

Upgrade OpenEMR 3.0.1 Appliance To 3.1.0

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[LINK TO MANUAL IN PDF FORMAT](#)

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Introduction

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This is a rather special upgrade and will consist of several steps. First we will upgrade to OpenEMR version 3.1.0. Then you can consider converting your database to UTF-8 and upgrading to most recent language translation tables. Converting to UTF-8 is not for everybody, so please read that section carefully before embarking on the UTF-8 database conversion.

Please, back up all of your data, and use these instructions at your own risk.

Upgrading to OpenEMR 3.1.0

[Main TOC Link](#)

1. Enter below **bolded** instructions on command line (if prompted to give password during the sudo command, then use 'openemrcool'):

```
#Download openemr-3.1.0.tar.gz (version 3.1.0)  
wget downloads.sourceforge.net/openemr/openemr-3.1.0.tar.gz
```

```
#install php5-gd package  
sudo aptitude update  
sudo aptitude install php5-gd  
-enter 'Y'  
-enter 'Y'
```

```
#make backup directories  
sudo mkdir /backupopenemr  
sudo mkdir /backupopenemr/3_0_1
```

```
#Backup the mysql openemr database into backup directory.  
sudo mkdir /backupopenemr/3_0_1/mysqldatabase  
sudo sh -c 'mysqldump openemr >  
    /backupopenemr/3_0_1/mysqldatabase/mysql_backup.sql'
```

```
#move old OpenEMR 3.0.1 to the backup directory  
sudo mv /var/www/openemr /backupopenemr/3_0_1/openemr
```

```
#put the new OpenEMR 3.1.0 program in its place  
cd /var/www  
sudo tar pxzvf /location/to/tar/openemr-3.1.0.tar.gz  
sudo mv openemr-3.1.0 /var/www/openemr
```

```
#secure OpenEMR  
sudo chown -Rf root:root openemr
```

```
# Restore some original directories  
sudo cp -fr /backupopenemr/3_0_1/openemr/documents  
    /var/www/openemr/  
sudo cp -fr /backupopenemr/3_0_1/openemr/era  
    /var/www/openemr/  
sudo cp -fr /backupopenemr/3_0_1/openemr/edi  
    /var/www/openemr/  
sudo cp -fr  
    /backupopenemr/3_0_1/openemr/custom/letter_templates  
    /var/www/openemr/custom
```

```
#Need to change some file/folder permissions  
sudo chown -R www-data:www-data  
    /var/www/openemr/documents  
sudo chown -R www-data:www-data /var/www/openemr/edi  
sudo chown -R www-data:www-data /var/www/openemr/era
```

```

sudo chown -R www-data:www-data
  /var/www/openemr/custom/letter_templates
sudo chown -R www-data:www-data
  /var/www/openemr/gacl/admin/templates_c
sudo chown -R www-data:www-data
  /var/www/openemr/library/freeb
sudo chown -R www-data:www-data
  /var/www/openemr/interface/main/calendar/modules/PostCalendar/pntemplates/cache
sudo chown -R www-data:www-data
  /var/www/openemr/interface/main/calendar/modules/PostCalendar/pntemplates/compiled

```

#Now for the hardest part of the upgrade; editing the new config files. There are three files that need to be compared to your old config files:

openemr/library/sqlconf.php: Ensure the variables (\$host, \$port, \$login, \$pass, \$dbase) at top of file are the same as the variables from previous 3.0.1 version. Also, change the \$config variable (found near bottom of file within all the slashes) to \$config = 1;

openemr/interface/globals.php: Ensure the variables (\$webserver_root, \$web_root) at top of file are the same as the variables from previous 3.0.1 version. Also ensure optional settings are configured like previous 3.0.1 version.

openemr/includes/config.php: Ensure optional settings are configured like previous 3.0.1 version.

For the openemr 3.0.1/3.1.0 appliance, luckily, only one change is required in /var/www/openemr/library/sqlconf.php .

#edit file /var/www/openemr/library/sqlconf.php:

```
sudo jed /var/www/openemr/library/sqlconf.php
```

```
  #edit the following bolded $config variable:
```

```
    ///////////////DO NOT TOUCH THIS//
```

```
    $config = 1; ///////////////
```

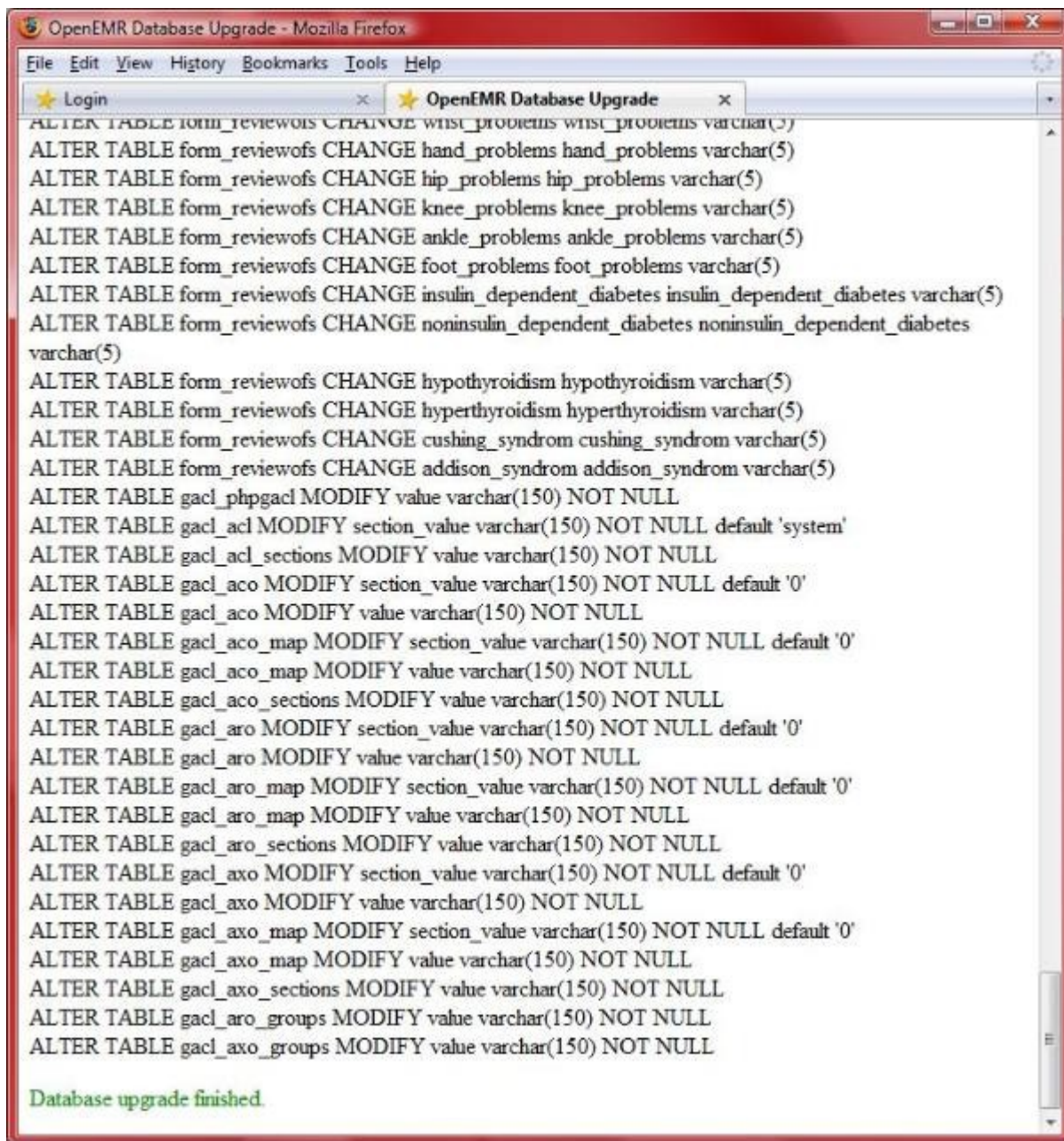
```
    ///////////////
```

```
TEXT EDITOR SAVE AND EXIT
```

3. Next, need to upgrade the mysql database. Now, open a webbrowser outside the appliance and point to (the APPLIANCE_IP_ADDRESS was found by above [ifconfig](#) command):
https://APPLIANCE_IP_ADDRESS/openemr/sql_upgrade.php



Select '3.0.1' and click 'Upgrade Database'.

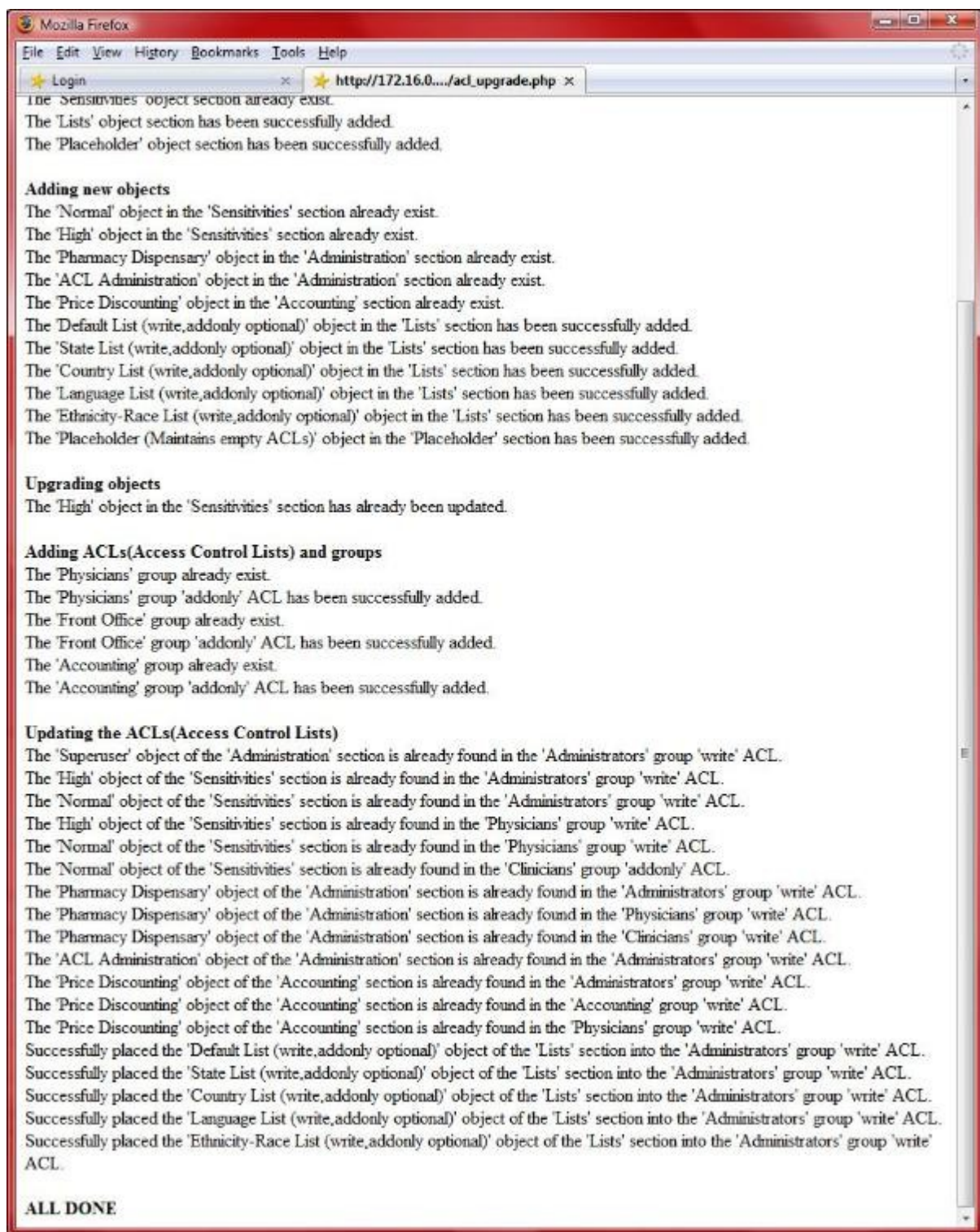


```
ALTER TABLE form_reviewofs CHANGE wrist_problems wrist_problems varchar(5)
ALTER TABLE form_reviewofs CHANGE hand_problems hand_problems varchar(5)
ALTER TABLE form_reviewofs CHANGE hip_problems hip_problems varchar(5)
ALTER TABLE form_reviewofs CHANGE knee_problems knee_problems varchar(5)
ALTER TABLE form_reviewofs CHANGE ankle_problems ankle_problems varchar(5)
ALTER TABLE form_reviewofs CHANGE foot_problems foot_problems varchar(5)
ALTER TABLE form_reviewofs CHANGE insulin_dependent_diabetes insulin_dependent_diabetes varchar(5)
ALTER TABLE form_reviewofs CHANGE noninsulin_dependent_diabetes noninsulin_dependent_diabetes
varchar(5)
ALTER TABLE form_reviewofs CHANGE hypothyroidism hypothyroidism varchar(5)
ALTER TABLE form_reviewofs CHANGE hyperthyroidism hyperthyroidism varchar(5)
ALTER TABLE form_reviewofs CHANGE cushing_syndrom cushing_syndrom varchar(5)
ALTER TABLE form_reviewofs CHANGE addison_syndrom addison_syndrom varchar(5)
ALTER TABLE gacl_phpgacl MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_acl MODIFY section_value varchar(150) NOT NULL default 'system'
ALTER TABLE gacl_acl_sections MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_aco MODIFY section_value varchar(150) NOT NULL default '0'
ALTER TABLE gacl_aco MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_aco_map MODIFY section_value varchar(150) NOT NULL default '0'
ALTER TABLE gacl_aco_map MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_aco_sections MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_aro MODIFY section_value varchar(150) NOT NULL default '0'
ALTER TABLE gacl_aro MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_aro_map MODIFY section_value varchar(150) NOT NULL default '0'
ALTER TABLE gacl_aro_map MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_aro_sections MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_axo MODIFY section_value varchar(150) NOT NULL default '0'
ALTER TABLE gacl_axo MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_axo_map MODIFY section_value varchar(150) NOT NULL default '0'
ALTER TABLE gacl_axo_map MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_axo_sections MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_aro_groups MODIFY value varchar(150) NOT NULL
ALTER TABLE gacl_axo_groups MODIFY value varchar(150) NOT NULL

Database upgrade finished.
```

Ensure you got no errors. Close the window.

4. Next, need to upgrade the php-GACL access controls. Open a webbrowser outside the appliance and point to (the APPLIANCE_IP_ADDRESS was found by above [ifconfig](#) command): https://APPLIANCE_IP_ADDRESS/openemr/acl_upgrade.php



Ensure you got no 'ERRORS'. Close the window.

- Secure openemr . Enter below **bolded** instructions on command line (if prompted to give password during the sudo command, then use 'openemrcool'):

```
sudo chmod 600 /var/www/openemr/acl_setup.php
sudo chmod 600 /var/www/openemr/acl_upgrade.php
sudo chmod 600 /var/www/openemr/sl_convert.php
sudo chmod 600 /var/www/openemr/setup.php
sudo chmod 600 /var/www/openemr/sql_upgrade.php
sudo chmod 600 /var/www/openemr/gacl/setup.php
```

Upgrade Database to UTF-8

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OpenEMR 3.1.0 is 100% UTF-8 compliant to allow special character languages (such as chinese, greek, etc.), however users that are upgrading from a previous version of OpenEMR will continue to have a hybrid UTF-8/latin1 database and thus won't have 100% UTF-8 compliance. Several ways to go for upgraders:

(If decide to convert to UTF8, ensure you backup the database before conversion.)

1) If your only using english characters currently and plan on only using English characters in the future, then doing a simple OpenEMR upgrade will suffice (no need to convert to database to 100% UTF-8).

2) If your only using english characters, however, plan to use a language with any special non-english characters in the future, then you should consider converting your database to 100% UTF-8. In this special case (since you were only using english characters previously) then a simple conversion will work. So, you would do the simple OpenEMR upgrade discussed elsewhere and then do following two command line commands on your upgraded database (assuming database name is openemr):

```
Step1) mysql --database=openemr -B -N -e "SHOW TABLES" | awk '{print "ALTER TABLE", $1, "CONVERT TO CHARACTER SET utf8;"}' | mysql --database=openemr &
```

```
Step2) mysql -e "ALTER DATABASE openemr CHARACTER SET utf8;"
```

(NOTE that above will alter your database and could possibly screw it up, so BACK IT UP first)

3) If your currently using non-english characters, and want to continue supporting non-english characters. This is the hard one, because OpenEMR's previous releases did not do a very good job maintaining consistent encoding in the database (a very common problem in other software also). You could try above strategy in number 2, however you have a possibility of getting garbage. If 2) doesn't work, then you will likely need to go a strategy like the following linked below:

http://codex.wordpress.org/Converting_Database_Character_Sets

To repeat:

---This only pertains to users that are upgrading (users that are installing 3.1.0 new do not need to worry about this stuff)

---Upgraders that are only planning to use english characters do not need to worry about this stuff. (unless you want to be cool, and say your using OpenEMR with 100% compliance...)

For the appliance upgrade, I will convert via step 2 (since there is no data in the blank appliance, it is straightforward). Enter below **bolded** instructions on command line (if prompted to give password during the sudo command, then use 'openemrcool'):

```
sudo mysql --database=openemr -B -N -e "SHOW TABLES" | awk  
'{print "ALTER TABLE", $1, "CONVERT TO CHARACTER  
SET utf8;"}' | sudo mysql --database=openemr &  
sudo mysql -e "ALTER DATABASE openemr CHARACTER SET  
utf8;"
```

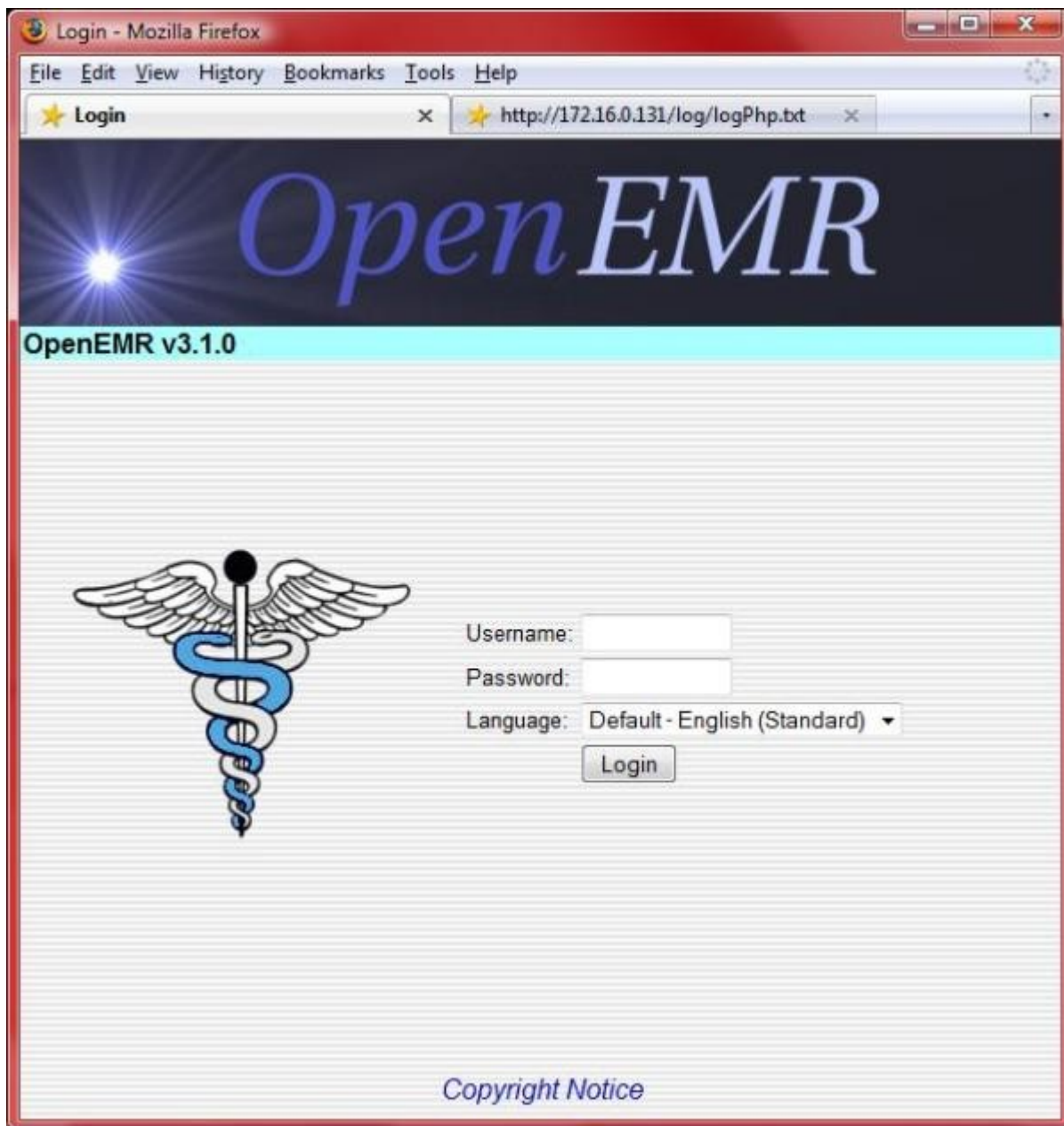
Upgrade Language Translation Tables

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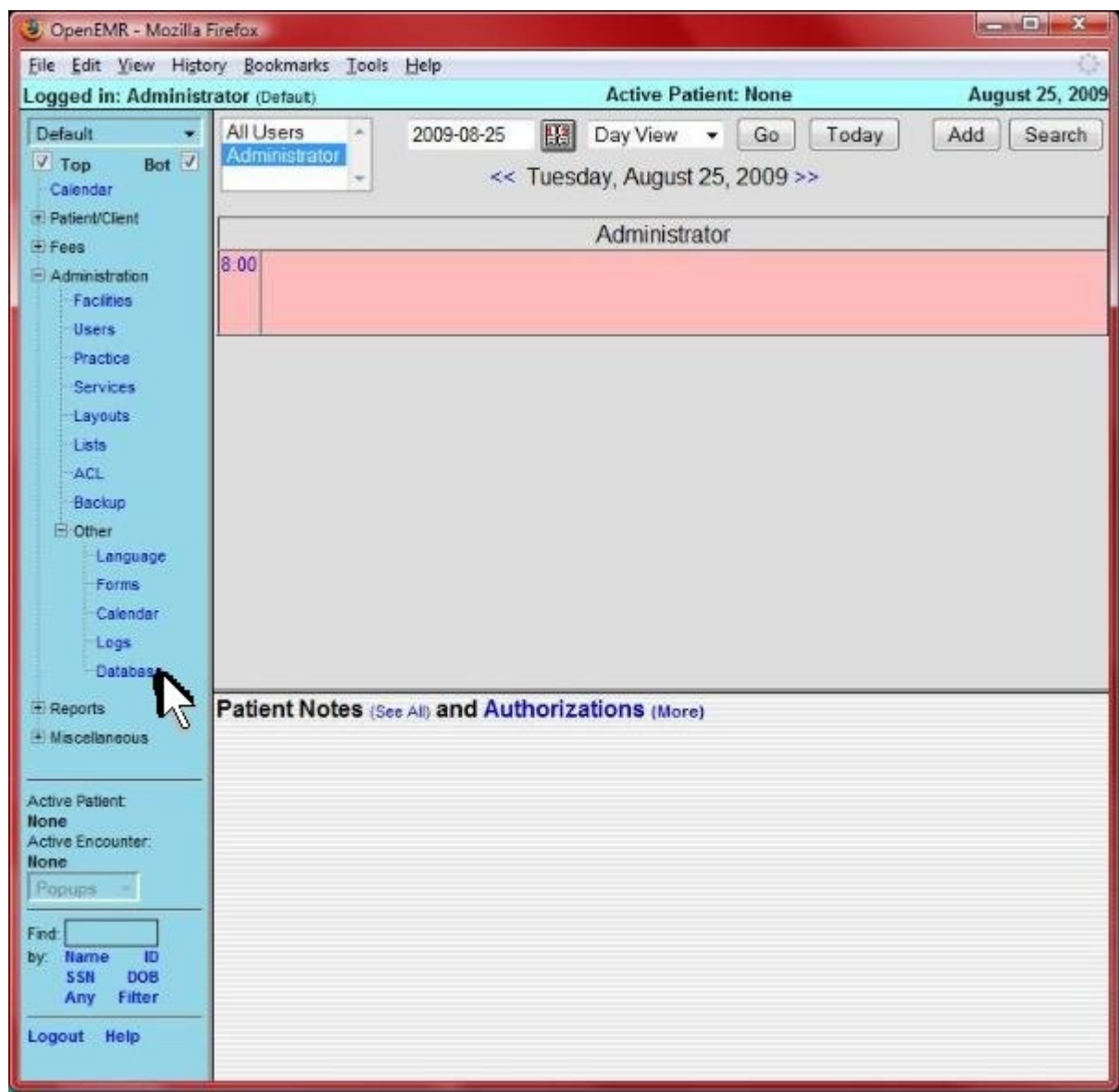
Here we will upgrade to the language translation tables published with OpenEMR 3.1.0 . This is very simple to do. **Note, however, that this will delete all current local language translation tables.**

1. Download translation sql tables from sourceforge to desktop (via 'File'->'Save Page as'): http://openemr.cvs.sourceforge.net/viewvc/openemr/openemr/contrib/util/language_translations/currentLanguage_utf8.sql?revision=1.11.2.6

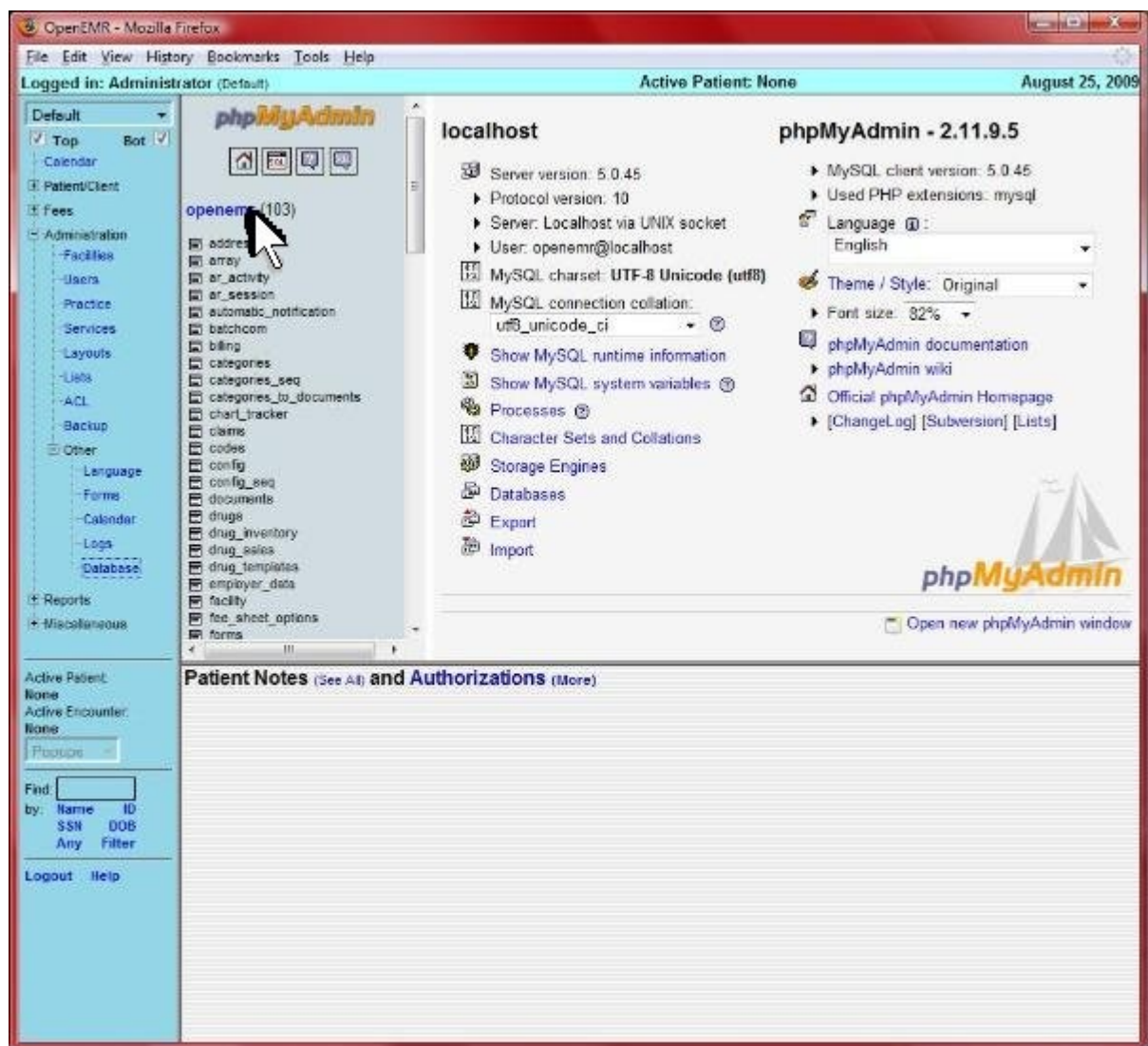
1. Login to OpenEMR:



Login.



Click 'Administration'-'>'Other'-'>'Database' from left tree menu.



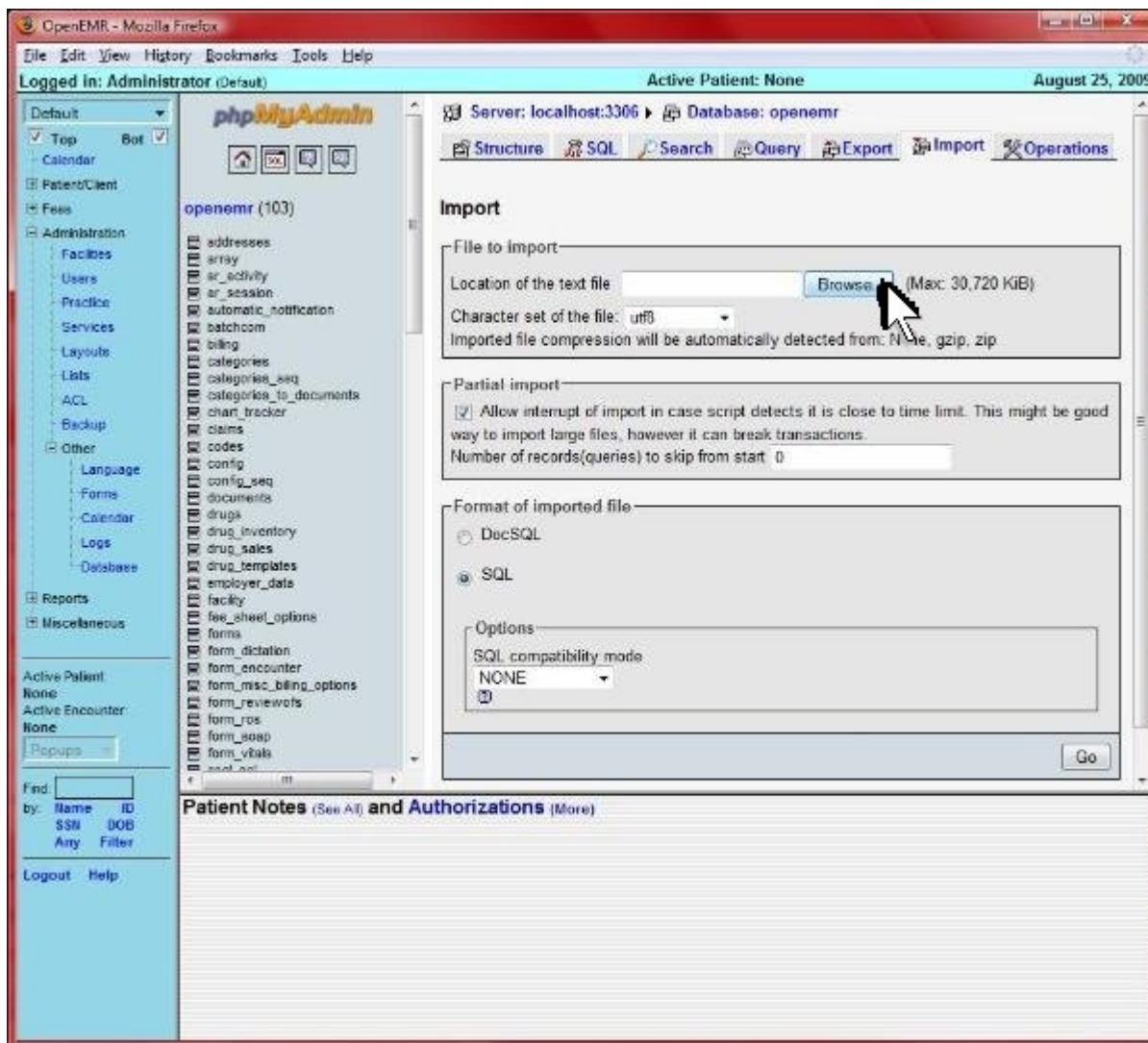
Click 'openemr' database link near top left (highlighted by arrow).

The screenshot shows the OpenEMR phpMyAdmin interface. The top navigation bar includes 'Structure', 'SQL', 'Search', 'Query', 'Export', 'Import', and 'Operations'. The 'Import' button is highlighted with a black arrow. Below this is a table structure view for the 'openemr' database, listing various tables such as 'addresses', 'array', 'ar_activity', 'ar_session', 'automatic_notification', 'batchcom', 'billing', 'categories', and 'categories_seq'. The table view includes columns for 'Table', 'Action', 'Records', and 'Type'. The 'Records' column shows the number of records for each table, and the 'Type' column shows the database engine used (e.g., MySQL, InnoDB).

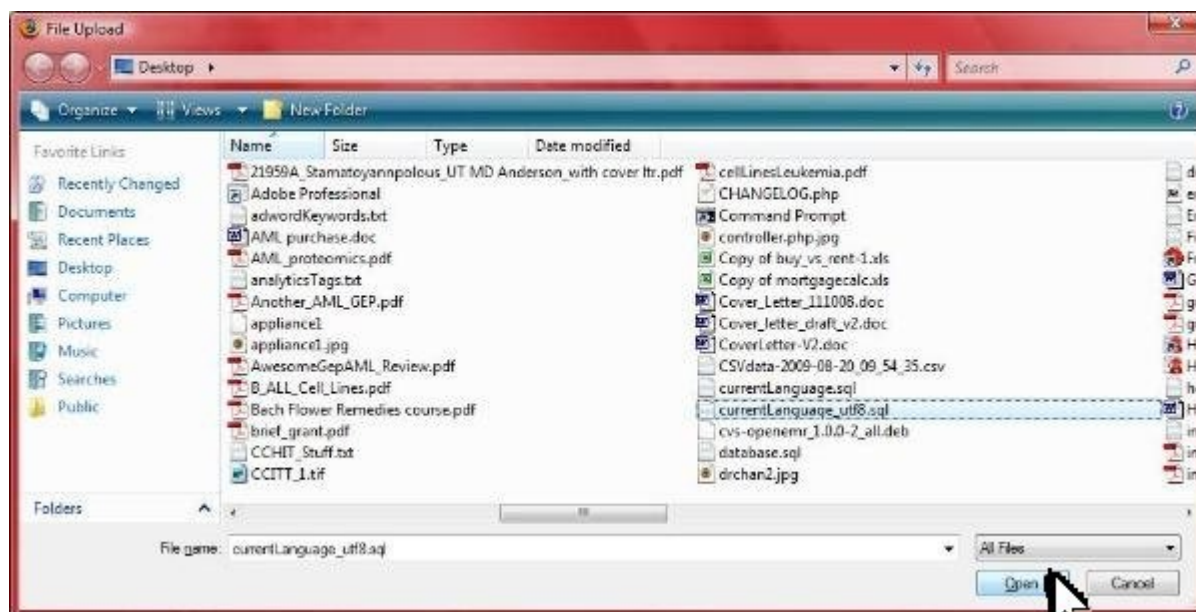
Table	Action	Records	Type
addresses	[Icons]	0	MySQL
array	[Icons]	0	MySQL
ar_activity	[Icons]	0	MySQL
ar_session	[Icons]	0	MySQL
automatic_notification	[Icons]	2	InnoDB
batchcom	[Icons]	0	MySQL
billing	[Icons]	0	MySQL
categories	[Icons]	6	MySQL
categories_seq	[Icons]	1	MySQL

Below the table structure view, there is a section for 'Patient Notes (See All) and Authorizations (More)'. The left sidebar contains a navigation menu with categories like 'Administration', 'Reports', and 'Miscellaneous'. The top status bar shows 'Logged in: Administrator (Default)', 'Active Patient: None', and the date 'August 25, 2009'.

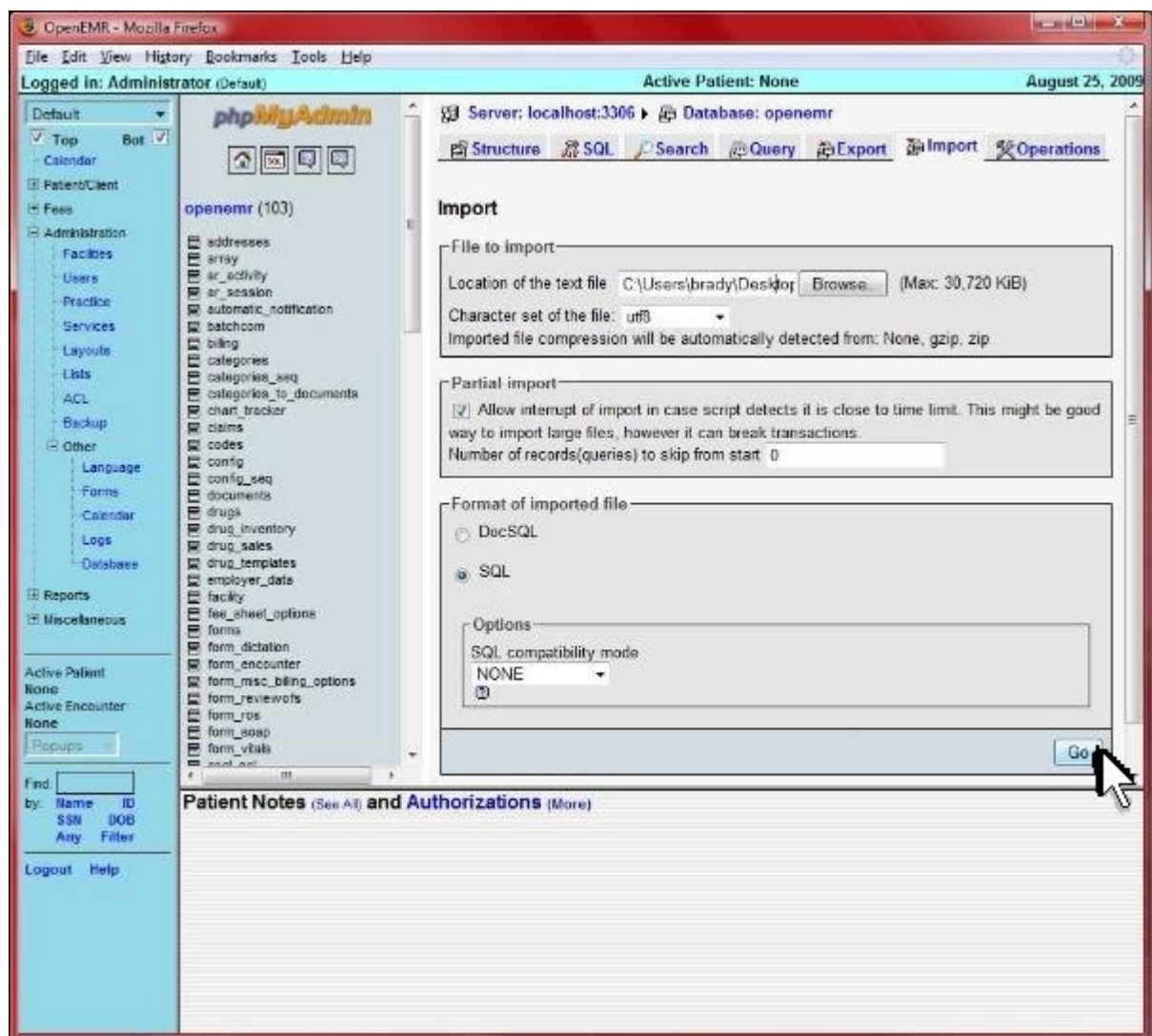
Click 'Import' near top right (highlighted by arrow).



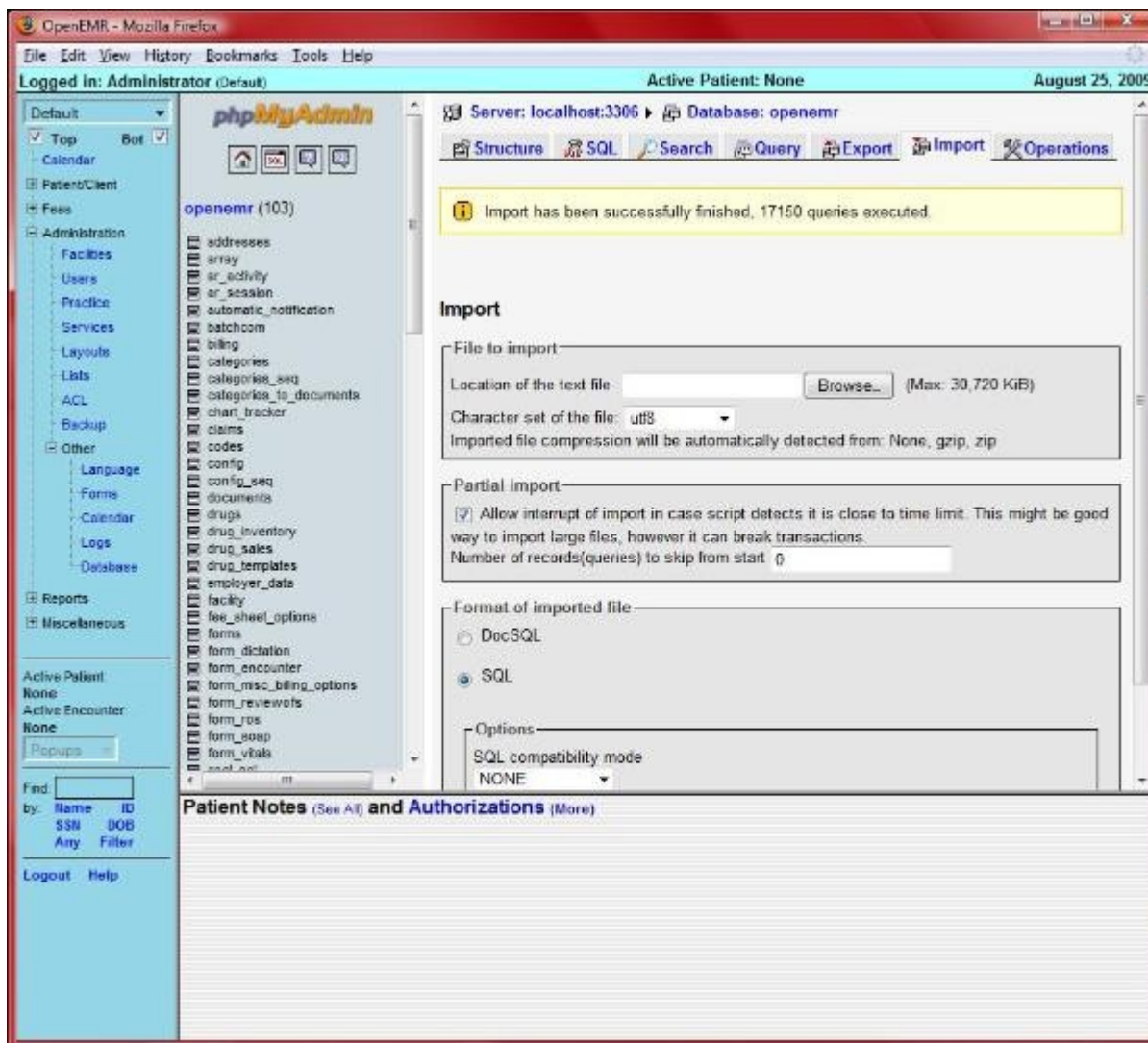
Click 'Browse' (highlighted by arrow).



Select the 'currentLanguage_utf8.sql' file that you downloaded in above first step, and click 'Open'.



Click 'Go' at bottom right (highlighted by arrow). After click, the import can take up to a minute or so.



After import is done, you should see the above yellow banner stating the import has been successfully finished.

ALL DONE

Appendix

A. Configuring client web browser for https

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1. For security, this appliance forces users to use https (encrypted) over a web browser. Because we are using a homemade security certificate (real certificates cost money), most new web browsers will give a security error. This can easily be dealt with by following the

browser instructions to create an exception. I have posted steps for both [Firefox](#) and [Internet Explorer](#).

2. Firefox:



Click 'Or you can add an exception...!.



Click the 'Add Exception...' button.



Click the 'Get Certificate' button. (DO NOT edit the 'Location:')



Click 'Confirm Security Exception'. Ensure 'Permanently store this exception' is checked, so you don't have to go through this every time. Also, DO NOT change 'Location:'.

ALL DONE, go back and continue your previous instructions.

3. Internet Explorer:



Click 'Continue to this website'.

ALL DONE, go back and continue your previous instructions.

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[Main TOC Link](#)

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```
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```

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```
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```

```
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Ty Coon, President of Vice
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