Project Implementation

The following describes how the Structure Plane of the project was implemented in HTML 5 and CSS 3. A mobile first design approach was used for the design of the website pages with design on larger screen resolutions being a secondary concern.

Head

The head element contains the metadata for the HTML document; references for the Bootstrap 4 CSS styles; custom CSS styles; font-awesome icons; hover styles and the libraries required for JavaScript. In addition to this it contains the title of the page to be displayed on the browser tab. Finally, an icon to be displayed on the browser tab is implemented by means of the un-modified code shown obtained from stackoverflow.com [1].

Header

The header was implemented as a semantic <header> element. The original design consisted of a header 'hire us' alert and a navigation bar but the alert was removed during initial development as it didn't fit in well with the overall style of the page.

Navigation bar and toggle button

The navigation bar and toggle button controls are contained within a semantic <nav> element with a class to ensure that the navigation icons are visible on large screen resolutions and above but the toggle button is visible on screen resolutions below this. The design of the navigation bar and toggle button are based upon the code defined by w3cschools.com Bootstrap Navigation Bar [2].

When visible, the navigation toggle button is aligned to the right of the page using the 'ml auto' class and will expand and collapse on click. The button is represented by the font-awesome bars icon [3].

The navigation links are implemented as an un-ordered inline list with each list item an anchor which links to the address of the associated webpage. The navigation links are each represented by a different font-awesome icon which is present in both full navigation and toggle navigation configurations. Additionally, in full navigation configuration; a text label for the link is given below the icon: these are hidden in the toggle configuration to save real estate using the 'd-none d-lg-block' Bootstrap 4 class. Upon mouse hover, the navigation link (icon and label) will grow using the 'hvr-grow' class implemented using hover effects obtained from cdnjs.com [4].

Footer

The footer was implemented as a semantic <footer> element with class 'footer container'. Inside, a <div> element was created to act as a row in the Bootstrap grid system, this used the class 'no-gutters'. Within this row; two <div> column elements were created. The first of which was used to create the 'Hire us for your event' footer alert and the second used to create the area reserved for social media links.

Footer Alert

This column has a column magnitude of 12 for all screen resolutions below large resolution and a magnitude of 8 for large screen resolutions and above. The alert itself was implemented as an anchor to the 'hire.html' page with a class 'hvr-grow' to make the text grow upon mouse hover.

Social Media Links

This column was implemented with a magnitude of 4 for large screen resolutions and above and is hidden at other screen resolutions using the grid system. The social media links themselves are implemented as an un-ordered inline list. Within the list, each list item is implemented as an anchor to the associated website with target="_blank" to open the link in a new browser tab. The links themselves are represented by the font-awesome icon associated with that link and CSS style re-used from the Code-Institute C.V. Mini-Project [5].

index.html

The index page is the opening page of the website and has the simple task of informing the viewer that they have arrived at this particular site. The content is contained within a semantic <section> element and is in the form of two header elements <h3> and <h6> which display the site title and sub-title. The titles are animated using a flicker animation between an opacity of 0 at 0% and 1 at 100%; a duration of 8 seconds; and an ease-in ease-out transition. This was implemented by reduction of the flicker animation code found in Stack Overflow [6].

listen.html

The listen page allows users to listen to back-catalogue tracks in addition to any new releases. The page content is contained within a semantic <section> element. A Bootstrap 4 grid system is implemented to ensure a responsive design on all screen resolutions.

A <div> element is used to create a row and contains the back-catalogue heading element which in turn is contained within a <div> column element which has a magnitude of 12 for all screen resolutions. The heading element is a <h4> element and contains the title of the album from which the audio tracks originate.

A second row is created which contains all the audio clips and information for that specific back-catalogue item. Within this row a column element is created which will contain an image, an audio track and track information. For the purposes of responsive design; this column has a magnitude of 12 for all resolutions below medium resolution; a magnitude of 6 for medium resolution; and a magnitude of 4 for large resolutions. This translates to three inline audio tracks at large resolutions, two at medium resolutions; and one at resolutions below this.

Within the image, audio and track information column defined above; another row is created which contains three <div> column elements all of magnitude 12. The first of these columns contains an image representing the album artwork and is implemented using an <img> element with alternative text defined in the case that the image cannot be displayed by the browser. The second column contains the audio track itself. This was implemented using the audio and audio controls code obtained, and utilised without alteration, from w3cschools.com [7]. The third column contains the title of the track, within an <h6> element, and copyright information within a <p> element.

The configuration defined, above, is repeated for all back catalogue items. This is also used for the 'New Release' item minus the audio track and track information as this is not available.

watch.html

The watch page allows viewers to watch YouTube videos of the band from different decades. The page content is contained within a semantic <section> element. Again, a Bootstrap 4 grid system is implemented on this page. The decade from which the following videos are from is represented as a heading on the page. The heading is contained within a row and column of magnitude 12, to ensure that it stays on a single row on all screen resolutions, and is a <h4> element.

The heading is followed by a second <div> element, which has a ‘row’ class. Within this row are two <div> columns, each of which will contain a video and its title. These columns have a magnitude of 12 at screen resolutions smaller than large resolution and a magnitude of 6 at large resolutions and above. This allows the videos to sit side by side on large resolutions and one above the other on smaller resolutions.

Within each of these columns sits another <div> row element and within this sit two more column elements. The first element contains the video and the second contains the video title. Both of these columns have a magnitude of 12 such that the title always sits below the video. The video playback is implemented using an iframe with code obtained from getbootstrap.com [8].

This configuration for decade title and the following videos and titles is repeated for each decade that is presented.

bio.html

The biography page gives viewers information on the band and its members. The page content is contained within a semantic <section> element. The page is split into two main sections: Band History and Band Members.

The Band History section consists of a heading; a band image and text. The heading is contained within a <div> element with a ‘row’ class. Within this is a <div> with a ‘column’ class of magnitude 12. This ensures that the heading always sits alone. Within this the heading itself is contained within a <h4> element.

The band image and text is contained within another row. This is split into two columns: the first, containing the image, has a magnitude of 12 at smaller screen resolutions and a magnitude of 4 at large screen resolutions and above. This ensures that a small resolutions the second column is below the image and at large resolutions the following column sits by its side. The second column, which contains the band history text, has a magnitude of 12 at small screen resolutions and a magnitude of 8 at large resolutions and above.

The second half of the page contains a heading; band member images; band member names; and information about the members. The heading is contained within a <div> element with a ‘row’ class. Within this is a <div> with a ‘column’ class of magnitude 12. This ensures that the heading always sits alone.

Following this, another <div> with class ‘row’ is used to contain the member images, names and information. Each member image is contained within a column which has a magnitude of 12 at small screen resolutions; 4 at medium screen resolutions; and 2 at large screen resolutions and above. Member names and information are contained in a following column which has a magnitude of 12 at small screen resolutions; 8 at medium screen resolutions; and 4 at large screen resolutions and above. The members name is contained within a <h5> element and the information within a <p> element. The member information also contains an anchor element which links to the band members Wikipedia page and utilises the ‘hvr-grow’ class. This configuration ensures that on small resolutions the image, name and information all sit one on top of the other whilst at medium resolutions and larger they sit side-by side.

Repeating this structure for all the band members; at small resolutions the images, names and information are presented in a consecutive manner. At medium resolutions, each member (image, name and information) occupies a single row and, finally, at larger resolutions there are two band members per row.

hire .html

The hire page gives viewers the opportunity to contact and hire the band for events. The page content is contained within a semantic <section> element. The page is split into three main sections: Hire heading, a concert image and a form for submitting hire requests.

The heading is contained within a <div> element with a 'row' class. Within this is a <div> with a 'column' class of magnitude 12 at smaller resolutions and a magnitude of 10 with an offset of 1 at large resolutions to centre the text within the page. Within this, the heading is contained within a <h4> element.

This is followed by a second <div> with a 'row' class. This is split into two columns: one containing the image, and, the other containing the request form. The image column has a magnitude of 12 at smaller resolutions and a magnitude of 6 with an offset of 1 at large resolutions. This ensures that the image and row sit side by side on large screen resolutions but the image sits above the form on smaller screen resolutions. The form column has a magnitude of 12 on smaller resolutions and a magnitude of 4 on larger resolutions.

The form is an extended form of the code obtained from Bootstrap 4 [9]. The form was modified to include text and input fields for requester: Name, Email address, Date and additional comments. The autofill functionality was turned off for the form.

The 'Submit' button was modified using a simple JavaScript function, modified from code obtained from w3cschool.com [10], and shown below:

```
<script>

        function submitRequest() {

             document.getElementById("submit_request").innerHTML = "Request Sent!";

              document.getElementById("submit_request").style.backgroundColor = "#fdfdfd";

              document.getElementById("submit_request").style.color = '#93b1cd';

              document.forms["hireForm"].reset(); }

    </script>
```

This was used to provide user feedback once the 'Submit' button had been clicked. This changes the button text from 'Submit' to 'Request Sent!' upon click. Additionally, it changes the button and text colour and clears all the form fields.

If the browser does not support JavaScript; a <noscript> tag [11] was added which informed the user of this.

References

1. Browser tab icon
   https://stackoverflow.com/questions/20900670/how-to-add-an-image-in-the-title-bar-using-html/20900719)

2. Navigation bar and toggle
   https://www.w3schools.com/Bootstrap/bootstrap_navbar.asp

3. Font-awesome icons
   https://fontawesome.com/

4. Hover effects
   https://cdnjs.com/libraries/hover.css

5. Social Media icon Styling
   https://courses.codeinstitute.net/courses/course-v1:codeinstitute+FE+2017_T3/courseware/f27ed60a8df446e6b3b292bae5102aa7/277bb41e3dc3434e802e6bee96ef7985/?activate_block_id=block-v1%3Acodeinstitute%2BFE%2B2017_T3%2Btype%40sequential%2Bblock%40277bb41e3dc3434e802e6bee96ef7985)

6. Flicker animation
   https://stackoverflow.com/questions/23985018/simple-css-animation-loop-fading-in-out-loading-text/31458204

7. Audio MP3 and audio controls

   https://www.w3schools.com/html/html5_audio.asp

8. Iframe video playback

   https://getbootstrap.com/docs/4.1/utilities/embed/#about

9. Bootstrap forms

   https://getbootstrap.com/docs/4.0/components/forms/

10. Submit button user feedback

    https://www.w3schools.com/js/js_whereto.asp

11. JavaScript no-script tag

    https://www.w3schools.com/tags/tag_noscript.asp