

The code on each file has been tested using either the W3C Markup Validation Service for HTML, or the W3C Jigsaw Validation Service for CSS.

The table below highlights the positive results from these tests:

First Test :

| File | Errors | Warnings | Comments and Action Taken |
|--------------------|--------|----------|--|
| index.html | 0 | 0 | |
| about-marie.html | 0 | 0 | |
| yoga-in-class.html | 0 | 1 | Section lacks heading' where the Vertical Accordion has been added as FAQ's. The HTML element has been changed to a <div> which has allowed for the <h3> within to be recognised by the validator. |
| yoga-at-home.html | 0 | 0 | |
| stay-informed.html | 0 | 0 | |
| 404.html | 0 | 0 | |
| style.css | 0 | 1 | ::-webkit-details-marker is a vendor extended pseudo-element' - expected from using the Vertical Accordion from CodePen. |

Re-Test :

| File | Errors | Warnings | Comments and Action Taken |
|--------------------|--------|----------|--|
| yoga-in-class.html | 0 | 0 | |
| style.css | 0 | 1 | As the CSS code is considered required for the Vertical Accordion to function correctly the warning will be recorded as a known exception. |

To ensure site visitors can view and interact with OT Yoga's website, cross browser testing was performed on the test scenarios listed in the table below.

To achieve a 'Pass' the following criteria had to be met across all website pages;

1. All nav-menu links work as designed complete with hover feature
2. All images are loaded and displayed correctly at the differing media queries
3. All text uses 'Roboto' font style
4. All external links activate when clicked, and open in a new tab or browser window
5. The form as part of the 'Stay Informed!' page allows full completion and submission
6. Header elements can be clicked to return users to the homepage from any site page
7. All pages retain layout integrity throughout the Body and across the differing media queries
8. 404.html Page could be found and users can navigate back to the main website pages

| Browser | Version | Test Facility | Pass | Partial Pass | Fail | Comments for Partial Pass and/or Fail |
|----------------------------|---------|----------------|------|--------------|------|---|
| Internet Explorer | 5.5 | Netrender.com | | | ✓ | Website could not render and therefore not loaded |
| Internet Explorer | 6 | Netrender.com | | | ✓ | Website could not render and therefore not loaded |
| Internet Explorer | 7 | Netrender.com | | | ✓ | Website could not render and therefore not loaded |
| Internet Explorer | 8 | Netrender.com | | | ✓ | Website could not render and therefore not loaded |
| Internet Explorer | 9 | Netrender.com | | ✓ | | Website loaded all text complete with CSS styles within 3s. Images and logo not loaded. |
| Internet Explorer | 10 | Netrender.com | | ✓ | | Website loaded all text complete with CSS styles within 5s. Images and logo not loaded. |
| Internet Explorer | 11 | ASUS Zenbook | ✓ | | | |
| Microsoft Edge (Win 11) | 96 | ASUS Zenbook | ✓ | | | |
| Google Chrome (Win 11) | 96 | ASUS Zenbook | ✓ | | | |
| Firefox | 95 | ASUS Zenbook | ✓ | | | |
| Safari (macOS Mojave) | 12 | lambdatext.com | ✓ | | | |
| Opera (macOS Sierra 10.12) | 74 | lambdatext.com | ✓ | | | |

To ensure site visitors can view and interact with OT Yoga's website on differing devices, testing was performed on the test scenarios listed in the table below.

To achieve a 'Pass' the following criteria had to be met across all website pages;

1. All nav-menu links work as designed complete with hover feature
2. All images are loaded and displayed correctly at the differing media queries
3. All text uses 'Roboto' font style
4. All external links activate when clicked, and open in a new tab or browser window
5. The form as part of the 'Stay Informed!' page allows full completion and submission
6. Header elements can be clicked to return users to the homepage from any site page
7. All pages retain layout integrity throughout the Body and across the differing media queries
8. 404.html Page could be found and users can navigate back to the main website pages

| Device | Type | Pass | Partial Pass | Fail | Comments for Partial Pass and/or Fail |
|--------------|--------------------|------|--------------|------|--|
| Mobile Phone | iPhone SE | ✓ | | | Noted that paragraph text needed to increase slightly compared to other websites and space around main header content could reduce marginally to allow the hero image to be within sight |
| Mobile Phone | Samsung Galaxy S21 | ✓ | | | |
| Tablet | iPad (2020) | ✓ | | | |
| Tablet | iPad 3 (2012) | ✓ | | | |
| Laptop | ASUS Zenbook 14" | ✓ | | | |

Every website page has been tested with Wave (Web Accessibility Evaluation Tool) with the following errors and recommendations:

| Where | HMTL / CSS | Element | Location | Comment |
|-----------|------------|-----------|-----------|---|
| All pages | HMTL | Paragraph | Page text | Paragraph Text alignment had been set to 'justify' to align with the overall block theme of the website. However, WAVE highlighted this style of alignment could prove challenging for some users with impaired vision. As a result, the text alignment has been changed to 'left' as recommended by WAVE. |
| All pages | HTML | Anchor | Header | Aria-labels with the same focus were used on the header logo and text elements. WAVE highlighted this was unnecessary duplication. As a result, the header element has been rewritten so the aria-label encompasses all the header elements. |
| All pages | HTML | Label | Nav-menu | Collapsible nav-menu element is without text. The HTML code uses a label element as the checkbox toggle for the burger style nav-menu on mobile devices. As such this produces a WAVE error. As recommended by WAVE, a title attribute has been added to the label element to ensure screen readers can inform of the elements purpose. However this hasn't cleared the error but can be considered acceptable according to WAVE. |

First test occurred using Lighthouse within Chrome Dev Tools on 16 December 2021 with the following results:

| Page | Desktop | | | | Mobile | | | | Comments on Amber and Red scores |
|--------------------|-------------|---------------|---------------|-----|-------------|---------------|---------------|-----|---|
| | Performance | Accessibility | Best Practice | SEO | Performance | Accessibility | Best Practice | SEO | |
| index.html | 58 | 100 | 87 | 100 | 33 | 100 | 87 | 100 | 1. Reduce all image sizes and set fixed HTML width and height dimensions to improve page load time 2. Change image formats to Webp to improve page load time 3. Relocate HTML script for Google Fonts usage from HEAD element to CSS style sheet 4. Add `rel="noopener noreferrer"` to social media links within the Footer to improve performance and reduce security vulnerabilities |
| about-marie.html | 97 | 100 | 93 | 100 | 92 | 100 | 93 | 100 | 1. Reduce all image sizes and set fixed HTML width and height dimensions to improve page load time 2. Change image formats to Webp to improve page load time 3. Relocate HTML script for Google Fonts usage from HEAD element to CSS style sheet 4. Add `rel="noopener noreferrer"` to social media links within the Footer to improve performance and reduce security vulnerabilities |
| yoga-in-class.html | 29 | 100 | 93 | 100 | 27 | 100 | 93 | 100 | 1. Reduce all image sizes and set fixed HTML width and height dimensions to improve page load time 2. Change image formats to Webp to improve page load time 3. Relocate HTML script for Google Fonts usage from HEAD element to CSS style sheet 4. Add `rel="noopener noreferrer"` to social media links within the Footer to improve performance and reduce security vulnerabilities |
| yoga-at-home.html | 99 | 100 | 93 | 100 | 88 | 100 | 93 | 100 | 1. Reduce all image sizes and set fixed HTML width and height dimensions to improve page load time 2. Change image formats to Webp to improve page load time 3. Relocate HTML script for Google Fonts usage from HEAD element to CSS style sheet 4. Add `rel="noopener noreferrer"` to social media links within the Footer to improve performance and reduce security vulnerabilities |
| stay-informed.html | 99 | 100 | 93 | 100 | 94 | 100 | 93 | 100 | 1. Relocate HTML script for Google Fonts usage from HEAD element to CSS style sheet 2. Add `rel="noopener noreferrer"` to social media links within the Footer to improve performance and reduce security vulnerabilities |
| 404.html | 88 | 100 | 100 | 90 | 66 | 100 | 100 | 92 | 1. Reduce image size and set fixed HTML width and height dimension to improve page load time 2. Change image format to Webp to improve page load time |

After acting on the results of the first test a retest was performed on 22 December 2021 with the following results:

| Page | Desktop | | | | Mobile | | | | Comments on Amber and Red scores |
|--------------------|-------------|---------------|---------------|-----|-------------|---------------|---------------|-----|----------------------------------|
| | Performance | Accessibility | Best Practice | SEO | Performance | Accessibility | Best Practice | SEO | |
| index.html | 96 | 100 | 100 | 100 | 91 | 100 | 93 | 100 | |
| about-marie.html | 93 | 100 | 100 | 100 | 90 | 100 | 93 | 100 | |
| yoga-in-class.html | 98 | 97 | 100 | 100 | 93 | 100 | 100 | 100 | |
| yoga-at-home.html | 94 | 100 | 100 | 100 | 93 | 100 | 93 | 100 | |
| stay-informed.html | 98 | 100 | 100 | 100 | 85 | 100 | 100 | 100 | |
| 404.html | 99 | 100 | 100 | 90 | 99 | 100 | 100 | 100 | |

The leading user stories have been tested to ensure the priority aims of the website have been delivered.
Below is a summary of the test results.

| Reference | Description |
|-------------|---|
| US01 | As a student with accessibility requirements, I want to intuitively navigate the website to learn all about OT Yoga, so that I can attend as part of regular exercise. |
| Validation | All pages score a consistent 100% when tested for Accessibility with Lighthouse. In addition no errors are recorded when tested with [Wave (Web Accessibility Evaluation Tool)](https://wave.webaim.org/). This would suggest the site can be navigated by those with accessibility requirements and/or using a screen reader. |
| US02 | As a student, I want to learn when and where yoga occurs in Old Trafford, so that I can attend as part of regular exercise. |
| Validation | The homepage offers this key information within one vertical scroll. Furthermore the venue address is consistently displayed in the Footer, and can also be viewed as part of the FAQ's on the 'Yoga in Class' page. |
| US03 | As a student, I want to learn how much a class costs and what I need to bring, so that I can be prepared when I attend a class. |
| Validation | From either clicking to the 'Yoga in Class' page or from clicking the 'More Info on Classes' button on the homepage, users can access the FAQ's section where both parts of information can be found. Additionally, the cost is displayed as part of the key information on the homepage, alongside the day of the class, start time and duration. |
| US04 | As a student, I want to learn what type of yoga is practiced, so I can understand if it will be something I would like to learn, or have practiced before. |
| Validation | This information is clearly displayed on the homepage within one vertical scroll. It is located alongside the day of the class, start time and cost. Further information on how the instructor came to practice this form of yoga is naturally found on the 'About Marie' page which can be navigated to from the main nav-menu. |
| US05 | As a student, I want to learn about the instructor, so I can gauge whether we would get along. |
| Validation | Information on instructor Marie can be found on a dedicated page titled 'About Marie'. A link to this page is constantly visible to users in the nav-menu located under the website header. Should a student wish to get in touch, contact details are provided in page and also within the Footer. Appropriate links have been provided for the convenience of the user to start a conversation either by phone, Whatsapp or social media. |
| US06 | As a student, I would like to be kept informed of changes to classes, so I attend accordingly. |
| Validation | A sign-up form has been created on a dedicated page titled 'Stay Informed!' which should act as a call to action from the nav-menu. Users can be informed of changes in classes from completing just 3 mandatory fields. However should users wish they could complete a further 4 optional questions which will help OT Yoga provide further yoga relating information to support students. |

The issues listed in the table below remain at the end of the Testing phase for the MVP release in December 2021.
Where indicated the issue has either been resolved or no further action will be taken at the present time.

| Ref | Title | Description | Issue location | Code | Date Identified | Latest Update |
|------|---|--|--------------------|------------|-----------------|--|
| ISS1 | Collapsible nav-menu element triggers a WAVE error | The HTML code uses a label element (that requires no text) as the checkbox toggle for the burger style nav-menu on mobile devices. As this element has no text it triggers a WAVE error. | All web pages | HTML | 16/12/2021 | As recommended by WAVE, a title attribute has been added to the label element to ensure screen readers can inform of the elements purpose. However this hasn't cleared the error but can be considered acceptable according to WAVE. No further action taken. |
| ISS2 | ::-webkit-details-marker triggers code validation warning | ::-webkit-details-marker is a vendor extended pseudo-element' - and due to this triggers a code validation warning with w3 Jigsaw. | Yoga in Class page | CSS | 16/12/2021 | As the CSS code is considered required for the Vertical Accordion to function correctly the warning will be recorded as a known exception. No further action taken. |
| ISS3 | Font Awesome JavaScript impacting page load time | Font Awesome advises embedding JavaScript within the Head element of webpages. However whilst on a free Font Awesome account, this script loads all Fonts/Icons from your 'kit' whilst only 4 are required for the Footer. Ultimately this is impacted page load times | All web pages | HTML | 16/12/2021 | Replace the JavaScript Font Awesome initially provided with their former CDN <link> for HTML. This has been actioned for all main website pages |
| ISS4 | No rendering on IE versions 5.5 to 8 | Cross browser testing revealed the website does not render on version 5 to 8 of Internet Explorer | All web pages | HTML / CSS | 18/12/2021 | These versions of IE are no longer supported by Microsoft with the likelihood of a user still on these versions considered very unlikely. No further action taken. |
| ISS5 | Website images do not load on IE versions 9 & 10 | Whilst all the website text and aria-labels load on IE 9 & 10, the images when tested using Netrender.com (on Chrome) do not load. | All web pages | HTML / CSS | 18/12/2021 | These versions of IE are no longer supported by Microsoft with the likelihood of a user still on these versions considered unlikely. However, should a user still be using IE 9 or 10, the text does load and so information is accessible. No further action taken. |