Project 3 - Using a Responsive Design Framework

The focus of this project is to utilize the Bootstrap responsive design framework to make a responsive design website. Various implementations of Bootstrap components, utilities, and stylings will be included.

For this project, you may create a website topic of your own choosing.

- List of website topics

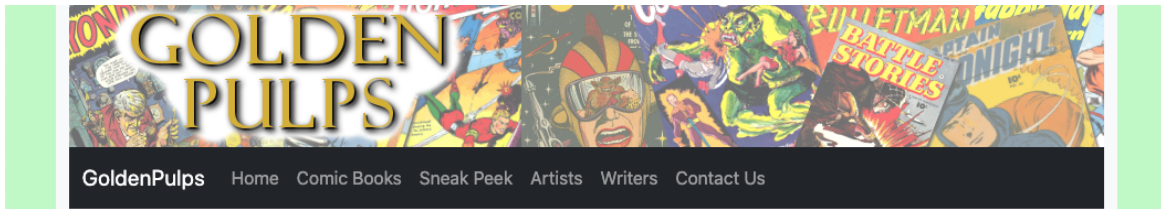| Website Topics |
| --- |
| 1) A food pantry |
| 2) A local zoo |
| 3) A small bakery |
| 4) A local band |
| 5) A used bookstore |
| 6) A gardening group |
| 7) A cooking group |
| 8) A hobby group (of your choice) |
| 9) An exercise group (of your choice) |
| 10) A group to protect a wildlife creature (of your choice) |
| 11) A sports fanatic group (sport of your choice) |
| 12) A person offering music lessons (instrument of your choice) |
| 13) A friend of _____ park (State or local park of your choice) |
| 14) Other – contact me prior for topic approval |

___ **1)**   **Requirement #1 – General Outline**

___ a)   Create a folder called **project3_*xxx*** where ***xxx*** are your initials

___ b)   Create appropriately named subfolders within **project3_*xxx*** for

___ i)   CSS files (***styles.css***)

___ ii)   JavaScript files

___ iii)   Include files

___ c)   Your website should have four pages (additional pages are allowed)

___ i)   Homepage (index.html)

___ ii)   Topic content

___ iii)   Join Us (or Contact Us)

___ iv)   Student Choice

___ d)   Adjustments to the page names must make sense for your topic. For example, if you are working on the local band website, you may have a "Become a Fan" page for the "Join Us"

___ e)   Must provide an attractive and usable layout on all pages

___ 2)   Requirement #2 – Bootstrap Framework Integration

___ a)   All HTML pages utilize the Bootstrap version 5+ framework from a CDN (Content Delivery Network)

___ b)   Be sure to include any appropriate element tags in the head tag which Bootstrap requires to make the body content responsive

___ c)   Use a *responsive fixed width* container for all website pages

      ___ i)   Any area outside of the container should have a custom background color

      ___ ii)   The container background color should be white (or appropriate color based on your style)

      ___ iii)   Apply a custom background color to the header and footer

      ___ iv)   Apply a padding of 1rem to all sides of the main element

      ___ v)   Apply an appropriate Bootstrap text color to the header and footer

      ___ vi)   Apply centering to the text within the header and footer

      ___ vii)   Apply a top margin of 1rem to the footer

      ___ viii)   Apply a padding of 1rem to all sides of the footer

___ d)   *Note:* The only additional CSS that you are allowed to add to **styles.css** are ones to override Bootstrap stylings. Otherwise, you are to use the predefined stylings provided by Bootstrap
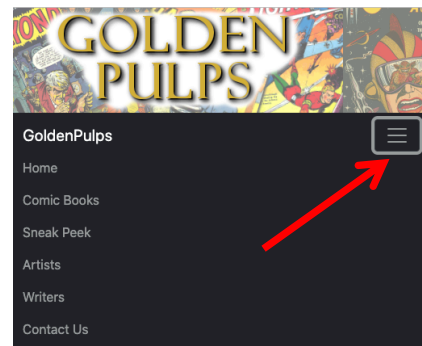
___ 3) Requirement #3 – Header, Nav and Footer

___ a) Include a header section on each page

___ i) Remove any margin from the bottom of the header

___ ii) Header should not extend outside of the container

___ iii) Include a header using either a Bootstrap jumbotron or some custom header

___ (1) Display an image that is responsive and automatically adjusts to fit

___ (2) Document any image copyright within the HTML or CSS

___ b) Include a navigation for each page

___ i) Style with a black navbar including a navigation brand (project topic or appropriate name)

___ ii) The navigation bar will

___ (1) Display across the entire screen on medium or larger viewports

___ (2) Collapse on any screen below a medium viewport

___ (3) Collapsed navigation button should appear in the top right corner

Header and Navigation on screens 768px or larger

Header and Navigation on screens below 768px

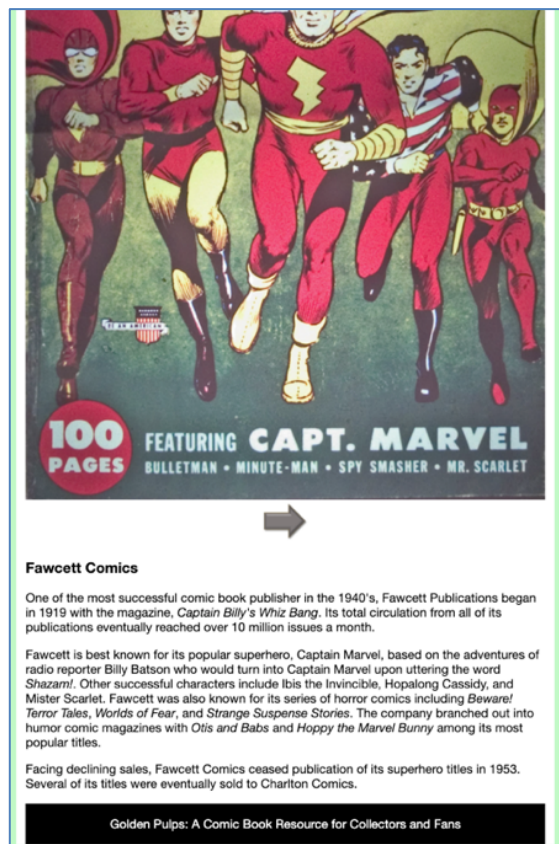*After clicking on hamburger stack button*

___ c)   Include a footer for each page

   ___ i)   Include other relevant text for the footer

      ___ (1)   Include your first and last name as the author

      ___ (2)   Include at least 2 other pieces of data (copyright, links, etc.)

   ___ ii)   Apply to at least 1 item within the footer

      ___ (1)   An appropriate Bootstrap style for the line-height

      ___ (2)   Apply a Bootstrap style for the text color

      ___ (3)   Align the text to be centered

   ___ iii)   Apply a Bootstrap style for the background color for the footer

   ___ iv)   Footer width should be the full length of the *container*

___ 4)   Requirement #4 - HTML Includes

___ a)   Create a file called **header.html** which contains the header html code

   ___ i)   Store the file in the appropriate subdirectory created in Requirement #1

   ___ ii)   Include the newly created **header.html** file in all HTML pages

___ b)   Create a JavaScript file called **includeHTML.js** that will contain logic for including HTML

   ___ i)   Store the file in the appropriate subdirectory created in Requirement #1

   ___ ii)   Link the **includeHTML.js** JavaScript file to all HTML pages

___ c)   Create a file called **navigation.html** which contains the navigation html code

   ___ i)   Store the file in the appropriate subdirectory created in Requirement #1

   ___ ii)   Include the newly created **navigation.html** file in all HTML pages

___ d)   Create a file called **footer.html** which contains the footer html code

   ___ i)   Store the file in the appropriate subdirectory created in Requirement #1

   ___ ii)   Include the newly created **footer.html** file in all HTML pages

___ e)   After the includes are implemented, each HTML page should not look any different than prior to the incorporating the "HTML include."

___ 5)   Requirement #5 – Home Page (index.html)

___ a)   Include at least 3 items (can be any mix of article, section, image, etc.)

    ___ i)   Provide content describing the organization's or group's purpose

    ___ ii)   Items will be flexed on this page

___ b)   **For viewports 768px or smaller**:

    ___ i)   Wrap the flex items

    ___ ii)   Ensure the flex direction is displayed in columns

    ___ iii) Ensure that items are evenly distributed across the line with the first item being at the top start line and the last item being at the bottom end line

Example of Home Page below 768px viewport

___ c)   **For viewports greater than 768px**:

   ___ i)   Have the first flex item take up 75% of the row

   ___ ii)   Include a nested row that will take up the remaining 25% of the row

      ___ (1)   Apply an appropriate column usage for second flex item

      ___ (2)   Apply an appropriate column usage for third flex item

      ___ (3)   Apply vertical spacing to each flex item

   ___ iii)   If you included images, be sure all images on this page will be responsive and automatically adjust to fit the size of the screen

Example Home page above 768px viewport

___ 6)   **Requirement #6 – Topic Content page**

___ a)   If have not already done so, complete Requirement #3 and Requirement #4 for this page

___ b)   Include an appropriate page heading

    ___ i)   Apply a Bootstrap style for the text color

    ___ ii)   Align the text to be centered

___ c)   Include the use of cards on this page (use of card-deck is optional)

    ___ i)   Create at least 9 cards of data

    ___ ii)   For the card header

        ___ (1)   Apply a Bootstrap style color to the background scheme

        ___ (2)   Apply an appropriate Bootstrap style for the text color

    ___ iii)   For the card body

        ___ (1)   Apply a light background styling

        ___ (2)   Apply an appropriate Bootstrap style for text color

        ___ (3)   Apply the Bootstrap style for bold font weight to 1 item in the body

        ___ (4)   Incorporate at least 1 other piece of data into the card body such as

            ___ (a)   Responsive image

            ___ (b)   Text

            ___ (c)   Button (with an appropriate link)

    ___ iv)   Apply responsive design adjustments to the card columns with each card taking up

        ___ (1)   100% of the row on extra small and small viewports

        ___ (2)   50% (6 columns) of the row on medium viewports

        ___ (3)   33.3% (4 columns) of the row on large viewport and above

___ 7)   Requirement #7 – Join Us (or Contact Us)

___ a)   If have not already done so, complete Requirement #3 and Requirement #4 for this page

___ b)   Include an appropriate page heading

   ___ i)   Apply a Bootstrap style for the text color

   ___ ii)   Align the text to be centered

___ c)   Use a Bootstrap stacked form or inline form for layout

   ___ i)   EXTRA CREDIT OPPORTUNITY (2 points): Style the form using form grid

      ___ (1)   Apply a grid form which has 2 fields at a minimum on a single row (such as first and last name)

      ___ (2)   Apply a horizontal form grid

___ d)   Apply the following general styles to the form

   ___ i)   Include the text "* - required fields" before all of the fields

   ___ ii)   Apply a Bootstrap style for a red text color to the "* - required fields" text

___ e)   All form field labels should be bold

___ f)   Add a form to the page which collects the following information (use regex to check the formatting)

   ___ i)   First Name

      ___ (1)   Allow up to 40 characters

      ___ (2)   Required

   ___ ii)   Last Name

      ___ (1)   Allow up to 60 characters

      ___ (2)   Required

   ___ iii)   Email

      ___ (1)   Allow for basic email address

      ___ (2)   Required

   ___ iv)   Select

      ___ (1)   Select has at least 5 values

      ___ (2)   User can select multiple values

      ___ (3)   Display 3 values in the select window before having to scroll

      ___ (4)   Optional

___ v)   Radio buttons

    ___ (1)   Radio buttons at least 2 values

    ___ (2)   Include radio buttons in a fieldset with an appropriate legend

    ___ (3)   Required

___ vi)   Checkbox

    ___ (1)   Check boxes at least 4 values

    ___ (2)   Include checkboxes in a fieldset with an appropriate legend

    ___ (3)   Optional

    ___ (4)   Individual values should be sent to server

___ vii)   Comments

    ___ (1)   Create as a textarea to capture all comments

    ___ (2)   Optional

___ viii)   Include a Submit Button

    ___ (1)   Use a Bootstrap style for the background color

    ___ (2)   Use a Bootstrap style for the text color

    ___ (3)   Use a Bootstrap style to apply an appropriate left and right margin to the button

___ ix)   Include a Clear/Reset button

    ___ (1)   If clicked on, it should clear the form of any entered data

    ___ (2)   Use a Bootstrap style for the background color

    ___ (3)   Use a Bootstrap style for the text color

    ___ (4)   Use a Bootstrap style to apply an appropriate left and right margin to the button

___ g)   Adjust the styling of all fieldset legends

___ i)   Apply Bootstrap style to auto size the width of the legend so that the line on the fieldset will go across the entire top of the fieldset border to meet up with the legend text

___ ii)   Apply a Bootstrap style to a bold font weight

___ iii)   Apply a Bootstrap style to reduce the size of the font to a small (80%)

___ iv)   Apply a Bootstrap style to adjust the text color

___ h)   Form should not display any validation feedback when first opened

    ___ i)   Validation feedback should only appear <u>after</u> the submit button is clicked

    ___ ii)   Any JavaScript that is required for form validation should be stored in a file named **formValidation.js**

        ___ (1)   Store any JavaScript files in the subdirectory created in Requirement #1

        ___ (2)   Add appropriate link to the HTML file for the JavaScript file

___ i)   For the form submission

    ___ i)   The action attribute values should be **https://www.w3schools.com/action_page.php**

    ___ ii)   The method attribute should use **get**

    ___ iii)   The form should prevent the form from submitting if validation minimums are not met

    ___ iv)   Use regEx in HTML attributes to be enforced with Bootstrap validation feedback

    ___ v)   Optional fields only require validation if something is entered

___ 8)   Requirement #8 – Student Choice

___ a)   If have not already done so, complete Requirement #3 and Requirement #4 for this page

___ b)   Include an appropriate page heading

    ___ i)   Apply a Bootstrap style for the text color

    ___ ii)   Align the text to be centered

___ c)   The page content is up to you! This could be an "upcoming events" page or a "meet our staff" page. Think about what a good fit for your organization or group would be.

    ___ i)   Must contain at least 3 paragraphs of content

    ___ ii)   Use Bootstrap to make at least 3 different style adjustments to the page content (margins, padding, text color, background color, etc.)

___ d)   Using Bootstrap classes, hide the *second* paragraph when the page is printed

    ___ i)   The print screen will vary depending on the viewport being displayed when the print is requested

    ___ ii)   Use print preview to verify output

___ 9) **Requirement #9 – Minification**

    ___ a)   Run all of your HTML files and custom CSS files through a validator making any corrections necessary

    ___ b)   Run your *styles.css* through **Autoprefixer** postprocessor to add vendor prefixes

    ___ c)   Update your *styles.css* to include the additional stylings

    ___ d)   Save a minified version of *styles.css* file as *styles.min.css*

    ___ e)   Update all of your HTML files to use the minified CSS file

Assignment Submission

  __ 1)   Zip up the files in the **project3_xxx** folder

  __ 2)   Submit the **project3_xxx.zip** file using the Blackboard submission link