MOZ The Web Developer's SEO Cheat Sheet

Get technical insights with Moz Pro: mz.cm/free

Important HTML Elements
These affect how you show up in search results

🏅 Best Practices

Title Tag
```
<head>
    <title>Page Title</title>
</head>
```

- Best between 50–60 characters
- Important keywords near the beginning
- Well-written descriptions influence click-through rates (CTR)

Meta Description Tag
```
<head>
    <meta name="description"
    content="This is an example.">
</head>
```

- Best around 160 characters
- Each description should be unique
- Well-written descriptions influence click-through rates (CTR)

example.com ▾
Example Domain
Example Domain. This domain is for use in illustrative examples in documents. You may use this domain in literature without prior coordination or asking for ...

Image
```
<img src="img/keyword.jpg" alt="descrip-
tion of image" width="100" height="100">
```

- Providing image height and width improves page speed

Hyperlinks

🏅 Best Practices

Text Link
```
<a href="https://www.example.com/webpage.
html">Anchor Text</a>
```

NoFollowed Link
```
<a href="https://www.example.com/web-
page.html" rel="nofollow">
Anchor Text</a>
```

Image Link
```
<a href="https://www.example.com/web-
page.html"><img src="/img/keyword.jpg"
alt="description of image" height="50"
width="100"></a>
```

- Use "nofollow" for paid links and distrusted content
- Use "sponsored" for sponsored or compensated links
- Use "ugc" for links within user-generated content
- For image links, the alt attribute serves as the anchor text

HTTP Status Codes

200	OK/Success
301	Permanent redirect
302	Temporary redirect
404	Not found
410	Gone (permanently removed)
500	Server error
503	Unavailable (retry later)

Webmaster Tools

Google Search Console
search.google.com/search-console/about

Bing Webmaster Tools
bing.com/toolbox/webmaster

Yandex
webmaster.yandex.com

Canonicalization

🏅 Best Practices

Common Duplicate Homepage URLs

https://www.example.com

https://example.com

https://www.example.com/index.html

https://example.com/index.html

https://example.com/index.html?sessid=123

- Preferred URL = https://example.com/
- Place the following in <head> section to indicate preferred URL:

```
<link href="https://example.com/" rel=
"canonical" />
```

More information at mz.cm/canonical

URLs

Common URL Elements

`https://store.example.com/category/keyword?id=123#top`

1	2	3	4	5	6	7	8

1. Protocol
5. Subfolder/path

2. Subdomain
6. Page

3. Root domain
7. Parameter

4. Top-level domain
8. Named anchor

Best Practices

- Choose shorter, human-readable URLs with descriptive keywords
- Exclude dynamic parameters when possible (see "Canonicalization" and "Pagination")
- When possible, place content on the same subdomain to preserve authority

Recommended: https://example.com/blog
Less ideal: https://blog.example.com

Robots Exclusion Standard

Robots.txt
Location: https://example.com/robots.txt

```
User-agent: googlebot
Disallow: /example.html
Sitemap: https://example.com/sitemap.xml
```

More information at mz.cm/robotstxt

Best Practices

- Only Meta Robots and X-Robots-Tag remove URLs from search results
- Don't block CSS or JavaScript files with robots.txt

X-Robots-Tag
Location: Sent in the HTTP headers

```
X-Robots-Tag: noindex
```

More information at mz.cm/x-robots

Important Parameters

- Noindex (do not index)
- Nofollow (do not follow links)
- Noarchive (do not show cache)

...or combine (noindex, nofollow)

If the robots `<META>` tag is not defined, the default is "`INDEX, FOLLOW`"

Don't block noindex URLs in robots.txt. They need to be crawled to be respected.

Meta Robots
Location: In the HTML <head>

```
<meta name="robots" content="[PARAMETER]" />
```

More information at mz.cm/x-robots

Important User Agents

For Robots.txt, Robots Meta Tags, and X-Robots-Tag:

- Googlebot (can be used as default for most Google crawlers)
- Googlebot-News
- Googlebot-Image
- AdsBot-Google
- Mediapartners-Google (Mobile Adsense) or Mediapartners
- Googlebot-Video
- Bingbot
- Yandexbot

- Baiduspider
- FacebookExternalHit
- Applebot
- Slurp
- Twitterbot
- Rogerbot
- Dotbot
- Wildcard for all robots: *

Sitemap Syntax

XML Sitemap Example:
RSS and text sitemaps are also options

```
<?xml version="1.0" encoding="UTF-8"?>
<urlset xmlns="http://www.sitemaps.org/schemas/sitemap/0.9">
  <url>
    <loc>http://www.example.com/foo.html</loc>
    <lastmod>2019-06-04</lastmod>
  </url>
</urlset>
```

Sitemap Index File

```
<?xml version="1.0" encoding="UTF-8"?>
<sitemapindex xmlns="http://www.sitemaps.org/schemas/sitemap/0.9">
        <sitemap>
                <loc>https://example.com/sitemap1.xml.gz</loc>
                <lastmod>2019-01-01T18:23:17+00:00</lastmod>
        </sitemap>
        <sitemap>
                <loc>https://example.com/sitemap2.xml.gz</loc>
                <lastmod>2019-01-01</lastmod>
        </sitemap>
</sitemapindex>
```

Default Location:
https://example.com/sitemap.xml

sitemap: parent tag for each sitemap

     loc: location of the sitemap

lastmod: the last modified date

* A sitemap cannot contain over 50,000 URLs. Large websites should use multiple sitemaps listed under a single sitemap index file.

Other Common Sitemap Types:

• Images

• Video

• News

* Don't forget to submit your sitemap to Google via Google Search Console.

Mobile

There are 3 ways to implement a mobile website:

• Responsive web design (adjusts for screen size)

• Dynamic serving (serves different content based on a user's device)

⚠ Separate URLs (different URLs that serve mobile-optimized content). *Not advised.*

Check to see if your site is mobile-friendly:
mz.cm/mobile-friendly

🎖 Best Practices

• Your mobile version should display the same content as your desktop site

• Page title tags & meta descriptions should remain the same

• Use the meta `name="viewport"` tag in the head of your page to tell the browser how to adjust the content.
For example: `<meta name="viewport" content="width=device-width, initial-scale=1.0">`

Increase speed by optimizing the critical rendering path, using HTTPS & HTTP/2, eliminating render-blocking resources, removing unused CSS, and deferring offscreen images.

More information at mz.cm/mobile-seo

Important Social Metadata

Sample Meta Tag Template: "Article"
Place this data between the `<head>` tags of your website.

```
<!-- Required Open Graph data -->
<meta property="og:title" content="Developer's Cheat Sheet to SEO" />
<meta property="og:type" content="article" />
<meta property="og:image" content="https://example.com/image.jpg" />
<meta property="og:url" content="https://example.com" />
<!-- Optional Open Graph data -->
<meta property="og:audio" content="https://example.com/guide.mp3." />
<meta property="og:description" content="Description here." />
<meta property="og:site_name" content="Your Site Name, i.e. Moz" />
<meta property="og:locale" content="en_us" />
<meta property="og:video" content="https://example.com/guide.mp4" />
<meta property="fb:app_id" content="Your FB_APP_ID" />
<!-- Find additional markup on https://ogp.me -->

<!-- Twitter Card data -->
<meta name="twitter:card" content="summary">
<meta name="twitter:site" content="@Moz">
<meta name="twitter:title" content="Title of content (max 70 characters)">
<meta name="twitter:description" content="Descrip-tion of content">
<meta name="twitter:image" content="https://example.com/unique-image.jpg">
```

🎖 Best Practices

Default to Open Graph
Platforms that support Open Graph protocol include Facebook, Twitter, LinkedIn, and Pinterest.

Optimal Image Sizing
Twitter:
    • Minimum 144x144 px
    • No larger than 4096x4096 px or 5MB

Facebook:
    • Minimum 600x600 px
    • Try to use images that are at least 1080 px in width

More information at mz.cm/social-meta

Rich Snippets and Structured Data

Enhance search results and help search engines understand your content.

Common Vocabularies: schema.org

Popular Formats: JSON-LD, RDFa, Microdata

Breadcrumbs

🏠 › About Us › Our Work › Success Stories › **Stories of Empowering Hikers**

```
<script type="application/ld+json">
{
   "@context": "http://schema.org",
   "@type": "BreadcrumbList",
   "itemListElement": [
{
<---Repeat markup for additional list items--->
 "@type": "ListItem",
 "position": 1,
 "item": {
 "@id": "http://example.com/dinner",
 "name": "Dinner" }
},
<---Additional list items here--->
 }]
 }</script>
```

Reviews

★★★⯪☆ Rating: 3.5 - 401 reviews - Price range: $11-30

```
<script type="application/ld+json">
{
   "@context": "http://schema.org/",
   "@type": "Review",
   "reviewBody": "The restaurant has great ambiance.",
   "itemReviewed": {
     "@type": "Restaurant",
     "name": "Fine Dining Establishment"
   },
   "reviewRating": {
     "@type": "Rating",
     "ratingValue": 5,
     "worstRating": 1,
     "bestRating": 5,
     "reviewAspect": "Ambiance"
   }
}
</script>
```

Review stars won't show up in search results.

Common Structured Data Types:

- Local business
- FAQ page
- Person
- How to
- Product
- Article
- Recipes
- QApage

More information at mz.cm/rich-snippets

Security

When using `target="_blank"` to open a link in a new tab, make sure you're implementing

`rel="noopener"`

or

`rel="noreferrer"` to avoid exposing your website to a surface attack.

SSL certificates are table stakes today. Your website must have one.

Lighthouse (mz.cm/lighthouse) helps to identify these vulnerabilities (and more) in the audit.

Targeting Multiple Languages
Help search engines understand your location/language targets.

URL Structures for Country & Language Targeting

ccTLDs (Country-Level Only): example.de

Subdirectories with gTLDS: example.com/de/

Subdomains with gTLDS: de.example.com/

rel="alternate" hreflang="x"

Annotate alternate language & region versions of content

HTML version in <head>
Each version must identify all versions, including itself

```
<link rel="alternate" hreflang="x-default" href="http://example.com/" /> (Specifies
Default)
<link rel="alternate" hreflang="en" href="http://example.com/en/" /> (Specifies Lan-
guage; English)
<link rel="alternate" hreflang="en-GB" href="http://example.com/en-gb/" /> (Speci-
fies Language + Region)
```

Sitemap Version

```
<?xml version="1.0" encoding="UTF-8"?>
<urlset xmlns="http://www.sitemaps.org/schemas/sitemap/0.9"
  xmlns:xhtml="http://www.w3.org/1999/xhtml">
  <url>
    <loc>http://example.com/english/</loc>
    <xhtml:link rel="alternate" hreflang="de" href="http://example.com/deutsch/" />
    <xhtml:link  rel="alternate" hreflang="en"  href="http://example.com/english/" />
  </url>
  <url>
    <loc>http://example.com/deutsch/</loc>
    <xhtml:link rel="alternate" hreflang="en" href="http://example.com/english/" />
    <xhtml:link rel="alternate" hreflang="de" href="http://www.example.com/deutsch/"
/>
  </url>
</urlset>
```

Popular Languages

en   English

es   Spanish

zh   Chinese

hi   Hindi

ja   Japanese

More language codes can be found at
mz.cm/langcodes

Popular Regions

US   United States

GB   Great Britain

CN   China

IN   India

JP   Japan

More region codes can be found at
mz.cm/regcodes

Performance

Page Speed

Page Speed Tips:

- Compress and minify your code
- Reduce page redirects
- Remove render-blocking JavaScript
- Use treeshaking
- Leverage browser caching
- Use a CDN
- Leverage preconnect, prefetch and preload
- Analyze your critical rendering path performance for additional opportunities in Chrome Dev Tools.

Test your Page Speed with:

Lighthouse: developers.google.com/web/tools/lighthouse

PageSpeed Insights: developers.google.com/speed/pagespeed/insights
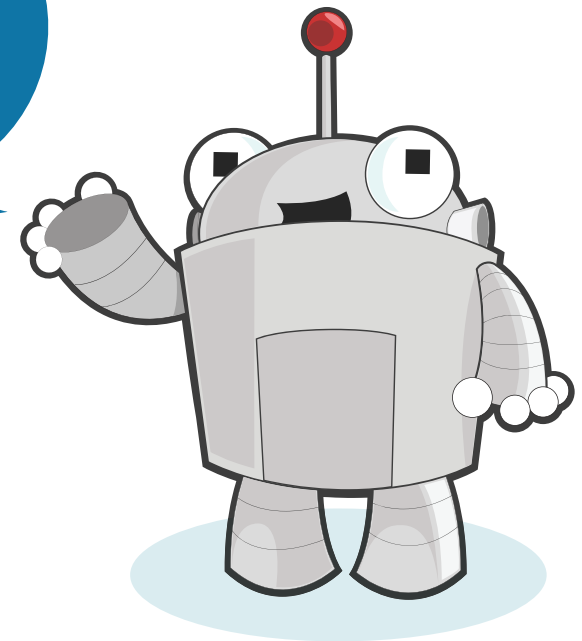
GTmetrix: gtmetrix.com

WebPageTest: webpagetest.org

Modern JavaScript Sites

JavaScript Tips:

- Keep JavaScript bundles small (especially for mobile devices). Small bundles improve speed, lower memory usage, and reduce CPU costs.
- Use server-side or pre-rendering to improve site speed, user experience, and crawler accessibility.
- Stuck with client-side rendering? Try pre-rendering to help Googlebot get a more immediate HTML snapshot of your page.
- Use Chrome Dev Tools "Performance" tab to test your runtime performance and network "throttling" to simulate different device capabilities.

Explore Chrome DevTools' Timeline & JavaScript Profiler to analyze the impact of your JavaScript.

Image Optimization
The most common culprit of poor page speed is images!

Image Optimization Tips:

- Compress your images & experiment with quality settings
- Remove unnecessary image metadata
- Explore lazy loading
- Leverage SRCSET for different screen sizes
- Ensure that your images have alt text
- Invest in automated tools that can help ensure your image assets will always be optimized (example: mz.cm/imageopt)

Thanks for reading!