# ITEC447 Web Projects

CHAPTER 7 - CLIENT-SIDE SCRIPTS - JAVASCRIPT

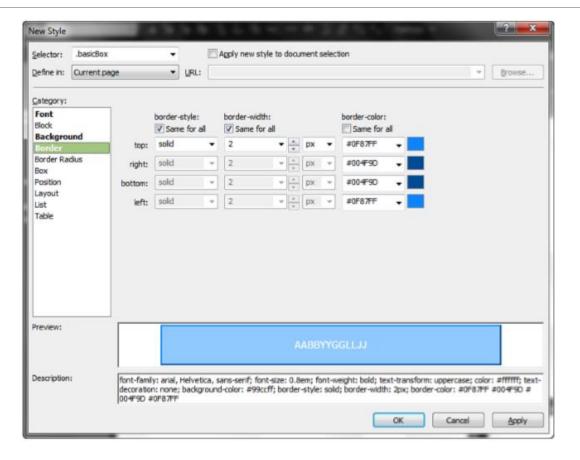
#### Creating Buttons from Scratch Using CSS

- Designers often need to create their own buttons from scratch to achieve a particular look in their sites.
- Using the techniques you learned in previous hours, you can use Cascading Style Sheets (CSS) to make advanced buttons that leave you in control of every element, from font to color to how the button behaves.

- When designers first started to focus on buttons as a navigational tool, they could rely on only basic functionality.
- The most basic button of all is a string of text with a colored box around it.
- The *Classic Box Button* was heavily used on the Web in years past and it utilized the border attribute to mimic a crude 3D effect.
- To understand how to build and use buttons with CSS, the Classic Box Button is a good starting point.



- Create a new page with the name buttons.html.
- Create a new paragraph with the text Classic Box Button.
- Highlight the button text and make it a hyperlink pointing back to the current buttons.html page.
- Click the New Style button and create a new class called .basicBox.
- In the Font category, set font-family to Arial, Helvetica, sans-serif; font-size to 0.8em; font-weight to bold; text-transform to uppercase; font-color to white (#FFFFFF).
- Check the None box under text-decoration to get rid of the line under the text.
- Under Background, set background-color to a light blue (#99CCFF).
- Under Border, set border-style to solid for all, border-width to 2px for all, the border-top and border-left colors to a medium blue (#0F87FF), and the border-bottom and border-right colors to a dark blue (#004F9D).
- This gives the button the appearance of popping out from the screen.



- In the *Box* category, set *padding* to *5px* for all four sides.
- Click OK to create the new class.
- Select the button text you created, use the tag selector to select the <a> tag, and use the Apply Styles task pane to apply the new class.
- To make the button react when the user hovers the mouse over it, you also have to make a :hover pseudoclass with different styles.
- This is where CSS shows its power: Because you are only changing some of the attributes with the :hover state, you don't need to redefine all the ones that don't change.
- By creating a new style with the selector .basicBox:hover and changing only those attributes that are different between the two states, you are making less code clutter and using the cascade wisely.

- With .basicBox:hover open in the Modify Style dialog, set font-color to black (#000000) and invert the border colors so that the lighter blue is on the right and bottom sides while the darker blue is on the top and left sides.
- This gives the appearance of the button being pressed down when it is hovered over.
- Click OK to apply the changes, and then save and test in your browser.



- As with all other styles, you can create separate styles for each pseudoclass for more advanced visual interaction with the button.
- In this example, the actual styling of the button came from applying a class to the  $\langle a \rangle$  tag.
- But this is not the only way to create box buttons.
- You can easily group one or several buttons within a <div> or <span> class or ID, and create a style instead.
- The result would be the same.

### Creating a Modern Rounded-Corner Button with CSS3

- The *Classic Box Button* is called "*Classic*" for a reason—although the functionality is still current, the appearance is not.
- To get the *CSS button* up to modern standards, we need to add some more breathing space, better colors, and the all-important rounded corners.
- By combining the *Classic Box Button* with some CSS3, you can easily make modern buttons that are indistinguishable from those seen on famous websites—because they are made the exact same way!

### Creating a Modern Rounded-Corner Button with CSS3 Cont.

- Below the *Classic Box Button*, create a new paragraph with the text *Click me* and make it a hyperlink pointing back to the *buttons.html* page.
- Make a new class called .modernBox by using the New Style dialog.
- Set the font-family to Arial, Helvetica, sans-serif; font-weight to bold; color to #ffffff.
- Check None under text-decoration.
- Under Background, set background-color to #57D5FF.
- Set all four borders to solid, 2px, and #CCCCCC.
- Here come the rounded corners: Under Border Radius, set radius to 10px.
- To give the text plenty of whitespace (breathing space), go to *Box* and set *padding top* and *bottom* to *10px* and *left* and *right* to *2em*.
- Finally, to give the button itself some breathing space, go to Layout and set display to inline-block.
- This is done to pull the button out of the regular text flow of the site and make the browser treat it as its own entity.

### Creating a Modern Rounded-Corner Button with CSS3 Cont.

- When you save and preview the page in your browser, you'll see a modern-looking rounded-corner button.
- To make a hover state, repeat the process from the earlier example by creating a new style with the selector .modernBox:hover that has the background-color value set to #FF9933 and border-color set to #333333.
- This produces a button with a modern hover state.



- The modern box button might be easy to create, but in some cases you want a button with more flare.
- That's where the Advanced Box Button with Images comes in.
- The key is to replace the background color with a background image.



- In this example, you use a different styling technique to apply the same style to multiple buttons:
- Below the modern box button, create an unordered list with three buttons: Button 1, Button 2, and Button 3.
- Make each list item into a hyperlink back to the current page.
- Make Create a new class called .advancedBox by using the New Style dialog.
- Under the List category, set the list-style-type to none.
- Click OK to create the class and apply it to the 
   tag using the Quick Tag Selector.



- Import the images named *blueButtonUp.gif* and *blueButtonOver.gif* from the lesson files (Hour 15) and save them in a new folder called *buttonGraphics*.
- Make a new style and give it the selector name .advancedBox a.
- In the Font category, set font-family to Arial, Helvetica, sans-serif; font-size to 0.8em; font-weight to bold; text-transform to uppercase; and font-color to white (#FFFFFF).
- Check the *None* box under *text-decoration* to get rid of the line under the text.
- In the *Background* category, set *background-image* to the *blueButtonUp.gif* image you just imported, and set *background-repeat* to *no-repeat*.
- Because the image is larger than the text and you want it to surround the text, go to the *Box* category and set *padding* to *13px* on all sides.
- Click *OK* to apply the style.

• In *Design* view, you can see that the new button background is applied, but the buttons are covering each other.

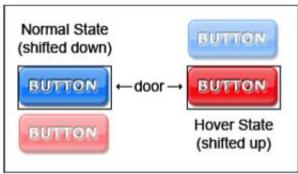
• This is because the list items have not yet been styled, and the browser assumes that the list items are

the height of the text without the padding.

The problem with this technique is that it requires two images to work. This might not seem like a big deal, but if the user is on a slow connection, the page is on a slow server, or if there is something else that slows the system down, the user might experience noticeable lag between hovering over the button and the new background image being loaded. One way around this problem is to preload the images using behaviors, but this requires JavaScript to work properly.

- To fix this problem, create a new style with the *selector* name .advancedBox li and set the padding-top and padding-bottom attributes to 13px to match the link style you just created.
- Click OK to apply the new style, and the buttons no longer overlap.
- To create a *hover-over* effect, create a new style with the *selector* name *.advancedBox a:hover*.
- Because the :hover pseudoclass inherits all the styling from the main a class, all you need to do is change background-image to blueButtonOver.gif.
- Click OK, and then save and preview in your browser.
- Now instead of the background color changing when the mouse hovers over the button, the background image swaps out.
- Because the background image is part of the a style, the entire image is clickable, not just the text itself.

- The problem of preloading content has become more prevalent with the emergence of blogs because many blogs have a lot of scripts running at the same time, and it is important to reduce the load on both the network and the computer as much as possible to make things work smoothly.
- A technique often referred to as *sliding doors* was developed to enable the designer to use one image file as two different backgrounds.
- This is done by creating a file that has two versions of the background, either on top of or to the side of one another.
- The name *sliding doors* refers to the action of literally sliding the background from one side to the other to display only half of the image at a time.



- You can use a similar technique to hide text content.
- As you have seen, the regular method of creating buttons requires there to be text superimposed on the background.
- If you don't want the text to appear, the quick answer is to simply swap out the text for an image and use it as a button.
- However, if you do this, the link is not visible if the image doesn't load or the visitor uses a text-only browser.
- The way to solve this is to push the text out of the way so that only the background image appears.
- Another reason to use this technique is that designers often want to use custom fonts or font effects in their buttons.
- To do this and retain full accessibility, they need to hide the regular HTML text first.
- In this example, you create a button that uses the sliding doors technique and hides the text at the same time.

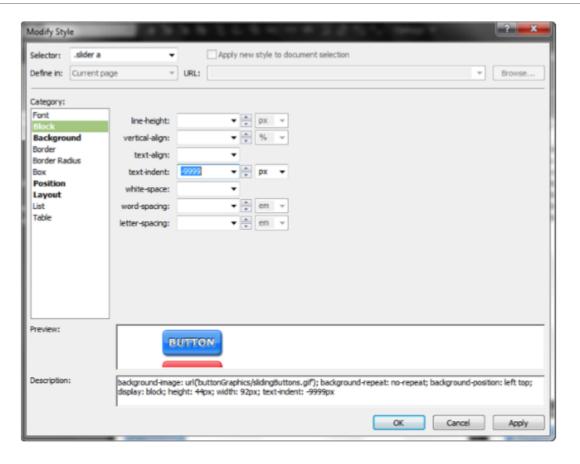
- Import the file named *slidingButtons.gif* into the *buttonGraphics* folder from the lesson files.
- Under the three buttons you just created, add a new subheading and call it *Sliding Doors Button* with *Hidden Text*.
- Below it, add a paragraph with the text Button and make it into a hyperlink pointing back to the current page.
- Make a new class called .slider.
- Create a span around the new button text using the *Toolbox* panel (make sure the *<span>* tags go on the outside of the *<a>* tags), and apply the *.slider* class to it using the *Quick Tag Selector*.

- Make a new style and give it the selector name .slider a.
- Because you are going to hide the text, you don't need change any of the Font attributes.
- In the *Background* category, set *background-image* to *slidingButtons.gif* and *background-repeat* to *no-repeat*.
- To create the sliding effect, you need to change the *position* of the background image and define the visible area within the page.
- The image has two buttons on it: The top one is for the regular state, and the bottom one is for the :hover state.
- Set the (x) background-position to left and the (y) background-position to top.
- This locks the image in place.

- To define the visible area of the button, you need to first set the *display* attribute under the *Layout* category to *Block* to create an independent box in which to display the content and then change the size of the box under the *Position* category.
- The *height* of the image is *88px*, and because you will be displaying half of it at one time, the height attribute should therefore be *44px*.
- To contain the active area of the button to the area of the image, set the *width* attribute to *92px*, which is the width of the image.
- Click *OK* to apply the style, and the button appears in *Design* view.



- As you can see, the button looks the way it should, but the text is still visible.
- To hide the text, open the *Modify Style* dialog for the style, go to the *Block* category, and set the *text-indent* attribute to *-9999px*.
- Click OK to save the change.

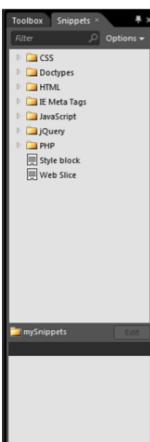


- Finally, create a new style with the *selector* name *.slider a:hover*.
- Because of the cascade, any pseudoclass inherits all the styling from its parent unless the style is changed.
- Therefore, you need to make changes to only the *background-position* attributes, and the rest of the attributes will stay the same.
- Set (x) background-position to 0px and (y) background-position to -44px.
- This shifts the background image up so the bottom of the image aligns with the bottom of the box 44 pixels, and the bottom half is shown in place of the top half.
- Click *OK* and then save and preview in your browser.

#### Snippets: An Introduction

- One of the many challenges of building websites is the code languages themselves.
- Or more specifically remembering the many complicated syntaxes, formulas, and code configurations used to make certain things happen or create certain effects.
- The code snippets function in Expression Web 4 is a powerful but easily overlooked feature that can and will save you a lot of time and effort once you start using it.
- Out of the box, it comes with a long list of useful snippets for HTML, CSS, JavaScript, jQuery, PHP, and more, and you can create new snippets yourself to serve your specific coding requirements.

- By default, the Snippets panel appears in the top-right pane area behind the Toolbox tab.
- To see the *Snippets* panel, simply click the *Snippets* tab.



- The *Snippets* panel contains a list of folders, some of which contain snippets and some of which contain further folders.
- The default snippets are stored in folders that correspond with the code language, so CSS snippets live in the CSS folder, HTML snippets in the HTML folder, and so on.
- The snippets are code snippets, so they are used in Code view.
- To use a code snippet, you first place your cursor where you want the snippet to appear in *Code* view and then use one of two methods to insert the snippet:
- Either double-click the snippet directly in the *Snippets* panel or press *Ctrl+Enter* to jump to the Snippet search function and then start typing in the name of the snippet you want to use.
- The search function will narrow down your options and display only snippets with names that match what you have written.



- To insert a snippet from a text search, use the arrow keys to highlight the correct snippet and press *Enter*.
- Alternatively, you can simply double-click the highlighted snippet.
- You can also reset your search by clicking the X at the right side of the search area.
- When you select a snippet—either by clicking it once with your mouse or by navigating to it with search and the arrow keys—you will see the name, description, and code output for the selected widget in the preview area at the bottom of the *Snippets* panel.
- This gives you the ability to check whether the snippet is the correct one before you insert it.

#### Use a Snippet to Create a Custom Tooltip

- To see how to use the snippets and understand how to make them work, let's start by creating a custom tooltip function using a CSS snippet:
- Create and open a new HTML page called snippetsDemo.html in Split view.
- At the top of the page, create a paragraph and write *MyKipple.com* is a great place to find information about kipple.
- In Code view, scroll to the top and place your cursor right before the end </head> tag.
- Press Enter to create a few new empty lines.
- In the *Snippets* panel, find the *Style Block* snippet and double-click it to insert it in the *<head>* tag.
- This inserts the standard code block that contains CSS code in HTML pages.
- With your cursor on the empty line between the beginning and end *<style>* tags, press *Ctrl+Enter* to make a snippet search.
- Type *Tooltip*, and one snippet is revealed called Tooltip with CSS.
- Press Enter or double-click Tooltip with CSS to insert the code snippet.

### Use a Snippet to Create a Custom Tooltip Cont.



### Use a Snippet to Create a Custom Tooltip Cont.

- It would be logical to assume that once we've added the snippet, everything should work automatically.
- However, that's not the case.
- Apart from the jQuery UI Widgets snippets, which we'll cover later on in this hour, most of the snippets are just starting points for more work.
- Case in point, the *tooltip* snippet does nothing unless we add the *.tooltip* class to some content and create a span to contain the tooltip itself.
- If you select the *Tooltip with CSS* snippet again in the *Snippets* panel and look at the description in the bottom of the panel, you see the following instructions:
- "If you want to display a tooltip, just add the class 'tooltip' to an element and write your Tooltip Text in a span tag within the element."

### Use a Snippet to Create a Custom Tooltip Cont.

- In *Code* view, find the beginning tag and attach the *.tooltip* class.
- Still in *code* view, place your cursor after the word *MyKipple.com*, insert a new *<span>* tag, and write *The home of my kipple*.
- Then end with the </span> tag.
- If you click inside *Design* view to refresh the page, you'll see that the new tooltip does not appear.
- But if you save the page and preview it in your browser, the tooltip will appear when you hover over any
  of the text in the paragraph.
- This is a very basic demo of the *Tooltip with CSS* snippet, and the tooltip itself is not particularly attractive, but it provides you with the building blocks to create advanced tooltips of your own simply by adding a class and a span tag to an element (think image).

### **CSS Snippets**

- The CSS snippets are divided into three main folders: Action, Effect, and Text.
- All the snippets in these folders provide standard CSS markup that can be inserted either in the head of the HTML page itself (contained within a standard <style> block provided by the Style Block snippet) or in a CSS file or external style sheet.
- To apply a CSS snippet to an element on the page, you attach the snippet class to that element.
- Keep in mind that a lot of these functions are CSS3, meaning they will not work in all browsers.

#### CSS – Action

- Replace text with image—The .replace class replaces text with a defined image when text is hovered over.
- Tooltip with CSS—The .tooltip class displays a tooltip wrapped in a <span> tag when the containing element is hovered over.

#### CSS – Effect

- Box Shadow—The .boxShadow class adds a box shadow to the containing box. The size and color can be changed by changing the values.
- Circle—The .circle class draws a circle with CSS. The size and color can be changed by changing the values.
- Horizontal-Vertical align—The .align class aligns the element to the horizontal and vertical center of the browser window.
- Image Button—The .imageButton class attached to the input button element replaces the default button with a custom image of your choice.
- Opacity—The .opacity class sets the opacity (transparency) of the element. 0.0 or 0 is fully transparent;
   1 or 100 is fully opaque.
- Rotate Box—The .rotate class rotates the element box by degrees.
- Rounded Corners—The .round\_border class adds rounded corners to the element box.

#### CSS — Text

- Change Color of Selected Text—Globally changes the color of text across the entire page when highlighted with a mouse.
- Disable Select Text—The .unselect class prevents the visitor from selecting text in the element for copying and such.
- First letter in color and uppercase—Globally sets the first letter of each element red and uppercase. Can be specified by changing style element from :first-letter to p:first-lettedsdf, for example.
- Text Ellipsis—The .ellipsis style adds an ellipsis (...) to the end of text when not all text is displayed due to overflow (the box is too small to display all text).
- Text Shadow—The .text-shadow class adds text shadow. Limited browser support at this time.
- Text Outline—The .outline class uses the text-shadow attribute and white text to create the appearance of outlined text.

### **Doctypes Snippets**

- The *Doctypes* snippets provide the default doctype calls for the standard doctypes used on the Web today.
- They are as follows:
- HTML 4.01 Strict
- HTML 4.01 Transitional
- HTML 5 (default in Expression Web 4)
- XHTML 1.0 Strict
- XHTML 1.0 Transitional
- XHTML 1.1
- The doctype is inserted as the first line of code on a page.
- A page should never have more than one doctype.

### **HTML Snippets**

- The HTML snippets are a mixed bag of <head> and <body> snippets:
- Definition List—Add in <body>. Inserts a standard definition list in the body of the page. The <dt> tag wraps the definition keyword while the <dd> tag wraps the definition itself.

### HTML – Hyperlink

- To be added in the *<body>* of the page:
- Add to favorites—Creates an "Add to favorites" (that is, bookmark this page) link to your page.
- Mail to link—Creates a click-to-email link. Replace "@@email@@" with the target email address.
- Open in new window—Creates a link that opens the target in a new page using JavaScript.

#### HTML – Meta

- To be added in the *<head>* of the page:
- HTML 5 UTF-8 Meta—Sets the character set of the page to UTF-8.
- Meta keywords—Adds meta keywords to the page. The cursor is automatically placed where keywords are to be added.
- Meta refresh—Tells the browser to auto-refresh the page and go to a different URL after a set time. Can
  also be used to refresh the page. Commonly used on newspaper sites to ensure new content is always
  displayed.

#### HTML – IE Meta Tags

- IE meta tags are used to force various versions of Internet Explorer to interpret the content of the page in accordance with different standards.
- These are highly specialized functions most often used when deploying old code or when targeting old browsers.
- They are added at the very top of the <head> tag before any files such as style sheets are called.

#### JavaScript Snippets

- The JavaScript snippets contain most normal functions, elements, and control structures used when writing JavaScript, in addition to a few handy conversion functions that are fully built out.
- Combined with the *JavaScript IntelliSense* support in Expression Web 4, you have a fully stocked and powerful JavaScript coding application right at your fingertips.

### jQuery Snippets

- *jQuery* is a popular *JavaScript* library that makes it easy to perform complicated actions and add cool effects and functionality to your site.
- *jQuery* is open source, and a large community of jQuery enthusiasts on the Web publishes tutorials, plugins, and information about the library and how to use it.

### jQuery – General

- To run *jQuery* scripts, you must first call the *jQuery* library itself from within the page.
- The location of the library can be your own site or a Content Delivery Network.
- Microsoft hosts several versions of jQuery you can reference, and so does Google.
- The General jQuery snippets call the jQuery or jQuery UI libraries from different locations:
- *jQuery script reference MS CDN*—Calls the jQuery library from Microsoft's Content Delivery Network.
- *jQuery UI script reference Local*—Calls the jQuery UI library from a location on your domain or one of your choosing.
- *jQuery UI script reference MS CDN—*Calls the jQuery UI library from Microsoft's Content Delivery Network.
- Document Ready—Inserts a generic document-ready block. The document-ready block will wrap (contain) all the jQuery code and ensure that it is running when the rest of the content on the page is loaded.

### jQuery – Forms

- The Forms snippets under jQuery allow you to add automated functionality to your forms.
- Once you've added a jQuery library, you can insert any or all of these Forms snippets in the Document Ready snippet for enhanced functionality.
- Each snippet has a description explaining the functionality.
- Most of them are designed to target form elements with specific IDs that are inserted in the snippet.

### jQuery – Styling

- *jQuery* is often used to change styling attributes on elements either by adding, changing, or removing classes or by performing other actions on the elements that can't be applied with static CSS or HTML.
- Add-Remove class on hover—Adds a class named .hover to the element with the defined ID when it is hovered over. The .hover class is removed when the item is no longer being hovered over.
- Highlight input label—For use in forms. Highlights the form label of the defined element when the form field is in focus.
- Zebra stripes—Adds a class named .oddClass to every odd element in lists and tables. Combined with CSS, this can produce a nice zebra stripe look to the list or table for easier reading.

### PHP Snippets

• As with the *JavaScript snippets*, the *PHP snippets* offer up a long list of standard elements, functions, and control structures for writing PHP.

### Stray Snippets

- In addition to all the snippets just listed, there are two stray snippets that are not added to a folder.
- You have already used one of them—the Style Block—but the other one is so unusual it requires special mention:
- Web slice—The web slice is a technology introduced with Internet Explorer 8 that allows the website owner to create a mini version of the page that a visitor can pin to her Favorites bar in the browser and check later.
- The snippet will introduce into the page the necessary code to make such a web slice work.

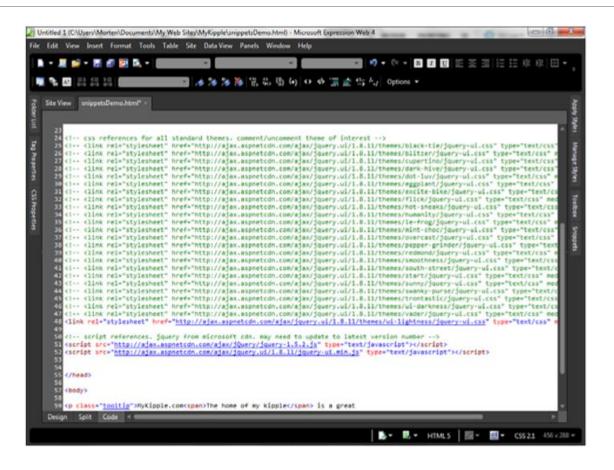
### Using the jQuery UI Widgets Snippets

- *jQuery UI* is a variant of the standard jQuery library that allows you to do some pretty nifty things with minimal effort.
- The *jQuery UI* library has a series of widgets built in that you can hook into and create some very advanced effects on your site with only a small amount of code.
- And Expression Web 4 ships with three of these widgets all built out and ready to use.
- They are an accordion, a tabbed box, and an interactive calendar.
- All these three widgets can be dropped in anywhere on your site and used out of the box or with only minor configurations.
- But before you can use these widgets, you have to add the jQuery UI head to your page!

# Using the jQuery UI Widgets Snippets Cont.

- In *Code* view, scroll to the top of the page and create a new line right before the end *</head>* tag.
- In the Snippets panel under jQuery, UI Widgets, find and click the jQuery UI head widget.
- This inserts 30 lines of code, most of which is commented out.

### Using the jQuery UI Widgets Snippets Cont



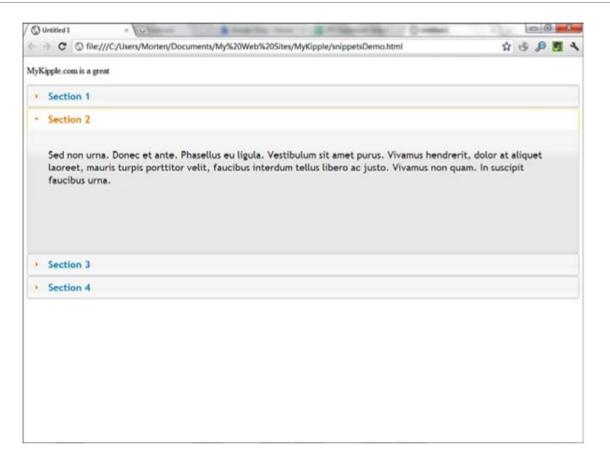
## Using the jQuery UI Widgets Snippets Cont.

- The snippets consist of three elements:
- Calls to all the standard theme style sheets for jQuery UI (all the commented out lines + the one active style sheet reference), a call to the jQuery library as hosted by Microsoft CDN, and a call to the jQuery UI library also hosted by Microsoft CDN.
- When you add a jQuery UI Widget, the *jQuery* and *jQuery UI* libraries will kick in and the widget will use the theme style sheet for the presentation elements.

# Create a Dynamic Accordion Effect with the jQuery UI Widgets Snippet

- Now that you have the jQuery UI head installed in your page, you can use the jQuery UI Widget snippets
  to add some cool functions to it:
- In *Code* view, scroll down and place your cursor directly underneath the paragraph you created earlier.
- Press Ctrl+Enter to go to Snippet search and type Accordion.
- This highlights the Accordion jQuery UI Widget snippet.
- Press Enter to insert the code snippet into your page.
- Save the page and preview it in your browser.

# Create a Dynamic Accordion Effect with the jQuery UI Widgets Snippet Cont.



# Create a Dynamic Accordion Effect with the jQuery UI Widgets Snippet Cont.

- The accordion works by revealing the text and other content within each panel and collapsing the other open panel when you click the corresponding tab.
- Going back to Expression Web and looking at the source code, you'll see that the accordion is in fact nothing more than a series of nested divs and headings marked up with standard HTML.
- That means you can change the content of the accordion.
- If you want to change the appearance of the accordion itself, you can do so either by commenting out the active stylesheet link in the *jQuery UI head* and uncommenting one of the many other default style sheets or by writing your own stylesheet based on the default ones.

### Calendar and Tabs Widgets

- The Calendar and Tabs jQuery UI Widgets snippets work much the same way as the Accordion snippet.
- You add them to the page the same way and they are controlled by the same style sheet and the same jQuery and jQuery UI reference.
- Therefore, even if you have an accordion, a calendar, and a tab on the same page, you only need one jQuery UI head.
- Also, if you change the style sheet, all three widgets will change appearance at the same time.

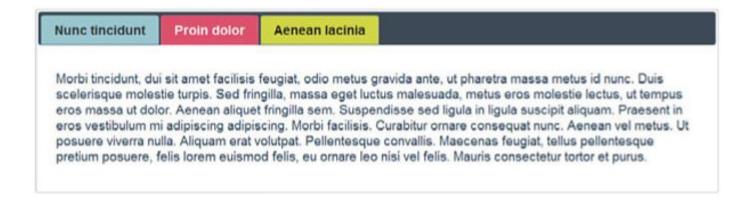
### Calendar and Tabs Widgets Cont.

- The Calendar widget adds an interactive calendar to a date form field or date field on the page.
- When the user clicks the field, the calendar opens up so that the user can select a date without punching in any numbers.



### Calendar and Tabs Widgets Cont.

- The *Tabs* widget can be seen as a horizontal version of the *accordion* widget.
- When added in the page, it creates a tabbed box where the contents of each tab are displayed when the tab is clicked.
- Like with the accordion, the HTML code is straightforward and easy to edit and configure.

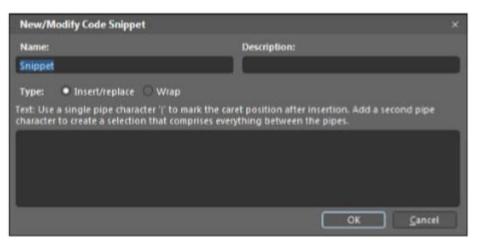


### Creating and Editing Snippets

- In addition to using the default snippets that ship with Expression Web 4, you have the ability to create your own custom snippets to add to your preconfigured coding arsenal.
- That way, as you encounter code snippets you use a lot, you can add them to the panel for easy access later.
- Adding folders and snippets is done from the Snippets panel.

### Add a New Snippet

- Go to the Snippets panel and make sure every folder is collapsed and that no folder is selected.
- Click the *Options* button and select *New Folder* from the drop-down menu.
- This creates a new folder called *Snippet*.
- Right-click the new folder, select Rename, and rename it Custom Snippets.
- With the new folder selected, click Options again and select New Snippet.
- This opens the New/Modify Code Snippet panel.



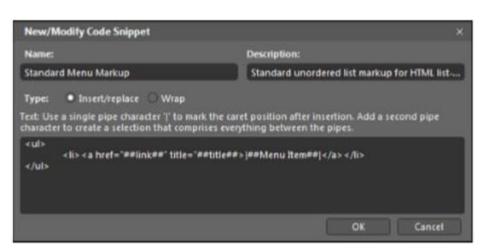
### Add a New Snippet Cont.

- Give the new snippet the name *Standard Menu Markup* and the description *Standard unordered list markup for HTML list-based menu*.
- Under Type, leave Insert/Replace checked.
- In the text area, write out the code for a standard unordered list with one list item with a link inside, as follows (the ## segments indicate areas that must be edited once the list is inserted):

```
<a href="##link##" title="##title##>##Menu Item##</a>
```

### Add a New Snippet Cont.

- To tell Expression Web where to put the cursor, you can insert a pipe character (|) anywhere in the snippet.
- If you want Expression Web to highlight a portion of the snippet for immediate replacement, you can wrap it in pipe characters.
- In this case, we want Expression Web to immediately highlight the ##Menu Item## section so that when you start typing, you are typing in the menu item name.
- Therefore, place a pipe character on either side or both sides, like this: |##Menu Item##|
- Click OK to create the new snippet.



### Add a New Snippet Cont.

- Now that the snippet is made, you can insert it anywhere in your code by double-clicking it from the *Snippets* panel.
- When you insert the snippet, the ##Menu Item## text is immediately highlighted.
- If you start typing, it is replaced with the new text.
- Editing an existing snippet is done using the same dialog.
- To edit an existing snippet, either right-click the snippet and select *Edit Snippet* from the menu or select the snippet and click the *Edit* button at the top of the preview area in the *Snippets* panel.

### Building a Functional Menu

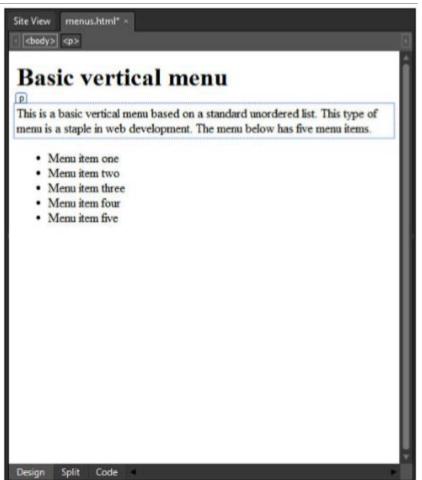
- Menus are a great tool for simplifying navigation in a website.
- They enable you to group several different pages or links together visually and give the user an intuitive and interactive experience when surfing your site.
- There are many types of menus—from the standard vertical list menu to horizontal menus to drop-down menus of all shapes and sizes.

### Making the Basic Vertical Menu Exciting

- The most basic standards-based menu available is the vertical unordered list.
- Not only is it easy to build (all you need to do is create an unordered list in which each list item is a link),
   but it is also easy to maintain, and it works no matter what browser the visitor uses.
- Now, create a new folder called menus with a page called menus.html to work from.

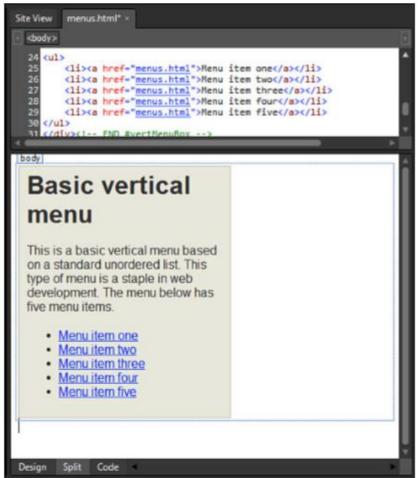
## Making the Basic Vertical Menu Exciting Cont.

- If you haven't already done so, create and open the menus.html page in Design view.
- Create a standard unordered list with five menu items named *Menu Item One*, *Menu Item Two*, and so on.
- Directly above the unordered list, insert a new paragraph, type Basic Vertical Menu, and change the style to H1.
- Press Enter to create a new paragraph and then insert a couple of lines of text explaining that this is a basic vertical menu based on an unordered list.



## Making the Basic Vertical Menu Exciting Cont.

- The whole idea of a menu is to create navigation.
- To do so, make each of the menu items a hyperlink back to the menus.html page.
- Switch to Split view and create a div to wrap the heading, paragraph, and list.
- Give the div the ID vertMenuBox.
- Now it's time for the styling.
- First, create a new ID style for #vertMenuBox and set font-family to Arial, Helvetica, sans-serif; color to #333333; backgroundcolor to #EBEADF; and all four borders to solid, 1px, and #C4C2AB.
- To give the content some breathing space, set top and bottom padding to 5px, and right and left padding to 10px.
- Finally, to constrain the size of the menu, set width (found under Position) to 250px.
- Click OK, and you see that the menu is now contained in a nice box with a beige color.



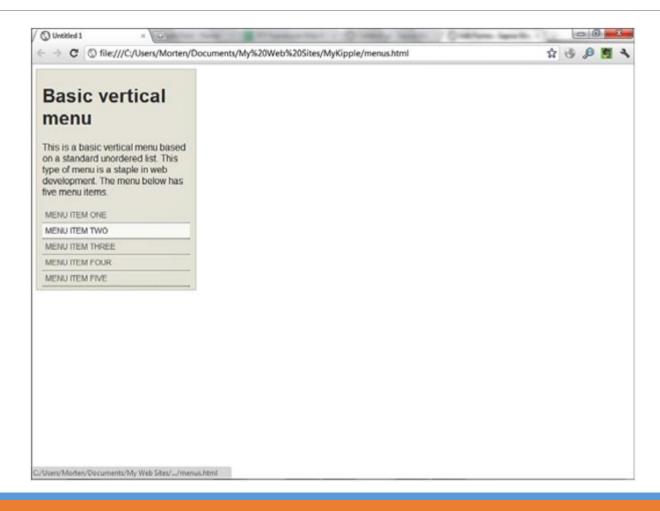
# Making the Basic Vertical Menu Exciting Cont.

- To remove the list bullets and align the menu items with the left side of the box, create a new style with the selector #vertMenuBox ul and set the padding and margin values to Opx and the list-style-type under List to none.
- Click OK to apply the new style.
- Next up are the links.
- Create a new style with the selector #vertMenuBox ul li a and set font-size to 0.8em, text-transform to uppercase, color to #666666, and check None under text-decoration.
- To style each of the links so they are farther apart, set the *top* and *bottom padding* to *5px* and create a further visual separation by setting *border-bottom* to *dotted*, *1px*, and *#333333*.
- Finally, set *display* to *block* to make the links into block-level elements.
- Click OK to apply the new style.
- Create a new style with the selector #vertMenuBox ul li a:hover and set color to #333333.
- Click *OK*, save the page, and test it in your browser.

## Making the Basic Vertical Menu Exciting Cont.

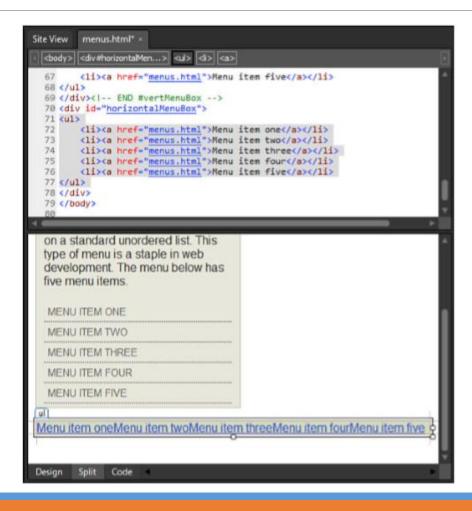
- Now, you have a basic vertical menu with some styling that makes it look less boring. But it's still pretty basic. To make it stand out, add a couple of extra style tricks to the menu.
- Open the Modify Style dialog for the #vertMenuBox ul li a style and set padding-left to 5px.
- Click OK to apply the change.
- Open the style with the selector #vertMenuBox ul li a:hover and set background-color to #FAFAF5.
- Click OK to apply the new style, save, and test the page in your browser.
- By setting the list item links to block-level elements and giving them a lighter background color on the hover state, you are both making the menu buttons easier to click because they are larger and making them more visually attractive.

## Making the Basic Vertical Menu Exciting Cont.



- As you saw in the preceding exercise, making a vertical menu based on an unordered list look interesting with CSS isn't all that hard.
- However, you don't always want your menus to be vertical.
- In many cases, a horizontal menu looks better and is more functional.
- But how do you create a horizontal menu from an unordered list when the unordered list by its very nature is a list, and therefore vertical?
- The answer is simple.
- Lay it on its side!

- Below the *Basic Vertical List box* you just created (and outside the box), create a new unordered list with the same five list items as before, and make each a link back to the current page.
- In Split view, wrap the new list in a div with the ID #horizontalMenuBox.
- Create a new style with the selector #horizontalMenuBox and set font-family to Arial, Helvetica, sans-serif; background-color to #EBEADF; border to solid, 1px, #C4C2AB; and margin-top to 1em to create some space between the Basic Vertical Menu and the new one you are about to create.
- Create a new style with the selector #horizontalMenuBox ul and set padding and margin to Opx for all sides.
- To get the menu items to appear on one line instead of as a list, create a new style with the selector #horizontalMenuBox ul li and set display to inline under the Layout category.
- Click Apply, and you see that the list items are now on one line.



- To give the menu some more weight, you want to create some vertical space above and below the links.
- However, if you go to *Box* and set *padding-top* and *padding-bottom* to *10px* and click *Apply*, you see that nothing changes.
- To change the line height and thereby the vertical space above and below the list items, go to the *Block* category and set *line-height* to *25px*.
- Click OK to apply the style.
- Right now, the menu items are stacked almost directly against one another.
- To give them some breathing room, create a new style with the selector #horizontalMenuBox ul li a and set padding-right and padding-left to 1em. (Step 6)
- To match the vertical space created earlier, set padding-top and padding-bottom to 5px.
- At the same time, set the *font-size* to *0.8em*, *text-transform* to *uppercase*, *color* to *#666666*, and *text-decoration* to *none*.
- Click Apply to see the changes take effect.

- Finally, to make the menu items react when the visitor hovers her mouse over them, create a new style with the selector #horizontalMenuBox ul li a:hover and set color to #333333 and background-color to #C4C2AB.
- Click *OK* to apply the new style, save, and test the page in your browser.
- As you can see, the items in the horizontal menu react in much the same way as in the vertical one, with one major difference: The entire hover area is a link.
- This is because you used the padding in step 6 to expand the link area to cover an area larger than the text itself.
- You can use the same technique to make the entire area of the vertical menu into a link.



## Pure CSS Drop-Down Menus: A Clean Alternative

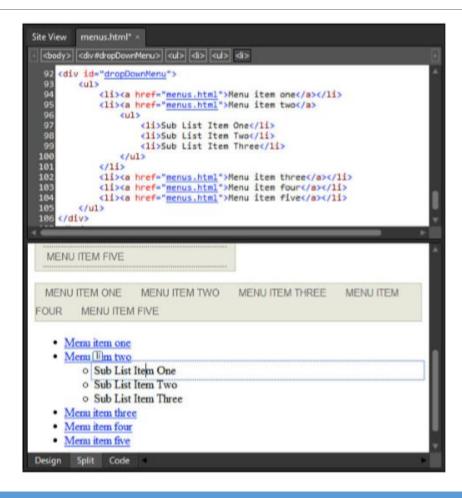
- Now that you've created a vertical and a horizontal menu, it is time to merge the two into a more advanced drop-down menu in which the main menu is horizontal and the submenus are vertical.
- As you have learned, if you want your page to be as accessible as possible and standards-compliant and cross-browser compatible, you must base all of your menus on ordered or unordered lists.
- That way, the menu is still meaningful if the visitor is on an old computer or uses a text-only or text-to-speech browser.
- The ideal solution for making drop-down menus should be to create an unordered list with sub-lists styled using CSS.

#### Step 1: Make a Menu List

- To start things off, we need to mark up the actual links we are going to convert to menu buttons.
- This is done using an unordered list.
- In the *menus.html* page, insert a new div underneath the code for the horizontal menu and give it the ID #dropDownMenu.
- Inside the new div, create another copy of the unordered list menu from above by copying and pasting everything within the tags.

```
Site View menus.html* >
 78 (div id="vertMenuBox">
 71 (h1)Basic vertical menu(/h1)
 72 (p)This is a basic vertical menu based on a standard unordered list. Thi
 73 of menu is a staple in web development. The menu below has five menu ite
       <a href="menus.html">Menu item one</a>
       <a href="menus.html">Menu item two</a>
       <a href="menus.html">Menu item three</a>
       <a href="menus.html">Menu item four</a>
       <a href="menus.html">Menu item five</a>
 88 
 81 </div><!-- END #vertMenuBox -->
 82 <div id="horizontalMenuBox">
 83 (ul>
       <a href="menus.html">Menu item one</a>
       <a href="menus.html">Menu item two</a>
       <a href="menus.html">Menu item three</a>
       <a href="menus.html">Menu item four</a>
 88 <1i
89 
90 </div>
       <a href="menus.html">Menu item five</a>
<a href="menus.html">Menu item one</a>
       <a href="menus.html">Menu item two</a>
       <a href="menus.html">Menu item three</a>
       <a href="menus.html">Menu item four</a>
       <a href="menus.html">Menu item five</a>
181 </body>
188 </html>
Design Split Code 4 @
```

- Create sub-lists for three of the new menu items.
- In *Split* view, select the *Menu Item Two* list item.
- In *Code* view, place the cursor right before the closing tag and then press *Enter* to create a new line.
- Type 
   Type 
   to create a new unordered list (IntelliSense closes the tag for you), press Enter again to create a new line, and create a sub-list item by typing .
- Create three sub-list items named Sub List Item One, Sub List Item Two, and so on.



- Now that you have a sub-list, go back to Design view and make all the new items into links that point back to the current page.
- Repeat the same steps for two of the other main menu items.

```
Site View menus.html ×
            <a href="menus.html">Menu item five</a>
                   <a href="menus.html">Sub List Item One</a>
                   <a href="menus.html">Sub List Item Two</a>
                   <1i><a href="menus.html">Sub List Item Three</a>
                   <a href="menus.html">Sub List Item Four</a>
               121 </div>
        o Sub List Item One
        o Sub List Item Two
        o Sub List Item Three

    Menu item three

    Menu item four

         o Sub List Item One
        o Sub List Item Two
        o Sub List Item Three
        o Sub List Item Four
        o Sub List Item Five
   · Menu item five
        o Sub List Item One
        o Sub List Item Two
        o Sub List Item Three
         o Sub List Item Four
Design Split Code
```

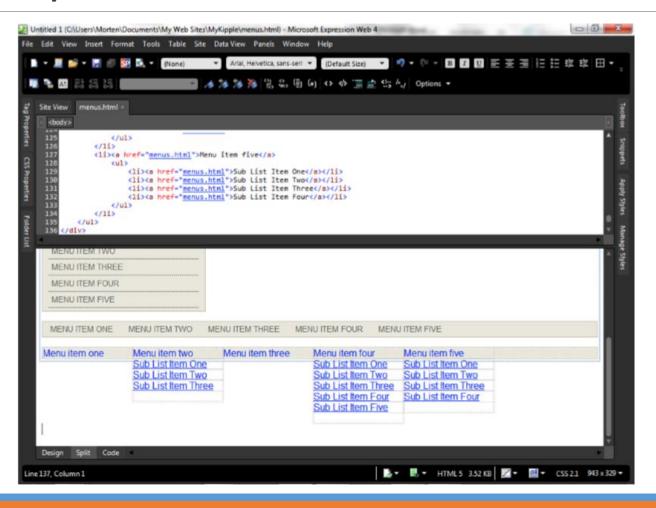
### Step 2: Style the Main Menu

- Now you have a working set of hyperlinks, but it looks nothing like a menu.
- The next step is to turn the menu into a horizontal one like you did in the menu previously in this hour.
- Create a new style with the ID #dropDownMenu.
- Set font-family to Arial, Helvetica, sans-serif; background-color to #EBEADF; border to solid, 1px, #C4C2AB; and margin-top to 1em to create some space.
- Create a new style with the selector #dropDownMenu ul and set padding and margin to 0px for all sides.
- Note that, in *Design* view, all the list items line up to the left side of the box regardless of what level they are at.
- To ensure that the menu retains its height, go to Position and set height to 25px.

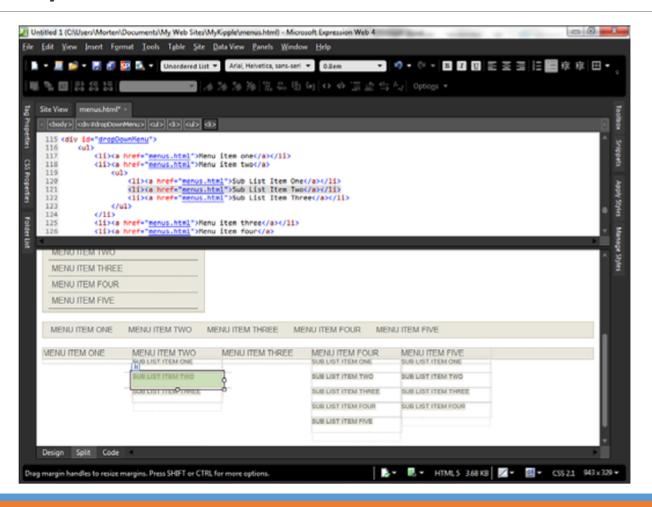
- Create a new style with the selector #dropDownMenu ul li and set display to inline under the Layout category.
- In the preceding menu, this was enough to align the menu items left to right rather than top to bottom, but if you click *Apply*, you see that the list items still stack vertically.
- This is because the sub-lists are too wide to fit on one line and are considered one item.



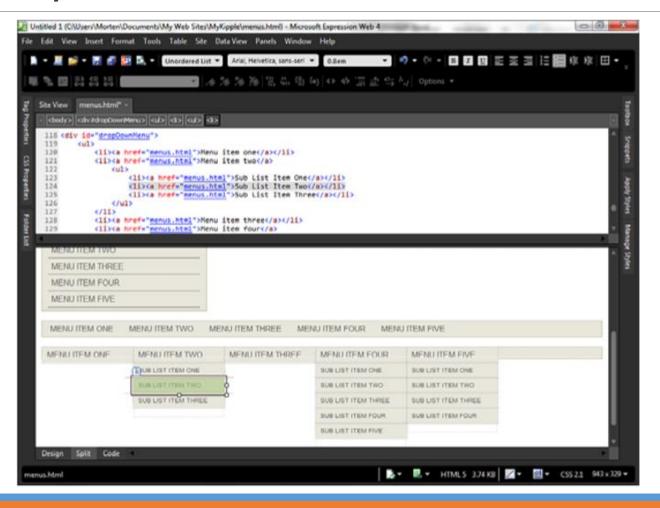
- To get the new menu to stack properly, you need to do two things:
- Define a specific width for each list item and make them float to the left.
- Still in the #dropDownMenu ul li style, set width under Position to 150px.
- You can set it wider if you want, but any narrower and the text in the submenu items won't fit.
- Then, go to the Layout category and set float to left.
- Click Apply again, and you see that now the main menu items line up from left to right, and the submenu items appear as vertical lists under their respective parent item.



- Because we are operating with two layers of list items, the basic font styling should be done in the *li* style: Still in the #dropDownMenu ul li style, set font-size to 0.8em and text-transform to uppercase.
- To give the buttons some breathing space, set height under Position to 25px.
- Click OK to apply the changes.
- You now need to style the links like you did earlier.
- Create a new style with the selector #dropDownMenu ul li a.
- Under Font, set color to #666666 and set text-decoration to none.
- Go to *Background* and set *background-color* to *#EBEADF* manually, or you can use the *Eyedropper* tool and pick the background color from one of the other menus.
- Click *Apply*, and you see that the links now have the right font and background color, but that the background is visible only directly behind the links.

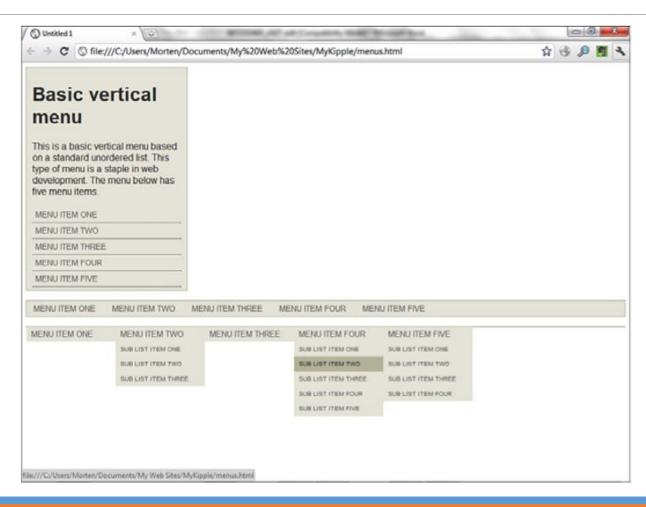


- For the menu to look and function properly, the link area needs to extend beyond the text to cover the allotted area in the boxes the li style has created.
- In the earlier horizontal menu, you used the padding attribute to do this, but this time, you use the line-height and display attributes.
- Still in the #dropDownMenu ul li a style, go to Block and set the line-height attribute to 25px to match the height you set in the #dropDownMenu ul li style earlier.
- Next, go to Layout and set display to block.
- Finally, set *padding-left* to *8px* to create some space between the left edge and the text.
- Click OK, and the backgrounds now fill out the correct areas.



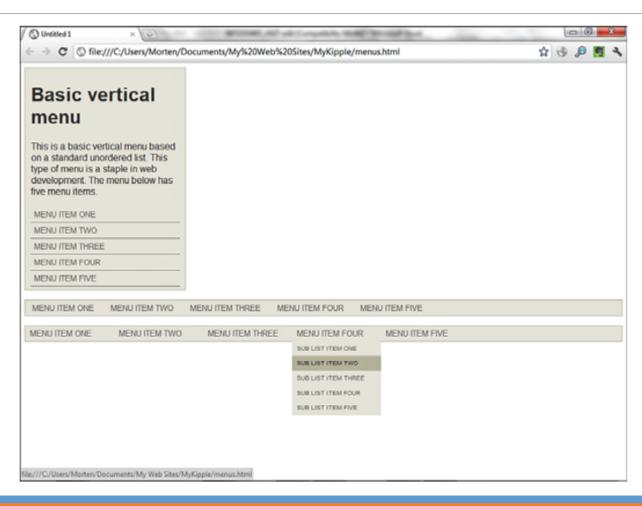
- Now that the buttons extend to fill the required area, create a new pseudoclass with the selector #dropDownMenu ul li a:hover and set color to #333333 and background-color to #C4C2AB.
- Click *OK*, save the page, and test it in your browser.

- As you can see, the main menu and submenus line up correctly, but the submenus are all visible all the time.
- However, the whole point of drop-down menus is that they drop down only when the visitor hovers over them.
- To achieve this, use the *:hover* pseudoclass with the *visibility* attribute to hide the submenus.



- Hide the submenus so that they are invisible unless the user triggers them.
- To do so, create a new style with the selector #dropDownMenu ul li ul.
- This style affects only the unordered lists contained within a list item (that is, the submenus).
- Under the Layout category, set visibility to hidden.
- Click OK to apply the modified style.
- Now, the submenus are no longer visible in *Design* view.
- Create a new style with the selector #dropDownMenu ul li:hover ul.
- This style is a pseudoclass that triggers when the visitor hovers over a main menu list item and affects any unordered list contained within that list item.
- Under the Layout category, set visibility to visible.
- Click OK to apply the new style.

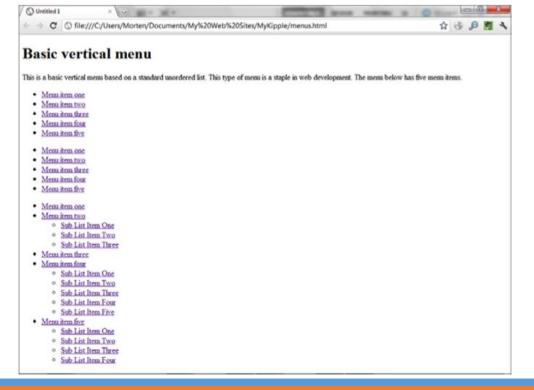
- To ensure that the drop-down menu items appear on top of and not behind content or below them on the page, open the selector #dropDownMenu, go to Position, and set position to relative and z-index to 10.
- The *z-index* value places the entire menu in a higher level than the rest of the content on the page.
- Save and preview the page in your browser.
- You see that the drop-down menus now work the way they should.
- Furthermore, the menu is 100% CSS-based, which means it works without any code additives, such as JavaScript.
- However, most important, it is fully legible if the visitor uses a text-only or text-to-speech browser.



 As you can see in the following figure, with styles turned off, the CSS-based menus revert to their original form, which is standard unordered lists with sub-lists.

Not only is the menu easier to read, but also the layout, and ordering is intuitive to the visitor even

without styles.



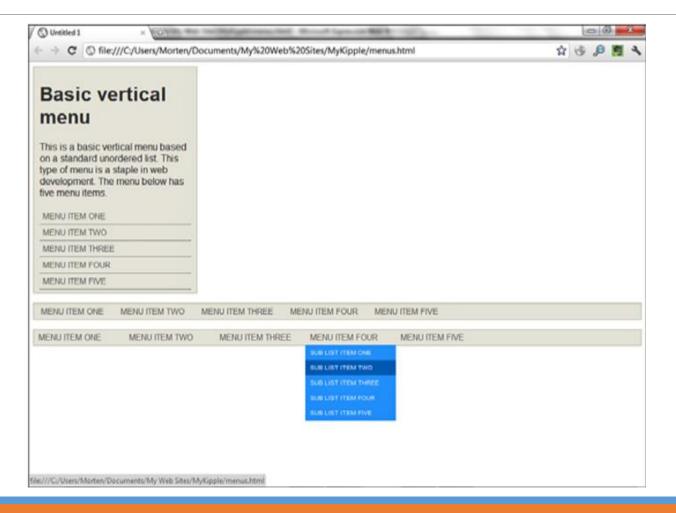
## Styling the Submenus to Make Them Stand Out

- Right now, there is no visual difference between the main menu items and the submenus.
- But, depending on the design of the site, it can sometimes be a good idea to give the visitor visual clues that separate different types of content from each other.
- A simple way of doing this is to give the submenu items a different set of styles than the main menu items.

## Styling the Submenus to Make Them Stand Out Cont.

- Create a new style with the selector #dropDownMenu ul li ul li a.
- This style affects only the links inside list items that are housed inside another list item.
- Under Font, set color to #FFFFFF and under Background, set background-color to #3399FF.
- This gives the submenus a blue background color.
- Click OK to apply the new style.
- Because of the cascade, unless you specify something different, the hover state of the submenus is styled by the #dropDownMenu ul li a:hover pseudoclass.
- To change the hover state, you need to create a new pseudoclass with the selector name #dropDownMenu ul li ul li a:hover.
- Set the color to #FFFFFF and set the background-color to #0065CA.
- Click *OK*, and save and test the page in your browser.
- With the new styles applied, the submenu now has a distinct look that is different from the main menu.

## Styling the Submenus to Make Them Stand Out Cont.



- Now that you know how to make a functional menu, let's apply that knowledge to the *MyKipple* site and, in the process, make it even more advanced by applying image-based backgrounds.
- With the *default.html* file open in *Split* view, create a div with the ID *#mainMenu* and place it inside the header.
- In Code view, create a new unordered list with three buttons named Home, Gallery, and Contact.
- Make each of them a link pointing back to default.html.
- Create a new style in kippleStyles.css and give it the selector #mainMenu ul.
- Set width to 100% so that the box spans the entire width of the header box.
- Create a new style in kippleStyles.css and give it the selector #mainMenu ul li.
- Under Block, set line-height to 30px.
- Under Layout, set display to inline.
- This aligns the buttons on one line.

- Create a new style in kippleStyles.css and give it the selector #mainMenu ul li a. Set color to #000000, text-align (found under Block) to center, width to 110px, height to 35px, and under Layout, set display to block and float to left.
- Create a pseudoclass for a:hover and set color to #FFFFFF and text-decoration to none.
- At this point, you should have a basic three-item menu along the bottom left side of the #header div.
- The buttons work, but there are no backgrounds.
- Now, you assign separate graphic backgrounds to each of the three buttons using custom classes.



- Import the three files, button26.jpg, button32.jpg, and button2c.jpg, from the lesson files for hour 19 and place them in the *Graphics* folder.
- In kippleStyles.css, create a new style with the selector .blue.
- Set background-image to button26.jpg, background-repeat to no-repeat, and height to 35px.
- In the *Manage Styles* panel, right-click the new *.blue* style and select *New Style Copy* from the pop-up menu.
- This creates an exact copy of the style.
- Rename it .green and change background-image to button2c.jpg.
- Click *OK* to save the new style, and use the exact same technique to create a third style with the selector *.purple*.
- In *Code* view, find the anchor tag for the first of the three buttons and place your cursor directly after the letter *a*.
- Press the spacebar and type class="blue".
- This applies the .blue class to the first button.

- In Design view, click the second button and use the Quick Tag Selector to select the <a> tag.
- In the *Manage Styles* panel, right-click the *.green* style and select *Apply Style* from the pop-up menu.
- In *Design* view, click the third button and make sure the <a> tag is highlighted in the *Quick Tag Selector*.
- In the Apply Styles panel, click the .purple style to apply it.
- As you can see, you now have three buttons with three different backgrounds.
- If you paid attention to the earlier lessons in this hour, you noticed that the styling of this menu is the same used to create the drop-down menu, which means that if you want to, you can expand the menu to include drop-down features later!

