WEB DESIGN WITH HTML5 & CSS3

CHAPTER 6

RESPONSIVE DESIGN PART 2:

DESIGNING FOR TABLET AND DESKTOP DEVICES

CHAPTER OBJECTIVES

Media Queries	Understand and use media query expressions
Table Design	Explain the design principles of a tablet website
Tablet Media Query	Insert a media query to target tablet viewports
Tablet Style Rules	Create style rules for tablet viewports

CHAPTER OBJECTIVES (CONTINUED)

Desktop Design	Explain the design principles of a desktop website
Desktop Media Query	Insert a media query to target desktop viewports
Create	Create style rules for desktop viewports

CHAPTER OBJECTIVES (CONTINUED)

Breakpoints	Identify and modify breakpoints
Pseudo-classes	Explain pseudo-classes and why we use them
Using Pseudo Classes	Apply pseudo-classes to a website
Gradients	Explain linear and radial gradients
Apply Gradients	Apply a linear gradient to a webpage for a desktop viewport

RESPONSIVE DESIGN

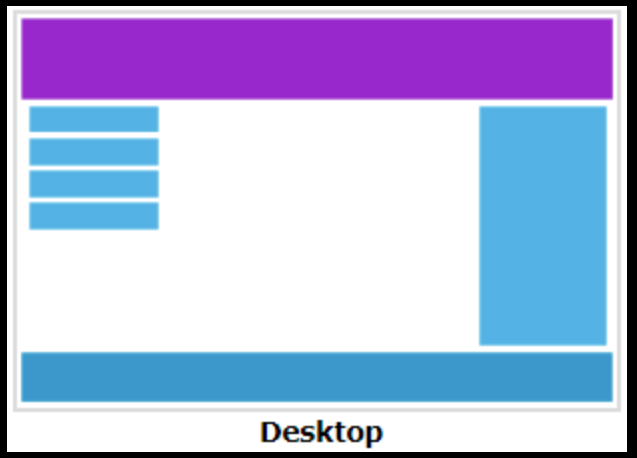
- Chapter 5 - Created fluid layouts
  - Added style rules for a mobile viewport
    - All viewports used these style rules by default
- Chapter 6
  - Add style rules that target tablet or desktop viewports
    - Create a **media query** for each viewport
    - Web pages can be viewed as a range of screen sizes

DESIGNING FOR DIFFERENT VIEWPORTS

- Maintain the same general look of the website
- The appearance of the website should look the same from viewport to viewport
- The only thing that should change is layout and placement of content
- This chapter takes you through the steps to design a media query for tablets and desktops

MEDIA QUERY - BREAKPOINT

- Width at which the layout no longer looks good, or at which you decide to move elements, or add or remove content
- Used to apply different CSS styles to a webpage based on the size of the viewport



MEDIA QUERY - BREAKPOINT

- Media queries can determine the size of the viewport

Table 6–1 Common Viewport Breakpoints

Device	Minimum Viewport Width	Maximum Viewport Width
Small smartphones	320px	480px
Tablets and larger smartphones	481px	768px
Tablets in landscape orientation, laptops, and small desktop monitors	769px	1279px
Large desktop monitors	1280px	NA

MEDIA QUERIES

- Embedded in the **link tag** of the HTML page that connects an external style sheet
- Inserted in the external style sheet with **@media** rules

MEDIA QUERY LINK TAG

- The three most common types of media are
  - `Screen  Print  all`
- Two different style sheets for two different media types (screen and print):

```
<head>
  <link rel="stylesheet" type="text/css" href="theme.css">
  <link rel="stylesheet" type="text/css" href="print.css" media="print">
</head>
```

- The **media** attribute determines which style sheet should be applied

MEDIA QUERY LINK TAG - EXPRESSIONS

- A media query can use a logical expression to test whether a viewport has reached a particular breakpoint

```
<link rel="stylesheet" href="css/styles-mobile.css"media="screen and (max-width: 480px)">
```

- The logical expression includes:
  - **Media query feature**, - a characteristic of the environment such as max-width
  - **Breakpoint value** – for example 480px
- If the logical expression evaluates to "true," the media query applies the styles

MEDIA QUERY LINK TAG - EXPRESSIONS

- A media query can also test for both minimum and maximum breakpoints:

```
<link rel="stylesheet" href="css/styles-
tablet.css"media="screen and (min-width: 481px) and
(max-width: 768px)">
```

  - Apply the styles-tablet.css stylesheet in the css folder when screens have a viewport width between 481px and 768px
  - When testing for minimum and maximum widths, the word "**and**" separates each part of the media attribute value

EXTERNAL CSS MEDIA QUERY – @MEDIA RULE

- Implement media queries directly into a CSS file using the `@media` rule
- A technique introduced in CSS3

EXTERNAL CSS MEDIA QUERY – @MEDIA RULE

- Uses **@media** rule to include a block of CSS properties only if a certain condition is true
- Example: If the browser window is 600px or smaller, the background color will be lightblue:

```
@media only screen and (max-width: 600px) {
    body {
        background-color: lightblue;
    }
}
```

EXTERNAL CSS MEDIA QUERY – @MEDIA RULE

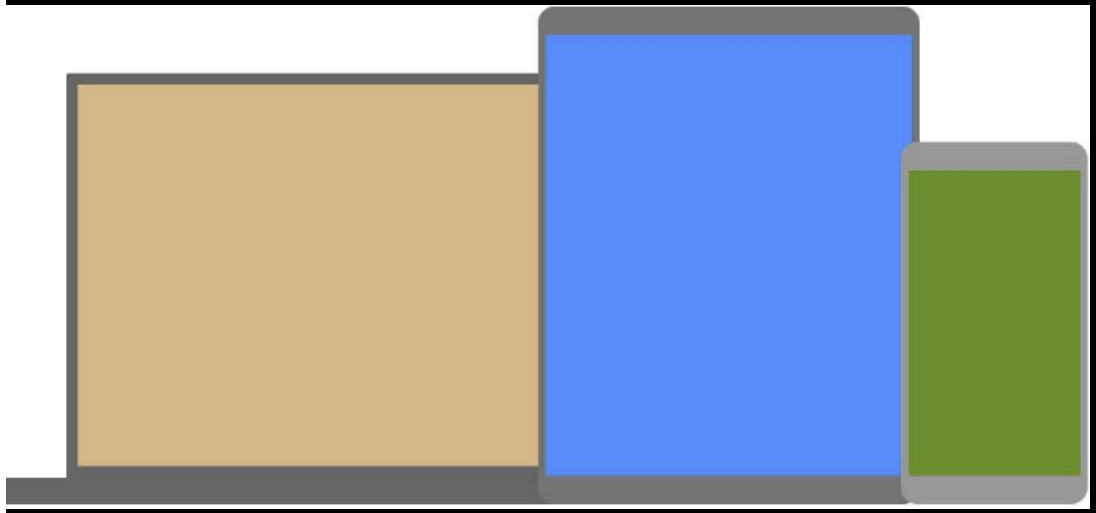
- Mobile-first strategy:
  - Mobile styles are listed first as they are the default styles
  - Next, add media styles for larger viewports, progressing from tablet to desktop
  - Styles created for the smaller viewports apply to larger viewports by default
  - To modify the appearance of an element for a larger viewport, a media query is created for the larger viewport, and then a new style is created

EXTERNAL CSS MEDIA QUERY – @MEDIA RULE

```css
/* Set the background color of body to tan */
body {
  background-color: tan;
}

/* On screens that are 992px or less, set the background color to blue */
@media screen and (max-width: 992px) {
  body {
    background-color: blue;
  }
}

/* On screens that are 600px or less, set the background color to olive */
@media screen and (max-width: 600px) {
  body {
    background-color: olive;
  }
}
```



LINKS & PSEUDO-CLASSES

- Allow changes to the style of a link based on four link states: link, visited, hover, and active
  - Must be used in the following order: link, visited, hover, active
  - Table 6–3 describes each link state

Table 6–3 Pseudo-Classes

Pseudo-class	Used to Style
:link	Unvisited link
:visited	Link that has been clicked
:hover	Link when the mouse is hovering over it
:active	Link at the moment it is clicked

USING PSEUDO-CLASSES

- A pseudo-class is attached to a selector with a colon
- A unique style is defined by creating four separate style rules with **a:link**, **a:visited**, **a:hover**, and **a:active** as the selectors

```
/* Style rules for pseudo-classes */
nav li a:link {
    color: #FFFFFF;
}

nav li a:visited {
    color: #FFFF99;
}

nav li a:hover {
    color: #FFFF00;
    font-style: italic;
}
```

USING GRADIENTS

- A gradual transition from one color to another
- CSS3 has two types:
  - Linear
  - Radial

LINEAR GRADIENT

- Transition from several different angles
- Default transition is from the top to the bottom
- Can also transition up, left, right, or diagonally
- Example:

```
body {
background: linear-gradient(white, blue);
}
```

RADIAL GRADIENTS

- They are specified by their center
- The color begins in the center and transitions in a radial direction to another color or colors

STUDY! STUDY!! STUDY!!!
REMINDERS:

- Complete Chapter 6 quiz and homework (Due November 3rd, no class Oct 27th)
- Work on your Term Project Week 6 & 7 activities – start adding CSS to website, Specials.html
- Study for Exam, material from chapters 1-5
  - Exam is NEXT class, during our regular class hours. There is no lecture.
  - Exam will unlock at 8:30am EST (start of class), locks at 11:30am EST (end of class)
  - Total allotted exam time is 1h 45m once you begin
    - Similar number of questions per chapter, but more than twice the quiz time in total
- I will be around for questions, and for help on term project. It will be a good chance to ask for feedback!