# mod_rewrite

## Regular Expressions Syntax

| | |
|---|---|
| ^ | Start of string |
| $ | End of string |
| . | Any single character |
| (a\|b) | a or b |
| (...) | Group section |
| [abc] | Item in range (a, b or c) |
| [^abc] | Not in range (not a, b or c) |
| \s | White space |
| a? | Zero or one of a |
| a* | Zero or more of a |
| a*? | Zero or more of a, ungreedy |
| a+ | One or more of a |
| a+? | One or more of a, ungreedy |
| a{3} | Exactly 3 of a |
| a{3,} | 3 or more of a |
| a{3,6} | 3 to 6 of a |
| a{3,6}? | 3 to 6 of a, ungreedy |
| !(pattern) | "Not" prefix. Apply rule if pattern does not match. |

## RewriteRule Flags

| | |
|---|---|
| R[=code] | Redirect to new URL, with optional code (see below). |
| F | Forbidden (sends 403 header) |
| G | Gone (no longer exists) |
| P | Proxy |
| L | Last Rule |
| N | Next (i.e. restart rules) |
| C | Chain |
| T=mime-type | Set Mime Type |
| NS | Skip if internal sub-request |
| NC | Case insensitive |
| QSA | Append query string |
| NE | Do not escape output |
| PT | Pass through |
| S=x | Skip next x rules |
| E=var:value | Set environmental variable "var" to "value". |

## RewriteCond Flags

| | |
|---|---|
| NC | Case insensitive |
| OR | Combines rules with logical "or" instead of "and". |

## Redirection Header Codes

| | |
|---|---|
| 301 | Moved permanently |
| 302 | Moved temporarily |
| 403 | Forbidden |
| 404 | Not Found |
| 410 | Gone |

## Example: New domain

```
#domain.com to domain2.com
RewriteCond    %{HTTP_HOST}    ^www\.domain\.com$    [NC]
RewriteRule    ^(.*)$    http://www.domain2.com/$1    [R=301,L]
```

## Example: Page moved temporarily

```
# domain.com/page.htm    to    domain.com/new_page.htm
RewriteRule    ^page.htm$    new_page.htm    [R,NC,L]
```

## Example: Nice looking URLs (no querystring)

```
# domain.com/category-name/    to    domain.com/categories.php?name=category-name
RewriteRule    ^([A-Za-z0-9-]+)/?$    categories.php?name=$1    [L]
```

## Example: Block Referrer Spam (where referring URL contains "viagra" or "xxx" )

```
RewriteCond    %{HTTP_REFERER}    (viagra)    [NC,OR]
RewriteCond    %{HTTP_REFERER}    (xxx)    [NC]
RewriteRule    .*   -    [F]
```

## Server Variables: HTTP Headers

%{HTTP_USER_AGENT}
%{HTTP_REFERER}
%{HTTP_COOKIE}
%{HTTP_FORWARDED}
%{HTTP_HOST}
%{HTTP_PROXY_CONNECTION}
%{HTTP_ACCEPT}

## Server Variables: Request

%{REMOTE_ADDR}
%{REMOTE_HOST}
%{REMOTE_USER}
%{REMOTE_IDENT}
%{REQUEST_METHOD}
%{SCRIPT_FILENAME}
%{PATH_INFO}
%{QUERY_STRING}
%{AUTH_TYPE}

## Server Variables: HTTP Headers

%{DOCUMENT_ROOT}
%{SERVER_ADMIN}
%{SERVER_NAME}
%{SERVER_ADDR}
%{SERVER_PORT}
%{SERVER_PROTOCOL}
%{SERVER_SOFTWARE}

## Server Variables: Time

%{TIME_YEAR}
%{TIME_MON}
%{TIME_DAY}
%{TIME_HOUR}
%{TIME_MIN}
%{TIME_SEC}
%{TIME_WDAY}
%{TIME}

## Server Variables: Special

%{API_VERSION}
%{THE_REQUEST}
%{REQUEST_URI}
%{REQUEST_FILENAME}
%{IS_SUBREQ}

## Directives

RewriteEngine
RewriteOptions
RewriteLog
RewriteLogLevel
RewriteLock
RewriteMap
RewriteBase
RewriteCond
RewriteRule