

Installing QST

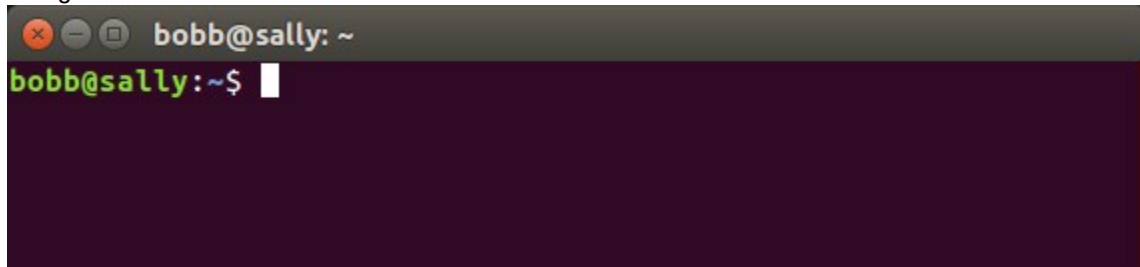
- Always check you have the latest version by going to <https://sourceforge.net/projects/qstonline/>

QST should only be run under SSL.

AWS install at end.

UBUNTU/LINUX Install:

Everything should be done in a terminal window.



The install of MySQL will install their latest stable release 8.x .

When unzipped, the files will be under qst_gpl directory.

Installation on Ubuntu 20.x.

- the version of Perl you are running is 5.30.0 (this comes standard with Ubuntu 20.x)

- Other versions of Ubuntu:

- get the version of perl, run:
perl -v

-if different then 5.30 you will have to change /home/MyApache2/startup.pl to reflect the path to perl with the version number
eg. /usr/local/lib/x86_64-linux-gnu/perl/5.30
change the 5.30 to the version number displayed by running the above

- mod_perl is version 2.x

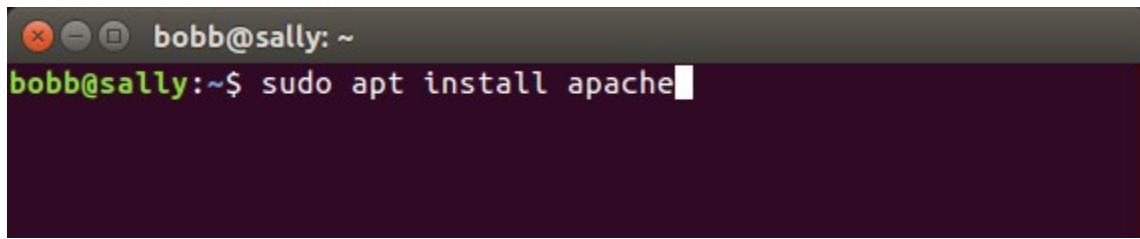
- QST writes errors to /var/logs/apache2/error.log

1. run:

sudo apt-get install build-essential

- install apache 2

sudo apt install apache2

A terminal window with a dark background. The title bar shows a window icon, a close button, and the text 'bobb@sally: ~'. The prompt is 'bobb@sally:~\$' and the command 'sudo apt install apache' is being typed, with a cursor at the end of the line.

```
sudo service apache2 start
sudo service apache2 stop
```

```
- install mod_perl
  sudo apt-get -f install
  sudo apt-get -y install libapache2-mod-perl2
```

```
run: sudo a2enconf mod_perl
run: a2enmod perl.load
```

```
Enabling conf mod_perl.
  To activate the new configuration, you need to run:
    service apache2 reload
  or
    systemctl restart apache2
```

```
under /var/www run:
sudo mkdir qst
```

```
then under /var/www/qst run:
sudo mkdir schools
sudo chmod 777 schools
```

```
then under /var/www/qst/schools run:
sudo mkdir qst_files
sudo chmod 777 qst_files
```

```
then under /var/www/qst/schools/qst_files run:
sudo mkdir photos
sudo chmod 777 photos
```

```
cd to /etc/apache2/sites-available
sudo vi 000-default.conf
change Document root to /var/www/qst
```

```
save
```

```
run:
sudo vi /etc/apache2/sites-enabled/000-default.conf
```

```
Paste the following in under the DocumentRoot directive:
    PerlInterpStart      20
    PerlInterpMax        100
    PerlInterpMaxSpare   20
```

```
close 000-default.conf
```

```
run:
cd /home
sudo mkdir MyApache2
```

```
cd 'to directory you unzipped qst into'
sudo cp QST.pm /home/MyApache2
sudo cp startup.pl /home/MyApache2
cd /home/MyApache2
chmod 711 startup.pl
chmod 715 QST.pm
```

```
run:
sudo vi /etc/apache2/apache2.conf
```

paste the following in above # AccessFileName: The name of the file to look for in each directory :

```
StartServers 10
MaxRequestWorkers 10000
ServerLimit 100
ThreadsPerChild 100
ThreadLimit 100
```

```
PerlModule Apache::DBI
PerlRequire /home/MyApache2/startup.pl
```

```
<Location /qst>
    SetHandler perl-script
    PerlResponseHandler MyApache2::QST
</Location>
```

```
close apache2.conf
```

```
run:
sudo apt-get install perl-doc
sudo perl -MCPAN -e 'install Bundle::DBI'
```

2. install mysql (installs latest version 8.x):

```
run:
sudo apt-get update
sudo apt-get install mysql-server
```

- if it did not ask for a password when installing mysql (version 8.x)

```
run:
sudo mysql -u root -p
or
mysql -u root -p
```

Press Enter

```
mysql>ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY
'your_new_password_here';
```

```
then:
mysql>CREATE DATABASE qst;
```

If MySQL 8.x:

```
mysql>CREATE USER 'qstuser'@'localhost' IDENTIFIED BY 'Qstyreg#389';
mysql>grant all on qst.* to qstuser@localhost;
```

```
mysql>CREATE USER 'qst'@'localhost' identified by 'Qst#captain2';
mysql>grant SELECT, INSERT, DELETE,UPDATE ON qst.* TO qst@localhost;
```

```
else if prior version:
mysql>grant usage on *.* to qstuser@localhost identified by 'Qstyreg#389';
mysql>grant all privileges on qst.* to qstuser@localhost;
mysql>grant usage on *.* to qst@localhost identified by 'Qst#captain2';
mysql>grant SELECT, INSERT, DELETE,UPDATE ON qst.* TO 'qst'@'localhost';
```

then log out of the MySQL shell:

```
mysql>exit;
```

and type the following in the terminal window:

```
mysql -u qstuser -p qst < /'path to directory you unzipped qst to'/qst_gpl/qst.sql
```

Go to /etc/mysql/mysql.conf.d

Open mysqld.conf

under the [mysqld] section,

replace:

```
#socket      = /var/run/mysqld/mysqld.sock
```

with:

```
socket      = /run/mysqld/mysqld.sock
```

Save the file.

run:

```
sudo apt-get update
```

run:

```
sudo cpan Email::Valid
```

```
sudo apt-get install libcrypt-pbkdf2-perl
```

```
sudo apt-get install libdbd-mysql-perl
```

```
sudo cpan -i Net::DNS
```

```
sudo cpan -i Net::LDAP
```

```
sudo cpan -i Mail::Address
```

```
sudo cpan -i MIME::Base64
```

```
sudo cpan -i Archive::Zip
```

```
sudo cpan -i Exporter
```

```
sudo perl -MCPAN -e 'install Apache::DBI'
```

Copy the contents of /'path to directory you unzipped qst to'/qst_gpl/qst directory to /var/www/qst/

Copy the contents of /'path to directory you unzipped qst to'/qst_gpl/schools directory to /var/www/qst/schools

Restart Apache:

```
sudo service apache2 stop
```

```
sudo service apache2 start
```

Go to localhost in your web browser and enter the info. below:

username: admin

pass: qstcaptain

!!!!!! Change the password!

Click on Server -> Administration -> Head Administrator and select Password. Change

the password and Save it.

To Use LDAP:

open QST.pm

```
uncomment line 591 & 656 $compare_password =  
&authenticate_ldap("username", "$INPUT{user}", "password", "$INPUT{pass}");
```

```
comment out line 592 & 657 $compare_password =  
&compare_password("password", "$INPUT{pass}", "hash", "$row[2]");
```

Make appropriate changes to sub authenticate_ldap section beginning at line 939

To use SSL:

Run the command:
dpkg -S mod_ssl.so

Chances are that it will display something like:

apache2.2-common: /usr/lib/apache2/modules/mod_ssl.so

It means that mod_ssl is already installed on your system, as it does not come in a separate package, but it is bundled in apache2.2-common.

Run:
a2enmod ssl
sudo service apache2 reload

go to <https://letsencrypt.org/> to get a certificate:
Use Certbot ACME client.

AWS Install

Choose Ubuntu 20.x as OS.

- only install OS
- Do NOT have Apache or MySQL installed (you will install it).
- Follow the Ubuntu/Linux instructions above.
