



HTML5 Part 2

Fundamentals

Week 1 – Full-Stack DPP Course



Welcome

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Part 2 Outline

- Mobile First Design
- Graceful Degradation
- Progressive Enhancement
- Media Queries
- Responsive Design
- Stylesheet Set Up
- Start Files Set Up Code
- Build Website Skeleton (hands-on practice)



Part 2 Learning Objectives

- Learners would have a good understanding of:
 - What is Mobile First Design
 - The difference between Graceful Degradation and Progressive Enhancement
 - Media Queries, @media rule and Break Points
 - Responsive Design and link to Mobile First Design
 - CSS Reset and Normalizer and their importance
 - The viewport meta tag
 - The Box Model Reset



What is Mobile First Design?

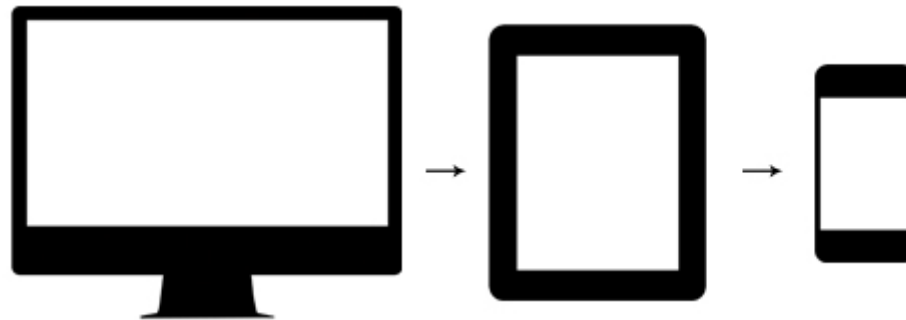
Mobile first design is an **approach** outlined in 2009 by Luke Wroblewski. Put simply, **mobile first** is an **approach** to responsive **design**: **design** for smaller screens **first**, then add more features and content for bigger and bigger screens. This **design approach** is also known as "progressive enhancement".

Mobile First Design



Graceful Degradation vs Progressive Enhancement

GRACEFUL DEGRADATION

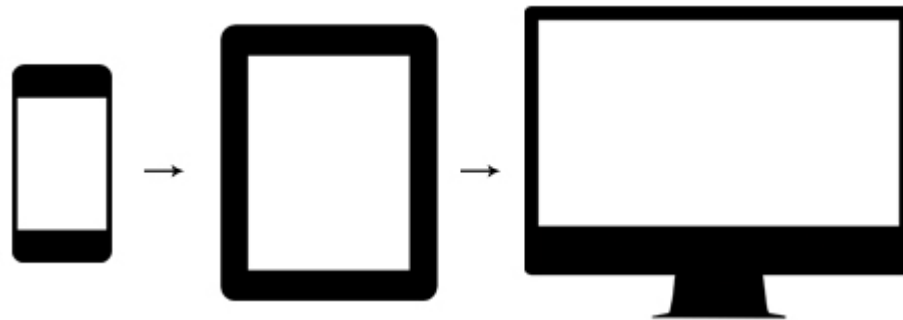


In terms of mobile web design, this meant that a full, standard website would scale back and gradually remove content and features as the viewport became smaller and the system simpler.



Graceful Degradation vs Progressive Enhancement

PROGRESSIVE ENHANCEMENT



To provide the users with **minimal** screen real estate, processing power and third party plugins an amazing experience that both looks great and functions perfectly. As the need arises, the site can gradually be “enhanced” and even completely rethought for larger platforms with fewer constraints.



CSS3 Media Queries

Media Queries is a CSS3 module allowing content rendering to adapt to conditions such as screen resolution and is a cornerstone technology of Responsive Web Design.

The **@media** rule is used to define different style rules for different **media** types/devices. **Media queries** look at the capability of the device, and can be used to check many things, such as: width and height of the viewport.

CSS3 Media Queries



CSS3 Media Queries

Media Queries allow you to target your CSS set to certain screens widths using **break points**. We can use start and end points for any media queries.

Small Screen
Rules

```
@media screen and (min-width: 320px) and (max-width: 480px) {  
    // CSS rules here  
}
```

Medium
Screen Rules

```
@media screen and (min-width: 481px) and (max-width: 960px) {  
    // CSS rules here  
}
```

Large Screen
Rules

```
@media screen and (min-width: 961px) and (max-width: 1600px) {  
    // CSS rules here  
}
```



CSS3 Media Queries

The previous slide is not a good way to approach media queries, what about if the screen is **less** than **320px** or **larger** than **1600px**. The example below still have issues with inheritance.

Small Screen Rules

```
@media screen and (min-width: 320px) and (max-width: 480px) {  
  h1 { color: white; }  
}
```

Medium Screen Rules

```
@media screen and (min-width: 481px) and (max-width: 960px) {  
  h1 { color: white; }  
}
```

Large Screen Rules

```
@media screen and (min-width: 961px) and (max-width: 1600px) {  
  h1 { color: white; }  
}
```



CSS3 Media Queries

For a progressive enhancement approach to style a website, giving the same styling across all screen sizes, and displaying the same look and feel regardless of the device used to view the website.

CSS Reset



The rules in CSS reset should be applied across all screens and devices.

Small Screen Rules



Small screen CSS rules will set up the brand and the look and feel of the website.

Medium Screen Rules

```
@media screen and (min-width: 480px) {  
    // CSS rules here  
}
```

Large Screen Rules

```
@media screen and (min-width: 1140px) {  
    // CSS rules here  
}
```



Responsive Design

Responsive design is built around the concept of CSS3 media queries that target specific devices and viewport sizes.

With this in mind, you can code up your initial CSS given a mobile perspective and then use media queries to selectively serve up additional styling as the viewport size increases.

Progressive Enhancement



CSS3 Media Queries



Mobile First Design



Mobile First Design Approach

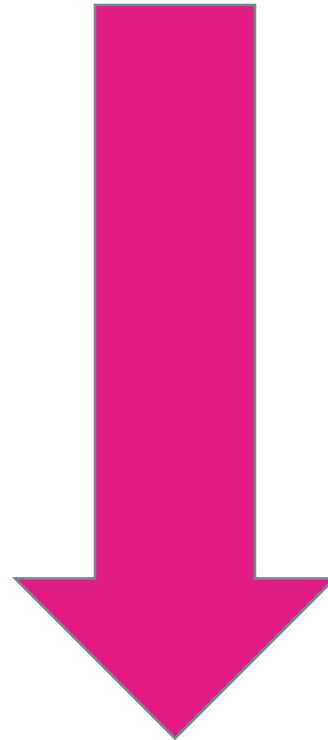
If you start designing with the small screen CSS rules, then you are using the **mobile first design**.

CSS Reset/CSS Normalize

Small Screen CSS Rules

Medium Screen CSS Rules

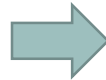
Large Screen CSS Rules



The Stylesheets Set Up

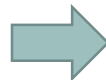
To keep the CSS organised we need to create separate files to avoid putting the wrong code in the wrong place.

CSS Reset/CSS Normalize



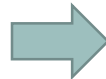
Series of rules trying to level the play field to make the rules you write look the same across all browsers.

Small Screen Rules



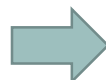
Typically apply to mobile phones.

Medium Screen Rules



Typically apply to tablets.

Large Screen Rules



Typically apply to large desktop browsers.



CSS Reset vs CSS Normalizer

CSS Reset and CSS Normalizer are CSS files build to remove all the CSS differences and discrepancies from our browsers.

CSS Reset

Is a short, often minified set of **CSS** rules that **resets** the styling of all HTML elements to a consistent baseline, because every browser has its own default 'user agent' stylesheet.

CSS Reset it will attempt to remove all default browser styling.

[CSS Reset Download](#)

CSS Normalizer

Makes browsers render all elements more consistently and in line with modern standards. It precisely targets only the styles that need normalizing.

CSS Normalizer will leave some default browser styling in place.

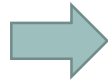
[CSS Normalizer Download](#)



The Start File Set Up

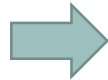
For a basic website to work with modern web browsers and mobile devices, we need to include few HTML and CSS items such as:

Do not lie <meta>



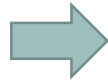
Phone browsers not to lie about their real width by including a meta tag.

Stop phone resize



Using the style sheet to stop the phone resize font problem.

Box Model Reset

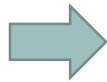


Reset all elements to follow the same box model.



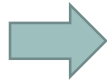
The Start File Code

Do not lie <meta>



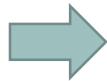
```
<!--Tells mobile phones not to lie about their true width-->  
<meta name="viewport"  
content="width=device-width, initial-scale=1,  
maximum-scale=1">
```

Stop phone resize



```
/* Prevents adjustments of font size after orientation  
change in IE on Windows phone and in IOS */  
html {  
    -webkit-text-size-adjust: 100%;  
    -ms-text-size-adjust: 100%;  
}
```

Box Model Reset



```
/* Apply a natural box model layout to all elements */  
* {  
    -webkit-box-sizing: border-box;  
    -moz-box-sizing: border-box;  
    box-sizing: border-box;  
}
```



Basic Structure of an HTML Document

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>The title goes here</title>
```

```
    // The title will appear in the browser title bar
```

```
  </head>
```

```
  <body>
```

```
    // The visible part of the HTML document goes here
```

```
  </body>
```

```
</html>
```



Download Files

Login into your VLE, look for HTML5 and CSS3 folder.
Inside the folder click on HTML5 Part 2.

or

Access my GitHub account and download the
HTML5 Part 2 folder.

GitHub Account



Any Questions?

Let's code

