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**Class : Friday ( 9 to 10 )**

## Performance Report

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### Website Performance Report

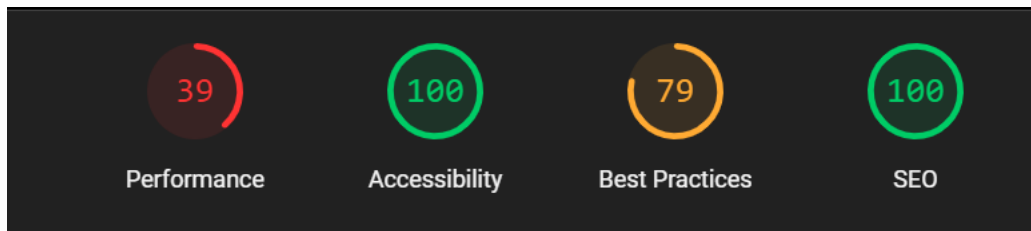
*Generated using Lighthouse*

**Performance Score: 39/100**

**Accessibility Score: 100/100**

**Best Practices Score: 79/100**

**SEO Score: 100/100**



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### 1. Performance (39/100)

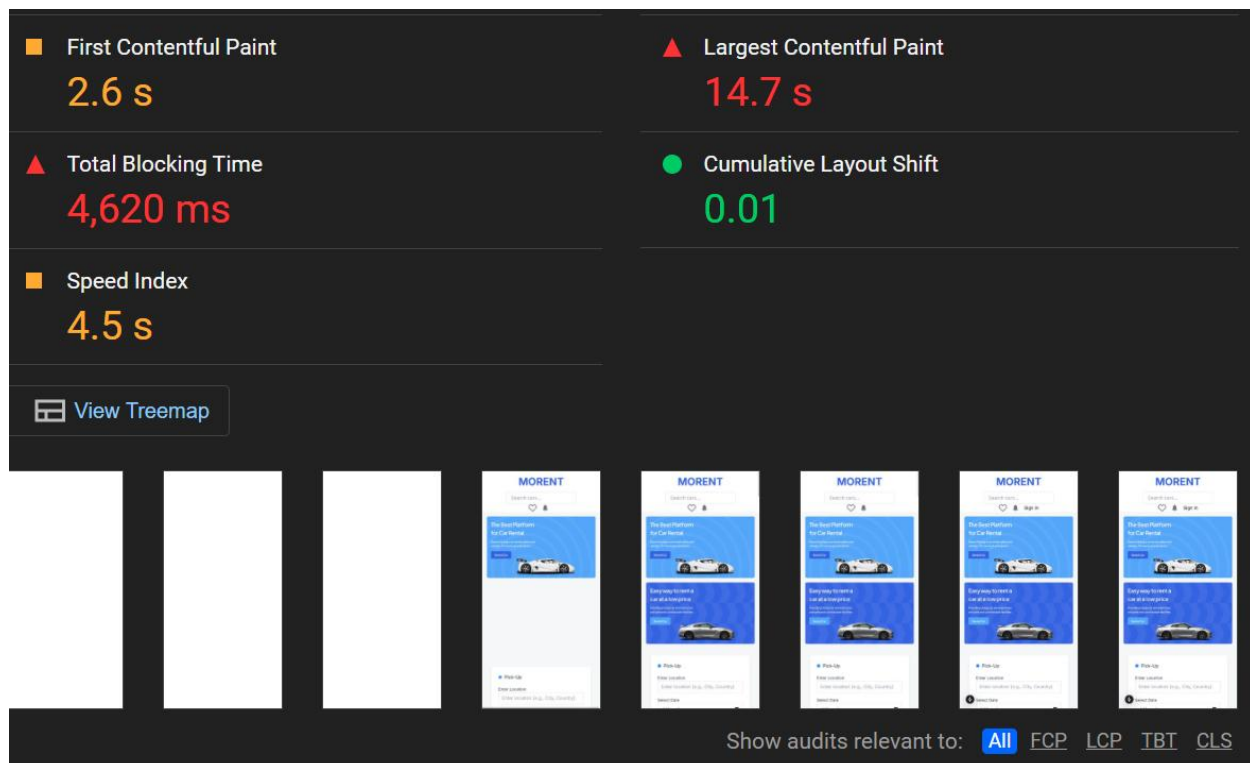
#### Current Issues Identified:

- **Page Load Time:** I might be taking a long time to load, which is affecting the user experience. This could be due to large images, unoptimized scripts, or inefficient server responses.
- **JavaScript Execution:** Large JavaScript bundles or blocking scripts may be delaying the rendering of content.
- **Image Optimization:** If the images are too large or not compressed, they can cause slower load times.
- **Server Response Time:** My server may have a high response time, leading to slower initial page loading.

- **Unnecessary Redirects:** Any unnecessary redirects in the page loading process will slow down performance.
- **Cumulative Layout Shift (CLS):** Layout shifts during page load can make the website feel unstable.

### Suggested Improvements:

- **Image Optimization:** Use compressed image formats like WebP or apply image lazy loading to reduce load time.
- **Reduce JavaScript & CSS blocking:** Implement **async** or **defer** loading for JavaScript files to ensure that they don't block the rendering process.
- **Enable Caching & Compression:** Use caching headers to ensure browsers store static assets for future visits. Enable GZIP or Brotli compression to minimize file sizes.
- **Improve Server Response Time:** If I'm using a backend framework, I could optimize database queries, or consider upgrading hosting for faster server responses.
- **Use a Content Delivery Network (CDN):** A CDN can serve content faster to users from different geographic locations.
- **Minify & Bundle Assets:** Minify CSS, JavaScript, and HTML files to reduce file sizes, and bundle them where possible to reduce the number of requests.



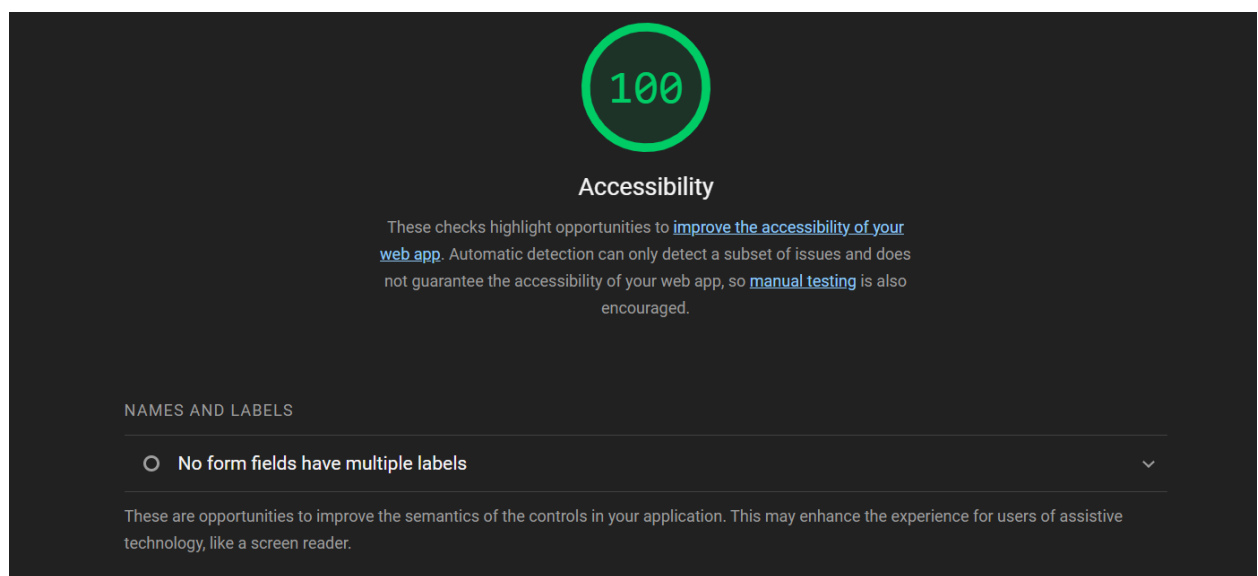
## 2. Accessibility (100/100)

### Current Status:

I have a perfect score here! This means that I've implemented best practices for accessibility, ensuring users with disabilities can navigate the website effectively.

### Things to Maintain:

- **Ensure semantic HTML:** Always use appropriate tags such as `<header>`, `<main>`, `<footer>`, and `<nav>` to improve accessibility.
- **Alt Text for Images:** Ensure that all images have descriptive alt text for users using screen readers.
- **Keyboard Navigation:** Ensure that all interactive elements are navigable via keyboard alone.



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## 3. Best Practices (79/100)

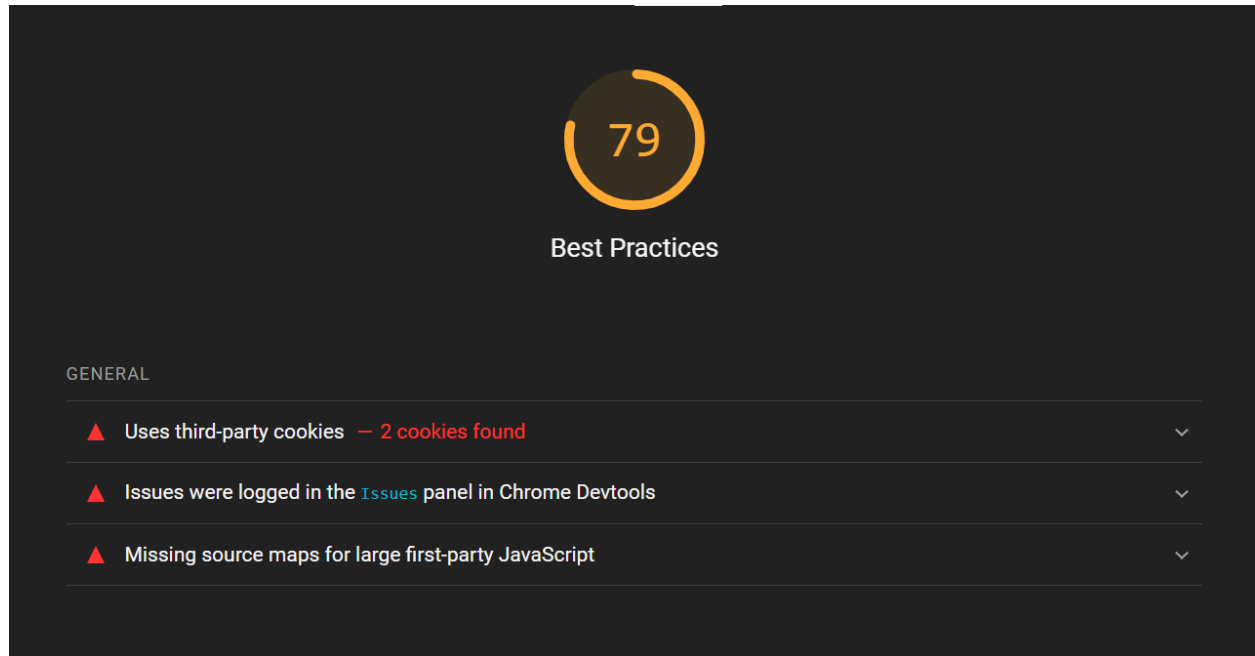
### Current Issues Identified:

- **HTTPS:** Ensure all pages are served over HTTPS to secure user data and improve trust.
- **Deprecated APIs or Features:** Check if any outdated or deprecated web technologies are being used.
- **Console Warnings:** Look for JavaScript or resource errors in my browser console and fix any warnings or errors.
- **Secure HTTP Headers:** Ensure headers like **Content-Security-Policy (CSP)**, **Strict-Transport-Security (HSTS)**, etc., are properly configured.

### Suggested Improvements:

- **Use HTTPS:** Secure my website with HTTPS to protect user privacy and data integrity.

- **Update or Replace Deprecated Features:** Review and replace any outdated or deprecated APIs or features.
- **Address Console Errors/Warnings:** Check my console for JavaScript errors or warnings and resolve them to avoid any unexpected behavior.
- **Improve Security:** Implement security headers like **Content-Security-Policy (CSP)** and **Strict-Transport-Security (HSTS)** for better website security.



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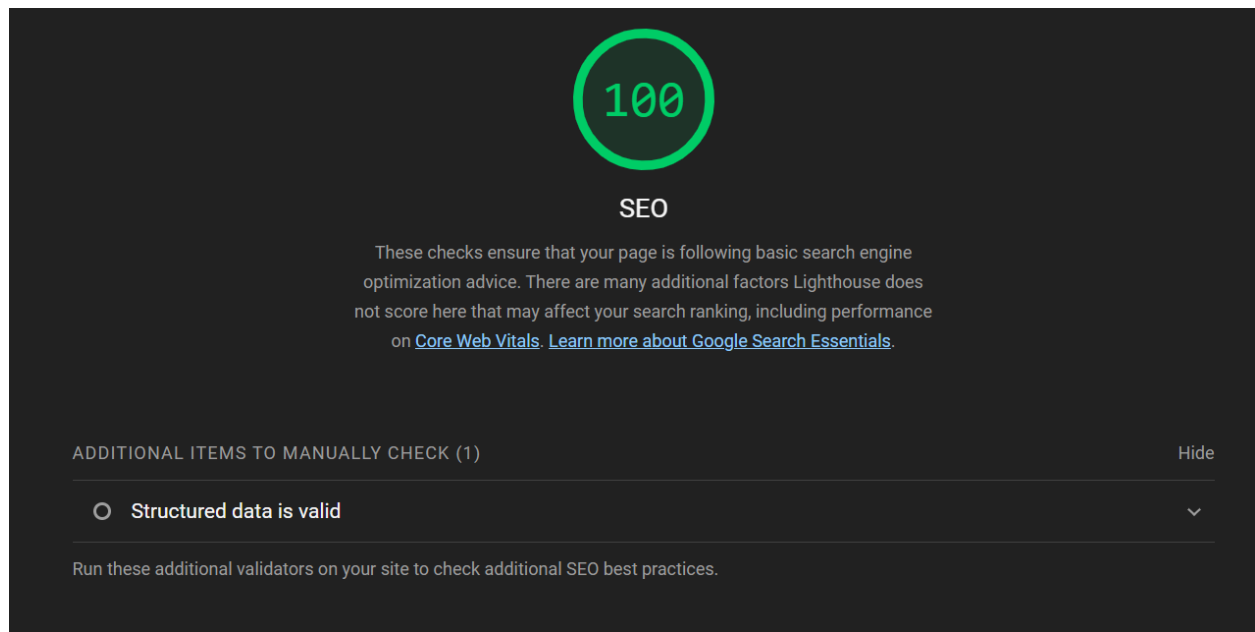
## 4. SEO (100/100)

### Current Status:

I have a perfect SEO score! This indicates that my site is well-optimized for search engines, making it easier for users to find it.

### Key SEO Best Practices:

- **Title & Meta Tags:** Make sure every page has an appropriate and unique title and meta description.
- **Structured Data:** If applicable, implement structured data (like schema.org) to help search engines understand my content.
- **Mobile-Friendly Design:** Ensure my site is fully responsive, as search engines prioritize mobile-friendly sites.



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## Conclusion :

- **Primary Focus:** The **Performance** score (39/100) should be the main focus. By following the suggested optimizations for images, scripts, and server-side improvements, I can significantly improve loading times and user experience.
- **Secondary Focus:** While my **Accessibility** and **SEO** scores are already perfect, there's room for improvement in **Best Practices** (79/100). I should ensure security, remove deprecated features, and address any warnings.

Once these improvements are made, **I will re-run the Lighthouse audit** to track my progress and see if my performance score improves.