

## **Lighthouse Summary**

The lighthouse reporting tool has been implemented through the chrome inspector window for the overall analysis of the site, which gives rating based around Performance, Accessibility, Best Practices and Search Engine Optimisation.

### **Performance**

This rating is created through a set of metrics who's waiting is updated by lighthouse often to reflect what they believe to be most important to users, which are each measured in how long they take to load.

### **Accessibility**

The Accessibility analysis, while being taken from the lighthouse report, will be assessed using the POUR principles:

#### **POUR**

- Perception  
Distinguishing content from any viewpoint
- Operable  
Responsive to user actions, helps users find content
- Understandable  
Content operates in predictable ways with clear instruction
- Robust  
Flexible adapts to a variety of mediums and compatible with assistive technology

### **Best Practices**

This is an audit done by lighthouse to check for common mistakes that occur in we development.

### **Search Engine Optimisation (SEO)**

This is a check to ensure that the page is optimized for search engine results, which also includes the crawlability of the page. Crawlability is based on the structure of href links and their accessibility for the search engine when looking for content related to search values.

## Average Scores and common factors across the Site:

### Desktop

#### 1. Performance = 92.4

- More text-based resources could be compressed to speed up load time, this could be done using tools like gzip, deflate or brotli.
- There are also some unused CSS and JavaScript that could be removed, this would mean less resources are loaded so less time is taken when spinning up the page. The same is true for some duplicate modules in JavaScript bundles and the use of legacy JavaScript in various pages.
- There are image's on almost every page that lack an explicit width and height, the impact of this decision leads to layout shifts that impact the GUI. The browser is better able to reserve the correct amount of space while the page is loading when these ratios are set.
- There are some render-blocking issues present across the site, which leads to a reduced loading speed. It has been recommended that the critical CSS to be delivered inline to speed this up, however this change would have to be weighed against the amount of maintenance needed when hardcoding the stylesheet to specific html elements.
- There is also a minor issue with invisible text, which is a result of the text displayed waiting to have the CSS stylesheet loaded. This could be avoided by utilizing the system font until the CSS is ready.

#### 2. Accessibility = 78.3

##### Perception

- The second large problem is with the background and foreground colouring, which do not have a sufficient contrast ratio that limits readability.
- This has also been checked through a tool called spectrum, giving positive results across colour-blindness spectrum outside of the contrast issue highlighted above that applies to only two images on most pages.

##### Operable / Understandable

- The main failings of this site in Accessibility are for use with the screen reader, which finds it difficult to accurately describe many web elements that lack accessible naming, html list syntax <li> not utilised, images missing [alt] descriptive text and link text that is not focused enough.

## **Robust**

- Site works across all browsers.
- Window resizes well by creating pop ups when the side bar becomes inaccessible and giving the user a burger icon to navigate.
- There are screen reader issues, which have been listed above, but overall, the site performs well with both the screen reader and Spectrum.

### **3. Best Practice = 100**

- Need to find positives in this.

### **4. Search Engine Optimization = 63.3**

- A summary of the page content is delivered to search engine through the use of a Meta description and Meta name, which are not present throughout the website. This however could be overlooked due to the nature of the webpage being specific to Sparta Global.
- Links on site are not crawlable so search engines aren't able to use the href links to find information relevant to the search.

## Mobile Version

### 1. Performance = 53

- Text compression has been recommended to ensure faster download speeds, which has a knock-on effect to the page load time.
- Eliminate render-blocking resources by identifying and inlining critical resources.
- Images are lacking an explicit width and height.
- Unused CSS, JavaScript and used legacy JavaScript needs to be removed.
- Prioritization of elements loaded could help deliver a readable page faster and improve performance metrics.

### 2. Accessibility = 78

- The main failings of this site in Accessibility impact the screen reader, which finds it difficult to accurately describe many web elements that lack accessible naming, images missing [alt] descriptive text and link text that is not focused enough.
- Html list syntax <li> not utilised, which would also help the screen reader.
- The second large problem is with the background and foreground colouring, which do not have a sufficient contrast ratio that limits readability.
- This has also been checked through a tool called spectrum.

### 3. Best Practices = 93.5

- Some images are displayed with low resolution due to size change, there needs to be a smaller version of the image to transition into so the image clarity is not affected.

### 4. Search Engine Optimisation = 58.3

- Shares the meta name and description issue with the desktop version.
- Meta details not optimised for a mobile device
- Site isn't crawlable.