

```

# -----
# | Keep Alive |
# -----

<IfModule mod_headers.c>
    Header set Connection keep-alive
</IfModule>

# Apache Server Configs v2.14.0 | 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 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
        </FilesMatch>
    </IfModule>
</IfModule>

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

```

```
# | 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>

# #####
# # ERRORS #
# #####

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

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

ErrorDocument 404 /404.html

# -----
# | 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.
#
# 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.
#
# https://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 sent 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?
|js|json(1d)?
|m4[av]|manifest|map|mp4|oex|og[agv]|opus|otf|pdf|png|rdf|rss|safariextz|svg?
|swf|topojson|ttf|txt|vcard|vcf|vtt|webapp|web[mp]|webmanifest|woff2?|xld|xll|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/atom+xml          atom
  AddType application/json              json map topojson
  AddType application/ld+json           jsonld
  AddType application/rss+xml           rss
  AddType application/vnd.geo+json      geojson
  AddType application/xml                rdf xml

  # JavaScript

  # Normalize to standard type.
  # https://tools.ietf.org/html/rfc4329#section-7.2

  AddType application/javascript        js

  # Manifest files

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

  # Media files

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

```
AddType video/webm                webm
AddType video/x-flv                flv

# 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 \
        .geojson \
        .js \
        .json \
        .jsonld \
        .manifest \
        .rdf \
        .rss \
        .topojson \
        .vtt \
        .webapp \
        .webmanifest \
        .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`.  
#  
# https://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  
#  
# (6) Set %{ENV:PROTO} variable, to allow rewrites to redirect with the  
# appropriate schema automatically (http or https).
```

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

```
    # (1)  
    RewriteEngine On
```

```
    # (2)
```

```
# Options +FollowSymlinks

# (3)
Options +SymLinksIfOwnerMatch

# (4)
RewriteBase /

# (5)
# RewriteOptions <options>

# (6)
RewriteCond %{HTTPS} =on
RewriteRule ^ - [env=proto:https]
RewriteCond %{HTTPS} !=on
RewriteRule ^ - [env=proto:http]

</IfModule>

# -----
# | Forcing `https://` |
# -----

# Redirect from the `http://` to the `https://` version of the URL.
# https://wiki.apache.org/httpd/RewriteHTTPToHTTPS

<IfModule mod_rewrite.c>
    RewriteEngine On
    RewriteCond %{HTTPS} !=on
    RewriteCond %{ENV:HTTPS} !=on
    RewriteRule .* https://%{SERVER_NAME}%{REQUEST_URI} [R=301,L]
</IfModule>

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

# -----
# | 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
```

```
# LEAK BY SOME CASES COULD BE AVOIDED BY PUTTING A SECURITY RISK WHICH 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>
```

```
# -----  
# | 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://code.google.com/p/owasp-secureheaders/
```

```
# https://msdn.microsoft.com/en-us/library/1e79622941.aspx
```

```
# https://mimesniff.spec.whatwg.org/
```

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

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

```
</IfModule>
```

```
# -----  
# | Server-side technology information |  
# -----
```

```
# Remove the `X-Powered-By` response header that:
```

```
#
```

```
# * is set by some frameworks and server-side languages
```

```
# (e.g.: ASP.NET, PHP), and its value contains information
```

```
# about them (e.g.: their name, version number)
```

```
#
```

```
# * doesn't provide any value to users, contributes to header
```

```
# bloat, and in some cases, the information it provides can
```

```
# expose vulnerabilities
```

```
#
```

```
# (!) If you can, you should disable the `X-Powered-By` header from the
```

```
# language / framework level (e.g.: for PHP, you can do that by setting
```

```
# `expose_php = off` in `php.ini`)
```

```
#
```

```
# https://php.net/manual/en/ini.core.php#ini.expose-php
```

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

```
    Header unset X-Powered-By
```

```
</IfModule>
```

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

```
# Prevent Apache from adding a trailing footer line containing
```

```
# information about the server to the server-generated documents
```

```
# (e.g.: error messages, directory listings, etc.)
```

```
#
```

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



```
"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"
```

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

```
# 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 week"

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 image/webp "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"
```

</IfModule>