

```

# Apache Server Configs v2.6.0 | 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 requests |
# -----

# Allow cross-origin requests.

# http://enable-cors.org/
# http://www.w3.org/TR/cors/
# https://code.google.com/p/html5security/wiki/CrossOriginRequestSecurity

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

# -----

# By default allow cross-origin access to web fonts.

<FilesMatch "(ttf|otf|eot|woff)$">
    <IfModule mod_headers.c>
        Header set Access-Control-Allow-Origin "*"
    </IfModule>
</FilesMatch>

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

# Send the CORS header for images when browsers request it.

```

```
# https://developer.mozilla.org/en-US/docs/Web/HTML/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>
```

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

```
# -----
# | 404 error prevention |
# -----
```

```
# Disable the pattern matching based on filenames.
```

```
# This setting prevents Apache from returning a 404 error as the result
# of a rewrite when the 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 |
# -----
```

```
# Customize what Apache returns to the client in case of an error.
# http://httpd.apache.org/docs/current/mod/core.html #error.document
```

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

```

# #####
# # INTERNET EXPLORER #
# #####

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

# Force Internet Explorer to render pages in the highest available
# mode in the various cases when it may not.
# https://hsivonen.fi/doctype/#ie8

<IfModule mod_headers.c>
    Header set X-UA-Compatible "IE=edge"
    # `mod_headers` cannot match based on the content-type, however, this header
    # should be send only for HTML documents and not for the other resources
    <FilesMatch "\.(appcache|atom|crx|css|curl|eot|f4[abpv]|flv|geojson|gif|htc|ico|jpe?
gl|jst|json|ld)?
|m4[av]|manifest|map|mp4|oex|og[agv]|opus|otf|pdf|png|rdf|rss|safariextz|svg?
|swf|tt[cf]|txt|vcl|vtt|webapp|web[mp]|woff2?|xml|xpi)$">
        Header unset X-UA-Compatible
    </FilesMatch>
</IfModule>

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

# Allow cookies to be set from iframes in Internet Explorer.

# 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>

# #####
# # MEDIA TYPES AND CHARACTER ENCODINGS #

```

```

# #####

# -----
# | Media types |
# -----

# Serve resources with the proper media types (formerly known as MIME types).
# http://www.iana.org/assignments/media-types/media-types.xhtml

<IfModule mod_mime.c>

# Audio
AddType audio/mp4          f4a f4b m4a
AddType audio/ogg          oga ogg opus

# Data interchange
AddType application/json   json map
AddType application/ld+json jsonld
AddType application/vnd.geo+json gejson

# JavaScript
# Normalize to standard type.
# http://tools.ietf.org/html/rfc4329#section-7.2
AddType application/javascript    js

# Manifest files

# If you are providing a web application manifest file (see the
# specification: http://w3c.github.io/manifest/), it is recommended
# that you serve it with the `application/manifest+json` media type.
#
# Because the web application manifest file doesn't have its own
# unique file extension, you can set its media type either by matching:
#
# 1) the exact location of the file (this can be done using a directive
# such as <Location>, but it will NOT work in the .htaccess file,
# so you will have to do it in the main server configuration file or
# inside of a <VirtualHost> container)
#
# e.g.:
#

```

```
# <Location "/.well-known/manifest.json">
#     AddType application/manifest+json          json
# </Location>
#
# 2) the filename (this can be problematic as you will need to ensure
# that you don't have any other file with the same name as the one
# you gave to your web application manifest file)
#
# e.g.:
#
# <Files "manifest.json">
#     AddType application/manifest+json          json
# </Files>
```

```
AddType application/x-web-app-manifest+json    webapp
AddType text/cache-manifest                     appcache manifest
```

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/font-woff2                woff2
AddType application/vnd.ms-fontobject         eot
```

```
# Browsers usually ignore the font media types and simply sniff
# the bytes to figure out the font type.
# http://mimesniff.spec.whatwg.org/#matching-a-font-type-pattern
```

```
# Chrome however, shows a warning if any other media types are used
# for the following two font types.
```

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

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

Other

```
AddType application/octet-stream          safariextz
AddType application/x-chrome-extension     crx
AddType application/x-opera-extension      oex
AddType application/x-xpinstall            xpi
AddType application/xml                    atom rdf rss xml
AddType image/webp                         webp
AddType image/x-icon                       cur ico
AddType text/vtt                           vtt
AddType text/x-component                   htc
AddType text/x-vcard                       vcf
```

```
</IfModule>
```

```
# -----
# | Character encodings |
# -----
```

```
# Set `UTF-8` as the character encoding for all resources served with
# the media type of `text/html` or `text/plain`.
```

```
AddDefaultCharset utf-8
```

```
# Set `UTF-8` as the character encoding for other certain resources.
```

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

```
    AddCharset utf-8 .atom .css .geojson .js .json .jsonld .rss .vtt .webapp .xml
```

```
</IfModule>
```

```
# #####
# # URL REWRITES #
# #####
```

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

```
# Turn on the rewrite engine and enable the `FollowSymLinks` option
# (this is necessary in order 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-modrewrite-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), and 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 would 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 %{SERVER_ADDR} !=127.0.0.1
#     RewriteCond %{SERVER_ADDR} !=::1
#     RewriteRule ^ http://www.%{HTTP_HOST}%{REQUEST_URI} [R=301,L]
# </IfModule>

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

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

# Protect website 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` & `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 website 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 "DENY"
#   <FilesMatch "\.(appache|atom|crx|css|curl|eot|f4[abpv]|flv|geojson|gif|htcl|icol|jpe?
gl|jsl|json(1d)?
|m4[av]|manifest|map|mp4|oex|og[agv]|opus|otf|pdf|png|rdf|rssl|safariextz|svgz?
|swf|tt[cf]|txt|vcl|vtt|webapp|web[mp]|woff2?|xml|xpi)$">
#       Header unset X-Frame-Options
#   </FilesMatch>
# </IfModule>

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

# Mitigate the risk of cross-site scripting and other content-injection attacks.

# This can be done by setting a `Content Security Policy` which whitelists
# trusted sources of content for your website.

# 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://www.html5rocks.com/en/tutorials/security/content-security-policy/ (or
# the specification: http://www.w3.org/TR/CSP11/). 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 "\.(appache|atom|crx|css|curl|eot|f4[abpv]|flv|geojson|gif|htcl|icol|jpe?
gl|jsl|json(1d)?
|m4[av]|manifest|map|mp4|oex|og[agv]|opus|otf|pdf|png|rdf|rssl|safariextz|svgz?
|swf|tt[cf]|txt|vcl|vtt|webapp|web[mp]|woff2?|xml|xpi)$">
```

```
# Block access to all hidden files and directories with the exception of the
```

```
# visible content from within the `/.well-known/` hidden directory.
```

```
# These types of files usually contain user preferences or the preserved state
```

```
# of an utility, and can include rather private places like, for example, the
```

```
# `/.git` or `/.svn` directories.
```

```
# The `/.well-known/` directory represents the standard (RFC 5785) path prefix
```

```
# for "well-known locations" (e.g.: `/.well-known/manifest.json`,
```

```
# `/.well-known/keybase.txt`), and therefore, access to its visible content
```

```
# should not be blocked.
```

```
# https://www.mnot.net/blog/2010/04/07/well-known
```

```
# http://tools.ietf.org/html/rfc5785
```

```
# Block access to directories without a default document.
```

```
You should leave the following uncommented, as you shouldn't allow anyone to
```

```
surf through every directory on your server (which may includes rather private
```

```
places such as the CMS's directories).
```

```
Header unset Content-Security-Policy
```

```
</FilesMatch>
```

```
</IfModule>
```

```
-----
```

```
| File access |
```

```
-----
```

```
Block access to directories without a default document.
```

```
You should leave the following uncommented, as you shouldn't allow anyone to
```

```
surf through every directory on your server (which may includes rather private
```

```
places such as the CMS's directories).
```

```
Header unset Content-Security-Policy
```

```
</FilesMatch>
```

```
</IfModule>
```

```
-----
```

```
| File access |
```

```
-----
```

```
Block access to all hidden files and directories with the exception of the
```

```

</IfModule>

# -----

# Block access to files that can expose sensitive information.

# By default, block access to backup and source files that may be left by some
# text editors and can pose a security risk when anyone has access to them.
# http://feross.org/cmsploit/

# IMPORTANT: Update the `<FilesMatch>` regular expression from below to include
# any files that might end up on your production server and can expose sensitive
# information about your website. These files may include: configuration files,
# files that contain metadata about the project (e.g.: project dependencies),
# build scripts, etc..

<FilesMatch "(^#.#|\.|(bak|conf|dist|fla|in[ci]|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 cross-origin data
# leaks, and should be left uncommented, especially if the web server is
# serving user-uploaded content or content that could potentially be treated
"

```

```
# as executable by the browser.

# http://www.slideshare.net/hasegawayosuke/owasp-hasegawa
# 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/gg622941.aspx
# http://mimesniff.spec.whatwg.org/

<IfModule mod_headers.c>
    Header set X-Content-Type-Options "nosniff"
</IfModule>

# -----
# | 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 Internet Explorer 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.: Internet Explorer), 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://hackademix.net/2009/11/21/ies-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|atom|crx|css|curl|eot|f4[abpw]|flv|geo.json|gif|html|ico|jpe?
gl|js|json|ld)?
|m4[av]|manifest|map|mp4|oex|og[agv]|opus|otf|pdf|png|rdf|rss|safariextz|svgz?
|swf|tt[cf]|txt|vcf|vtt|webapp|web[mp]|woff2?|xml|xpi)$">
#         Header unset X-XSS-Protection
#     </FilesMatch>
# </IfModule>

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

# Rewrite secure requests properly in order 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
# opportunity (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/

# IMPORTANT: 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.

# IMPORTANT: The `ServerTokens` directive will not work in the `.htaccess` file,
# so you will need to add the following in the main server configuration file.

# ServerTokens Prod

# #####
# # WEB PERFORMANCE                                           #
# #####

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

## EXPIRES CACHING ##
<IfModule mod_expires.c>
ExpiresActive On
ExpiresByType image/jpg "access 1 year"
ExpiresByType image/jpeg "access 1 year"
ExpiresByType image/gif "access 1 year"
ExpiresByType image/png "access 1 year"
ExpiresByType text/css "access 1 month"
```

```
ExpiresByType text/html "access 1 month"
ExpiresByType application/pdf "access 1 month"
ExpiresByType text/x-javascript "access 1 month"
ExpiresByType application/x-shockwave-flash "access 1 month"
ExpiresByType image/x-icon "access 1 year"
ExpiresDefault "access 1 month"
</IfModule>
## EXPIRES CACHING ##

# -----
# | Content transformation |
# -----

# Prevent mobile network providers from modifying the website's content.
# http://www.w3.org/Protocols/rfc2616/rfc2616-sec14.html#sec14.9.5.

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

# -----
# | ETags |
# -----

# Remove `ETags` as resources are sent with far-future expires headers.
# https://developer.yahoo.com/performance/rules.html#etags

# `FileETag None` doesn't work in all cases.
<IfModule mod_headers.c>
    Header unset ETag
</IfModule>

FileETag None

# -----
# | Expires headers |
# -----

# Serve resources with far-future expires headers.

# IMPORTANT: If you don't control versioning with filename-based cache
```

busting, consider lowering the cache times to something like one 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/ld+json "access plus 0 seconds"  
ExpiresByType application/vnd.geo+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/manifest+json "access plus 1 year"  
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 video/mp4 "access plus 1 month"  
ExpiresByType video/ogg "access plus 1 month"  
ExpiresByType video/webm "access plus 1 month"
```

Images


```
ExpiresByType image/jpg "access 1 year"
ExpiresByType image/jpeg "access 1 year"
ExpiresByType image/gif "access 1 year"
ExpiresByType image/png "access 1 year"
```

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/font-woff2 "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://www.stevesouders.com/blog/2008/08/23/revving-filenames-dont-use-querystring/>*

```
# <IfModule mod_rewrite.c>
#     RewriteCond %{REQUEST_FILENAME} !-f
#     RewriteRule ^(\.+)\/(\d+)\. (css|curl|gif|ico|jpe?g|js|png|svgz?|webp)$ $1. $3 [L]
# </IfModule>
```

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

Allow concatenation from within specific files.

```
# e.g.:  
#  
# If you have the following lines in a file called, for example,  
# `main.combined.js`:  
#  
#     <!--#include file="js/jquery.js" -->  
#     <!--#include file="js/jquery.timer.js" -->  
#  
# Apache will replace those lines with the content of the specified files.
```

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