Another web app demo. This time I will install phpmyadmin which allows me to manage my MySQL databases from a web page.
joe@www-thegummibear:~$ sudo vi /etc/apache2/sites-available/phpmyadmin.thegummibear.com.conf
<VirtualHost 144.38.199.165:80>
  ServerName phpmyadmin.thegummibear.com
  DocumentRoot /var/www/html/phpmyadmin.thegummibear.com
</VirtualHost>
To enable the site, run:

```
sudo a2ensite phpmyadmin.thegummibear.com.conf
```

To activate the new configuration, you need to run:

```
service apache2 reload
```

```
sudo service apache2 reload
```

```
This is the placeholder for phpmyadmin
Download

```
$ echo "Download"

$ sudo wget https://files.phpmyadmin.net/phpMyAdmin/4.6.4/phpMyAdmin-4.6.4-all-languages.zip
```
$ ls
index.html  phpMyAdmin-4.6.4-all-languages.zip

$ sudo unzip phpMyAdmin-4.6.4-all-languages.zip
sudo: unzip: command not found

$ sudo apt-get install unzip
linux-headers-4.4.0-31 linux-headers-4.4.0-31-generic linux-headers-4.4.0-38
linux-headers-4.4.0-38-generic linux-image-4.4.0-31-generic
linux-image-4.4.0-38-generic linux-image-extra-4.4.0-31-generic
linux-image-extra-4.4.0-38-generic

Use 'sudo apt autoremove' to remove them.

Suggested packages:
  zip

The following NEW packages will be installed:
  unzip

0 upgraded, 1 newly installed, 0 to remove and 59 not upgraded.
Need to get 158 kB of archives.
After this operation, 530 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu xenial/main amd64 unzip amd64 6.0-20ubuntu1 [158 kB]
Fetched 158 kB in 2s (55.2 kB/s)
Selecting previously unselected package unzip.
(Reading database ... 192108 files and directories currently installed.)
Preparing to unpack .../unzip_6.0-20ubuntu1_amd64.deb ...
Unpacking unzip (6.0-20ubuntu1) ...
Processing triggers for mime-support (3.59ubuntu1) ...
Processing triggers for man-db (2.7.5-1) ...
Setting up unzip (6.0-20ubuntu1) ...

joe@www-thegummibear.com$ sudo unzip phpMyAdmin-4.6.4-all-languages.zip
```
ls
index.html  phpMyAdmin-4.6.4-all-languages  phpMyAdmin-4.6.4-all-languages.zip
```
ls
index.html  phpMyAdmin-4.6.4-all-languages  phpMyAdmin-4.6.4-all-languages.zip

That directory is too long for me

sudo mv phpMyAdmin-4.6.4-all-languages phpmyadmin
joe@www-theumibear:/var/www/html/phpmyadmin.theumibear.com/phpmyadmin

joe@www-theumibear:/var/www/html/phpmyadmin.theumibear.com/phpmyadmin$ cd phpmyadmin/
Overview

Bzip2

Bzip2 compression and decompression requires functions (bzopen, bzcompress) which are unavailable on this system.

ZIP

Zip decompression requires functions (zip_open) which are unavailable on this system.

Cannot load or save configuration

Please create web server writable folder config in phpMyAdmin top level directory as described in documentation. Otherwise you will be only able to download or display it.

Insecure connection

You are not using a secure connection; all data (including potentially sensitive information, like passwords) is transferred unencrypted! If your server is also configured to accept HTTPS requests follow this link to use a secure connection.
joe@www-thegummibear: /var/www/html/phpmyadmin.thegummibear.com/phpmyadmin$ echo "fix all the problems"
fix all the problems
joe@www-thegummibear: /var/www/html/phpmyadmin.thegummibear.com/phpmyadmin$
sudo apt-cache search php | grep bzip
php-bz2 - bzip2 module for PHP [default]
php7.0-bz2 - bzip2 module for PHP

sudo apt-get install php-bz2
Do you want to continue? [Y/n] Y
Get:1 http://us.archive.ubuntu.com/ubuntu xenial-updates/universe amd64 php7.0-bz2 amd64 7.0.8-0ubuntu0.16.04.3 [9,920 B]
Get:2 http://us.archive.ubuntu.com/ubuntu xenial/universe amd64 php-bz2 all 1:7.0+35ubuntu6 [1,930 B]
Fetched 11.8 kB in 1s (11.1 kB/s)
Selecting previously unselected package php7.0-bz2.
(Reading database ... 192126 files and directories currently installed.)
Preparing to unpack .../php7.0-bz2_7.0.8-0ubuntu0.16.04.3_amd64.deb ...
Unpacking php7.0-bz2 (7.0.8-0ubuntu0.16.04.3) ...
Selecting previously unselected package php-bz2.
Preparing to unpack .../php-bz2_1%3a7.0+35ubuntu6_all.deb ...
Unpacking php-bz2 (1:7.0+35ubuntu6) ...
Processing triggers for libapache2-mod-php7.0 (7.0.8-0ubuntu0.16.04.3) ...
Processing triggers for php7.0-fpm (7.0.8-0ubuntu0.16.04.3) ...
Setting up php7.0-bz2 (7.0.8-0ubuntu0.16.04.3) ...
Creating config file /etc/php/7.0/mods-available/bz2.ini with new version
Setting up php-bz2 (1:7.0+35ubuntu6) ...
Processing triggers for libapache2-mod-php7.0 (7.0.8-0ubuntu0.16.04.3) ...
Processing triggers for php7.0-fpm (7.0.8-0ubuntu0.16.04.3) ...

joe@www-thegummibear:/var/www/html/phpmyadmin.thesystem.cor.com/phpmyadmin$ sudo service apache2 restart
joe@www-thegummibear:/var/www/html/phpmyadmin.thesystem.cor.com/phpmyadmin$
phpMyAdmin setup

Overview

**ZIP**
Zip decompression requires functions (zip_open) which are unavailable on this system.

**Cannot load or save configuration**
Please create web server writable folder config in phpMyAdmin top level directory as described in documentation. Otherwise you will be only able to download or display it.

Show hidden messages (1)

Servers

There are no configured servers

New server
```bash
sudo apt-cache search php | grep zip
libphp-pclzip - transitional dummy package
php-bz2 - bzip2 module for PHP [default]
php-pclzip - ZIP archive manager class for PHP
php-zip - Zip module for PHP [default]
php-zipstreamer - Stream zip files without i/o overhead
php7.0-bz2 - bzip2 module for PHP
php7.0-zip - Zip module for PHP
```

```bash
sudo apt-get install php-zip
```
Fetched 58.0 kB in 0 s (146 kB/s)
Selecting previously unselected package libzip4:amd64.
(Reading database ... 192138 files and directories currently installed.)
Preparing to unpack .../libzip4_1.0.1-0ubuntu1_amd64.deb ...
Unpacking libzip4:amd64 (1.0.1-0ubuntu1) ...
Selecting previously unselected package php7.0-zip.
Preparing to unpack .../php7.0-zip_7.0.8-0ubuntu0.16.04.3_amd64.deb ...
Unpacking php7.0-zip (7.0.8-0ubuntu0.16.04.3) ...
Selecting previously unselected package php7.0-fpm.
Preparing to unpack .../php-7.0-3ubuntu6_all.deb ...
Unpacking php7.0-fpm (1:7.0-3ubuntu6) ...
Processing triggers for libapache2-mod-php7.0 (7.0.8-0ubuntu0.16.04.3) ...
Processing triggers for php7.0-fpm (7.0.8-0ubuntu0.16.04.3) ...
Setting up libzip4:amd64 (1.0.1-0ubuntu1) ...
Setting up php7.0-zip (7.0.8-0ubuntu0.16.04.3) ...

Creating config file /etc/php/7.0/mods-available/zip.ini with new version
Setting up php7.0-fpm (1:7.0+3ubuntu6) ...
Processing triggers for libc-bin (2.23-0ubuntu3) ...
Processing triggers for libapache2-mod-php7.0 (7.0.8-0ubuntu0.16.04.3) ...
Processing triggers for php7.0-fpm (7.0.8-0ubuntu0.16.04.3) ...

$ sudo service apache2 restart
Cannot load or save configuration

Please create web server writable folder config in phpMyAdmin top level directory as described in documentation. Otherwise you will be only able to download or display it.

Show hidden messages (1)

Servers

There are no configured servers

New server

Configuration file

Default language English
essentially you visit the setup page after creating the config folder. After you have correctly made the config, copy it to the correct location.
$ sudo mv config/config.inc.php .
joe@www-thegummibear:/var/www/html/phpmyadmin.thegummibear.com/phpmyadmin$ sudo rm -rf config
joe@www-thegummibear:/var/www/html/phpmyadmin.thegummibear.com/phpmyadmin$
Welcome to phpMyAdmin

#1045 - Access denied for user 'adsf@www.thegummibear.com' (using password: YES)

Language

English

Log in

Username: adsf
Password: 

Go

mysql_real_connect(): (HY000/1045): Access denied for user 'adsf'@'www.thegummibear.com' (using password: YES)
Make sure you have correct mysql privileges for the user
mysql> grant all privileges on *.* to admin@'144.38.199.165' identified by 's3cr3t';
Query OK, 0 rows affected, 1 warning (0.00 sec)
mysql>
Yay, I can login and see all my databases