Website Performance Optimization: Key Strategies

Website speed is crucial for user experience and SEO. Key performance metrics include:

- Page Load Time

- Time to First Byte (TTFB)

- First Contentful Paint (FCP)

- Largest Contentful Paint (LCP)

- Cumulative Layout Shift (CLS)

Essential optimization techniques:

1. Minimize HTTP requests

   - Combine files (CSS, JavaScript)

   - Use CSS sprites for images

2. Optimize images

   - Compress without quality loss

   - Use appropriate formats (JPEG, PNG, WebP)

   - Implement lazy loading

3. Leverage browser caching

4. Minify resources (HTML, CSS, JavaScript)

5. Use a Content Delivery Network (CDN)

6. Enable Gzip compression

7. Optimize CSS delivery

8. Prioritize above-the-fold content

Tools for testing:

- Google PageSpeed Insights

- GTmetrix

- WebPageTest

- Chrome DevTools

Regular testing and optimization are key to maintaining a fast, efficient website.