**Media Queries:**

**HTML Structure (index.html):**

**Four sections we always have in HTML, reviewed.**

1. **DOCTYPE Declaration:**
   * <!DOCTYPE html>: This line specifies the document type as HTML5.
2. **HTML Root Element:**
   * <html lang="en">: This element defines the root of the HTML document. The lang attribute specifies the document's language as English.
3. **Head Section:**
   * <head>: This section contains meta information about the webpage, which is not directly displayed on the page but is essential for browsers and search engines.
     + <meta charset="UTF-8">: This meta tag defines the character encoding as UTF-8, allowing for displaying a wider range of characters.
     + <meta name="viewport" content="width=device-width, initial-scale=1.0">: This meta tag is crucial for responsive web design. It ensures that the website scales appropriately on various devices (phones, tablets, desktops) by setting the viewport width to the device width and the initial zoom level to 1.0.
     + <title>Advanced Responsive Website</title>: This element specifies the title of the webpage, which is displayed on the browser tab.
     + <link rel="stylesheet" href="style.css">: This link tag references an external stylesheet file named "style.css" that contains the CSS styles for the website.
4. **Body Section:**
   * <body>: This element contains the visible content of the webpage that users see when they open the website.

**Now we will add semantic elements.**

1. **Header Section:**
   * <header>: Add the header semantic element of the webpage, typically containing the website logo, navigation menu, and other branding elements.
   * Inside the <header> will be <nav>: This element defines the navigation menu of the webpage. Inside <nav> we will add:
     + <ul>: This unordered list (<ul>) contains the menu items. Inside <ul> add <li>: Each list item (<li>) represents a menu item. Inside <li> add <a>: This anchor tag (<a>) defines a hyperlink to another webpage or section of the current page. The text content of the anchor tag defines the visible menu item label.
2. **Main Content Section:**
   * <main>: Add this element that is the main content area of the webpage after <header> is finished, you will place the core content of your website in <main>. You can have multiple sections within <main> to structure your content.
3. **Inside <main> Add the Hero Section:**
   * <section class="hero">: This section defines a thematic section with the class "hero," typically featuring a hero image, a heading, and a brief description about the website. Inside it, add:
     + <img>: This tag embeds an image into the webpage. The src attribute specifies the image source URL (in this case, a placeholder image from Unsplash is used). The alt attribute provides alternative text for the image, which is useful for accessibility and SEO.
     + <div class="hero-content">: This <div> element with the class "hero-content" groups the heading and description content within the hero section. Inside the <div> add:
       - <h1>: This heading element (<h1>) defines the main heading of the webpage.
       - <p>: This paragraph element (<p>) contains a brief description about the website.
4. **Add the Features Section:**
   * <section class="features">: This section defines another thematic section with the class "features," showcasing the website's features. Inside, add:
     + <h2>: This heading element (<h2>) defines a subheading for the features section.
     + <div class="row">: This <div> element with the class "row" creates a row layout for the features.
       - <div class="col-md-4">: These <div> elements with the class "col-md-4" define three columns within the row, each containing a feature description. Inside, add:
         * <h3>: This heading element (<h3>) defines a heading for each feature.
         * <p>: This paragraph element (<p>) contains the description of each feature.
5. **Add the Testimonials Section:**
   * <section class="testimonials">: This section defines a thematic section with the class "testimonials," displaying customer testimonials about the website. Inside, add:
     + <h2>: This heading element (<h2>) defines a subheading for the testimonials section.
     + <div class="testimonial">: These <div> elements with the class "testimonial" define individual testimonial boxes.
       - <p>: This paragraph element (<p>) contains the testimonial text.
       - <code>: This code element (<code>) is used to display inline code snippets. In this case, it's used to format the name of the person providing the testimonial.
6. **Add a Form For the Contact Section:**
   * <section class="contact">: This section defines a thematic section with the class "contact," providing a contact form for users to get in touch.
     + <h2>: This heading element (<h2>) defines a subheading for the contact section.
     + <form>: This element defines a form for collecting user information.
       - <label>: This element defines a label for the input fields.
       - <input>: These input elements (<input>) define the form fields for name and email. The type attribute specifies the type of input (text for name, email for email). The required attribute ensures that these fields must be filled in.
       - <button type="submit">: This button element (<button>) submits the form data when clicked.
7. **Add the Footer Section:**
   * <footer>: This element represents the footer section of the webpage, typically containing copyright information or other relevant links.
     + <p>: This paragraph element (<p>) contains the copyright information.

**Now do the CSS Styling (style.css):**

1. **General Styles:**
   * body:
     + font-family: sans-serif;: Sets the default font family for the entire webpage to a sans-serif font.
     + margin: 0;: Removes the default top and bottom margins of the body element.
     + padding: 0;: Removes the default top and bottom padding of the body element.
2. **Header Styles:**
   * header:
     + background-color: #333;: Sets the background color of the header to a dark gray.
     + color: #fff;: Sets the text color of the header elements to white.
     + padding: 20px;: Adds padding to the top and bottom of the header.
     + position: sticky; top: 0; z-index: 1;: Makes the header "sticky" to the top of the viewport when the user scrolls down the page. This ensures that the header remains visible at the top of the screen.
   * nav ul:
     + list-style: none;: Removes the default bullet points from the list items.
     + margin: 0;: Removes the default margin from the list.
     + padding: 0;: Removes the default padding from the list.
   * nav ul li:
     + display: inline-block;: Displays list items horizontally, next to each other.
     + margin-right: 20px;: Adds margin to the right of each list item.
   * nav ul li a:
     + color: white;: Sets the color of the links to white.
     + text-decoration: none;: Removes the default underline from the links.
   * a:hover:
     + color: gray;: Sets the color of the links when the mouse hovers over them to gray.
     + text-decoration: underline;: Adds an underline to the links when hovered.
   * a:visited:
     + color: #666;: Sets the color of visited links to a light gray.
3. **Hero Section Class Styles:**
   * .hero:
     + background-color: #f0f0f0;: Sets the background color of the hero section to a light gray.
     + text-align: center;: Centers the text within the hero section.
     + padding: 50px 0;: Adds padding to the top and bottom of the hero section.
   * .hero img:
     + max-width: 100%;: Sets the maximum width of the hero image to 100%, ensuring it doesn't exceed the width of its container.
     + height: auto;: Maintains the image's aspect ratio while scaling its width.
4. **Features Section Class Styles:**
   * .features:
   * padding: 50px 0;: Adds padding to the top and bottom of the features section.
   * .row:
     + display: flex;: Enables flexbox layout for the row.
     + flex-wrap: wrap;: Allows the columns to wrap onto multiple lines when the screen width is reduced.
     + margin: -15px;: Adds a negative margin to counteract the padding on the columns.
   * .col-md-4:
     + flex: 0 0 33.33%;: Sets the flex-grow, flex-shrink, and flex-basis properties to control how the columns should grow or shrink. In this case, each column should occupy 33.33% of the available space.
     + max-width: 33.33%;: Sets the maximum width of each column to 33.33%.
     + padding: 15px;: Adds padding to the columns.
     + box-sizing: border-box;: Includes padding and border in the element's total width, ensuring that the width of the column remains consistent even when padding is added.
5. **Testimonials Section Class Styles:**
   * .testimonials:
     + background-color: #f0f0f0;: Sets the background color of the testimonials section to a light gray.
     + padding: 50px 0;: Adds padding to the top and bottom of the testimonials section.
   * .testimonial:
     + border: 1px solid #ccc;: Adds a border around each testimonial box.
     + padding: 20px;: Adds padding inside each testimonial box.
     + margin-bottom: 20px;: Adds margin to the bottom of each testimonial box.
6. **Contact Section Class Styles:**
   * .contact:
     + padding: 50px 0;: Adds padding to the top and bottom of the contact section.
7. **Media Queries:**
   * **@media only screen and (max-width: 768px)** (for screens smaller than 768px):
     + nav ul:
       - flex-direction: column;: Stacks the navigation menu items vertically for smaller screens.
     + nav ul li:
       - display: block;: Displays list items as block elements.
       - margin-bottom: 10px;: Adds margin to the bottom of each list item.
     + .col-md-4:
       - flex: 0 0 100%;: Sets the flex-basis to 100%, making each column occupy the full width of the screen.
       - max-width: 100%;: Sets the maximum width to 100%.
   * **@media only screen and (min-width: 768px) and (max-width: 1024px)** (for tablet landscape):
     + .hero img:
       - max-height: 400px;: Sets the maximum height of the hero image for tablets.
     + .features h3:
       - font-size: 1.2em;: Adjusts the heading size for tablets.
   * **@media only screen and (min-width: 1024px)** (for desktop):
     + .hero:
       - padding: 80px 0;: Increases the padding of the hero section.
     + .hero h1:
       - font-size: 3em;: Increases the heading size for larger screens.
     + .features:
       - padding: 80px 0;: Increases the padding of the features section.
   * **@media only screen and (orientation: landscape)** (for landscape mode):
     + body:
       - background-color: lightblue;: Sets the background color of the body for landscape mode.
   * **@media only screen and (orientation: portrait)** (for portrait mode):
     + .hero img:
       - max-height: 300px;: Adjusts the hero image height for portrait mode.
   * **@media only screen and (max-width: 480px)** (for small screens):
     + .hero img:
       - width: 100%;: Sets the width of the hero image to 100%.
     + .features h3:
       - font-size: 1em;: Adjusts the heading size for very small screens.

**Optionally let’s add a print rule. You can test it with Control - P:**

**@media print:** This rule targets the print media type, meaning these styles will only be applied when the page is printed.

**body:**

* font-size: Reduces font size to save ink and space.
* line-height: Adjusts line spacing for better readability in print.

**img:**

* max-width: 100%: Ensures images scale down to fit the printed page.
* height: auto: Maintains the image's aspect ratio.

**a[href]:after:**

* Adds the link URL in parentheses after each link. This is helpful for reference when reading the printed document. Inside, put the following - spaces for readability- our links might only be # content: " (" attr(href) ")";

**@page:**

* size: auto;: Allows the browser to automatically determine the page size.
* margin: 0.5in;: Sets margins for the printed page.