

LAB

Web-Centric Computing

Content

- Responsive Web Design
 - The 4 Must-Have Elements of RWD
 - Breaking Points
- Lab Assignment 2

The Four Must-Have Elements of RWD

RESPONSIVE WEB DESIGN

Responsive Web Design

The Four Must-Have Elements

- The **Viewport Meta Element**

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

- name="viewport"
 - The following info relates to the viewport
- width=device-width
 - The width of the viewport is set to the width of the device
- Initial-scale=1.0
 - The width of the screen in CSS pixels is at an initial scale of 100%

Responsive Web Design

The Four Must-Have Elements

- A Normalizing or Reset Stylesheet

```
17  
18 <link rel="stylesheet" href="css/normalize.css">  
19 <link rel="stylesheet" href="css/styles.css">  
20
```

- Allows developers to smooth out any minor inconsistencies in browsers

Responsive Web Design

The Four Must-Have Elements

- **Container Elements to define a site's structure**
 - Defining the main containing elements of your layout (i.e., fixed width elements) allows developers to determine the flexible elements nested inside these containers (i.e., relative width elements)

Responsive Web Design

```
48 * {  
49   -webkit-box-sizing: border-box;  
50   -moz-box-sizing: border-box;  
51   box-sizing: border-box;  
52 }
```

The Four Must-Have Elements

- Container Elements to define a site's structure
 - The **box-sizing** property
 - Property Values
 - **content-box**: width & height of element only includes the content (*default value*)
 - **border-box**: width & height of element includes the content, padding, border, margin
 - **Initial**: the width & height of element set to its default
 - **Inherit**: inherits value from parent element

Responsive Web Design

The Four Must-Have Elements

- **Media Queries**
 - Allows developers to apply a set of CSS rules to an element based on the screen size of a device

```
568
569 @media (max-width: 480px) {
570
571     nav ul li {
572         padding: 8px 4px;
573         font-size: 16px;
574     }
575
576     .media img {
577         float: none;
578         max-width: 100%;
579     }
580
581     .promo-desc h1 {
582         font-size: 24px;
583     }
584
585     .footer-1 h2 {
586         font-size: 24px;
587     }
588
589 }
590
```


Responsive Web Design

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590
```

The Four Must-Have Elements

- Relative Units
 - Using relative units on flexible elements allows our content to resize proportionately to its fixed size container element

Breaking Points

RESPONSIVE WEB DESIGN

Responsive Web Design



Common Breaking Points

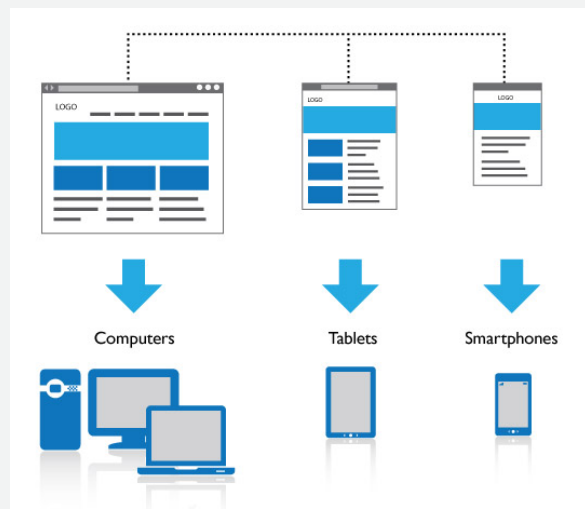
- **Breaking points** are useful points of reference for when our layout will break
 - Mobile portrait: 320px
 - Mobile landscape: 480px
 - Small tablet: 600px
 - Tablet portrait: 768px
 - Tablet landscape/netbook/desktop: 1024px

*Creating a Prototype of your Project: A Hands-on Parallel Design
Approach*

LAB ASSIGNMENT

2

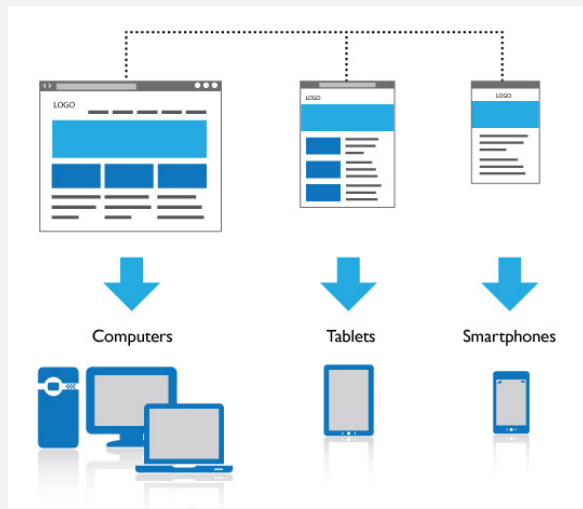
Lab Assignment # 2



A Prototyping Exercise

- Individually, create a prototype of your project's web application
 - This prototype is meant to be an exercise of parallel design
 - i.e., each member of your group should come up with their own design
 - The purpose of this lab assignment is to help you, as a group, reach your final design
 - Your design should be responsive, make use of web forms where applicable
 - e.g., logins, shopping carts, registration, etc

Lab Assignment # 2

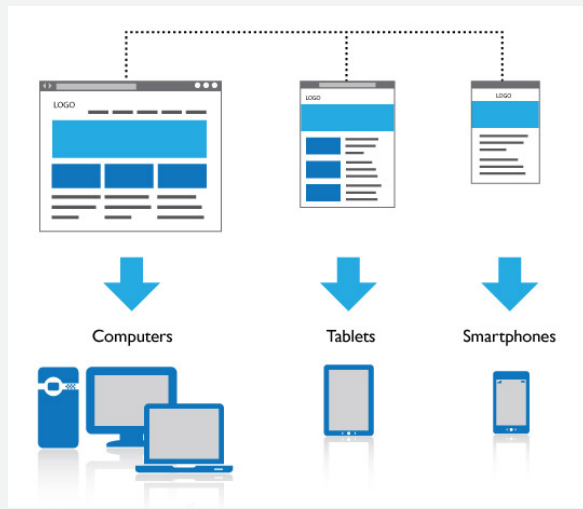


A Prototyping Exercise

- Individually, create a prototype of your project's web application
 - Your design must apply the usability and design guidelines discussed in class
 - Your lab assignment should include **at least** two pages, both pages should not be entirely identical in regards to layout (i.e., have some sort of variant in its layout)

NOTE: You **MAY** use an existing responsive framework, but this solution **MUST** be customized extensively by yourself. You **MAY** also use dummy text.

Lab Assignment # 2



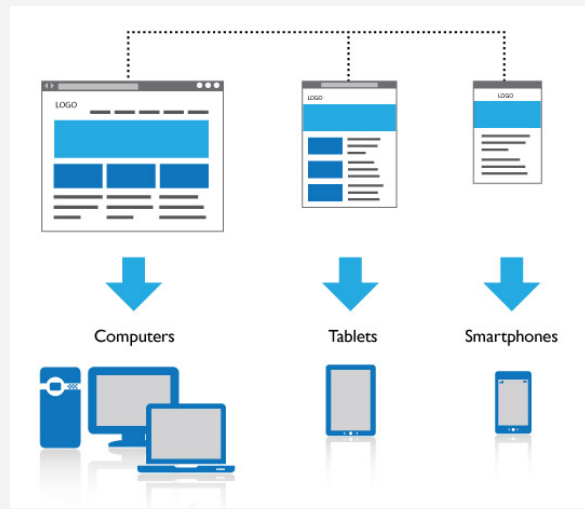
A Prototyping Exercise

- Marking
 - A proper responsive layout (based on your group's specifications) **(4pts)**
 - Your prototype should include **at least** two pages **(2pts)**
 - You must use relative measurements in your layout (i.e., em or percentages) where appropriate **(2pts)**
 - Aesthetically pleasing **(2pt)**

TOTAL: 10pts

NOTE: You **MAY** use an existing responsive framework, but this solution **MUST** be customized extensively by yourself. You **MAY** also use dummy text.

Lab Assignment # 2



A Prototyping Exercise

- Submitting your lab
 - Markers will go to the following URL for marking, please ensure you submitted your lab properly by visiting this URL yourself

<http://web.cs.dal.ca/~yourcsid/csci3172/lab1/index.html>

DUE: October 3rd, 11:59pm.

NOTE: You **MAY** use an existing responsive framework, but this solution **MUST** be customized extensively by yourself. You **MAY** also use dummy text.

