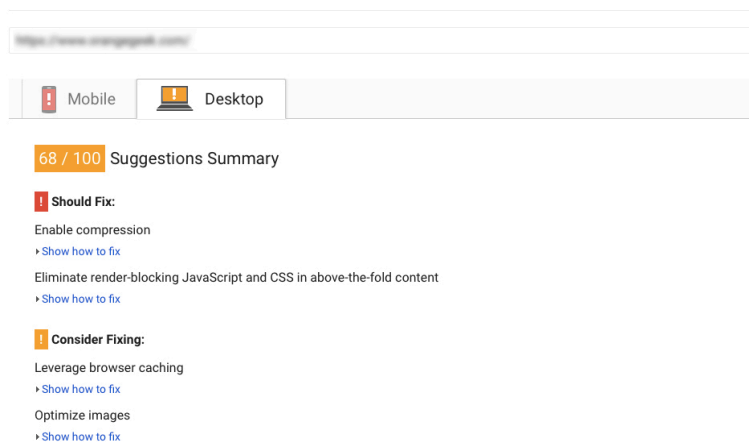


## Optimizing Your Website

As a publisher on the world wide web, your website is accessible to anyone with a device capable of using the internet. Although this pretty much means the majority of the population here on this earth, that doesn't necessarily guarantee you a large amount of visitors. There are a lot of aspects to your website that will determine your total monthly views and one of the biggest factors is your websites speed. Here is a tutorial on how to utilize different tools for optimizing your website.

## Google PageSpeed Insights

PageSpeed Insights



68 / 100 Suggestions Summary

**Should Fix:**

- Enable compression  
• [Show how to fix](#)
- Eliminate render-blocking JavaScript and CSS in above-the-fold content  
• [Show how to fix](#)

**Consider Fixing:**

- Leverage browser caching  
• [Show how to fix](#)
- Optimize images  
• [Show how to fix](#)

Google PageSpeed Insight is a very commonly used tool, particularly among WordPress users. As described by Google, PageSpeed Insight will “identify ways to make your site faster and more mobile-friendly”. How this tool works is a user will simply type in his/her website URL into the space provided and click “Analyze”. A score out of 100 will then pop up along with some suggestions to help improve the website.

This is a great tool when used properly; however, users have to be careful in taking this “grade” to literally. A low score does not necessarily mean a slow site.

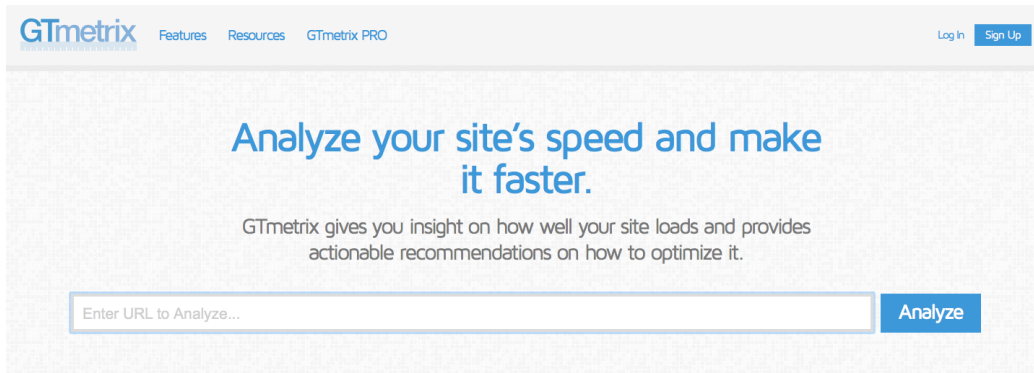
The most important metric that a website speed can be measured by is the page load speed and this is not even taken into consideration during this analyzation. It is almost impossible to achieve a perfect score and it is not uncommon for websites that have fast page load times to have a low Google PageSpeed score.

When looking at the suggestions given under the summary, a lot of them are unrealistic and even impossible to complete. That does not mean all suggestions should be ignored. This test can reveal weak spots in a website such as large images and content that has not been GZIP-ed. Make sure to carefully read through these suggestions and only worry about the ones that can actually be fixed.

## GTMetrix

GTmetrix is a great tool that can help identify areas on a website that might be affecting its overall speed. This test will give the page load time, total page size, and waterfall. There are other metrics given with this report; however, these are the ones that we have found most useful.

In order to use this tool, users need to navigate it [gtmetrix.com](http://gtmetrix.com) in their web browser. The image below is the first screen that will pop up. Users will then type their URL into the “Enter URL to Analyze...” field



and click “Analyze”. GTmetrix will then generate a report with various metrics. This is what will be provided:

- PageSpeed Grade - This grade is determined by the Google PageSpeed Insight score, so again remember that a bad grade doesn't necessarily mean a bad or slow site. Under the PageSpeed tab, details on improvements are provided when a user clicks the down arrow to the right of the grade bar.
- YSlow Grade - This grade is similar to Google PageSpeed Insight just pulled from another service that also provides suggestions on optimizing websites.
- Page Load Time - This is the most important metric to pay attention to in optimizing a website. This gives the total amount of time it takes for the webpage to pull up all elements on that particular page. Generally, a score that is 20s or less is an acceptable speed if the site being tested has ads. If the website does not work with an ad company then speeds should be less than 10s.
- Total Page Size/Total # of requests - These metrics give the total size of the tested website page taking into consideration every element from pictures, to text fields, to widgets. On average, sites that come back with a result lower than 5MB in the page size are not being hindered in speed because of this metric. When there is a larger number shown here, generally it is because of a collective amount of average sized files; however, sometimes an individual file may be abnormally large causing this number to inflate. Analyzing the size of each element in the Waterfall tab is a great way to determine this.
- Waterfall - Under this tab, a list of everything on the tested webpage is listed separately with total size and amount of time it took to load. This is a great tab to pinpoint what is having the biggest influence on a website's total page load time. When looking in this tab, users will want to keep an eye out for anything that has a size of 800KB or larger. These will be affecting the webpage the most. In addition, anything that takes 1s or more to load should also be scrutinized.

[View Report](#)  
 Tue, Jan 24, 2017 @ 2:35 PM  
 Dallas, USA  
 Firefox (Desktop) 49.0.2  
 Options: Adblock

PageSpeed Grade	D (63%)
YSlow Grade	F (49%)
Page load time	4.1s
Total page size	954KB
Total # of requests	130

# Common Causes for Slow Load Times

## Page Details

Page Load Time	Total Page Size	Requests
54.2s ▾	6.55MB ▾	694 ▾

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## Page Caching

Page caching is essential in optimizing a website. A page caching plugin installed on a website will generate static html files that will be served to users when they visit that website. When files are not cached, servers have to process a heavier WordPress PHP script which is sluggish. Caching improves the speed and accessibility of a website. There are several plugins available for this task, the one we recommend that is compatible with the websites on our servers is WP Super Cache.

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## Images

Images can also have a big impact on total page size, usually effecting the total load time. Many users who post on a website worry that if they do not upload a large enough image, it will have poor quality for visitors. These users need to keep in mind that no matter how large an image is when it is added to a webpage, it is usually resized to at least 700x700 no matter how big the viewing computer screen is. Even though it is being resized, the webpage will still load the original size that was uploaded causing a hinderance on the overall speed of the webpage. The best way to fix this problem is to resize all images to an appropriate size. This is called image compression. If there are multiple images that need to be compressed, we recommend using the EWWW Image Optimizer tool available on WordPress.

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## Plugins

Another element that can increase a webpages load time is a plugin. This is a difficult issue to fix because many times users will have to choose between functionality or speed. If a plugin is one of the sources for slow load times, the only remedy is often to remove the plugin completely. Some plugins that usually add time to a websites speed are ones that will pull images from other feeds such as social networks or other blogs. It will display them in thumbnail sizes but those files will be loaded at its original size from the original source. The waterfall feature in GTmetrixs is a good place to find plugins that may be increasing load times. Google PageSpeeds breakdown of suggestions may also list off troublesome plugins that need to be eliminated if a user wants to improve his/her websites speed.

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## Ads

The last most common elements that can have a big impact on a pages load time are ads. Sometimes, the images, functionality, or sheer amount of ads on a webpage can make a big difference on load times. Users should analyze this last after they have taken into consideration all other possible elements that may be affecting their page load times because it is normal for ads to increase load times by up to an additional 10s. If load times are higher then the recommended 20s with ads, this will likely be corrected once the above issues have been addressed. However, if a webpage has been optimized and there are still high load times, it may be beneficial to contact the ad company pared with that website and see if there is anything on they can do on their side to improve speed and performance.