

```

# Apache Server Configs v2.2.0 | 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 |
# -----

# Allow 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-US/docs/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>

```

```
</IfModule>

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

# Allow access to web fonts from all domains.

<IfModule mod_headers.c>
    <FilesMatch "\.(eot|otf|tt[cf]|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 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#errordocument

# 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.
# http://hsivonen.iki.fi/doctype/ie-mode.pdf

<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 pages and not for the other resources
    <FilesMatch "\.(appcache|atom|crx|css|curl|eot|f4[abpv]|flv|gif|html|ico|jpe?
gl|js|json|ld)?
|m4[av]|manifest|map|mp4|oex|og[agv]|opus|otf|pdf|png|rdf|rss|safariextz|svg?
|swf|tt[cf]|vcl|vtt|webapp|web[mp]|woff|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>

# #####
# # 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 opus
```

```
# Data interchange
```

```
AddType application/json    json map
AddType application/ld+json  jsonld
```

```
# JavaScript
```

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

```
# 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 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 MIME types are used for
# the following fonts.
```

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

```
# Make SVGZ fonts work on the 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 .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-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), 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>

# Removes index.php supposedly =s
<IfModule mod_rewrite.c>
    RewriteCond $1 !^(index\.php|images|css|js|robots\.txt|favicon\.ico)
    RewriteCond %{REQUEST_FILENAME} !-f
    RewriteCond %{REQUEST_FILENAME} !-d
    RewriteRule ^(.*)$ index.php?/$1 [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 "\.(appcache|atom|crx|css|curl|eot|f4[abpv]|flv|gif|html|ico|jpe?
gl|js|json|ld)?
|m4[av]|manifest|map|mp4|oex|og[agv]|opus|otf|png|rdf|rss|safari-extend|svgz?
|swf|tt[cf]|vcf|vtt|webapp|web[mp]|woff|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://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|atom|crx|css|curl|eot|f4[abpv]|flv|gif|html|icol|jpe?
gl|js|json|ld)?
|m4[av]|manifest|map|mp4|oexl|og[agv]|opus|otf|pdf|png|rdf|rss|safariextz|svgz?
|swf|tt[cf]|vcf|vtt|webapp|web[mp]|woff|xml|xpi)$">
#       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).

<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 files that can expose sensitive information

```

```
# 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|config|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>*

*# <http://blogs.msdn.com/b/ieinternals/archive/2011/01/31/controlling-the-internet-explorer-xss-filter-with-the-x-xss-protection-http-header.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 "\.(appache|atom|crx|css|curl|eot|f4[abpv]|flv|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]|vcl|vtt|webapp|web[mp]|woff|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.

# 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*)+([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/ld+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 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 set Cache-Control "no-transform"  
# </IfModule>
```

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

```
# Remove `ETags` as resources are sent with far-future expires headers.  
# http://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 |  
# -----
```

```
# 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 such as style sheets and JavaScript  
# files 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/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://stevesouder.com/blog/2008/08/23/revving-filenames-dont-use-querystring

```



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

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

# Allow concatenation from within specific style sheets and JavaScript files.

# e.g.:
#
# If you have the following content in a file
#
#   <!--#include file="libs/jquery.js" -->
#   <!--#include file="plugins/jquery.timer.js" -->
#
# Apache will replace it with the content from the specified files.

# <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>
```