

The code on each file has been tested using the appropriate validation service; W3C Markup for HTML, W3C Jigsaw for CSS and JSHint for JavaScript.

The table below highlights the positive results from these tests:

File	Errors	Warnings	Comments and Action Taken
index.html	0	0	No errors or warnings.
style.css	0	1	Imported style sheet for Google Font has not been checked as part of the direct input validation service. This is a known and acceptable warning.
sweetalert2.css	0	47	'-webkit-animation is a vendor extension'. This is anticipated and a accepted warning.
script.js	0	24	There are 24 warnings consisting of either; 1. 'const' is available in ES6 (use 'esversion: 6') or Mozilla JS extensions (use moz). 2. 'arrow function syntax (=>)' is only available in ES6 (use 'esversion: 6').
sweetalert2.js	0	804	There are 804 warnings consisting of either; 1. 'const' is available in ES6 (use 'esversion: 6') or Mozilla JS extensions (use moz). 2. 'arrow function syntax (=>)' is only available in ES6 (use 'esversion: 6').
404.html	0	0	No errors or warnings.

To ensure site visitors can view and play the '60 Seconds to Save Earth Game' on differing browsers 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 buttons provide user feedback on hover and execute correctly when clicked
2. All images are loaded and displayed correctly at the differing media queries
3. All pages retain layout integrity throughout the Body and across the differing media queries
4. All text uses 'Teko' font style
5. The external link activates when clicked, and opens in a new tab or browser window
6. The game starts as planned with a countdown from 60 seconds, and users are able to score points
7. All in-game sounds and flash effects work throughout the 60 seconds game time
8. The end-game screen appears after 60 seconds and provides the user with their final score
9. 404 Error Page could be found and users can navigate back to the homepage using the button provided

Browser	Version	Test Facility	Pass	Partial Pass	Fail	Comments for Partial Pass and/or Fail
Internet Explorer	8	Netrender.com			✓	Website could not render and therefore not loaded
Internet Explorer	9	Netrender.com			✓	Website could load the initial opening screen however no further functionality
Internet Explorer	10	Netrender.com			✓	Website could not render and therefore not loaded
Internet Explorer	11	ASUS ZenBook	✓			Website worked however IE11 is being phased out by Microsoft in June 2022
Microsoft Edge (Win 11)	98	ASUS ZenBook	✓			
Google Chrome (Win 11)	97	ASUS ZenBook	✓			
Firefox	96	ASUS ZenBook	✓			
Safari (macOS Mojave)	12	lambdatext.com	✓			
Opera (macOS Sierra 10.12)	74	lambdatext.com	✓			

To ensure site visitors can view and play the '60 Seconds to Save Earth Game' 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 buttons provide user feedback on hover and execute correctly when clicked
2. All images are loaded and displayed correctly at the differing media queries
3. All pages retain layout integrity throughout the Body and across the differing media queries
4. All text uses 'Teko' font style
5. The external link activates when clicked, and opens in a new tab or browser window
6. The game starts as planned with a countdown from 60 seconds, and users are able to score points
7. All in-game sounds and flash effects work throughout the 60 seconds game time
8. The end-game screen appears after 60 seconds and provides the user with their final score
9. 404 Error Page could be found and users can navigate back to the homepage using the button provided

Device	Type	Pass	Partial Pass	Fail	Comments for Partial Pass and/or Fail
Mobile Phone	iPhone SE	✓			
Mobile Phone	Samsung Galaxy S21	✓			
Tablet	iPad (2020)	✓			
Tablet	iPad 3 (2012)	✓			
Laptop	ASUS ZenBook 14"	✓			

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

Where	HMTL / CSS	Element	Location	Comment
index.html	HMTL			0 errors and 0 alerts
404.html	HTML			0 errors and 0 alerts

 WAVE

powered by [WebAIM](#)

web accessibility evaluation tool

Address: <https://rickofmanc.github.io/60-seconds-to->

Styles: OFF ☒ ON

Summary


Summary

Details


Reference

Structure


Contrast

 0


Errors

 0


Contrast Errors

 0


Alerts

 4


Features

 4


Structural Elements

 2

ARIA

 View details >

Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

 WAVE

powered by [WebAIM](#)

web accessibility evaluation tool

Address: <https://rickofmanc.github.io/60-seconds-to->

Styles: OFF ☒ ON

Summary


Summary

Details


Reference

Structure


Contrast

 0


Errors

 0


Contrast Errors

 0


Alerts

 4


Features

 3

Structural Elements

 1

ARIA

 View details >

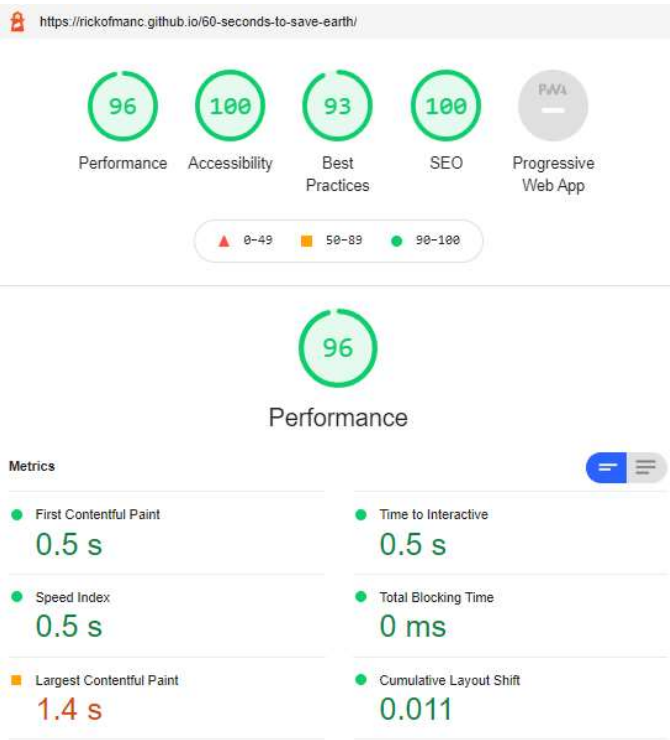
Congratulations! No errors were detected! Manual testing is still necessary to ensure compliance and optimal accessibility.

Using Lighthouse performance testing within Chrome Developer Tools, all pages performance has been tested on both Desktop and Mobile devices. The results highlighted a slightly slower page load time is recommended. This was primarily due to the browser attempting to load the JavaScript files at the same time as the DOM and CSS. To resolve this issue the 'defer' attribute was included in the HTML Script tags informing the Browser to prioritise the more critical page elements before the JavaScript. This helped to improve the user experience, and see the following positive results.

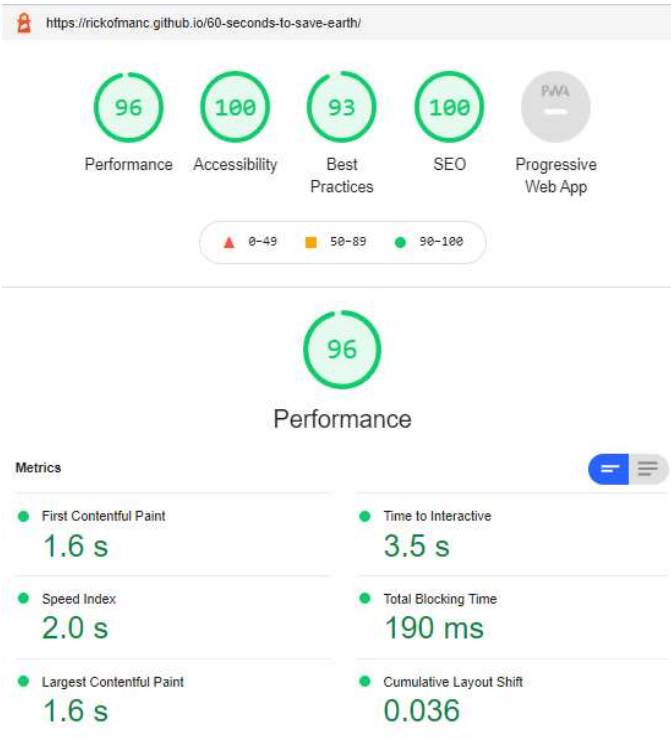
Test occurred using Lighthouse within Chrome Dev Tools on 7 February 2022 with the following results:

Page	Desktop				Mobile				Comments on Amber and Red scores
	Performance	Accessibility	Best Practice	SEO	Performance	Accessibility	Best Practice	SEO	
index.html	100	100	93	100	96	100	93	100	
404.html	100	100	100	100	96	100	96	100	

Index.html on Desktop



index.html on Mobile



The issues listed in the table below we identified during the Development phase in late January / early February 2022.

Some issues remain with fixes required for future releases.

Where indicated the issue has either been resolved or no further action will be taken at the present time.

Ref	Title	Description	Issue location	Date Identified	Date Resolved	Latest Update
ISS1	Opening screen not covering screen	The modal that greets users to the site is not completely covering the main in-game content behind	index.html modal Div.	31/01/2022	01/02/2022	Added 'Top : 0' to CSS styles and ensured the Height and Margin properties were applied correctly.
ISS2	High Score font not using theme	The text within the Header element is not showing the applied CSS styles	index.html In-game Div.	31/01/2022	01/02/2022	Changes were required to the CSS styles to override the browser attributes for H1 and H2 elements to ensure the look and feel of the website was consistent for users.
ISS3	Users final score not showing on End Game screen	The final result displayed on the pop-up message is 0	script.js	31/01/2022	01/02/2022	The data the code was referencing was incorrect and required a change within the Sweet Alert function to show the 'result'.
ISS4	Slow page loading time	Lighthouse testing highlighted the initial page loading could be more inline with user expectations	index.html script tag	07/02/2022	07/02/2022	Following the guidance provided by Lighthouse, the 'defer' attribute was added to both Script tags within the index.html file to delay the loading of JavaScript. This allowed the more critical elements to be prioritised for loading.
ISS5	Content small on 5K screens	Users who are playing the game on a 5K screen would not be able to see the content clearly as it is too small	style.css	07/02/2022	10/02/2022	Media queries for max-width 3500px have been developed and deployed. Concern that this may have led to ISS9 in regard to the cursor.
ISS6	Wind-turbine not rotating	The Wind-turbine icon used to swipe at the Power Stations is no longer rotating with each user click	style.css and script.js	07/02/2022	10/02/2022	Issue has been resolved with a correct to the eventListener code
ISS7	Flash effect not working	The flash effect used to feedback to users when they achieve a successful hit is working on the Body, but not across the full screen	script.js	07/02/2022		A fix is required to amend the JavaScript code to re-point the effect from the Body to In-game Div element. Initial work is yet to resolve this issue.
ISS8	Mute button not working	A mute button has been created however at the time launch the functionality was not working as coded	index.html script.js style.css	08/02/2022		Element and code has been removed from the launch to ensure users do not see a button that is not useable. Two buttons will be on the next release providing pre and in-game options to mute sound effects
ISS	Wind-turbine not aligned to cursor	A bug has been identified that whilst in-game the browser pointer and wind-turbine custom cursor do not align.	style.css	11/02/2022		It is unclear whether recent media queries for large screens have triggered this bug. A test coding out the media queries has not been successful. Bug appears on Chrome but not within Firefox. Investigation ongoing.