Make Apache webserver fix spelling mistyped URL errors and serve files case insensitive with mod_speling

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On most if not all modern *GNU / Linux distributions*, ***Apache*** **webserver** comes preinstalled with **mod_speling**.

What mod_speling does is it tries to **find and serve files and directories for non-existing (404 return code) urls with a similar name to passed URL**. Other thing mod_speling does is it serves files case-insensitive, even though the **UNIX / Linux filesystems are built to understand files case-sensitive**.

mod_speling is a very useful module especially when files are being pushed (synchronized) to *Apache* visible from web document folder from *operating systems* like **Windows** whose filesystem doesn't store files case sensitive.

Let me give you a small example on M$ Windows a create file **NewFile.html**, **NEWFILE.HTML, NeWfIlE.Html** etc. are one and the same file **newfile.html** and not 3 different files like it is usually on *UNIX / Linux filesystems*.

If you happen to **migrate old static Websites from *Microsoft Internet Information Services* (IIS) to UNIX / Linux based hosting.** Often *Html coders* which **create websites on Windows platform** doesn't respect in *website hyperlinks case-sensitive*, because anyways *Windows FS is case-insetive*, thus moving the website to **Linux host with Apache** the website/s will end up with *many 404 error pages*, whose fixing for big static websites will be *a real pain in the ass*.

Also there might be *need for* ***mod_speling*** *module enabled*, for PHP / Python / Perl websites developed on *MS Windows platform* and tested on Windows host and then officially to be deployed on Linux.

Note that **mod_speling** name as a funny thing as actually the module is *also converting mis-pelled / mis-typed Apache URLs*:

If for example, someone tried to link to your website from a forum *mistyping the URL address with mod_speling the mistyped URL could still be handled to open the real existing URL*:

Lets say you have URL:

http://your-domain.com/files/what-Ever-fle.php

and the actual URL is:

http://your-domain.com/files/what-Ever-file.php

mod_speling will *make Apache scan in **/files/*** for any files with similar name to *what-Ever-fle.php* and will open any similar matched file name, *preventing you from the normal 404 error* and therefore often serving exactly what it has to. Of course such a behavior could be unwanted in same cases for **CMS**es, which *depend on 404 error code for proper operating*, so be very sure when configuring *mod_speling* that this is exactly what you need.

mod_speling can be also useful sometimes for Search Engine Optimization - SEO, as it will show less 404 pages to *Crawler search engine bots*.

1. Enable mod_speling module on Debian GNU / Linux and Ubuntu

Enabling mod_speling in Apache in Debian / Ubuntu etc. debian based Linuxes is done with either creating symlink from **/etc/apache2/mods-available/speling.load** to **/etc/apache2/mods-enabled/speling.load** :

```
ln -sf /etc/apache2/mods-available/speling.load /etc/apache2/mods-enabled/speling.load
```

Or by using **a2enmod** - *Debian apache module enabling script*:

```
a2ensite sitename
```

To enable mod_speling mis-speling resolve feature config directive is:

```
CheckSpelling on
```

To disable case sensitivity - as I said earlier helpful for **migrations from Microsoft Windows hosts to Linux**, use directive:

```
CheckCaseOnly on
```

To enable both use:

```
CheckCaseOnly on
CheckSpelling on
```

Enabling mod_speling case-insensitivity and fixing mistypes in URL could be done from .htaccess, for any (vhost) with enabled .htaccess with

AllowOverride All

To enable it for default set host in new Apache install place it in **/etc/apache2/apache2.conf** and **/etc/apache2/sites-enabled/000-default**

Then as usual to make the configuration changes take affect, restart Apache:

/etc/init.d/apache2 restart

2. Enablig mod_speling on CentOS, RHEL and Fedora Linux

Most of RPM based Linux distributions have already mod_speling by default in Apache, so there will be no need to explicitly enable the module within *HTTPD*.

To check whether mod_speling is already enabled in httpd issue:

/usr/sbin/httpd -M |grep -i mod_speling

If you don't get no output from command this means the module is not enabled. This is the case with *CentOS Linux 6.5* for example ...

To enable mod_speling on Apache level add in **/etc/httpd/conf/httpd.conf**

LoadModule speling_module modules/mod_speling.so

and *restart webserver*

```
/etc/init.d/httpd restart
```

If you get instead

```
/usr/sbin/httpd -M |grep -i mod_speling
speling_module (shared)
```

Then it is *already loaded in HTTPD* to enable the module for *default domain* add to **/etc/httpd/conf/httpd.conf** - within (),

```
CheckCaseOnly on
CheckSpelling on
```

Or if you want to make it active for specific directories within **/var/www/html/whatever-dir** use either new directive within Apache config, or **enable .htaccess processing** with **AllowOverride All** and place them in **.htaccess** . For complete mod_speling reference check on Apache's official website