

```

# Apache Server Configs v2.11.0 | MIT License
# https://github.com/h5bp/server-configs-apache

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

#####
# # CROSS-ORIGIN #
#####

# -----
# | Cross-origin requests |
# -----

# Allow cross-origin requests.
#
# https://developer.mozilla.org/en-US/docs/Web/HTTP/Access_control_CORS
# http://enable-cors.org/
# http://www.w3.org/TR/cors/

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

# -----
# | Cross-origin images |
# -----

# Send the CORS header for images when browsers request it.
#
# https://developer.mozilla.org/en-US/docs/Web/HTML/CORS_enabled_image
# https://blog.chromium.org/2011/07/using-cross-domain-images-in-webgl-and.html

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

```

```

        Header set Access-Control-Allow-Origin * env=IS_LUKS
    </FilesMatch>
</IfModule>

# -----
# | Cross-origin web fonts |
# -----

# Allow cross-origin access to web fonts.

<IfModule mod_headers.c>
    <FilesMatch "\.(eot|otf|tt[cf]|woff2?)$">
        Header set Access-Control-Allow-Origin "*"
    </FilesMatch>
</IfModule>

# -----
# | Cross-origin resource timing |
# -----

# Allow cross-origin access to the timing information for all resources.
#
# If a resource isn't served with a `Timing-Allow-Origin` header that
# would allow its timing information to be shared with the document,
# some of the attributes of the `PerformanceResourceTiming` object will
# be set to zero.
#
# http://www.w3.org/TR/resource-timing/
# http://www.stevesouders.com/blog/2014/08/21/resource-timing-practical-tips/

<IfModule mod_headers.c>
    Header set Timing-Allow-Origin: "*"
</IfModule>

# -----
# | Error prevention |
# -----

# Disable the pattern matching based on filenames.
#
# This will prevent the following error from being reported:

```

```
# 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.
#
# https://httpd.apache.org/docs/current/content-negotiation.html#multiviews
```

Options -MultiViews

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

# -----
# | Document modes |
# -----

# Force Internet Explorer 8/9/10 to render pages in the highest mode
# available in the various cases when it may not.
#
# https://hsivonen.fi/doctype/#ie8
#
# (!) Starting with Internet Explorer 11, document modes are deprecated.
# If your business still relies on older web apps and services that were
# designed for older versions of Internet Explorer, you might want to
# consider enabling `Enterprise Mode` throughout your company.
#
# http://msdn.microsoft.com/en-us/library/ie/bg182625.aspx#docmode
# http://blogs.msdn.com/b/ie/archive/2014/04/02/stay-up-to-date-with-enterprise-mode-for-internet-explorer-11.aspx
```

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

```
Header set X-UA-Compatible "IE=edge"
```

```
# `mod_headers` cannot match based on the content-type, however,
# the `X-UA-Compatible` response header should be send only for
# HTML documents and not for the other resources.
```

```
<FilesMatch "\.
```

```
(appcache|atom|bbaw|bmp|crx|css|curl|eot|f4[abpv]|flv|geojson|gif|htc|ico|jpe?
```

```
g|j|json|ld)?
```

```
|m4[av]|manifest|map|mp4|oex|og[agv]|opus|otf|pdf|png|rdf|rss|safariextz|svgz?
```

```
|swf|topojson|tt[cf]|txt|vcard|vcf|vtl|webapp|web[mp]|woff2?|xloc|xml|xpi)$">
```

```
Header unset X-UA-Compatible
```

```
</FilesMatch>
```

```
</IfModule>
```

```
# #####  
# # MEDIA TYPES AND CHARACTER ENCODINGS #  
# #####  
  
# -----  
# | Media types |  
# -----  
  
# Serve resources with the proper media types (f. k. a. MIME types).  
#  
# https://www.iana.org/assignments/media-types/media-types.xhtml  
# https://httpd.apache.org/docs/current/mod/mod\_mime.html#addtype
```

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

```
# Data interchange
```

```
AddType application/json json map tojson  
AddType application/ld+json jsonld  
AddType application/vnd.geo+json geojson  
AddType application/xml atom rdf rss xml
```

```
# JavaScript
```

```
# Normalize to standard type.  
# https://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: https://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 ``, 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 ``
#    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

```

Media files

```

AddType audio/mp4          f4a f4b m4a
AddType audio/ogg          oga ogg opus
AddType image/bmp          bmp
AddType image/webp         webp
AddType video/mp4          f4v f4p m4v mp4
AddType video/ogg          ogv
AddType video/webm         webm
AddType video/x-flv        flv
AddType image/svg+xml     svg svgz

```

```

# Serving `.ico` image files with a different media type
# prevents Internet Explorer from displaying them as images:
# https://github.com/h5bp/html5-

```

boilerplate/commit/37b5fec090d00f38de64b591bcddcb205aadf8ee

AddType image/x-icon cur ico

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.
https://mimesniff.spec.whatwg.org/#matching-a-font-type-pattern

However, Blink and WebKit based browsers will show a warning
in the console if the following font types are served with any
other media types.*

AddType application/x-font-ttf ttc ttf

AddType font/opentype otf

Other

AddType application/octet-stream safariextz

AddType application/x-bb-appworld bbaw

AddType application/x-chrome-extension crx

AddType application/x-opera-extension oex

AddType application/x-xpinstall xpi

AddType text/vcard vcard vcf

AddType text/vnd.rim.location.xloc xloc

AddType text/vtt vtt

AddType text/x-component htc

</IfModule>

*# -----
| Character encodings |
-----*

*# Serve all resources labeled as `text/html` or `text/plain`
with the media type `charset` parameter set to `UTF-8`.*

```
#
# https://httpd.apache.org/docs/current/mod/core.html#adddefaultcharset

AddDefaultCharset utf-8

# -----

# Serve the following file types with the media type `charset`
# parameter set to `UTF-8`.
#
# https://httpd.apache.org/docs/current/mod/mod\_mime.html#addcharset

<IfModule mod_mime.c>
    AddCharset utf-8 .atom \
        .bbaw \
        .css \
        .gejson \
        .js \
        .json \
        .jsonld \
        .rdf \
        .rss \
        .topjson \
        .vtt \
        .webapp \
        .xloc \
        .xml
</IfModule>

# #####
# # REWRITES #
# #####

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

# (1) Turn on the rewrite engine (this is necessary in order for
#     the `RewriteRule` directives to work).
#
#     https://httpd.apache.org/docs/current/mod/mod\_rewrite.html#RewriteEngine
```

```
#  
# (2) Enable the `FollowSymLinks` option if it isn't already.  
#  
# https://httpd.apache.org/docs/current/mod/core.html#options  
#  
# (3) If your web host doesn't allow the `FollowSymLinks` option,  
# you need to comment it out or remove it, and then uncomment  
# the `Options +SymLinksIfOwnerMatch` line (4), but be aware  
# of the performance impact.  
#  
# https://httpd.apache.org/docs/current/misc/perf-tuning.html#symlinks  
#  
# (4) Some cloud hosting services will require you set `RewriteBase`.  
#  
# http://www.rackspace.com/knowledge\_center/frequently-asked-question/why-is-modrewrite-not-working-on-my-site  
# https://httpd.apache.org/docs/current/mod/mod\_rewrite.html#rewritebase  
#  
# (5) Depending on how your server is set up, you may also need to  
# use the `RewriteOptions` directive to enable some options for  
# the rewrite engine.  
#  
# https://httpd.apache.org/docs/current/mod/mod\_rewrite.html#rewriteoptions
```

```
<IfModule mod_rewrite.c>
```

```
    # (1)
```

```
    RewriteEngine On
```

```
    # (2)
```

```
    Options +FollowSymLinks
```

```
    # (3)
```

```
    # Options +SymLinksIfOwnerMatch
```

```
    # (4)
```

```
    # RewriteBase /
```

```
    # (5)
```

```
    # RewriteOptions <options>
```



```
</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`.
```

```
#
```

```
# (!) NEVER USE BOTH RULES AT THE SAME TIME!
```

```
# -----
```

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

```
# <IfModule mod_rewrite.c>
```

```
#     RewriteEngine On
```

```
#     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>
```

```
#     RewriteEngine On
```

```
#     RewriteCond %{HTTPS} !=on
```

```
# RewriteCond %{HTTP_HOST} !^www\. [NC]
# RewriteCond %{SERVER_ADDR} !=127.0.0.1
# RewriteCond %{SERVER_ADDR} !=::1
# RewriteRule ^ %{ENV:PROTO}://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 content of
# the web page in any frame.
#
# This might not be the best setting for everyone. You should read
# about the other two possible values the `X-Frame-Options` header
# field can have: `SAMEORIGIN` and `ALLOW-FROM`.
# https://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 website's pages, this has the potential downside that
# it forbids even non-malicious framing of your content (e.g.: when
# users visit your website 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.
#
# https://www.cloudflare.com/https/rfc7034
```

```
# https://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"
```

```
# `mod_headers` cannot match based on the content-type, however,
# the `X-Frame-Options` response header should be send only for
# HTML documents and not for the other resources.
```

```
<FilesMatch "\.
```

```
(appcache|atom|bbaw|bmp|crx|css|curl|eot|f4[abpv]|flv|geojson|gif|htcl|icol|jpe?
```

```
gl|jsl|json|ld)?
```

```
|m4[av]|manifest|map|mp4|oex|og[agv]|opus|otf|pdf|png|rdf|rssl|safariextz|svgz?
```

```
|swf|topojson|tt[cf]|txt|vcard|vcf|vtt|webapp|web[mp]|woff2?|xloc|xsl|xpi)$">
```

```
Header unset X-Frame-Options
```

```
</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 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
# https://tools.ietf.org/html/rfc5785

<IfModule mod_rewrite.c>
    RewriteEngine On
    RewriteCond %{REQUEST_URI} "!(^/)\.well-known/([^. /?]+)$" [NC]
    RewriteCond %{SCRIPT_FILENAME} -d [OR]
    RewriteCond %{SCRIPT_FILENAME} -f
    RewriteRule "(^/)\." - [F]
</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/
#
# (!) 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>

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

# Force client-side SSL redirection.
#
# If a user types `example.com` in their browser, even if the server
# redirects them to the secure version of the website, 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 browser's
# address bar.
#
# (!) Remove the `includeSubDomains` optional directive if the website's
# subdomains are not using HTTPS.
#
# http://www.html5rocks.com/en/tutorials/security/transport-layer-security/
# https://tools.ietf.org/html/draft-ietf-websec-strict-transport-sec-14#section-6.1
# http://blogs.msdn.com/b/ieinternals/archive/2014/08/18/hsts-strict-transport-security-
attacks-mitigations-deployment-https.aspx

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

# -----
# | 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 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
# https://mimesniff.spec.whatwg.org/

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

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

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

<IfModule mod_deflate.c>

# Force compression for mangled `Accept-Encoding` request headers
# https://developer.yahoo.com/blogs/ydn/pushing-beyond-gzipping-25601.html

<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 media types.
#
# (!) For Apache versions below version 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.  
#  
# https://httpd.apache.org/docs/current/mod/mod\_filter.html#addoutputfilterbytype
```

```
<IfModule mod_filter.c>  
    AddOutputFilterByType DEFLATE "application/atom+xml" \  
        "application/javascript" \  
        "application/json" \  
        "application/ld+json" \  
        "application/manifest+json" \  
        "application/rdf+xml" \  
        "application/rss+xml" \  
        "application/schema+json" \  
        "application/vnd.geo+json" \  
        "application/vnd.ms-fontobject" \  
        "application/x-font-ttf" \  
        "application/x-javascript" \  
        "application/x-web-app-manifest+json" \  
        "application/xhtml+xml" \  
        "application/xml" \  
        "font/eot" \  
        "font/opentype" \  
        "image/bmp" \  
        "image/svg+xml" \  
        "image/vnd.microsoft.icon" \  
        "image/x-icon" \  
        "text/cache-manifest" \  
        "text/css" \  
        "text/html" \  
        "text/javascript" \  
        "text/plain" \  
        "text/vcard" \  
        "text/vnd.rim.location.xloc" \  
        "text/vtt" \  
        "text/x-component" \  
        "text/x-cross-domain-policy" \  
        "text/xml"
```

```
</IfModule>
```

```
# -----  
  
# Map the following filename extensions to the specified  
# encoding type in order to make Apache serve the file types  
# with the appropriate `Content-Encoding` response header  
# (do note that this will NOT make Apache compress them!).  
#  
# If these files types would be served without an appropriate  
# `Content-Enable` response header, client applications (e.g.:  
# browsers) wouldn't know that they first need to uncompress  
# the response, and thus, wouldn't be able to understand the  
# content.  
#  
# https://httpd.apache.org/docs/current/mod/mod\_mime.html#addencoding  
  
<IfModule mod_mime.c>  
    AddEncoding gzip          svgz  
</IfModule>
```

```
</IfModule>
```

```
# -----  
# | ETags                                     |  
# -----  
  
# Remove `ETags` as resources are sent with far-future expires headers.  
#  
# https://developer.yahoo.com/performance/rules.html#etags  
# https://tools.ietf.org/html/rfc7232#section-2.3
```

```
# `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.
#
# (!) If you don't control versioning with filename-based
# cache busting, you should consider lowering the cache times
# to something like one week.
#
# https://httpd.apache.org/docs/current/mod/mod_expires.html

<IfModule mod_expires.c>

    ExpiresActive on
    ExpiresDefault "access plus 1 month"

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

    # Data interchange
    ExpiresByType application/atom+xml "access plus 1 hour"
    ExpiresByType application/rdf+xml "access plus 1 hour"
    ExpiresByType application/rss+xml "access plus 1 hour"

    ExpiresByType application/json "access plus 0 seconds"
    ExpiresByType application/ld+json "access plus 0 seconds"
    ExpiresByType application/schema+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/vnd.microsoft.icon "access plus 1 week"
    ExpiresByType image/x-icon "access plus 1 week"

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

    # JavaScript
    ExpiresByType application/javascript "access plus 1 year"
    ExpiresByType application/x-javascript "access plus 1 year"
    ExpiresByType text/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 files

```
ExpiresByType audio/ogg "access plus 1 month"
ExpiresByType image/bmp "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 image/svg+xml "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 fonts

Embedded OpenType (EOT)

```
ExpiresByType application/vnd.ms-fontobject "access plus 1 month"
ExpiresByType font/eot "access plus 1 month"
```

OpenType

```
ExpiresByType font/opentype "access plus 1 month"
```

TrueType

```
ExpiresByType application/x-font-ttf "access plus 1 month"
```

Web Open Font Format (WOFF) 1.0

```
ExpiresByType application/font-woff "access plus 1 month"
ExpiresByType application/x-font-woff "access plus 1 month"
ExpiresByType font/woff "access plus 1 month"
```

Web Open Font Format (WOFF) 2.0

```
ExpiresByType application/font-woff2 "access plus 1 month"
```

Other

```
ExpiresByType text/x-cross-domain-policy "access plus 1 week"
```

