element selected, displaying its default styles. Below the styles, a box model diagram is shown with dimensions: 724 x 349.906 for the content area, and 8px for margin, border, and padding. The bottom of the page contains a URL and a page number.

Change the font size of an element on different screen sizes

Example DIV.

When the browser's width is 600px wide or less, set the font-size of DIV to 30px. When it is 601px or wider, set the font-size to 80px. Resize the browser window to see the effect.

References

[W3C - responsive web design and media query](#)

[W3c - css3 media query](#)

[Css responsive design - my slides](#)

[How to test responsive media queries using Chrome](#) - 2019