

```

# Apache Server Configs v2.0.0 | MIT License
# https://github.com/h5bp/server-configs-apache

# (!) Using `.htaccess` files slows down Apache, therefore, if you have access
# to the main server config file (usually called `httpd.conf`), you should add
# this logic there: http://httpd.apache.org/docs/current/howto/htaccess.html.

#####
# # CROSS-ORIGIN RESOURCE SHARING (CORS) #
#####

# -----
# | Cross-domain AJAX requests |
# -----

# Enable cross-origin AJAX requests.
# http://code.google.com/p/html5security/wiki/CrossOriginRequestSecurity
# http://enable-cors.org/

# <IfModule mod_headers.c>
#   Header set Access-Control-Allow-Origin "*"
# </IfModule>

# -----
# | CORS-enabled images |
# -----

# Send the CORS header for images when browsers request it.
# https://developer.mozilla.org/en/CORS_Enabled_Image
# http://blog.chromium.org/2011/07/using-cross-domain-images-in-webgl-and.html
# http://hacks.mozilla.org/2011/11/using-cors-to-load-webgl-textures-from-cross-domain-images/

<IfModule mod_setenvif.c>
  <IfModule mod_headers.c>
    <FilesMatch "\.(curl|gif|ico|jpe?g|png|svgz?|webp)$">
      SetEnvIf Origin ":" IS_CORS
      Header set Access-Control-Allow-Origin "*" env=IS_CORS
    </FilesMatch>
  </IfModule>
</IfModule>

```

```
</ITModule>
```

```
# -----  
# | Web fonts access |  
# -----
```

```
# Allow access from all domains for web fonts
```

```
<IfModule mod_headers.c>
```

```
  <FilesMatch "\.(eot|otf|ttc|ttf|woff)$">
```

```
    Header set Access-Control-Allow-Origin "*"
```

```
  </FilesMatch>
```

```
</IfModule>
```

```
# #####  
# # ERRORS #  
# #####
```

```
# -----  
# | 404 error prevention for non-existing redirected folders |  
# -----
```

```
# Prevent Apache from returning a 404 error for a rewrite if a directory  
# with the same name does not exist.  
# http://httpd.apache.org/docs/current/content-negotiation.html#multiviews  
# http://www.webmasterworld.com/apache/3808792.htm
```

```
Options -MultiViews
```

```
# -----  
# | Custom error messages / pages |  
# -----
```

```
# You can customize what Apache returns to the client in case of an error (see  
# http://httpd.apache.org/docs/current/mod/core.html#errordocument), e. g.:
```

```
ErrorDocument 404 /404.html
```

```
# #####  
# # INTERNET EXPLORER #  
# #####
```

```
# -----  
# | Better website experience |  
# -----
```

```
# Force IE to render pages in the highest available mode in the various  
# cases when it may not: http://hsivonen.iki.fi/doctype/ie-mode.pdf.
```

```
<IfModule mod_headers.c>  
  Header set X-UA-Compatible "IE=edge"  
  # `mod_headers` can't match based on the content-type, however, we only  
  # want to send this header for HTML pages and not for the other resources  
  <FilesMatch "\.(appcache|crx|css|curl|eot|gif|htc|icol|jpe?  
gl|jst|m4a|m4v|manifest|mp4|oex|ogal|oggl|ogv|otf|pdf|png|safariextz|svgz?  
|ttf|vcf|webapp|webm|webpl|woff|xml|xpi)$">  
    Header unset X-UA-Compatible  
  </FilesMatch>  
</IfModule>
```

```
# -----  
# | Cookie setting from iframes |  
# -----
```

```
# Allow cookies to be set from iframes in IE.  
# http://msdn.microsoft.com/en-us/library/ms537343.aspx  
# http://www.w3.org/TR/2000/CR-P3P-20001215/
```

```
# <IfModule mod_headers.c>  
#   Header set P3P "policyref=\"/w3c/p3p.xml\", CP=\"IDC DSP COR ADM DEVI TAIi PSA PSD  
IVAI IVDi CONi HIS OUR IND CNT\""  
# </IfModule>
```

```
# #####  
# # MIME TYPES AND ENCODING #  
# #####
```

```
# -----  
# | Proper MIME types for all files |  
# -----
```

```
<IfModule mod_mime.c>
```

Audio

```
AddType audio/mp4          m4a f4a f4b
AddType audio/ogg           oga ogg
```

JavaScript

```
# Normalize to standard type (it's sniffed in IE anyways):
# http://tools.ietf.org/html/rfc4329#section-7.2
AddType application/javascript      js
AddType application/json            json
```

Video

```
AddType video/mp4          f4v f4p m4v mp4
AddType video/ogg           ogv
AddType video/webm          webm
AddType video/x-flv         flv
```

Web fonts

```
AddType application/font-woff      woff
AddType application/vnd.ms-fontobject eot
```

```
# Browsers usually ignore the font MIME types and sniff the content,
# however, Chrome shows a warning if other MIME types are used for the
# following fonts.
```

```
AddType application/x-font-ttf      ttc ttf
AddType font/opentype                 otf
```

```
# Make SVGZ fonts work on iPad:
```

```
# https://twitter.com/FontSquirrel/status/14855840545
```

```
AddType image/svg+xml              svgz
AddEncoding gzip                     svgz
```

Other

```
AddType application/octet-stream    safariextz
AddType application/x-chrome-extension crx
AddType application/x-opera-extension oex
AddType application/x-web-app-manifest+json webapp
AddType application/x-xpinstall      xpi
AddType application/xml               atom rdf rss xml
AddType image/webp                    webp
AddType image/x-icon                  cur
```

```

    AddType text/cache-manifest          appcache manifest
    AddType text/vtt                     vtt
    AddType text/x-component             htc
    AddType text/x-vcard                 vcf

</IfModule>

# -----
# | UTF-8 encoding |
# -----

# Use UTF-8 encoding for anything served as `text/html` or `text/plain`.
AddDefaultCharset utf-8

# Force UTF-8 for certain file formats.
<IfModule mod_mime.c>
    AddCharset utf-8 .atom .css .js .json .rss .vtt .webapp .xml
</IfModule>

# #####
# # URL REWRITES #
# #####

# -----
# | Rewrite engine |
# -----

# Turning on the rewrite engine and enabling the `FollowSymLinks` option is
# necessary for the following directives to work.

# If your web host doesn't allow the `FollowSymLinks` option, you may need to
# comment it out and use `Options +SymLinksIfOwnerMatch` but, be aware of the
# performance impact: http://httpd.apache.org/docs/current/misc/perf-tuning.html#symlinks

# Also, some cloud hosting services require `RewriteBase` to be set:
# http://www.rackspace.com/knowledge\_center/frequently-asked-question/why-is-mod-rewrite-not-working-on-my-site

<IfModule mod_rewrite.c>
    Options +FollowSymLinks
    # Options +SymLinksIfOwnerMatch

```

```

RewriteEngine On
# RewriteBase /
</IfModule>

# -----
# | Suppressing / Forcing the "www." at the beginning of URLs |
# -----

# The same content should never be available under two different URLs especially
# not with and without "www." at the beginning. This can cause SEO problems
# (duplicate content), therefore, you should choose one of the alternatives and
# redirect the other one.

# By default option 1 (no "www.") is activated:
# http://no-www.org/faq.php?q=class_b

# If you'd prefer to use option 2, just comment out all the lines from option 1
# and uncomment the ones from option 2.

# IMPORTANT: NEVER USE BOTH RULES AT THE SAME TIME!

# -----

# Option 1: rewrite www.example.com → example.com

<IfModule mod_rewrite.c>
    RewriteCond %{HTTPS} !=on
    RewriteCond %{HTTP_HOST} ^www\.(.+$) [NC]
    RewriteRule ^ http://%1%{REQUEST_URI} [R=301,L]
</IfModule>

# -----

# Option 2: rewrite example.com → www.example.com

# Be aware that the following might not be a good idea if you use "real"
# subdomains for certain parts of your website.

# <IfModule mod_rewrite.c>
#     RewriteCond %{HTTPS} !=on
#     RewriteCond %{HTTP_HOST} !^www\..+$ [NC]

```

```
# RewriteCond %{HTTP_HOST} !=localhost [NC]
# RewriteCond %{HTTP_HOST} !=127.0.0.1
# RewriteRule ^ http://www.%{HTTP_HOST}%{REQUEST_URI} [R=301,L]
# </IfModule>

#####
# SECURITY #
#####

# -----
# | Clickjacking |
# -----

# Protect web site against clickjacking.

# The example below sends the `X-Frame-Options` response header with the value
# `DENY`, informing browsers not to display the web page content in any frame.

# This might not be the best setting for everyone. You should read about the
# other two possible values for `X-Frame-Options`: `SAMEORIGIN` and `ALLOW-FROM`
# http://tools.ietf.org/html/rfc7034#section-2.1.

# Keep in mind that while you could send the `X-Frame-Options` header for all
# of your site's pages, this has the potential downside that it forbids even
# non-malicious framing of your content (e.g.: when users visit your site using
# a Google Image Search results page).

# Nonetheless, you should ensure that you send the `X-Frame-Options` header for
# all pages that allow a user to make a state changing operation (e.g: pages
# that contain one-click purchase links, checkout or bank-transfer confirmation
# pages, pages that make permanent configuration changes, etc.).

# Sending the `X-Frame-Options` header can also protect your web site against
# more than just clickjacking attacks: https://cure53.de/xfo-clickjacking.pdf.

# http://tools.ietf.org/html/rfc7034
# http://blogs.msdn.com/b/ieinternals/archive/2010/03/30/combating-clickjacking-with-x-
frame-options.aspx
# https://www.owasp.org/index.php/Clickjacking

# <IfModule mod_headers.c>
```

```
# Header set X-Frame-Options "SAMEORIGIN"
# <FilesMatch "\.(appcache|crx|css|curl|eot|gif|htc|icol|jpe?
gl|js|m4a|m4v|manifest|mp4|oex|ogal|ogg|ogv|otf|pdf|png|safariextz|svgz?
|ttf|vcf|webapp|webm|webpl|woff|xml|xpi)$">
# Header unset X-Frame-Options
# </FilesMatch>
# </IfModule>

# -----
# | Content Security Policy (CSP) |
# -----

# You can mitigate the risk of cross-site scripting and other content-injection
# attacks by setting a Content Security Policy which whitelists trusted sources
# of content for your site.

# The example header below allows ONLY scripts that are loaded from the current
# site's origin (no inline scripts, no CDN, etc). This almost certainly won't
# work as-is for your site!

# For more details on how to craft a reasonable policy for your site, read:
# http://html5rocks.com/en/tutorials/security/content-security-policy (or the
# specification: http://w3.org/TR/CSP). Also, to make things easier, you can
# use an online CSP header generator such as: http://cspisawesome.com/.

# <IfModule mod_headers.c>
# Header set Content-Security-Policy "script-src 'self'; object-src 'self'"
# <FilesMatch "\.(appcache|crx|css|curl|eot|gif|htc|icol|jpe?
gl|js|m4a|m4v|manifest|mp4|oex|ogal|ogg|ogv|otf|pdf|png|safariextz|svgz?
|ttf|vcf|webapp|webm|webpl|woff|xml|xpi)$">
# Header unset Content-Security-Policy
# </FilesMatch>
# </IfModule>

# -----
# | File access |
# -----

# Block access to directories without a default document.
# Usually you should leave this uncommented because you shouldn't allow anyone
# to surf through every directory on your server (which may include rather
```



```

-----
# private places like the CMS's directories).

<IfModule mod_autoindex.c>
    Options -Indexes
</IfModule>

# -----

# Block access to hidden files and directories.
# This includes directories used by version control systems such as Git and SVN.

<IfModule mod_rewrite.c>
    RewriteCond %{SCRIPT_FILENAME} -d [OR]
    RewriteCond %{SCRIPT_FILENAME} -f
    RewriteRule "(^|/)\." - [F]
</IfModule>

# -----

# Block access to backup and source files.
# These files may be left by some text editors and can pose a great security
# danger when anyone has access to them.

<FilesMatch "(^#.#|\. (bak|config|dist|fla|incl|ini|log|psd|sh|sql|sw[op])|~)$">

    # Apache < 2.3
    <IfModule !mod_authz_core.c>
        Order allow,deny
        Deny from all
        Satisfy All
    </IfModule>

    # Apache ≥ 2.3
    <IfModule mod_authz_core.c>
        Require all denied
    </IfModule>

</FilesMatch>

# -----
# | Reducing MIME-type security risks |

```

Prevent some browsers from MIME-sniffing the response.

This reduces exposure to drive-by download attacks and should be enable
especially if the web server is serving user uploaded content, content
that could potentially be treated by the browser as executable.

<http://blogs.msdn.com/b/ie/archive/2008/07/02/ie8-security-part-v-comprehensive-protection.aspx>

<http://msdn.microsoft.com/en-us/library/ie/gg522941.aspx>

<http://mimesniff.spec.whatwg.org/>

<IfModule mod_headers.c>

Header set X-Content-Type-Options "nosniff"

</IfModule>

I Reflected Cross-Site Scripting (XSS) attacks

(1) Try to re-enable the Cross-Site Scripting (XSS) filter built into the
most recent web browsers.

The filter is usually enabled by default, but in some cases it may be
disabled by the user. However, in IE for example, it can be re-enabled
just by sending the `X-XSS-Protection` header with the value of `1`.

(2) Prevent web browsers from rendering the web page if a potential reflected
(a.k.a non-persistent) XSS attack is detected by the filter.

By default, if the filter is enabled and browsers detect a reflected
XSS attack, they will attempt to block the attack by making the smallest
possible modifications to the returned web page.

Unfortunately, in some browsers (e.g.: IE), this default behavior may
allow the XSS filter to be exploited, thereby, it's better to tell
browsers to prevent the rendering of the page altogether, instead of
attempting to modify it.

<http://blogs.msdn.com/b/ie/archive/2009/04/01/ie8-security-part-vii-how-to-use-x-xss-protection.aspx>

```

# http://nackademix.net/2009/11/21/ie8-xss-filter-creates-xss-vulnerabilities
#
# IMPORTANT: Do not rely on the XSS filter to prevent XSS attacks! Ensure that
# you are taking all possible measures to prevent XSS attacks, the most obvious
# being: validating and sanitizing your site's inputs.

# http://blogs.msdn.com/b/ie/archive/2008/07/02/ie8-security-part-iv-the-xss-filter.aspx
# http://blogs.msdn.com/b/ieinternals/archive/2011/01/31/controlling-the-internet-explorer-xss-filter-with-the-x-xss-protection-http-header.aspx
# https://www.owasp.org/index.php/Cross-site\_Scripting\_%28XSS%29

# <IfModule mod_headers.c>
#     # (1) (2)
#     Header set X-XSS-Protection "1; mode=block"
#     <FilesMatch "\.(appcache|crx|css|curl|eot|gif|htc|icol|jpe?
gl|jsl|m4a|m4v|manifest|mp4|oex|ogal|ogg|ogv|otf|pdf|png|safariextz|svgz?
|ttf|vcf|webapp|webml|webpl|woff|xml|xpi)$">
#         Header unset X-XSS-Protection
#     </FilesMatch>
# </IfModule>

# -----
# | Secure Sockets Layer (SSL) |
# -----

# Rewrite secure requests properly to prevent SSL certificate warnings, e.g.:
# prevent `https://www.example.com` when your certificate only allows
# `https://secure.example.com`.

# <IfModule mod_rewrite.c>
#     RewriteCond %{SERVER_PORT} !^443
#     RewriteRule ^ https://example-domain-please-change-me.com%{REQUEST_URI} [R=301,L]
# </IfModule>

# -----
# | HTTP Strict Transport Security (HSTS) |
# -----

# Force client-side SSL redirection.

# If a user types "example.com" in his browser, the above rule will redirect
"

```

```
# him to the secure version of the site. That still leaves a window of oppor-
# tunity (the initial HTTP connection) for an attacker to downgrade or redirect
# the request. The following header ensures that browser will ONLY connect to
# your server via HTTPS, regardless of what the users type in the address bar.
# http://tools.ietf.org/html/draft-ietf-websec-strict-transport-sec-14#section-6.1
# http://www.html5rocks.com/en/tutorials/security/transport-layer-security/
```

```
# (!) Remove the `includeSubDomains` optional directive if the subdomains are
# not using HTTPS.
```

```
# <IfModule mod_headers.c>
#   Header set Strict-Transport-Security "max-age=16070400; includeSubDomains"
# </IfModule>
```

```
# -----
# | Server software information |
# -----
```

```
# Avoid displaying the exact Apache version number, the description of the
# generic OS-type and the information about Apache's compiled-in modules.
```

```
# ADD THIS DIRECTIVE IN THE `httpd.conf` AS IT WILL NOT WORK IN THE `.htaccess`!
```

```
# ServerTokens Prod
```

```
# #####
# # WEB PERFORMANCE #
# #####
```

```
# -----
# | Compression |
# -----
```

```
<IfModule mod_deflate.c>
```

```
    # Force compression for mangled headers.
```

```
    # http://developer.yahoo.com/blogs/ydn/posts/2010/12/pushing-beyond-gzipping
```

```
    <IfModule mod_setenvif.c>
```

```
        <IfModule mod_headers.c>
```

```
            SetEnvIfNoCase ^(\Accept-EncodXng|X-cept-Encoding|X(15)|^(15)|-(15))$
```

```
            ^((gzip|deflate)\s*,\s*\?s*)+ [X"-](<4,13)$ HAVE_Accept-Encoding
```

```

RequestHeader append Accept-Encoding "gzip, deflate" env=HAVE_Accept-Encoding
</IfModule>
</IfModule>

# Compress all output labeled with one of the following MIME-types
# (for Apache versions below 2.3.7, you don't need to enable `mod_filter`
# and can remove the `<IfModule mod_filter.c>` and `</IfModule>` lines
# as `AddOutputFilterByType` is still in the core directives).
<IfModule mod_filter.c>
    AddOutputFilterByType DEFLATE application/atom+xml \
        application/javascript \
        application/json \
        application/rss+xml \
        application/vnd.ms-fontobject \
        application/x-font-ttf \
        application/x-web-app-manifest+json \
        application/xhtml+xml \
        application/xml \
        font/opentype \
        image/svg+xml \
        image/x-icon \
        text/css \
        text/html \
        text/plain \
        text/x-component \
        text/xml

</IfModule>

</IfModule>

# -----
# | Content transformations |
# -----

# Prevent some of the mobile network providers from modifying the content of
# your site: http://www.w3.org/Protocols/rfc2616/rfc2616-sec14.html#sec14.9.5.

# <IfModule mod_headers.c>
#     Header set Cache-Control "no-transform"
# </IfModule>

```

```

# -----
# | ETag removal |
# -----

# Since we're sending far-future expires headers (see below), ETags can
# be removed: http://developer.yahoo.com/performance/rules.html#etags.

# `FileETag None` is not enough for every server.
<IfModule mod_headers.c>
    Header unset ETag
</IfModule>

FileETag None

# -----
# | Expires headers (for better cache control) |
# -----

# The following expires headers are set pretty far in the future. If you don't
# control versioning with filename-based cache busting, consider lowering the
# cache time for resources like CSS and JS to something like 1 week.

<IfModule mod_expires.c>

    ExpiresActive on
    ExpiresDefault "access plus 1 month"

    # CSS
    ExpiresByType text/css "access plus 1 year"

    # Data interchange
    ExpiresByType application/json "access plus 0 seconds"
    ExpiresByType application/xml "access plus 0 seconds"
    ExpiresByType text/xml "access plus 0 seconds"

    # Favicon (cannot be renamed!) and cursor images
    ExpiresByType image/x-icon "access plus 1 week"

    # HTML components (HTCs)
    ExpiresByType text/x-component "access plus 1 month"

```

```

# HTML
ExpiresByType text/html "access plus 0 seconds"

# JavaScript
ExpiresByType application/javascript "access plus 1 year"

# Manifest files
ExpiresByType application/x-web-app-manifest+json "access plus 0 seconds"
ExpiresByType text/cache-manifest "access plus 0 seconds"

# Media
ExpiresByType audio/ogg "access plus 1 month"
ExpiresByType image/gif "access plus 1 month"
ExpiresByType image/jpeg "access plus 1 month"
ExpiresByType image/png "access plus 1 month"
ExpiresByType video/mp4 "access plus 1 month"
ExpiresByType video/ogg "access plus 1 month"
ExpiresByType video/webm "access plus 1 month"

# Web feeds
ExpiresByType application/atom+xml "access plus 1 hour"
ExpiresByType application/rss+xml "access plus 1 hour"

# Web fonts
ExpiresByType application/font-woff "access plus 1 month"
ExpiresByType application/vnd.ms-fontobject "access plus 1 month"
ExpiresByType application/x-font-ttf "access plus 1 month"
ExpiresByType font/opentype "access plus 1 month"
ExpiresByType image/svg+xml "access plus 1 month"

```

```
</IfModule>
```

```

# -----
# | Filename-based cache busting |
# -----

```

```

# If you're not using a build process to manage your filename version revving,
# you might want to consider enabling the following directives to route all
# requests such as /css/style.12345.css to /css/style.css.

```

```

# To understand why this is important and a better idea than *.css?v231, read:

```

<http://stevesouders.com/blog/2008/08/23/rewriting-filenames-dont-use-querystring>

```
# <IfModule mod_rewrite.c>
#   RewriteCond %{REQUEST_FILENAME} !-f
#   RewriteRule ^(.+)?\.(.+)$ $1.$3 [L]
# </IfModule>
```

```
# -----
# | File concatenation |
# -----
```

Allow concatenation from within specific CSS and JS files, e.g.:
Inside of `script.combined.js` you could have
<!--#include file="libs/jquery.js" -->
<!--#include file="plugins/jquery.idletimer.js" -->
and they would be included into this single file.

```
# <IfModule mod_include.c>
#   <FilesMatch "\.combined\.js$">
#     Options +Includes
#     AddOutputFilterByType INCLUDES application/javascript application/json
#     SetOutputFilter INCLUDES
#   </FilesMatch>
#   <FilesMatch "\.combined\.css$">
#     Options +Includes
#     AddOutputFilterByType INCLUDES text/css
#     SetOutputFilter INCLUDES
#   </FilesMatch>
# </IfModule>
```

```
# -----
# | Persistent connections |
# -----
```

Allow multiple requests to be sent over the same TCP connection:
<http://httpd.apache.org/docs/current/en/mod/core.html#keepalive>.

Enable if you serve a lot of static content but, be aware of the
possible disadvantages!

```
# <IfModule mod_headers.c>
```



```
# Header set Connection Keep-Alive
# </IfModule>
```