

JavaScript Performance Playbook

Understanding JavaScript Performance Fundamentals



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Overview

Best Practices for Improving JavaScript Performance

Modernizing Legacy JavaScript Code to Take Advantage of Current Engine Improvements

Tools for Improving JavaScript Performance





5 Best Practices for Improving JavaScript Performance



5 Best Practices for Improving JavaScript Performance



Minify and compress your JavaScript files



Use a Content Delivery Network (CDN)



Load your JavaScript files asynchronously

```
<script src="script_a.js" async></script>
```



Use caching



Use a JavaScript framework



Modernizing Legacy JavaScript Code to Take Advantage of Current Engine Improvements

Strategies That Can Be Used to Modernize JavaScript

Modern JavaScript features like arrow functions, let and const declarations, template literals, destructuring, and async/await syntax can lead to more concise & efficient code.

Removing redundant or unnecessary code reduces file size & improves readability, leading to faster parsing and execution.

Clear and descriptive variable names enhance code readability & maintainability, which can indirectly improve performance by aiding developers in understanding & optimizing the code.

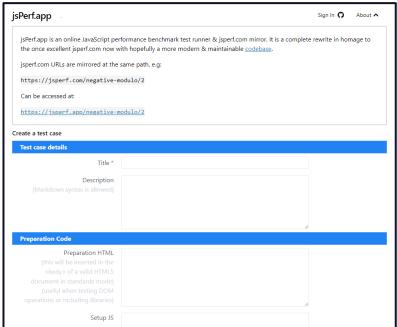
Refactoring legacy code using modern best practices can eliminate outdated patterns & improve overall code quality, making it easier to optimize & maintain.

Updating dependencies to their latest versions ensures compatibility with modern JavaScript features & optimizes performance by leveraging improvements made in newer releases.

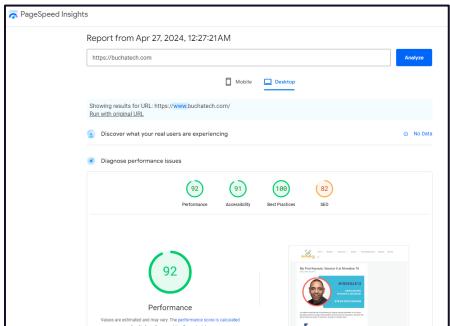


Tools for Improving JavaScript Performance

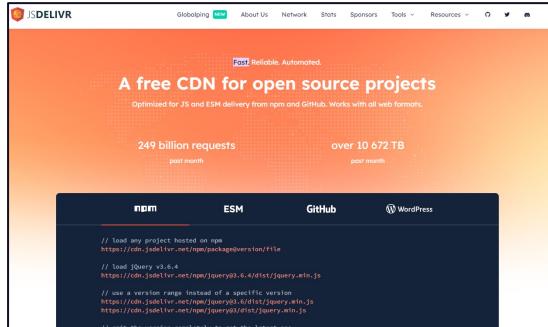
Tools for Improving JavaScript Performance



jsPerf - Online JavaScript performance benchmark
<https://jsperf.ap>
p



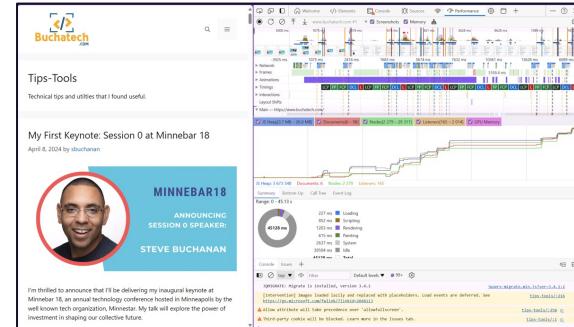
Lighthouse - Google Chrome or CLI
<https://developers.google.com/speed/pagespeed/insights>



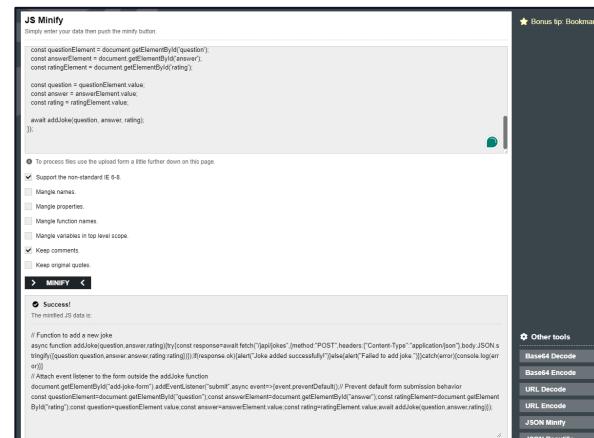
Jsdelivr - a free CDN for open-source projects
<https://jsdelivr.co>



YUI Compressor CLI tool or Online YUI Compressor - compress JS files
<https://yui.github.io/yuicompressor>
<https://www.piliapp.com/minify/yui-compressor>



Microsoft Edge - Performance



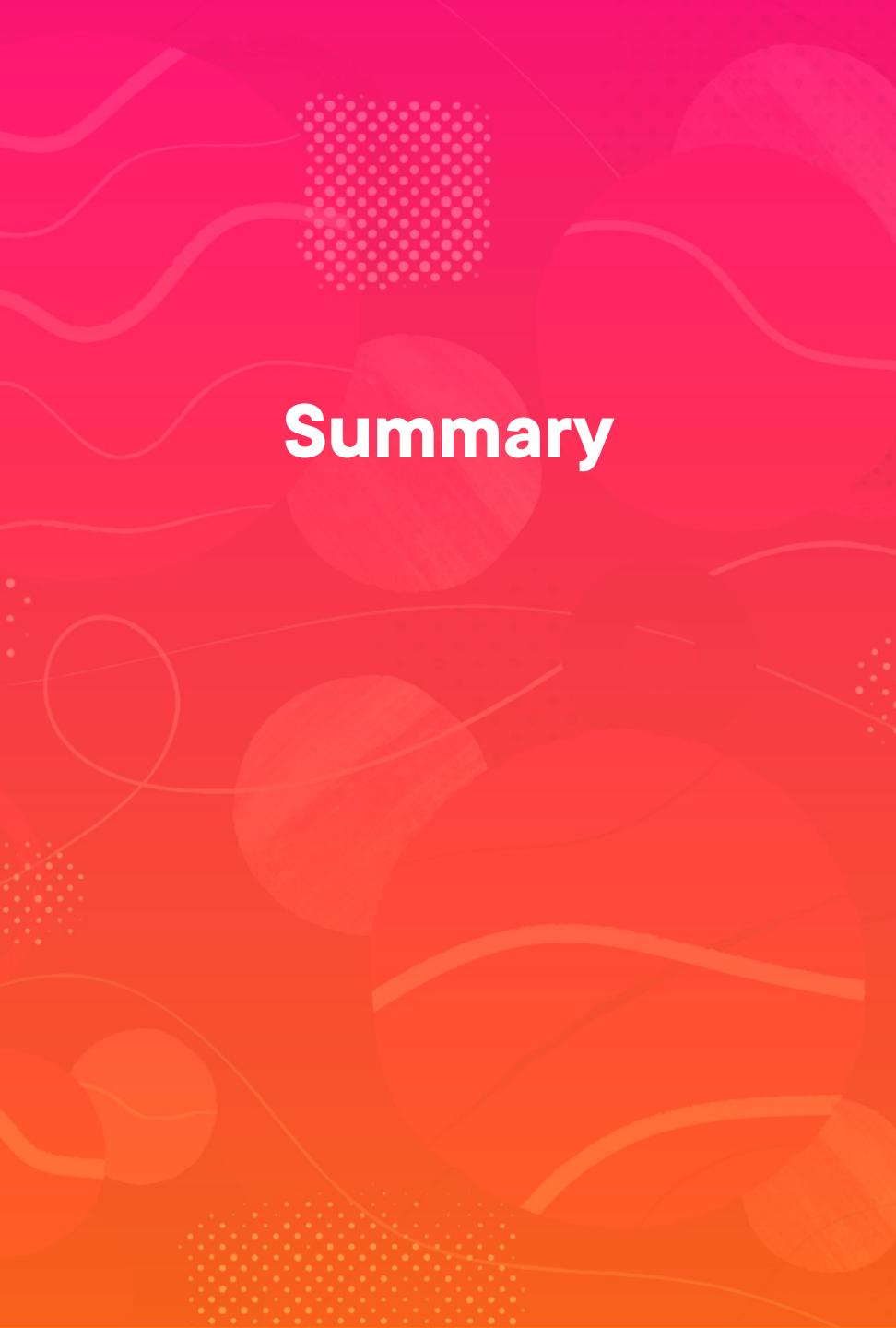
JS Minify - improves site speed & accessibility
<https://amp.uglifyjs.net>



Demo

**Demo: Examine JavaScript site
Performance & Minify JS files**





Summary

In this module we covered:

- Best Practices for Improving JavaScript Performance
- Modernizing Legacy JavaScript Code to Take Advantage of Current Engine Improvements
- Tools for Improving JavaScript Performance

Why this is important?:

- This module gave you a clear understanding of the fundamentals of improving your JavaScript applications performance. The exposure to the modernizations, best practices and tools will support you as you continue forward.

