

PARLO Tracker Linux Administrator Guide

Manual for the installation configuration and maintenance of PARLO Tracker on Production or Staging Linux Servers.

Previously known as PARLO Tracker Software Installation Guide

June 15, 2016



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Prerequisites

- 1) Successful completion of the “PARLO Tracker Server Preparation Guide”

Recommendations

- 1) This document is for use by a Unix/Linux Administrator, with the possible assistance of a Ruby on Rails developer.
- 2) These directions are following the hardware recommendation of 3 servers (1 web server, 1 database server, and one testing/backup server). Each heading indicates which server on which the steps should be performed.
- 3) The website for Tracker will be <https://tracker.stemmaster.moe.edu.eg>.

Specific Server Setup Table of Contents

Database Server

None

Testing/Backup Server

All

Web Server

All

Icon Glossary

#	Root prompt
\$	Non-Root prompts (IE: deploy user or client machines)
MariaDB [none] >	Maria DB Console Prompt
http:	browser URL
Bold	Text to be entered as written
<i>Italicize</i>	Variable Example
<i>Bold Italicize</i>	Variable to be entered
<u>Underline</u>	Important Information
<Enter> <Shift>	Indicates specific keys on keyboard
Highlight	Important Notes

vi Editor Commands

a	Append
i	Insert
<esc> :wq	Save and Exit
<esc> :q!	Exit Without Saving
<esc>/	Find

<esc><ctrl>d	Down a half page
<esc><ctrl>u	Up a half page.
<esc>G	Down to bottom of file.
<esc>:set number	Show line numbers

Copy PARLO Tracker software down from StemEgypt repository on github.

Testing/Backup, and Web Servers

Generate a public SSL certificate and add to Stem Egypt Repository authorized deploy certificates.

Note: this step is to configure the web server to be able to git clone from github. If this is not allowed by the firewall, then this step may be skipped, and other methods of copying the software will be need to be used.

The PARLO Tracker software will be able to be downloaded directly to the web server if the StemEgypt repository has the public SSL certificate key for the web server added to its lis of deploy keys.

Make sure you are logged in with the **newuser** account, switched user (**su -**) to root, and then switched user to deploy (# **su - deploy**).

- 1) Confirm there is no public key existing already for the deploy user. If this file exists skip to step 3.

```
# ls /home/deploy/.ssh/id_rsa.pub
```

- 2) Create the public key file.

```
# ssh-keygen -t rsa -C "<email_address_of_owner_of_certificate>"  
[deploy@li904-41 ~]$ ssh-keygen -t rsa -C 'tayloredwebsites@me.com'  
Generating public/private rsa key pair.  
Enter file in which to save the key (/home/deploy/.ssh/id_rsa):  
Created directory '/home/deploy/.ssh'.  
Enter passphrase (empty for no passphrase):  
Enter same passphrase again:  
Your identification has been saved in /home/deploy/.ssh/id_rsa.  
Your public key has been saved in /home/deploy/.ssh/id_rsa.pub.  
The key fingerprint is:  
5c:d6:78:8a:78:92:5e:49:8d:62:d4:1a:5b:b7:94:c1 tayloredwebsites@me.com  
The key's randomart image is:  
+--[ RSA 2048]----+  
| ... ..0 |  
| .. ooEo |  
| 0=oo=.o |  
| .o* =.o |  
| + S . |  
| . + |  
| . |  
+-----+
```

- 3) Add the public key to the StemEgypt repository 'deploy keys' (must be able to sign in as a github user with the rights to access the StemEgypt repository). If you are unable to do this, you should ask 21PSTEM to do this for you.

<https://github.com/21pstems/StemEgypt/settings/keys>

1. click the **[add deploy key]** button.
2. Paste the contents of the /home/deploy/.ssh/id_rsa.pub text file into the key field of the form
3. give a title to the key indicating the name of the server (e.g. **tracker.stemmaster.moe.edu.eg**)
4. do not check the allow write access checkbox. We do not want servers updating the PARLO Tracker software.
5. Click the **[Add key]** button

Add a deploy key

Title
Testing Server

Key
ssh-rsa AAAAB3NzaC1yc2EAAAQABAAQDBnQFR7/I568SFJCoKb3S5AyesZPfi3FibOnKvayAwrQFxUW1zN9ZPOO evZjGAYfB52lk/p5y5BKD9RzLoZzS3E3tvZFrJB7eOalq088DclJkWYeHFKtV0ZrYV78k5yNWJzt3YMS92DwgZ8Emph wLrKYgZggPHMb4f1WhT1j5vtGciGEXFR1mYzvSJ4AswDFV+m+3Hs5Ho3mGQQT0SlrBz8f6mNn4mHumrdWRg+ixsP Di9UfbalUT9OfoLETI6ddRy1dPoQXRuPboXG6y/GdX4Zu5A5qiyGBgFXdNvOhEoYORPZvGLdysly8NHZNVJG9g8XJY 1dQeNoeB+s2tz/ tayloredwebsites@me.com

Allow write access
Can this key be used to **push** to this repository? Deploy keys always have pull access.

Add key

Prepare to copy the PARLO Tracker software from the StemEgypt repository.

Note: this step is to configure the web server to be able to git clone from github. If this is not allowed by the firewall, then this step may be skipped, and other methods of copying the software will be need to be used.

Make sure you are logged in with the **newuser** account and have switched user (**su -**) to root.

- 1) Confirm git is not installed on the web server.

```
# yum list installed git
```

- 2) If you get the error: Error: No matching Packages to list, then do the following instructions:

- 3) Make sure the system is up-to-date by running **# yum update** If asked, confirm that the install should run. The install make take a few minutes. When install is finished, the final message will be Complete!

```
# yum update
```

- 4) Ensure that git is installed on the server

```
# yum install git
```

```
[root@li904-41 ~]# yum install git
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
* base: mirrors.linode.com
```

Create Website Directories

Make sure you are logged in with the **newuser** account, then switched user (**su -**) to root.

Note: this step may have been completed if an older version of the 'PARLO Tracker Preparation Guide" was used (which contained the instructions from this section).

- 1) Create the directories off of root path and confirm the parlo-tracker directory is owned by the deploy user.

```

# mkdir /web
# mkdir /web/parlo-tracker
# chown deploy:deploy /web/parlo-tracker
# ls -al /web
root@li904-41 ~]# chown deploy:deploy /web/parlo-tracker
root@li904-41 ~]# ls -al /web
total 12
rwxr-xr-x 3 root    root    4096 Dec 30 20:12 .
r-xr-xr-x 19 root   root    4096 Dec 30 20:11 ..
rwxr-xr-x 2 deploy  deploy  4096 Dec 30 20:12 parlo-tracker

```

- 2) Create directories for the stem-egypt rails application and capistrano deploy.

```

# mkdir /web/parlo-tracker/stem-egypt
# mkdir /web/parlo-tracker/stem-egypt/shared
# mkdir /web/parlo-tracker/stem-egypt/shared/config
root@li904-41 ~]# mkdir /web/parlo-tracker/stem-egypt/shared/config

```

- 3) Use vi to create the rails database configuration file.

```
# vi /web/parlo-tracker/stem-egypt/shared/config/database.yml
```

- a. Edit the file so that it looks like the file below.

Note: all lines except the first line (production:) are indented with two spaces. The pool and timeout variables may be modified for performance purposes based upon hardware configuration and transaction load. Replace *mysql tracker_web user password* in the command below with the actual password for the user that was created in the previous section. If the database is on a different server, then uncomment the host and port configuration lines, and place in the appropriate IP address in the host line.

```

Production:
  adapter: mysql2
  database: stem_egypt
  username: tracker_web
  password: mysql tracker_web user password
  # host: 127.0.0.1
  # port: 3306
  pool: 10
  timeout: 5000

```

- b. Confirm file has been modified correctly.

```
# cat /web/parlo-tracker/stem-egypt/shared/config/database.yml
production:
  adapter: mysql2
  database: stem_egypt
  username: tracker_web
  password: mysql tracker_web user password
  pool: 10
  timeout: 5000
```

Setup the website shared directory.

The shared directory contains files that are used in all versions of the software and are not part of the software download. When a new version of the software is downloaded, we simply create symbolic links to these shared files. The shared directory contains the following files:

- The shared/config/database.yml file is not part of the software download because it contains sensitive information that is specific to each installation. Linking to this file gives us access to this pre-configured file.
- The shared/uploads/ directory contains the bulk upload template files. By linking to this folder on new software installations, we automatically have all previously bulk upload templates available.
- The shared/public/system/ directory contains any files uploaded to the server, such as the evidence attachment files. By keeping these files in a directory that does not change, we do not lose any uploaded files when we download the new version of the software.

Make sure you are logged in with the **newuser** account, then switched user (**su -**) to root.

- 1) Ensure the shared directory contains the bulk upload template files. If you are unable to locate these files, please ask 21PSTEM for these files. If this directory does not exist, please create it and copy in the files. If done correctly, the last instruction should list the upload xlsx files.

```
# mkdir /web/parlo-tracker/stem-egypt/shared/public
# mkdir /web/parlo-tracker/stem-egypt/shared/public/uploads
# cp -R <bulk upload files directory>/* /web/parlo-tracker/stem-egypt/shared/public/uploads/
# ls -al /web/parlo-tracker/stem-egypt/shared/public/uploads/
[root@li904-41 ~]# mkdir /web/parlo-tracker/stem-egypt/shared/public
[root@li904-41 ~]# mkdir /web/parlo-tracker/stem-egypt/shared/public/uploads
[root@li904-41 ~]# cp -R /tmp/uploads/* /web/parlo-tracker/stem-egypt/shared/public/uploads/
[root@li904-41 ~]# ls -al /web/parlo-tracker/stem-egypt/shared/public/uploads/
total 40
drwxr-xr-x 2 root root 4096 Feb 23 20:25 .
drwxr-xr-x 3 root root 4096 Feb 23 20:24 ..
-rwx----- 1 root root 13313 Feb 23 20:25 Staff Data Upload.xlsx
-rwx----- 1 root root 13033 Feb 23 20:25 Student Data Upload.xlsx
```

- 2) Ensure the shared directory contains the evidence attachments files. If this is a new server create process then the directory should be created

```
# mkdir /web/parlo-tracker/stem-egypt/shared/public/system
# ls -al /web/parlo-tracker/stem-egypt/shared/public/system
[root@li904-41 ~]# mkdir /web/parlo-tracker/stem-egypt/shared/public/system
[root@li904-41 ~]# ls -al /web/parlo-tracker/stem-egypt/shared/public/system
total 8
drwxr-xr-x 2 root root 4096 Feb 23 20:29 .
drwxr-xr-x 4 root root 4096 Feb 23 20:29 ..
```

Set Website Directory Permissions

Make sure you are logged in with the **newuser** account, then switched user (**su -**) to root.

- 1) Ensure that deploy has full rights to the web server directories, including the newly created shared directories.

```
# chown -R deploy:deploy /web/parlo-tracker
# ls -al /web/parlo-tracker
# ls -al /web/parlo-tracker/stem-egypt/shared/
```

```
[root@li904-41 ~]# chown -R deploy:deploy /web/parlo-tracker
[root@li904-41 ~]# ls -al /web/parlo-tracker
total 12
drwxr-xr-x 3 deploy deploy 4096 Feb 18 17:37 .
drwxr-xr-x 3 root root 4096 Feb 18 17:35 ..
drwxr-xr-x 4 deploy deploy 4096 Feb 23 20:01 stem-egypt
[root@li904-41 ~]# ls -al /web/parlo-tracker/stem-egypt/shared/
total 20
drwxr-xr-x 5 deploy deploy 4096 Feb 23 20:24 .
drwxr-xr-x 4 deploy deploy 4096 Feb 23 20:01 ..
drwxr-xr-x 2 deploy deploy 4096 Feb 23 20:27 config
drwxr-xr-x 4 deploy deploy 4096 Feb 23 20:29 public
drwxr-xr-x 2 deploy deploy 4096 Feb 22 16:43 uploads
```

Stop the Web Server (and optionally save off previous version of software)

Make sure you are logged in with the ***newuser*** account, then switched user (***su -***) to root.

- 1) Ensure the shared directory contains the bulk upload template files. If you are unable to locate these file, please ask 21PSTEM for these files. If this directory does not exist, please create it and copy in the files.

```
# systemctl stop httpd
```

- 2) switch back to the deploy user

```
# su - deploy
```

- 3) save the previous version of the website

```
# mv /web/parlo-tracker/stem-egypt/current/ /web/parlo-tracker/stem-egypt/old-yyyy-mm-dd
```

Copy/Clone the PARLO Tracker software into the Web Server

Make sure you are logged in with the ***newuser*** account, switched user (***su -***) to root, and then switched user to deploy (# ***su - deploy***).

1. If the firewall allows the web server to git clone from github, then this step should be followed. Change directory so that you are in the directory that holds the websites (/web/parlo-tracker/stem-egypt/), and clone the website

```
$ cd /web/parlo-tracker/stem-egypt/
$ git clone git@github.com:21pstems/StemEgypt.git
[deploy@li904-41 ~]$ cd /web/parlo-tracker/stem-egypt/
[deploy@li904-41 stem-egypt]$ git clone git@github.com:21pstems/StemEgypt.git
Cloning into 'StemEgypt'...
Warning: Permanently added the RSA host key for IP address '192.30.252.129' to the list
of known hosts.
remote: Counting objects: 1595, done.
remote: Total 1595 (delta 0), reused 0 (delta 0), pack-reused 1595
Receiving objects: 100% (1595/1595), 12.26 MiB | 0 bytes/s, done.
Resolving deltas: 100% (307/307), done.
```

2. If the firewall does not allow the web server to git clone from github, then this step should be followed.

- Copy the zipped PARLO Tracker software downloaded from github into the web server.
- Move the zipped software to the /web/parlo-tracker/stem-egypt directory.
- Change directory so that you are in /web/parlo-tracker/stem-egypt/.
- Unzip the zipped software.
- The unzipped software directory is assumed to be named StemEgypt for the next step in this procedure.
- Make sure the permissions for all software is owned by deploy user:

```
# chown -R deploy:deploy /web/parlo-tracker
```

Set up the current directory with the software and shared directory

1. make the copied/cloned software the current.

```
$ mv StemEgypt current
```

```
[deploy@li904-41 stem-egypt]$ mv StemEgypt current
[deploy@li904-41 stem-egypt]$ ls -al
total 16
drwxr-xr-x 4 deploy deploy 4096 Feb 23 19:14 .
drwxr-xr-x 3 deploy deploy 4096 Feb 18 17:37 ..
drwxrwxr-x 13 deploy deploy 4096 Feb 18 20:19 current
drwxr-xr-x 4 deploy deploy 4096 Feb 22 16:43 shared
```

2. create a symbolic link to the database.yml file in the current version, and confirm it was properly linked.

```
$ ln -s /web/parlo-tracker/stem-egypt/shared/config/database.yml
/web/parlo-tracker/stem-egypt/current/config/database.yml
$ cat /web/parlo-tracker/stem-egypt/current/config/database.yml
[deploy@li904-41 current]$ ln -s /web/parlo-tracker/stem-egypt/shared/co
nfig/database.yml /web/parlo-tracker/stem-egypt/current/config/database.
yml
[deploy@li904-41 current]$ cat /web/parlo-tracker/stem-egypt/current/con
fig/database.yml
production:
  adapter: mysql2
  database: stem_egypt
  username: tracker_web
  password: tracker_pass
  pool: 10
  timeout: 5000
```

3. create a symbolic link to the uploads directory in the current version, and confirm it was properly linked.

```
$ ln -s /web/parlo-tracker/stem-egypt/shared/public/uploads
/web/parlo-tracker/stem-egypt/current/public/uploads
$ ls -al /web/parlo-tracker/stem-egypt/current/public/
$ ls -al /web/parlo-tracker/stem-egypt/current/public/uploads/
[deploy@li904-41 stem-egypt]$ ln -s /web/parlo-tracker/stem-egypt/shared
/public/uploads /web/parlo-tracker/stem-egypt/current/public/uploads
[deploy@li904-41 stem-egypt]$ ls -al /web/parlo-tracker/stem-egypt/curre
nt/public/
total 28
drwxrwxr-x 2 deploy deploy 4096 Feb 23 21:09 .
drwxrwxr-x 14 deploy deploy 4096 Feb 23 19:23 ..
-rw-rwxr-x 1 deploy deploy 728 Feb 18 20:19 404.html
-rw-rwxr-x 1 deploy deploy 711 Feb 18 20:19 422.html
-rw-rwxr-x 1 deploy deploy 728 Feb 18 20:19 500.html
-rw-rw-r-- 1 deploy deploy 1150 Feb 18 20:19 favicon.ico
-rw-rwxr-x 1 deploy deploy 204 Feb 18 20:19 robots.txt
lrwxrwxrwx 1 deploy deploy 51 Feb 23 21:09 uploads -> /web/parlo-trac
ker/stem-egypt/shared/public/uploads
[deploy@li904-41 stem-egypt]$ ls -al /web/parlo-tracker/stem-egypt/curre
nt/public/uploads/
total 40
drwxr-xr-x 2 deploy deploy 4096 Feb 23 20:25 .
drwxr-xr-x 4 deploy deploy 4096 Feb 23 20:29 ..
-rwx----- 1 deploy deploy 13313 Feb 23 20:25 Staff Data Upload.xlsx
-rwx----- 1 deploy deploy 13033 Feb 23 20:25 Student Data Upload.xlsx
```

4. create a symbolic link to the system directory in the current version

```
$ ln -s /web/parlo-tracker/stem-egypt/shared/public/system
/web/parlo-tracker/stem-egypt/current/public/system
$ ls -al /web/parlo-tracker/stem-egypt/current/public/
$ ls -al /web/parlo-tracker/stem-egypt/current/public/system/
```

```
[deploy@li904-41 stem-egypt]$ ln -s /web/parlo-tracker/stem-egypt/shared/public/system /web/parlo-tracker/stem-egypt/current/public/system
[deploy@li904-41 stem-egypt]$ ls -al /web/parlo-tracker/stem-egypt/current/public/
total 28
drwxrwxr-x 2 deploy deploy 4096 Feb 23 21:11 .
drwxrwxr-x 14 deploy deploy 4096 Feb 23 19:23 ..
-rwxrwxr-x 1 deploy deploy 728 Feb 18 20:19 404.html
-rwxrwxr-x 1 deploy deploy 711 Feb 18 20:19 422.html
-rwxrwxr-x 1 deploy deploy 728 Feb 18 20:19 500.html
-rw-rw-r-- 1 deploy deploy 1150 Feb 18 20:19 favicon.ico
-rwxrwxr-x 1 deploy deploy 204 Feb 18 20:19 robots.txt
lrwxrwxrwx 1 deploy deploy 50 Feb 23 21:11 system -> /web/parlo-tracker/stem-egypt/shared/public/system
lrwxrwxrwx 1 deploy deploy 51 Feb 23 21:09 uploads -> /web/parlo-tracker/stem-egypt/shared/public/uploads
[deploy@li904-41 stem-egypt]$ ls -al /web/parlo-tracker/stem-egypt/current/public/system/
total 8
drwxr-xr-x 2 deploy deploy 4096 Feb 23 20:29 .
drwxr-xr-x 4 deploy deploy 4096 Feb 23 20:29 ..
```

- put Egyptian background image on the login page

```
$ cp /web/parlo-tracker/stem-egypt/current/app/assets/images/login_egypt_bg.png /web/parlo-tracker/stem-egypt/current/app/assets/images/login_bg.png
[root@li904-41 ~]# mkdir /web/parlo-tracker/stem-egypt/shared/config/system
[root@li904-41 ~]# ls -al /web/parlo-tracker/stem-egypt/shared/config/system
total 8
drwxr-xr-x 2 root root 4096 Feb 22 16:49 .
drwxr-xr-x 3 deploy deploy 4096 Feb 22 16:49 ..
```

Prepare current version to run

Make sure you are logged in with the ***newuser*** account, switched user (***su -***) to ***root***, and then switched user to ***deploy*** (# ***su - deploy***).

- go to current directory and ensure the ruby is the correct version

```
$ cd /web/parlo-tracker/stem-egypt/current
$ ruby -v
[deploy@li904-41 stem-egypt]$ cd current
[deploy@li904-41 current]$ ruby -v
ruby 1.9.3p551 (2014-11-13 revision 48407) [x86_64-linux]
[deploy@li904-41 current]$ rvm --default use ruby-1.9.3-p550
Using /home/deploy/.rvm/gems/ruby-1.9.3-p550
[deploy@li904-41 current]$ rvm list

rvm rubies

*= ruby-1.9.3-p550 [ x86_64 ]
      ruby-1.9.3-p551 [ x86_64 ]

# => - current
# *= - current && default
# * - default
```

- install bundler

```
$ bundle install --without development test
[deploy@li904-41 current]$ bundle install --without development test
Fetching gem metadata from http://rubygems.org/.....
```

...

```
Bundle complete! 45 Gemfile dependencies, 86 gems now installed.  
Gems in the groups development and test were not installed.  
Use `bundle show [gemname]` to see where a bundled gem is installed.  
Post-install message from newrelic_rpm:
```

3. confirm rails is installed (and is the correct version)

```
$ rails -v  
[deploy@li904-41 current]$ rails -v  
Rails 3.2.10
```

4. set up the asset pipeline

```
$ bundle exec rake assets:precompile RAILS_ENV=production  
[deploy@li904-41 current]$ bundle exec rake assets:precompile RAILS_ENV=production  
/home/deploy/.rvm/rubies/ruby-1.9.3-p550/bin/ruby /home/deploy/.rvm/gems/ruby-1.9.3-p550/bin/rake assets:precompile:all RAILS_ENV=production RAILS_GROUPS=assets
```

5. create the database table; load the model & training schools; and load the default server configuration.

```
$ bundle exec rake db:migrate  
[deploy@li904-41 current]$ bundle exec rake db:migrate RAILS_ENV=production  
== DeviseCreateUsers: migrating ==  
=====  
...  
== CreateServerConfigTable: migrating ==  
=====  
-- create_table(:server_configs)  
  -> 0.0021s  
== CreateServerConfigTable: migrated (0.0024s) ==  
=====
```

```
$ bundle exec rake db:migrate:status RAILS_ENV=production  
[deploy@li904-41 current]$ bundle exec rake db:migrate:status RAILS_ENV=production  
  
database: stem_egypt  
  
  Status  Migration ID      Migration Name  
-----  
    up     20110518170412  Devise create users  
    ...  
    up     20151214215007  Add lo code to subject outcomes  
    up     20160211175640  Create server config table
```

```
$ bundle exec rake db:seed RAILS_ENV=production  
[deploy@li904-41 current]$ bundle exec rake db:seed RAILS_ENV=production
```

```
$ bundle exec rails console production  
[deploy@li904-41 current]$ bundle exec rails console production  
> ServerConfig.create  
- should show the commit and list the configuration record.  
> ServerConfig.all.count  
- should return a count of 1.
```

```
1.9.3-p550 :001 > ServerConfig.create
  (0.1ms)  BEGIN
  SQL (0.2ms)  INSERT INTO `server_configs` (`created_at`, `district_id`,
  `district_name`, `school_support_team`, `server_name`, `server_url`,
  `support_email`, `support_team`, `updated_at`, `web_server_name`) VALUES
  ('2016-02-28 17:37:32', '', '', 'School IT Support Team', 'Tracker Syste
  m', '', 'trackersupport@21pstems.org', 'Tracker Support Team', '2016-02-2
  8 17:37:32', 'PARLO Tracker Web Server')
  (0.3ms)  COMMIT
=> #<ServerConfig id: 1, district_id: "", district_name: "", support_em
ail: "trackersupport@21pstems.org", support_team: "Tracker Support Team",
  school_support_team: "School IT Support Team", server_url: "", server_n
ame: "Tracker System", web_server_name: "PARLO Tracker Web Server", crea
ted_at: "2016-02-28 17:37:32", updated_at: "2016-02-28 17:37:32">
1.9.3-p550 :002 > ServerConfig.all.count
  ServerConfig Load (0.4ms)  SELECT `server_configs`.* FROM `server_conf
igs`
=> 1
```

Installing the SSL Certificate (Self Signed or from Certificate Authority).

Testing/Backup, and Web Servers

(Option 1) Create a Self Signed Certificate

There are a number of reasons why it may be necessary to create a self signed SSL Certificate for the Web or Testing/Backup server. If the SSL Certificate has not been purchased yet, or the server is not a production server, and it is ok for a security warning to users.

Make sure you are logged in with the newuser account, then switched user (su -) to root.

- 1) Go to the certificates directory for the root user (create it if it does not exist):

```
# mkdir /root/certs  
# cd /root/certs
```

- 2) Create the key file

```
# openssl genrsa -out self.key 2048  
[root@li904-41 ~]# openssl genrsa -out self.key 2048  
Generating RSA private key, 2048 bit long modulus  
.....  
.....+++  
.....+++  
e is 65537 (0x10001)
```

- 3) Create the csr file:

```
# openssl req -new -key self.key -out self.csr  
[root@li904-41 ~]# openssl req -new -key self.key -out self.csr  
You are about to be asked to enter information that will be incorporated  
into your certificate request.  
What you are about to enter is what is called a Distinguished Name or a DN.  
There are quite a few fields but you can leave some blank  
For some fields there will be a default value,  
If you enter '.', the field will be left blank.  
-----  
Country Name (2 letter code) [XX]:US  
State or Province Name (full name) []:PA  
Locality Name (eg, city) [Default City]:Philadelphia  
Organization Name (eg, company) [Default Company Ltd]:Taylored Web Sites LLC  
Organizational Unit Name (eg, section) []:  
Common Name (eg, your name or your server's hostname) []:Test  
Email Address []:  
  
Please enter the following 'extra' attributes  
to be sent with your certificate request  
A challenge password []:  
An optional company name []:
```

- 4) Create the crt (certificate) file:

```
# openssl x509 -req -days 365 -in self.csr -signkey self.key -out  
self.crt
```

```
[root@li904-41 ~]# openssl x509 -req -days 365 -in self.csr -signkey self.key -out self.crt
Signature ok
subject=/C=US/ST=PA/L=Philadelphia/O=Taylored Web Sites LLC/CN=Test
Getting Private key
[root@li904-41 ~]# mkdir /etc/httpd/certs
[root@li904-41 ~]# ls
self.crt self.csr self.key
[root@li904-41 ~]# ls self.* /etc/httpd/certs
self.crt self.csr self.key

/etc/httpd/certs:
[root@li904-41 ~]# ls /etc/httpd/certs
[root@li904-41 ~]# cp self.* /etc/httpd/certs
[root@li904-41 ~]# ls /etc/httpd/certs
self.crt self.csr self.key
```

- 5) Copy (not move) the files to the apache certs directory (create if necessary):

```
# mkdir /etc/httpd/certs
# cp /root/certs/self.* /etc/httpd/certs/
```

Option 2 Obtain SSL Certificate from CA (Certificate Authority)

If you have obtained a public SSL Certificate for your Web Server from a Certificate Authority (CA), simply copy the files obtained from the CA to the /httpd/certs directory.

Make sure you are logged in with the *newuser* account, then switched user (*su -*) to root.

- 1) Copy the files to the apache certs directory (create if necessary):

```
# mkdir /etc/httpd/certs
# cp /tmp/<cert_file.zip> /etc/httpd/certs/
# cd /etc/httpd/certs/
# unzip <cert_file.zip>
```

Update the apache config file to use the certificate files

Make sure you are logged in with the *newuser* account and have switched user (*su -*) to root.

1. Add the following lines to the apache config file

```
<VirtualHost *:80>
    ServerName tracker.stemmaster.moe.edu.eg
    Redirect permanent / https://tracker.stemmaster.moe.edu.eg
</VirtualHost>
```

```
<VirtualHost *:443>
    ServerName tracker.stemmaster.moe.edu.eg
    DocumentRoot /web/parlo-tracker/stem-egypt/current/public
    SSLCertificateFile /etc/httpd/certs/<cert_file_name.crt>
    SSLCertificateKeyFile /etc/httpd/certs/<key_file_name.key>
    SSLCertificateChainFile /etc/httpd/certs/<chain_file_name.crt>
    PassengerMinInstances 2
<Directory /web/parlo-tracker/stem-egypt/current/public>
    Allow from all
    AllowOverride all
    Options -MultiViews
    Require all granted
```

```

</Directory>
</VirtualHost>
# vi /etc/httpd/conf/httpd.conf
# tail -20 /etc/httpd/conf/httpd.conf
[root@li904-41 ~]# tail -22 /etc/httpd/conf/httpd.conf

<VirtualHost *:80>
    ServerName 45.56.102.41
    Redirect permanent / https://45.56.102.41
</VirtualHost>

<VirtualHost *:443>
    ServerName 45.56.102.41
    DocumentRoot /web/parlo-tracker/stem-egypt/current/public
    SSLEngine on
    SSLCertificateFile /etc/httpd/certs/self.crt
    SSLCertificateKeyFile /etc/httpd/certs/self.key
    SSLCertificateChainFile /etc/httpd/certs/self.csr
    PassengerMinInstances 2
    <Directory /web/parlo-tracker/stem-egypt/current/public>
        Allow from all
        AllowOverride all
        Options -MultiViews
        Require all granted
    </Directory>
</VirtualHost>

# apachectl configtest
# systemctl restart httpd
# systemctl status httpd
[root@li904-41 ~]# apachectl configtest
Syntax OK
[root@li904-41 ~]# systemctl restart httpd
[root@li904-41 ~]# systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor
preset: disabled)
   Active: active (running) since Wed 2016-02-24 15:21:54 UTC; 7s ago
     Docs: man:httpd(8)
           man:apachectl(8)
   Process: 29671 ExecStop=/bin/kill -WINCH ${MAINPID} (code=exited, stat
us=0/SUCCESS)
   Process: 2294 ExecReload=/usr/sbin/httpd $OPTIONS -k graceful (code=ex
ited, status=0/SUCCESS)
 Main PID: 29681 (httpd)
   Status: "Processing requests..."
   CGroup: /system.slice/httpd.service
           └─29681 /usr/sbin/httpd -DFOREGROUND
               ├─29710 Passenger watchdog
               ├─29713 Passenger core
               ├─29718 Passenger ust-router
               ├─29729 /usr/sbin/httpd -DFOREGROUND
               ├─29732 /usr/sbin/httpd -DFOREGROUND
...

```

Open up the HTTPS firewall port

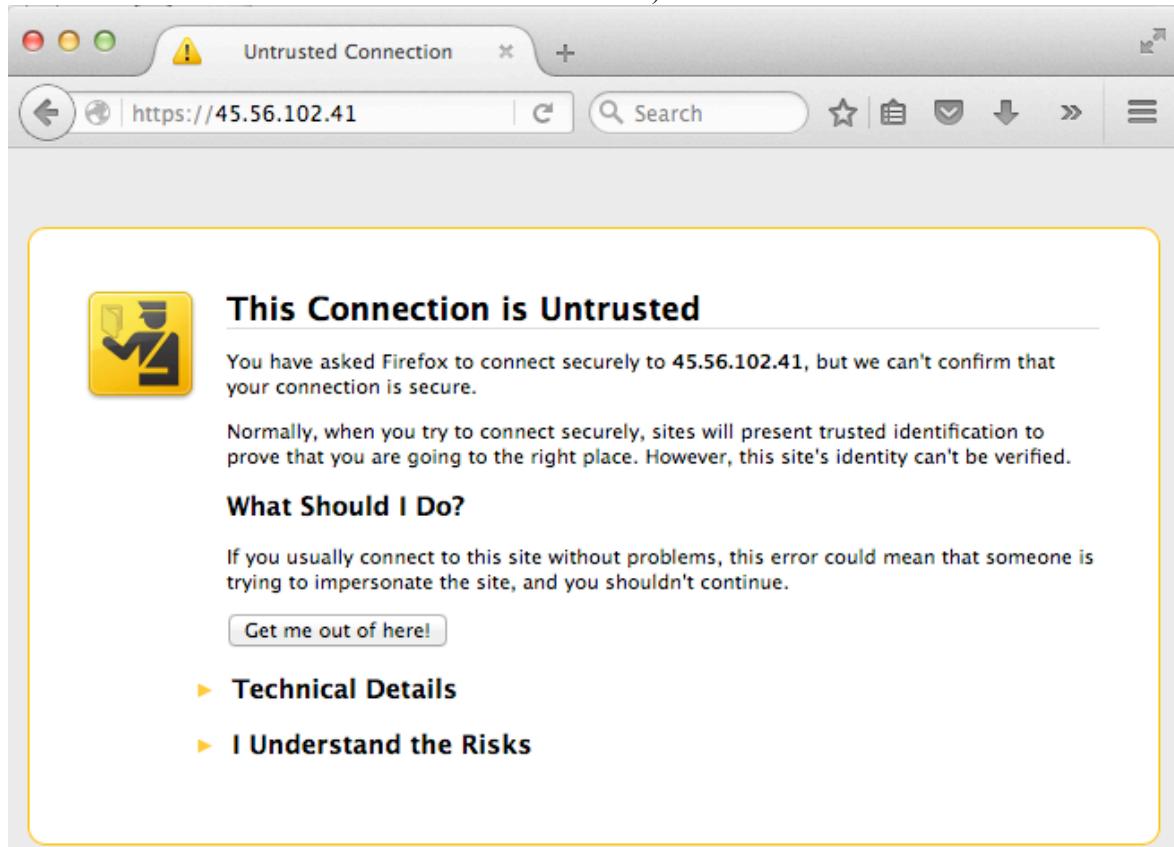
Make sure you are logged in with the newuser account, then switched user (`su -`) to `root`.

- 1) Permanently add the https service to firewalld
- ```
firewall-cmd --list-services
```

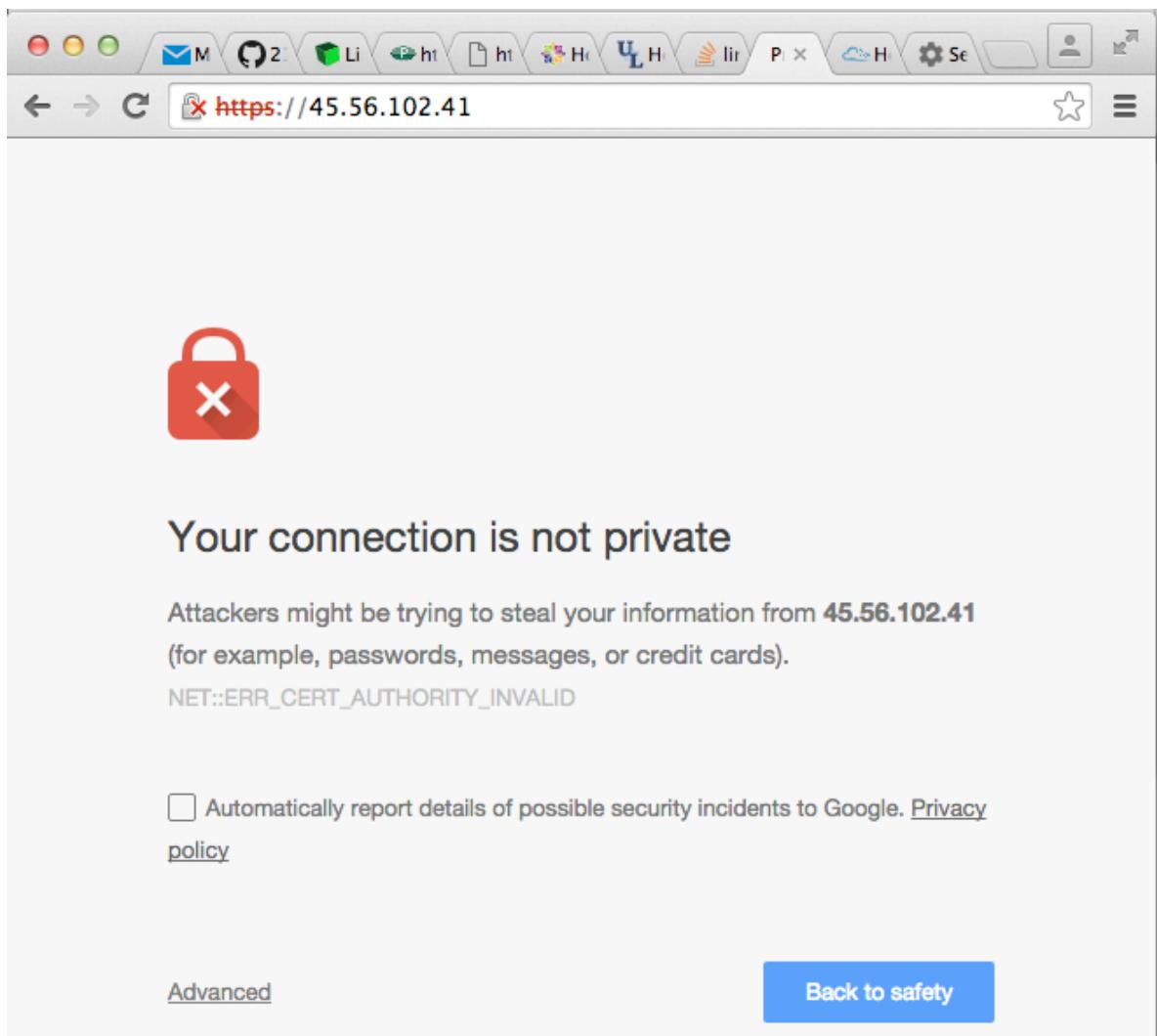
```
firewall-cmd --permanent --add-service=https
systemctl restart firewalld
firewall-cmd --list-services
[root@li904-41 ~]# firewall-cmd --list-services
dhcpv6-client http ssh
[root@li904-41 ~]# firewall-cmd --permanent --add-service=https
success
[root@li904-41 ~]# firewall-cmd --list-services
dhcpv6-client http ssh
[root@li904-41 ~]# systemctl restart firewalld
[root@li904-41 ~]# firewall-cmd --list-services
dhcpv6-client http https ssh
```

### Confirm the website is functioning through HTTPS

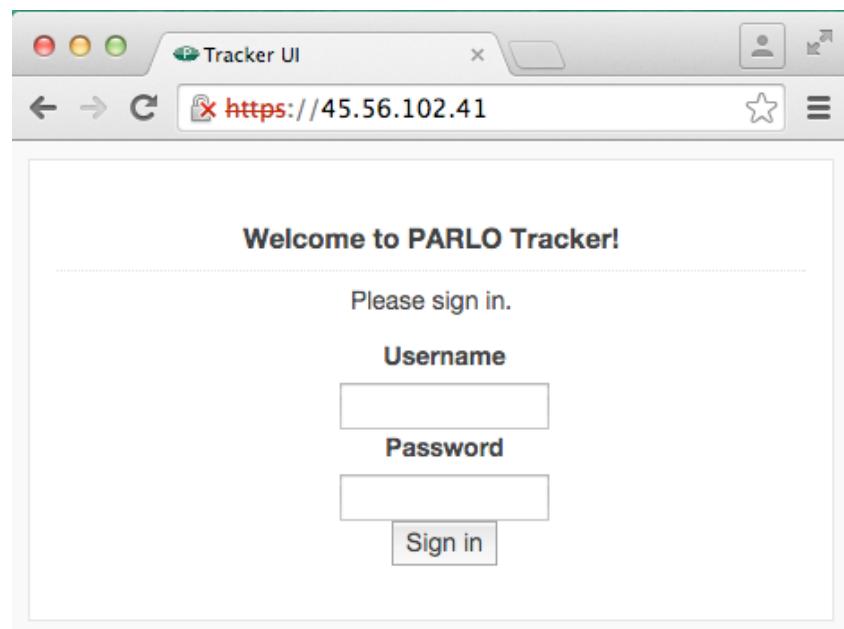
- 1) Visit the website through a browser  
<https://45.56.102.41/>
- 2) If using a self-signed certificate, the browser will return a warning like the following examples: (firefox and chrome):



*or*



- 3) You should see the PARLO Tracker sign in page.



*Note: the validity of the HTTPS certificate should be indicated as valid or green if a public HTTPS certificate has been purchased by a certificate authority*

## Additional Website Setup Steps

### Set the login background image

Make sure you are logged in with the **newuser** account, switched user (**su -**) to root, and then switched user to deploy (# **su – deploy**).

1. Copy the image to the filename used by the web server

```
$ cp /web/parlo-tracker/stem-egypt/current/app/assets/images/login_egypt_bg.png web/parlo-tracker/stem-egypt/current/app/assets/images/login_bg.png
```

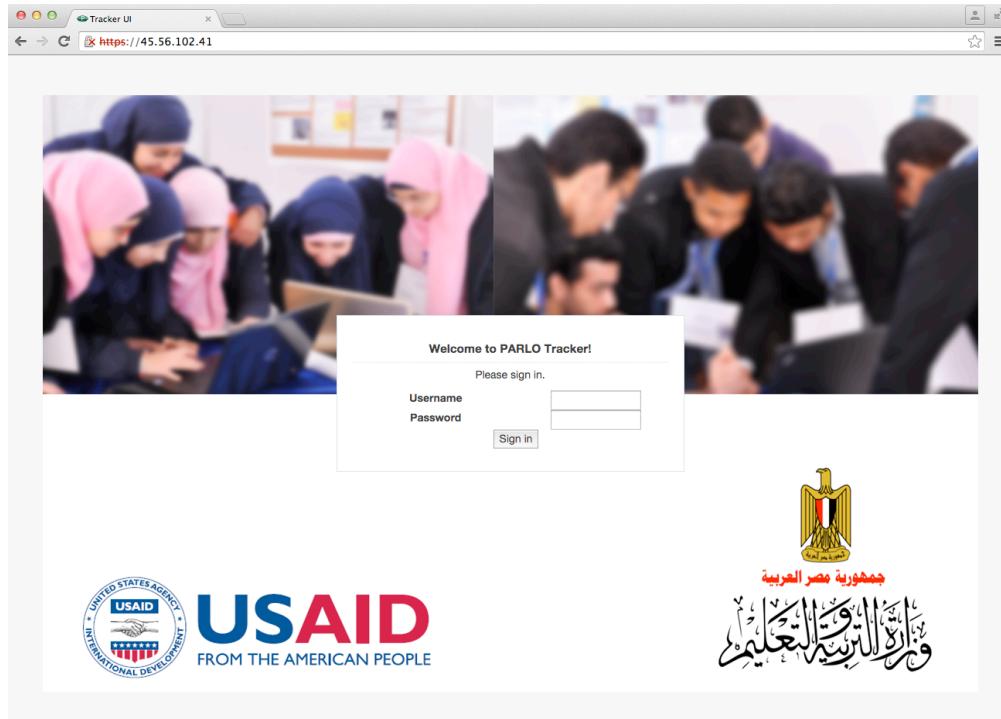
2. precompile the asset pipeline and restart the web server

```
$ bundle exec rake assets:precompile RAILS_ENV=production
$ exit
systemctl restart httpd
su – deploy
```

```
[deploy@li904-41 current]$ bundle exec rake assets:precompile RAILS_ENV=production
/home/deploy/.rvm/rubies/ruby-1.9.3-p550/bin/ruby /home/deploy/.rvm/gems/ruby-1.9.3-p550/bin/rake assets:precompile:all RAILS_ENV=production RAILS_GROUPS=assets
[deploy@li904-41 current]$ exit
logout
[root@li904-41 ~]# systemctl restart httpd
[root@li904-41 ~]# su – deploy
```

3. confirm the background image is properly displayed

**http: https://tracker.stemmaster.moe.edu.eg**



### Set Up Server Configuration

Note: this uses the rails console to run ruby code

Note: This is a feature only available to people with console access to the Web Server

Make sure you are logged in with the ***newuser*** account, switched user (**su -**) to **root**, and then switched user to **deploy (# su – deploy)**, with the correct version of ruby running.

```
$ bundle exec rails console production
> ServerConfig.create
> ServerConfig.all.count
1.9.3-p550 :001 > ServerConfig.create
 (0.1ms) BEGIN
 SQL (0.2ms) INSERT INTO `server_configs` (`created_at`, `district_id`,
, `district_name`, `school_support_team`, `server_name`, `server_url`,
support_email`, `support_team`, `updated_at`, `web_server_name`) VALUES
('2016-02-28 17:37:32', '', '', 'School IT Support Team', 'Tracker Syste
m', '', 'trackersupport@21pstem.org', 'Tracker Support Team', '2016-02-2
8 17:37:32', 'PARLO Tracker Web Server')
 (0.3ms) COMMIT
=> #<ServerConfig id: 1, district_id: "", district_name: "", support_em
ail: "trackersupport@21pstem.org", support_team: "Tracker Support Team",
school_support_team: "School IT Support Team", server_url: "", server_n
ame: "Tracker System", web_server_name: "PARLO Tracker Web Server", crea
ted_at: "2016-02-28 17:37:32", updated_at: "2016-02-28 17:37:32">
1.9.3-p550 :002 > ServerConfig.all.count
 ServerConfig Load (0.4ms) SELECT `server_configs`.* FROM `server_conf
igs`
=> 1
```

## Set Up System Administrator / Researcher User Accounts

In order to be able to start using the PARLO Tracker software, at least one user must created as a System Administrator. The System Administrator will be responsible for customizing the configuration through the online web interface.

Note: this uses the rails console to run ruby code

Note: This is a feature only available to people with console access to the Web Server

Note: Do not give both system\_administrator and researcher access to the same user, as the capabilities for these two roles are not compatible.

Make sure you are logged in with the ***newuser*** account, switched user (**su -**) to **root**, and then switched user to **deploy (# su – deploy)**, with the correct version of ruby running.

```
$ bundle exec rails console production
> user = User.new
> user.username = '<username for system administrator or researcher>'
> user.set_temporary_password
Note: save this temporary password for emailing to the user, or for your
initial login as the system administrator.
if creating a System Administrator:
 > user.system_administrator = true
if creating a Researcher:
 > user.system_administrator = true
 > user.first_name = '<user first name>'
 > user.last_name = '<user last name>'
 > user.save
```

Note: should have an insert command with a commit.

```

1.9.3-p550 :001 > user = User.new
=> #<User id: nil, email: "", encrypted_password: "", reset_password_toke
n: nil, reset_password_sent_at: nil, remember_created_at: nil, sign_in_cou
nt: 0, current_sign_in_at: nil, last_sign_in_at: nil, current_sign_in_ip:
nil, last_sign_in_ip: nil, username: nil, created_at: nil, updated_at: nil
, temporary_password: nil, first_name: nil, last_name: nil, school_id: nil
, grade_level: nil, gender: nil, counselor: nil, school_administrator: nil
, student: nil, system_administrator: nil, teacher: nil, xid: nil, child_i
d: 0, parent: false, street_address: nil, city: nil, state: nil, zip_code:
nil, phone: nil, absences: nil, tardies: nil, attendance_rate: nil, activ
e: true, mastery_level: nil, subscription_status: nil, researcher: false,
race: nil, special_ed: false, permissions: nil, duties: nil>
1.9.3-p550 :002 > user.username = 'deanna'
=> "deanna"
1.9.3-p550 :003 > user.set_temporary_password
=> "8e6da43522"
1.9.3-p550 :004 > user.system_administrator = true
=> true
1.9.3-p550 :005 > user.first_name = 'Deanna'
=> "Deanna"
1.9.3-p550 :006 > user.last_name = 'Daugherty'
=> "Daugherty"
1.9.3-p550 :007 > user.save
(0.2ms) BEGIN
User Exists (0.4ms) SELECT 1 AS one FROM `users` WHERE `users`.`username` = BINARY 'deanna' LIMIT 1
SQL (0.4ms) INSERT INTO `users` (`absences`, `active`, `attendance_rate`, `child_id`, `city`, `counselor`, `created_at`, `current_sign_in_at`, `current_sign_in_ip`, `duties`, `email`, `encrypted_password`, `first_name`, `gender`, `grade_level`, `last_name`, `last_sign_in_at`, `last_sign_in_ip`, `mastery_level`, `parent`, `permissions`, `phone`, `race`, `remember_created_at`, `researcher`, `reset_password_sent_at`, `reset_password_token`, `school_administrator`, `school_id`, `sign_in_count`, `special_ed`, `state`, `street_address`, `student`, `subscription_status`, `system_administrator`, `tardies`, `teacher`, `temporary_password`, `updated_at`, `username`, `xid`, `zip_code`) VALUES (NULL, 1, NULL, 0, NULL, NULL, '2016-02-29 17:02:15', NULL, NULL, NULL, '', '$2a$10$h/cGzJc7nEw7kZtI8DjyS0vX0wszHiAt9GALMcjJuKcgUBDKLfOK', 'Deanna', NULL, NULL, 'Daugherty', NULL, NULL, NULL, 0, NULL, NULL, NULL, 0, 0, NULL, NULL, NULL, 1, NULL, NULL, '8e6da43522', '2016-02-29 17:02:15', 'deanna', NULL, NULL)
(0.4ms) COMMIT
=> true

```

If there are any problems, type in the following command to find the errors, then do the appropriate fix:

```

> user.errors.full_messages
irb(main):021:0> user.save
(0.1ms) begin transaction
User Exists (0.2ms) SELECT 1 AS one FROM "users" WHERE "users"."username" = 'dtaylor' LIMIT 1
(0.0ms) rollback transaction
=> false
irb(main):022:0> user.errors.full_messages
=> ["First name can't be blank", "Last name can't be blank"]

```

If you are creating this account for someone other than yourself, please send the username and temporary password to the user

If you are creating this username for your self, go to the website and sign in with the temporary password, and update your password.

<https://tracker.stemmastar.moe.edu.eg>

- enter username and temporary password and click **Sign In**

- enter new password in both fields and submit
- login again with username and new password.

## Notify System Administrator / Researcher User of their temporary password

Note: this uses the rails console to run ruby code

Note: This is a feature only available to people with console access to the Web Server

Make sure you are logged in with the ***newuser*** account, switched user (**su -**) to root, and then switched user to deploy (# **su – deploy**), with the correct version of ruby running.

```
$ bundle exec rails console production
> users = User.where(username: '<username>')
note: should return a user (otherwise, please double check the username)
> user = users.first
> user.temporary_password
Note: If temporary_password is nil, the user has already logged in, and
 will need their password reset (see below).
Note: save this temporary password for emailing to the user, or for
 initial login as the system administrator.
```

## Reset Password for System Administrator / Researcher User Accounts

Note: this uses the rails console to run ruby code

Note: This is a feature only available to people with console access to the Web Server

Make sure you are logged in with the ***newuser*** account, switched user (**su -**) to root, and then switched user to deploy (# **su – deploy**), with the correct version of ruby running.

```
$ bundle exec rails console production
> users = User.where(username: '<username>')
note: should return a user (otherwise, please double check the username)
> user = users.first
> user.set_temporary_password
Note: save the username and password for either emailing to the user, or
 for entering into the website.
> user.save
```

Note: should have an insert command with a commit.

## Load Up Subjects

Note: this uses the rails console to run ruby code

Note: This is a feature only available to people with console access to the Web Server

Make sure you are logged in with the ***newuser*** account, switched user (**su -**) to root, and then switched user to deploy (# **su – deploy**), with the correct version of ruby running.

```
$ bundle exec rake stem_egypt_model_subjects:populate
RAILS_ENV=production
```

Should list Disciplines and subjects

```
[deploy@li904-41 current]$ bundle exec rake stem_egypt_model_subjects:populate RAILS_ENV=production
Discipline: Administration
 Advisory 1
 Advisory 2
 Library 1
 Library 2
 Library 3
Discipline: Capstones
 Capstone 1s1
```

## Create Evidence Types

Note: this uses the rails console to run ruby code

Note: This is a feature only available to people with console access to the Web Server

Make sure you are logged in with the **newuser** account, switched user (**su -**) to **root**, and then switched user to **deploy** (# **su - deploy**), with the correct version of ruby running.

```
$ bundle exec rails console production
```

note: For each of the following Evidence Type creates, the console should display an insert command with a commit, followed by the new Evidence Type item.

```
irb(main):002:0> et = EvidenceType.create(name: 'Exit Ticket')
(0.1ms) begin transaction
SQL (356.9ms) INSERT INTO "evidence_types" ("created_at", "name", "updated_at") VALUES (?, ?, ?) [["created_at", Tue, 10 May 2016 13:36:01 UTC +00:00], ["name", "Exit Ticket"], ["updated_at", Tue, 10 May 2016 13:36:01 UTC +00:00]]
(1.0ms) commit transaction
=> #<EvidenceType id: 5, name: "Exit Ticket", created_at: "2016-05-10 13:36:01", updated_at: "2016-05-10 13:36:01">

> et = EvidenceType.create(name: 'Exit Ticket')
> et = EvidenceType.create(name: 'Homework')
> et = EvidenceType.create(name: 'In-Class')
> et = EvidenceType.create(name: 'Project')
> et = EvidenceType.create(name: 'Quiz')
> et = EvidenceType.create(name: 'Test')
```

To list all of the Evidence Types, type in the following command:

```
> EvidenceType.all
```

```
irb(main):003:0> EvidenceType.all
EvidenceType Load (0.2ms) SELECT "evidence_types".* FROM "evidence_types"
=> [#<EvidenceType id: 1, name: "In Class", created_at: "2016-04-27 17:03:58", updated_at: "2016-04-27 17:03:58">, #<EvidenceType id: 2, name: "Homework", created_at: "2016-04-27 17:03:58", updated_at: "2016-04-27 17:03:58">, #<EvidenceType id: 3, name: "Quiz", created_at: "2016-04-27 17:03:58", updated_at: "2016-04-27 17:03:58">, #<EvidenceType id: 4, name: "Test", created_at: "2016-04-27 17:03:58", updated_at: "2016-04-27 17:03:58">, #<EvidenceType id: 5, name: "Exit Ticket", created_at: "2016-05-10 13:36:01", updated_at: "2016-05-10 13:36:01">]
```

## Set Up Schools

Note: This is a feature only available to website users who are set up as system administrator.

**http: https://tracker.stemmaster.moe.edu.eg**

1. prep
  - sign in as system administrator
  - click on the schools item in the toolkit

| School Name                     | Acronym | City / Town | School Year |
|---------------------------------|---------|-------------|-------------|
| Model School                    | MOD     | Cairo       | 2015-2016   |
| Stem Egypt Training High School | ETH     | Cairo       | 2015-2016   |

2. Configure the Model School
  - click the pencil on paper icon (edit school) icon for the Model School
  - check the Surname: Use Family Name checkbox
  - check the User Sort By: First/Last checkbox
  - check the Grade In Subjedt: Yes checkbox
  - Enter the month and year numbers for the start of the school year
  - Enter the month and year numbers for the end of the school year

**Edit School**

Name: Model School \*

Acronym: MOD \*

City / Town: Cairo \*

Marking Periods: 2 \*

Use Family Name   Surname:

First/Last   User Sort by:

Yes   Grade in Subject Name:

Use Rollover Process to go to next year

Start Date: 9 - 2015 \*

End Date: 6 - 2016 \*

Cancel Save

- click save
  - confirm Model School has the school year field filled out in the listing
3. Configure the Training School

- click the pencil on paper icon (edit school) icon for the Stem Egypt Training High School
- check the Surname: Use Family Name checkbox
- check the User Sort By: First/Last checkbox
- check the Grade In Subject: Yes checkbox

**Maintenance**  
**Edit School**

**Edit School**

|                                                                           |                            |
|---------------------------------------------------------------------------|----------------------------|
| Name:                                                                     | Stem Egypt Training High * |
| Acronym:                                                                  | ETH *                      |
| City / Town:                                                              | Cairo *                    |
| Marking Periods:                                                          | 2 *                        |
| <input checked="" type="checkbox"/> Use Family Name <b>Surname:</b>       |                            |
| <input checked="" type="checkbox"/> First/Last <b>User Sort by:</b>       |                            |
| <input checked="" type="checkbox"/> Yes <b>Grade in Subject Name:</b>     |                            |
| Use Rollover Process to go to next year                                   |                            |
| Start Date:                                                               | 9 - 2015 *                 |
| End Date:                                                                 | 6 - 2016 *                 |
| <input type="button" value="Cancel"/> <input type="button" value="Save"/> |                            |

- click save
  - confirm Training School has the school year field filled out in the listing
4. Enter the Learning Outcomes from the Curriculum
- click on the subjects item in the Toolkit.
  - Click on the lightbulb up arrow (upload learning outcomes) icon.
  - Select the curriculum spreadsheet.

**Maintenance**  
**Upload Learning Outcomes from Curriculum**

**Upload Curriculum / LOs File**

|                                              |                                                                                          |
|----------------------------------------------|------------------------------------------------------------------------------------------|
| Learning Outcomes Upload File:               | <input type="button" value="Choose File"/> Egypt STEM Schools Cu... Reviewed Courses.csv |
| Error: Missing Curriculum (LOs) Upload File. |                                                                                          |
| <input type="button" value="Upload"/>        |                                                                                          |

- Click the Upload button
- There should be no errors returned.

| Match       |           |                    |             |                 |            |       |            |           |                    |             |                                                                                                                                                             |
|-------------|-----------|--------------------|-------------|-----------------|------------|-------|------------|-----------|--------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Old Subject | Old Grade | Old Marking Period | Old LO Code | Old Description | Similarity | Match | New Course | New Grade | New Marking Period | New LO Code | New Description                                                                                                                                             |
|             |           |                    |             |                 | / Add      |       | Advisory   | 1         | 2                  | AD.1.01     | ترسيخ وغرس وابهاء القيم الاجتماعية                                                                                                                          |
|             |           |                    |             |                 | / Add      |       | Advisory   | 2         | 2                  | AD.2.01     | فهم الفرد لخصائص ومطالب ومشكلات المرحلة العمرية التي يمر بها وكيف يتعامل معها فهم الفرد لخصائص ومطالب ومشكلات المرحلة العمرية التي يمر بها وكيف يتعامل معها |

- Click the Save All button at the bottom of the page.

| Matching   |             |                |         |                                                                                                                                                                                                                                                                                                                                      |        | Action |
|------------|-------------|----------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|
| Subject    | Grade Level | Marking Period | LO Code | Description                                                                                                                                                                                                                                                                                                                          | Action |        |
| Advisory 1 | 1           | 2              | AD.1.01 | ترسيخ وغرس وابهاء القيم الاجتماعية                                                                                                                                                                                                                                                                                                   | Added  |        |
| Advisory 2 | 2           | 2              | AD.2.01 | فهم الفرد لخصائص ومطالب ومشكلات المرحلة العمرية التي يمر بها وكيف يتعامل معها                                                                                                                                                                                                                                                        | Added  |        |
| Advisory 2 | 2           | 2              | AD.2.02 | القدرة على اختيار الطالب للمجال العلمي والعملي                                                                                                                                                                                                                                                                                       | Added  |        |
| Arabic 1   | 1           |                | AR.1.01 | Applying grammatical rules during speaking, discussion and presentations to apply what they were taught. 1- أن يطبق الطالب (القواعد النحوية) أثناء الحديث والمناقشة والعرض التقديمية بحيث يوظف ما درسه عملياً (القواعد النحوية) أثناء الحديث والمناقشة والعرض التقديمية بحيث يوظف ما درسه عملياً . يحسن استخدامها في حياته اليومية . | Added  |        |

- If listing of updated learning outcomes is empty, check to ensure the collation sequence is utf-8 (note: would be preferable to delete the stem\_egypt database and run the steps to rebuild the database and tables.):

```
$ mysql -u root -p
> show create database stem_egypt;
Note: check return to see if it is 'utf8_general_ci'
to change sequence:
set the default for newly created databases
> set character_set_server = 'utf8';
> show variables like 'character_set_server';
> set collation_server = 'utf8_general_ci';
> show variables like 'collation_server';
set the default for tables newly created in stem_egypt
> alter database stem_egypt collate = 'utf8_general_ci';
change the collation sequence for subject_outcomes table;
> use stem_egypt;
> alter table subject_outcomes convert to character set utf8
collate utf8_general_ci;
```

Note: more tables may be needed to be changed if the error: 'Error: Illegal mix of collations' occurs in other error messages. It is preferable to have the data base server default be set before creating the database, or to set the database default so all tables are created as utf8.

## 5. Enter school(s) – Repeat this step as necessary

- click on the schools item in the Toolkit.
- click the + sign (add school)
- Fill in the Name, Acronym and City/Town fields

## Maintenance

# Create School

**Create School -**

|                  |   |   |
|------------------|---|---|
| Name:            |   | * |
| Acronym:         |   | * |
| City / Town:     |   | * |
| Marking Periods: | 2 | * |

Surname:  Use Family Name

User Sort by:  First/Last

Grade in Subject Name:  Yes

Use Rollover Process to go to next year

Start Date: 9 - 2015 \*

End Date: 6 - 2016 \*

- click the save button.
- Note this will take a while, as it is loading up the learning outcomes from the model school into the school's learning outcomes.

## Additional Configuration Procedures for full featured website

### Set Up Email

Make sure you are logged in with the **newuser** account and have switched user (**su -**) to root.

1. Ensure sendmail is installed on the web server

```
yum list installed sendmail
```

If no matching packages to list, install it as follows:

```
yum update
yum install sendmail sendmail-cf m4
```

2. Ensure sendmail is up and running on the web server

```
systemctl status sendmail
```

If sendmail is not enabled and running, enable and start it as follows:

```
systemctl enable sendmail
systemctl start sendmail
systemctl status sendmail
```

3. Note: may need to reboot server for emails to be sent

4. Test email

Create a temporary file to contain the test email message

```
vi /tmp/
```

5. Send the email message

```
sendmail -vt <my@email.address> < /tmp/email.txt
```

```
[root@li904-41 ~]# sendmail -vt tayloredwebsites@me.com </tmp/email.txt
tayloredwebsites@me.com... Connecting to [127.0.0.1] via relay...
220 li904-41.members.linode.com ESMTP Sendmail 8.14.7/8.14.7; Thu, 25 Fe
b 2016 19:13:54 GMT
>>> EHLO li904-41.members.linode.com
250-li904-41.members.linode.com Hello localhost [127.0.0.1], pleased to
meet you
250-ENHANCEDSTATUSCODES
250-PIPELINING
250-8BITMIME
250-SIZE
250-DSN
250-ETRN
250-DELIVERBY
250 HELP
>>> MAIL From:<dtaylor@li904-41.members.linode.com> SIZE=42
250 2.1.0 <dtaylor@li904-41.members.linode.com>... Sender ok
>>> RCPT To:<tayloredwebsites@me.com>
>>> DATA
250 2.1.5 <tayloredwebsites@me.com>... Recipient ok
354 Enter mail, end with "." on a line by itself
>>> .
250 2.0.0 u1PJDsI7003757 Message accepted for delivery
tayloredwebsites@me.com... Sent (u1PJDsI7003757 Message accepted for del
ivery)
Closing connection to [127.0.0.1]
>>> QUIT
221 2.0.0 li904-41.members.linode.com closing connection
```

## Set up database backups for every 6 hours

Note: this uses cron to run a bash shell script to run the database backup

Make sure you are logged in with the **newuser** account and have switched user (**su -**) to root.

1. Create the directories to store the backups (off of the root user's home directory).

```
mkdir /root/db-backups
mkdir /root/db-backups/stem-egypt
mkdir /root/bin

[root@li904-41 ~]# mkdir /root/db-backups
[root@li904-41 ~]# mkdir /root/db-backups/stem-egypt
[root@li904-41 ~]# mkdir /root/bin
```

2. copy the database backup[ script from the tracker application.

```
cp /web/parlo-tracker/stem-egypt/current/
config/server/root/bin/db_backup.sh /root/bin

[root@li904-41 ~]# cp /web/parlo-tracker/stem-egypt/current/config/server/
root/bin/db_backup.sh /root/bin/
```

3. customize the script for this server.

```
vi /root/bin/db_backup.sh
• Replace the last line with the following line:
do_db_backup /web/parlo-tracker/stem-egypt/current/config/database.yml /root/db-
backups/stem-egypt production
• save the file

tail -2 /root/bin/db_backup.sh

[root@li904-41 ~]# vi /root/bin/db_backup.sh
[root@li904-41 ~]# tail -2 /root/bin/db_backup.sh
EGYPT ENVIRONMENT
do_db_backup /web/parlo-tracker/stem-egypt/current/config/database.yml /
root/db-backups/stem-egypt production
```

4. Test to confirm the script is configured correctly:

```
sh /root/bin/db_backup.sh
ls -al /root/db-backups/stem-egypt/

[root@li904-41 ~]# sh /root/bin/db_backup.sh
[root@li904-41 ~]# ls -al /root/db-backups/stem-egypt/
total 16
drwxr-xr-x 2 root root 4096 Feb 25 17:03 .
drwxr-xr-x 3 root root 4096 Feb 25 17:02 ..
-rw----- 1 root root 4143 Feb 25 17:03 daily_db_production_stem_egypt_
2016-02-25_17:03:15.sql.bz2
```

5. confirm the cron service is running.

```
systemctl status crond
```

```
[root@li904-41 ~]# systemctl status crond
● crond.service - Command Scheduler
 Loaded: loaded (/usr/lib/systemd/system/crond.service; enabled; vendor preset: enabled)
 Active: active (running) since Thu 2016-02-18 16:02:53 UTC; 6 days ago
 Main PID: 10727 (crond)
 CGroup: /system.slice/crond.service
 └─10727 /usr/sbin/crond -n

Feb 18 16:02:53 li904-41.members.linode.com systemd[1]: Started Comma...
Feb 18 16:02:53 li904-41.members.linode.com systemd[1]: Starting Comm...
Feb 18 16:02:53 li904-41.members.linode.com crond[10727]: (CRON) INFO...
Feb 18 16:02:53 li904-41.members.linode.com crond[10727]: (CRON) INFO...
Feb 18 16:02:53 li904-41.members.linode.com crond[10727]: (CRON) INFO...
Hint: Some lines were ellipsized, use -l to show in full.
```

6. schedule the database backup to run every 6 hours.

```
crontab -e
```

- Insert the following two line in the file (note editor is vi)
- ```
MAILTO=<support_email_address>
0 0,6,12,18 * * * /root/bin/db_backup.sh
```

7. check later to confirm the backups are being done.

- Check the cron log file:

```
# tail /var/log/cron
```

- Check the backup directory to confirm the database is backed up every 6 hours..

```
# ls -al /root/db-backups/stem-egypt
```

Confirm Parent Emails are set up

Note: this uses whenever and cron to run a the parent emails RoR code.

Make sure you are logged in with the ***newuser*** account, switched user (***su -***) to ***root***, and then switched user to ***deploy***(# ***su - deploy***), with the correct version of ruby running.

```
$ whenever
```

```
[deploy@li904-41 current]$ whenever
0 11 1,8,15,22 * * /bin/bash -l -c 'cd /web/parlo-tracker/stem-egypt/current && bundle exec rails runner -e production '\''Parent.send_emails(:weekly)'\' 2>> /web/parlo-tracker/stem-egypt/current/log/whenever_error.log'

0 11 1,15 * * /bin/bash -l -c 'cd /web/parlo-tracker/stem-egypt/current && bundle exec rails runner -e production '\''Parent.send_emails(:biweekly)'\' 2>> /web/parlo-tracker/stem-egypt/current/log/whenever_error.log'

0 11 1 * * /bin/bash -l -c 'cd /web/parlo-tracker/stem-egypt/current && bundle exec rails runner -e production '\''Parent.send_emails(:monthly)'\' 2>> /web/parlo-tracker/stem-egypt/current/log/whenever_error.log'

## [message] Above is your schedule file converted to cron syntax; your crontab file was not updated.
## [message] Run 'whenever --help' for more options.
```

Note: the response from the whenever command should be a list of the three scheduled parent email jobs (weekly, biweekly and monthly), as shown above.

Set Up a single School Tracker Team Member

Note: This is a feature only available to website users who are set up as system administrator or a school administrator for the particular school. These instructions are written for system administrators.

<https://tracker.stemmaster.moe.edu.eg>

Note: Sign in as system administrator

Select the school of the Team Member to be added.

Click the staff item in the toolkit

click the + (add staff) icon to bring up the add staff member form

check the role of school administrator

Enter the First Name, Family Name and email address, and any other desired fields.

Click save

The staff member will now be listed in the staff listing page (unless there is an error in the upper right).

Set Up Report Cards

Note: Report Cards use delayed job to run the report card RoR code. For Report Card jobs to be processed, the delayed_job process must be running on the web server. When the server is rebooted, it must be started. Note: soon an automated approach to this will be set up when capistrano is not being used.

Make sure you are logged in with the **newuser** account, switched user (**su -**) to root, and then switched user to deploy (# **su - deploy**), with the correct version of ruby running.

Confirm delayed_job exists and can start. Note we check the current running processes (ignoring the ps | grep command we use to check them).

```
$ ps -ef | grep delayed_job
$ RAILS_ENV=production script/delayed_job start
$ ps -ef | grep delayed_job
[deploy@li904-41 current]$ ps -ef | grep delayed_job
deploy 24936 18651 0 19:57 pts/1 00:00:00 grep --color=auto delayed_
job
[deploy@li904-41 current]$ RAILS_ENV=production script/delayed_job start
SECURITY WARNING: No secret option provided to Rack::Session::Cook
ie.
This poses a security threat. It is strongly recommended that you
provide a secret to prevent exploits that may be possible from cra
fted
cookies. This will not be supported in future versions of Rack, an
d
future versions will even invalidate your existing user cookies.

Called from: /home/deploy/.rvm/gems/ruby-1.9.3-p550/gems/actionpac
k-3.2.10/lib/action_dispatch/middleware/session/abstract_store.rb:28:in `i
nitialize'.

[deprecated] I18n.enforce_available_locales will default to true in the fu
ture. If you really want to skip validation of your locale you can set I18
n.enforce_available_locales = false to avoid this message.
[deploy@li904-41 current]$ ps -ef | grep delayed_job
deploy 24961 1 9 19:57 ? 00:00:00 delayed_job
deploy 24973 18651 0 19:57 pts/1 00:00:00 grep --color=auto delayed_
job
```

Update PARLO Tracker software from StemEgypt repository on github.

Testing/Backup, and Web Servers

Stop the Web Server and save off previous version of software.

Make sure you are logged in with the **newuser** account, then switched user (**su -**) to **root**.

- 4) Ensure the shared directory contains the bulk upload template files. If you are unable to locate these file, please ask 21PSTEM for these files. If this directory does not exist, please create it and copy in the files.

```
# systemctl stop httpd
5) switch back to the deploy user
# su - deploy
6) Stop delayed_job from processing report card requests
# RAILS_ENV=production script/delayed_job stop
7) save the previous version of the website
# mv /web/parlo-tracker/stem-egypt/current/ /web/parlo-tracker/stem-egypt/old-yyyy-mm-dd
```

Copy/Clone the PARLO Tracker software into the Web Server

Make sure you are logged in with the **newuser** account, switched user (**su -**) to **root**, and then switched user to **deploy** (# **su - deploy**).

- 2) If the firewall allows the web server to git clone from github, then this step should be followed. Change directory so that you are in the directory that holds the websites (/web/parlo-tracker/stem-egypt/), and clone the website

```
$ cd /web/parlo-tracker/stem-egypt/
$ git clone git@github.com:21pstems/StemEgypt.git
[deploy@li904-41 ~]$ cd /web/parlo-tracker/stem-egypt/
[deploy@li904-41 stem-egypt]$ git clone git@github.com:21pstems/StemEgypt.git
Cloning into 'StemEgypt'...
Warning: Permanently added the RSA host key for IP address '192.30.252.129' to the list
of known hosts.
remote: Counting objects: 1595, done.
remote: Total 1595 (delta 0), reused 0 (delta 0), pack-reused 1595
Receiving objects: 100% (1595/1595), 12.26 MiB | 0 bytes/s, done.
Resolving deltas: 100% (307/307), done.
```

- 3) If the firewall does not allow the web server to git clone from github, then this step should be followed.
 - 3) Copy the zipped PARLO Tracker software downloaded from github into the web server.
 - 4) Move the zipped software to the /web/parlo-tracker/stem-egypt directory.
 - 5) Change directory so that you are in /web/parlo-tracker/stem-egypt/.
 - 6) Unzip the zipped software.
 - 7) The unzipped software directory is assumed to be named StemEgypt for the next step in this procedure.
 - 8) Make sure the permissions for all software is owned by deploy user:

```
# chown -R deploy:deploy /web/parlo-tracker
```

Set up the current directory with the software and shared directory

- 5) make the copied/cloned software the current.

```
$ mv StemEgypt current
[deploy@li904-41 stem-egypt]$ mv StemEgypt current
[deploy@li904-41 stem-egypt]$ ls -al
total 16
drwxr-xr-x  4 deploy deploy 4096 Feb 23 19:14 .
drwxr-xr-x  3 deploy deploy 4096 Feb 18 17:37 ..
drwxrwxr-x 13 deploy deploy 4096 Feb 18 20:19 current
drwxr-xr-x  4 deploy deploy 4096 Feb 22 16:43 shared
```

- 6) create a symbolic link to the database.yml file in the current version, and confirm it was properly linked.

```

$ ln -s /web/parlo-tracker/stem-egypt/shared/config/database.yml
/web/parlo-tracker/stem-egypt/current/config/database.yml
$ cat /web/parlo-tracker/stem-egypt/current/config/database.yml
[deploy@li904-41 current]$ ln -s /web/parlo-tracker/stem-egypt/shared/co
nfig/database.yml /web/parlo-tracker/stem-egypt/current/config/database.
yml
[deploy@li904-41 current]$ cat /web/parlo-tracker/stem-egypt/current/con
fig/database.yml
production:
  adapter: mysql2
  database: stem_egypt
  username: tracker_web
  password: tracker_pass
  pool: 10
  timeout: 5000

```

- 7) create a symbolic link to the uploads directory in the current version, and confirm it was properly linked.

```

$ ln -s /web/parlo-tracker/stem-egypt/shared/public/uploads
/web/parlo-tracker/stem-egypt/current/public/uploads
$ ls -al /web/parlo-tracker/stem-egypt/current/public/
$ ls -al /web/parlo-tracker/stem-egypt/current/public/uploads/
[deploy@li904-41 stem-egypt]$ ln -s /web/parlo-tracker/stem-egypt/shared
/public/uploads /web/parlo-tracker/stem-egypt/current/public/uploads
[deploy@li904-41 stem-egypt]$ ls -al /web/parlo-tracker/stem-egypt/curre
nt/public/
total 28
drwxrwxr-x 2 deploy deploy 4096 Feb 23 21:09 .
drwxrwxr-x 14 deploy deploy 4096 Feb 23 19:23 ..
-rwxrwxr-x 1 deploy deploy 728 Feb 18 20:19 404.html
-rwxrwxr-x 1 deploy deploy 711 Feb 18 20:19 422.html
-rwxrwxr-x 1 deploy deploy 728 Feb 18 20:19 500.html
-rw-rw-r-- 1 deploy deploy 1150 Feb 18 20:19 favicon.ico
-rwxrwxr-x 1 deploy deploy 204 Feb 18 20:19 robots.txt
lrwxrwxrwx 1 deploy deploy 51 Feb 23 21:09 uploads -> /web/parlo-trac
ker/stem-egypt/shared/public/uploads
[deploy@li904-41 stem-egypt]$ ls -al /web/parlo-tracker/stem-egypt/curre
nt/public/uploads/
total 40
drwxr-xr-x 2 deploy deploy 4096 Feb 23 20:25 .
drwxr-xr-x 4 deploy deploy 4096 Feb 23 20:29 ..
-rwx----- 1 deploy deploy 13313 Feb 23 20:25 Staff Data Upload.xlsx
-rwx----- 1 deploy deploy 13033 Feb 23 20:25 Student Data Upload.xlsx

```

- 8) create a symbolic link to the system directory in the current version

```

$ ln -s /web/parlo-tracker/stem-egypt/shared/public/system
/web/parlo-tracker/stem-egypt/current/public/system
$ ls -al /web/parlo-tracker/stem-egypt/current/public/
$ ls -al /web/parlo-tracker/stem-egypt/current/public/system/

```

```
[deploy@li904-41 stem-egypt]$ ln -s /web/parlo-tracker/stem-egypt/shared/public/system /web/parlo-tracker/stem-egypt/current/public/system
[deploy@li904-41 stem-egypt]$ ls -al /web/parlo-tracker/stem-egypt/current/public/
total 28
drwxrwxr-x 2 deploy deploy 4096 Feb 23 21:11 .
drwxrwxr-x 14 deploy deploy 4096 Feb 23 19:23 ..
-rwxrwxr-x 1 deploy deploy 728 Feb 18 20:19 404.html
-rwxrwxr-x 1 deploy deploy 711 Feb 18 20:19 422.html
-rwxrwxr-x 1 deploy deploy 728 Feb 18 20:19 500.html
-rw-rw-r-- 1 deploy deploy 1150 Feb 18 20:19 favicon.ico
-rwxrwxr-x 1 deploy deploy 204 Feb 18 20:19 robots.txt
lrwxrwxrwx 1 deploy deploy 50 Feb 23 21:11 system -> /web/parlo-tracker/stem-egypt/shared/public/system
lrwxrwxrwx 1 deploy deploy 51 Feb 23 21:09 uploads -> /web/parlo-tracker/stem-egypt/shared/public/uploads
[deploy@li904-41 stem-egypt]$ ls -al /web/parlo-tracker/stem-egypt/current/public/system/
total 8
drwxr-xr-x 2 deploy deploy 4096 Feb 23 20:29 .
drwxr-xr-x 4 deploy deploy 4096 Feb 23 20:29 ..
```

- 9) put Egyptian background image on the login page

```
$ cp /web/parlo-tracker/stem-egypt/current/app/assets/images/login_egypt_bg.png /web/parlo-tracker/stem-egypt/current/app/assets/images/login_bg.png
[root@li904-41 ~]# mkdir /web/parlo-tracker/stem-egypt/shared/config/system
[root@li904-41 ~]# ls -al /web/parlo-tracker/stem-egypt/shared/config/system
total 8
drwxr-xr-x 2 root root 4096 Feb 22 16:49 .
drwxr-xr-x 3 deploy deploy 4096 Feb 22 16:49 ..
```

Prepare current version to run

Make sure you are logged in with the ***newuser*** account, switched user (***su -***) to ***root***, and then switched user to ***deploy*** (# ***su - deploy***).

3. go to current directory and ensure the ruby is the correct version

```
$ cd /web/parlo-tracker/stem-egypt/current
$ ruby -v
[deploy@li904-41 stem-egypt]$ cd current
[deploy@li904-41 current]$ ruby -v
ruby 1.9.3p551 (2014-11-13 revision 48407) [x86_64-linux]
[deploy@li904-41 current]$ rvm --default use ruby-1.9.3-p550
Using /home/deploy/.rvm/gems/ruby-1.9.3-p550
[deploy@li904-41 current]$ rvm list

rvm rubies

*= ruby-1.9.3-p550 [ x86_64 ]
      ruby-1.9.3-p551 [ x86_64 ]

# => - current
# *= - current && default
# * - default
```

4. install bundler

```
$ bundle install --without development test
[deploy@li904-41 current]$ bundle install --without development test
Fetching gem metadata from http://rubygems.org/.....
```

...

```
Bundle complete! 45 Gemfile dependencies, 86 gems now installed.  
Gems in the groups development and test were not installed.  
Use `bundle show [gemname]` to see where a bundled gem is installed.  
Post-install message from newrelic_rpm:
```

5. confirm rails is installed (and is the correct version)

```
$ rails -v  
[deploy@li904-41 current]$ rails -v  
Rails 3.2.10
```

6. set up the asset pipeline

```
$ bundle exec rake assets:precompile RAILS_ENV=production  
[deploy@li904-41 current]$ bundle exec rake assets:precompile RAILS_ENV=production  
/home/deploy/.rvm/rubies/ruby-1.9.3-p550/bin/ruby /home/deploy/.rvm/gems/ruby-1.9.3-p550/bin/rake assets:precompile:all RAILS_ENV=production RAILS_GROUPS=assets
```

7. create the database table; load the model & training schools; and load the default server configuration.

```
$ bundle exec rake db:migrate RAILS_ENV=production  
[deploy@li904-41 current]$ bundle exec rake db:migrate RAILS_ENV=production  
== DeviseCreateUsers: migrating ==  
=====  
...  
== CreateServerConfigTable: migrating ==  
=====  
-- create_table(:server_configs)  
  -> 0.0021s  
== CreateServerConfigTable: migrated (0.0024s) ==  
=====
```

```
$ bundle exec rake db:migrate:status RAILS_ENV=production  
[deploy@li904-41 current]$ bundle exec rake db:migrate:status RAILS_ENV=production  
  
database: stem_egypt  
  
  Status  Migration ID      Migration Name  
-----  
    up     20110518170412  Devise create users  
...  
    up     20151214215007  Add lo code to subject outcomes  
    up     20160211175640  Create server config table
```

8. Restart delayed_job

```
$ RAILS_ENV=production bundle exec script/delayed_job start
```

9. Exit to root user

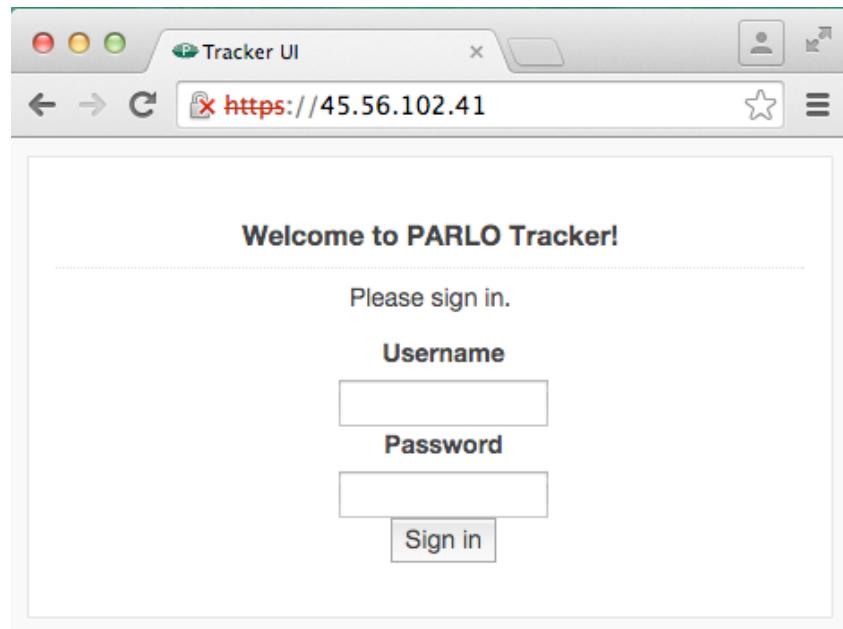
```
$ exit
```

10. Start the Apache Web Server

```
# systemctl start httpd
```

Confirm the website is functioning through HTTPS

- Visit the website through a browser
<https://tracker.stemmaster.moe.edu.eg/>
- You should see the PARLO Tracker sign in page with the background image.



Note: the validity of the HTTPS certificate should be indicated as valid or green if a public HTTPS certificate has been purchased by a certificate authority

Initial Setup of Tracker Training Schools.

Testing/Backup, and Web Servers

Notes:

Create the STEM Egypt Training High School.

The STEM Egypt Training High School (ETH) is a school created in Tracker so teachers new to Tracker can practice using Tracker during their training. It also contains a subject called Competency Assessment in the Administrator Discipline.

Note: The ETH School will not need to have the new year rollover process run on it. When the trainers want to have the data refreshed or reset, follow the Refresh the ETH School procedure below.

Note: The Assessment create must be done after the ETH school has been created.

- 1) Go to the Linux console and follow the standard procedures to go to the application root directory as the deploy user.
- 2) Create the ETH School using the following

```
$ bundle exec rake stem_egypt_training_data:build_training_school  
Wales-MacBook-Pro:tracker dtaylor$ bundle exec rake stem_egypt_training_data:build_training_school  
create school year and users  
Create special users  
  
...  
add evia, eso, and ratings for # 8947 - Physics | Section 2 @ 11  
add evia, eso, and ratings for # 8948 - Physics | Section 3 @ 11  
Done
```

- 3) Create the Assessment subject within ETH School

```
$ bundle exec rake stem_egypt_training_data:setup_assessment_school  
Wales-MacBook-Pro:tracker dtaylor$ bundle exec rake stem_egypt_training_data:setup_assessment_school  
Create Competency Assessment Subject  
:setup_assessment_school DONE
```

- 4) Notify the Training Supervisor(s) that the new teacher training school is ready.

Refresh the STEM Egypt Training High School.

This procedure will normally be run before the beginning of a training session for new teachers. Note the assessment refresh is separate from the training refresh. It is possible to run either of these two refreshes independently. This might be useful if a new set of training sessions need to be started, but the assessments for the previous session has not been completed.

Note: The ETH School will not need to have the new year rollover process run on it. When the trainers want to have the data refreshed or reset, follow the Refresh the ETH School procedure below.

- 1) Go to the Linux console and follow the standard procedures to go to the application root directory as the deploy user.
- 2) Refresh the ETH School using the following

```
$ bundle exec rake stem_egypt_training_data:refresh_training_school  
Wales-MacBook-Pro:tracker dtaylor$ bundle exec rake stem_egypt_training_data:refresh_training_school  
e_ratings: ["R", "Y", "U", "M", "G", "G", "G", "G", "G", "G"]  
This procedure will clear out all Ratings in the Training School, hit enter to continue  
add ratings for # 8501 - Arabic | Section 0 @ 1  
  
...  
add ratings for # 8984 - Competency Assessment | Assessment 009 @ 4  
Resetting teacher passwords.  
Done
```

3) Refresh the Assessment subject within ETH School

```
$ bundle exec rake stem_egypt_training_data:setup_assessment_school
Wales-MacBook-Pro:tracker dtaylor$ bundle exec rake stem_egypt_training_data:setup_assessment_school
WARNING: any assessment sections will be DELETED!
press enter to continue

Section Competency Assessment - Assessment 001 has been deleted

...
:setup_assessment_school DONE!
```

4) Notify the Training Supervisor(s) that the refreshed teacher training school is ready.

Create Leadership Training Schools.

The Leadership Training Schools (LT) is a school created in Tracker so School Administrators can practice using Tracker during their training. These schools are created through Tracker by System Administrators, and will be refreshed through a rake task. The number of Leadership training schools may occasionally need to be increased from the initial number of 9. Note the numbering of these schools uses a two digit number.

- 1) Create all Leadership Training schools needed. Note these schools will be reused for the next set of training and assessment sessions, so there is no need to create any more Leadership Training Schools that are needed currently.
- Login to Tracker as a System Administrator, and bring up the Schools listing, and click on the Plus button to add a new school for any schools needed to be created.

School Listing				
School Name	Acronym	City / Town	School Year	
Model School	MOD	Cairo	2015-2016	
Stem Egypt Training High School	ETH	Cairo	2015-2016	
6th October	OCT	Giza	2015-2016	
Maadi	MAA	Cairo	2015-2016	
Alexandria	ALX	Alexandria	2015-2016	
Kafrel Shaikh	KS	Kafrel Shaikh	2015-2016	
Ismailia	ISM	Ismailia	2015-2016	
Dakahlia	DKA	Dakahlia	2015-2016	
Assuit	ASS	Assuit	2015-2016	
Red Sea	RS	Red Sea	2015-2016	
Luxor	LUX	Luxor	2015-2016	

- Create the school using the acronym of LT followed by a two digit number (01, 02, ...). The School Acronym for Leadership Training schools must match this pattern, so that the school will be identified by the rake task that sets them up.

Maintenance

Create School

Create School -	
Name:	Leadership Training 01 *
Acronym:	LT01 *
City / Town:	Cairo *
Marking Periods:	2 *
Surname:	<input checked="" type="checkbox"/> Use Family Name
User Sort by:	<input checked="" type="checkbox"/> First/Last
Grade in Subject Name:	<input checked="" type="checkbox"/> Yes
Username from email:	<input checked="" type="checkbox"/> Yes
Use Rollover Process to go to next year	
Start Date:	9 - 2016 *
End Date:	6 - 2017 *
<input type="button" value="Cancel"/> <input type="button" value="Save"/>	

- Confirm the School has the Subject and Learning Outcomes from the Model School, by making it the current school, and clicking on the Subjects listing page, then clicking on the lightbulb next to the subjects being checked.
- 2) When all schools needed for Leadership Training Schools are created, run the following rake task (on the web server on a linux command line at the web root under the deploy user) to set them all up:
- ```
$ bundle exec rake stem_egypt_training_data:setup_leadership_training
```
- 3) When done, the rake task will return a list of usernames and temporary passwords. This should be sent to the person responsible for Leadership Training.

```
Davids-iMac:tracker daviddaylor$ bundle exec rake stem_egypt_training_data:setup_leadership_training
WARNING: all Leadership Training data will be refreshed!
press enter to continue

Leadership Training User: lt01_leadership_user / 5d90ce25db
Leadership Training User: lt01_leadership_trainer / 9035fd2b07
Leadership Training User: lt02_leadership_user / 1426e636c0
Leadership Training User: lt02_leadership_trainer / e9aa8f6803
Leadership Training User: lt10_leadership_user / 523f0872f1
Leadership Training User: lt10_leadership_trainer / 9caf957e04
```

Note, that when done, all of the Leadership Training Schools should be set for the prior school year, and the school year rollover is available to them so that the 'Rollover to New Year' icon (double right arrow / fast forward) is dark blue.

|                        |      |       |           |  |  |  |  |  |
|------------------------|------|-------|-----------|--|--|--|--|--|
| Leadership Training 01 | LT01 | Cairo | 2017-18   |  |  |  |  |  |
| Leadership Training 02 | LT02 | Cairo | 2017-18   |  |  |  |  |  |
| Leadership Training 10 | LT10 | Cairo | 2017-18   |  |  |  |  |  |
| Model School           | MOD  | Cairo | 2018-2019 |  |  |  |  |  |

## Refresh the Leadership Training Schools.

When it is time to start Leadership training or Leadership assessments , the existing Leadership Training schools will need to be refreshed. This procedure will erase any entered data in these schools. Note: these schools perform a double duty, in that they can be used in the actual training, as well as used for assessment purposes. Who ever is responsible for Leadership Training should know the appropriate times to refresh the schools.

- 1) Assuming that all necessary Leadership Training schools exist, run the following rake task (on the web server on a linux command line at the web root under the deploy user) to set them all up:

```
$ bundle exec rake stem_egypt_training_data:setup_leadership_training
```

- 2) When done, the rake task will return a list of usernames and temporary passwords. This should be sent to the person responsible for Leadership Training.

```
Davids-iMac:tracker daviddaylor$ bundle exec rake stem_egypt_training_data:setup_leadership_training
WARNING: all Leadership Training data will be refreshed!
press enter to continue

Leadership Training User: lt01_leadership_user / 5d90ce25db
Leadership Training User: lt01_leadership_trainer / 9035fd2b07
Leadership Training User: lt02_leadership_user / 1426e636c0
Leadership Training User: lt02_leadership_trainer / e9aa8f6803
Leadership Training User: lt10_leadership_user / 523f0872f1
Leadership Training User: lt10_leadership_trainer / 9caf957e04
```

Note: When done, confirm that all of the Leadership Training Schools are set for the prior school year, and the school year rollover is available to them so that the 'Rollover to New Year' icon (double right arrow / fast forward) is dark blue.

|                        |      |       |           |  |  |  |  |  |
|------------------------|------|-------|-----------|--|--|--|--|--|
| Leadership Training 01 | LT01 | Cairo | 2017-18   |  |  |  |  |  |
| Leadership Training 02 | LT02 | Cairo | 2017-18   |  |  |  |  |  |
| Leadership Training 10 | LT10 | Cairo | 2017-18   |  |  |  |  |  |
| Model School           | MOD  | Cairo | 2018-2019 |  |  |  |  |  |

## New Year Rollover (Model School Curriculum Matching and Year Change). *Testing/Backup, and Web Servers*

Notes: This procedure must be completed before schools can enter school data for the new year.

### Obtain Learning Outcome Resolution Page for all subjects that require manual mapping.

- 5) Confirm that all updates to the Google Docs curriculum are entered into the following spreadsheet:

[https://docs.google.com/spreadsheets/d/1KvpR5V9l\\_xy0rOBKZmO5wPEOdjVqo1KDe9BMg82XjyM/edit#gid=8540957](https://docs.google.com/spreadsheets/d/1KvpR5V9l_xy0rOBKZmO5wPEOdjVqo1KDe9BMg82XjyM/edit#gid=8540957)

- 6) Bring up the above curriculum spreadsheet in a browser. Save the spreadsheet as a .csv file:
- 7) File / Download As / Comma-separated values (.csv, current sheet).

The screenshot shows a Google Sheets document titled "Egypt STEM Schools Curriculum". The "File" menu is open, displaying various options such as "New", "Open...", "Rename...", "Make a copy...", "Add to My Drive", "Move to trash", "Import...", "See revision history", "Spreadsheet settings...", "Download as" (with "Comma-separated values (.csv, current sheet)" selected), "Publish to the web...", "Email collaborators...", "Email as attachment...", "Print", and user info "Mahmoud Advisorv 2 2". The main spreadsheet area shows a table with columns "Unit Name", "Start Week", and "End Week".

- 8) Bring up a Chrome Browser window (Chrome printouts will have a page eject between the new Learning Outcomes and the Old Learning Outcomes, which should make it easier for comparison)..

The screenshot shows a Chrome browser window with the URL "https://tracker.stemmaster.moe.edu.eg/schools". The page has a dark header with the word "TRACKER" and "Luxor". On the left, there is a "TOOLKIT" sidebar with icons for Home, Settings, Power, and Help. The main content area shows navigation links: "Last Page", "You are here: Home / Schools", and "Maintenance".

- 9) Bring up the Schools Listing.

### School Listing

| School Name                     | Acronym | City / Town   | School Year |  |  |  |
|---------------------------------|---------|---------------|-------------|--|--|--|
| Model School                    | MOD     | Cairo         | 2015-2016   |  |  |  |
| Stem Egypt Training High School | ETH     | Cairo         | 2015-2016   |  |  |  |
| 6th October                     | OCT     | Giza          | 2015-2016   |  |  |  |
| Maadi                           | MAA     | Cairo         | 2015-2016   |  |  |  |
| Alexandria                      | ALX     | Alexandria    | 2015-2016   |  |  |  |
| Kafrel Shaikh                   | KS      | Kafrel Shaikh | 2015-2016   |  |  |  |
| Ismailia                        | ISM     | Ismailia      | 2015-2016   |  |  |  |
| Dakahlia                        | DKA     | Dakahlia      | 2015-2016   |  |  |  |
| Assuit                          | ASS     | Assuit        | 2015-2016   |  |  |  |
| Red Sea                         | RS      | Red Sea       | 2015-2016   |  |  |  |
| Luxor                           | LUX     | Luxor         | 2015-2016   |  |  |  |

- 10) Minimize the Toolkit sidebar by clicking on the icon with three lines on the upper left of the header.

- 11) Click the 'Upload Learning Outcomes' (the lightbulb and up arrow over a bar) icon for the Model school in the Schools listing page .

| School Listing                  |         |              |             |  |  |  |
|---------------------------------|---------|--------------|-------------|--|--|--|
| School Name                     | Acronym | City / Town  | School Year |  |  |  |
| Bolbitinic School               | BOL     | Bolbitinic   | 2015-2016   |  |  |  |
| Canopic School                  | CAN     | Canopic      | 2015-2016   |  |  |  |
| Damyat School                   | DAM     | Damyat       | 2015-2016   |  |  |  |
| Mendesian School                | MEN     | Mendesian    | 2015-2016   |  |  |  |
| Model School                    | MOD     | Cairo        | 2015-2016   |  |  |  |
| Phatnitic School                | PHA     | Phatnitic    | 2015-2016   |  |  |  |
| Pilaponesian School             | PIL     | Pilaponesian | 2015-2016   |  |  |  |
| Rosetta School                  | ROS     | Rosetta      | 2015-2016   |  |  |  |
| Sebennytic School               | SEB     | Sebennytic   | 2015-2016   |  |  |  |
| Stem Egypt Training High School | ETH     | Cairo        | 2016-17     |  |  |  |
| Tanitic School                  | TAN     | Tanitic      | 2015-2016   |  |  |  |
| Test Red Sea                    | RS      | Test Red Sea | 2015-2016   |  |  |  |

- 12) You will be returned the Upload Learning Outcomes page.

- 13) Choose the csv file (curriculum spreadsheet downloaded earlier) and leave the Subject select box at 'All Subjects'. Be sure to have the correct curriculum file chosen. Once the Upload button is pressed, all subjects that can be automatically be matched will be updated, and any subjects that require manual matching or have duplicate Learning Outcomes errors will be presented to the user one at a time.

- 14) If there are any subjects that require manual matching or errors, the user will be presented with the first subject to match.

- The following is what a subject that needs manual matching looks like. The New Learning Outcomes that need to be matched have a select box with all available Old Learning Options. The Old Learning Outcomes are listed, and are grayed out if they have been automatically matched, and are crossed out if they exist as deactivated Learning Outcomes.

|     |                                                                                                                                                                                                                                                                          |            |                                                                                                                                                                                                                                                                  |                                                                |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 1   | CP.1.08 (1) successfully demonstrate construction/creation of a testable prototype or model meeting the design requirements                                                                                                                                              | GA-CP.1.08 |                                                                                                                                                                                                                                                                  | the capstone context. The student team will be able to:, (2) p |
| 1   | CP.1.09 (2) create and execute a testing plan, (3) analyze the resultant data, and (4) demonstrate learning transfer of STEM principles as applied to the capstone context. The student team will be able to:, (2) p                                                     |            |                                                                                                                                                                                                                                                                  |                                                                |
| 1   | CP.1.10 (2) create and execute a testing plan, (3) analyze the resultant data, and (4) demonstrate learning transfer of STEM principles as applied to the capstone context. The student team will be able to:, (2) p                                                     |            |                                                                                                                                                                                                                                                                  |                                                                |
| 1   | CP.1.11 (1) document their capstone including detailed and salient recommendations regarding the conduct of a similar project in the future, (2) prepare documentation of sufficient detail to allow for evaluation of the Capstone by external experts, and (3) incorpo |            |                                                                                                                                                                                                                                                                  |                                                                |
| GC  | 1                                                                                                                                                                                                                                                                        | CP.1.10    | (2) create and execute a testing plan, (3) analyze the resultant data, and (4) demonstrate learning transfer of STEM principles as applied to the capstone context. The student team will be able to:, (2)                                                       |                                                                |
| GD  | 1                                                                                                                                                                                                                                                                        | CP.1.11    | (1) document their capstone including detailed and salient recommendations regarding the conduct of a similar project in the future, (2) prepare documentation of sufficient detail to allow for evaluation of the Capstone by external experts, and (3) incorpo |                                                                |
| BCC | +                                                                                                                                                                                                                                                                        | CP.1.09    | (2) identify and analyze prior solution attempts from credible sources in terms of both strengths and shortcomings, and (3) translate this analysis into measurable design requirements. The student team will be able to:, (2) p                                |                                                                |
| BCD | +                                                                                                                                                                                                                                                                        | CP.1.04    | (1) generate, compare and defend alternative design solutions and select a viable design meeting the design requirements, (2) support the proposed solution with sound STEM principles, practices, and evidence applicable to some design requirements and func  |                                                                |
| BCE | +                                                                                                                                                                                                                                                                        | CP.1.07    | (1) successfully demonstrate construction/creation of a testable prototype or model meeting the design requirements. The student team will be able to clearly articulate well-developed r                                                                        |                                                                |
| BCF | +                                                                                                                                                                                                                                                                        | CP.1.09    | (2) create and execute a testing plan, (3) analyze the resultant data, and (4) demonstrate learning transfer of STEM principles as applied to the capstone context. The student team will be able to:, (2)                                                       |                                                                |
| BCG | +                                                                                                                                                                                                                                                                        | CP.1.10    | (2) create and execute a testing plan, (3) analyze the resultant data, and (4) demonstrate learning transfer of STEM principles as applied to the capstone context. The student team will be able to:, (2)                                                       |                                                                |
| BCH | +                                                                                                                                                                                                                                                                        | CP.1.11    | (1) document their capstone including detailed and salient recommendations regarding the conduct of a similar project in the future, (2) prepare documentation of sufficient detail to allow for evaluation of the Capstone by external experts, and (3) incorpo |                                                                |

Note: When save is done, all unmatched new records will be added, and all unmatched old records will be deactivated.

**Warning: Subject can only be reconciled once !**

**UPLOAD    Reconcile Subject    Skip    Cancel**

Automatically Updated Subjects counts: Updates - 0 , Adds - 0 , Deactivates - 0 , Errors - 0  
counts: Subjects Updated - 49 , Updates - 0 , Adds - 0 , Deactivates - 0 , Errors - 0

- The following is what a subject that duplicate Learning Outcomes looks like, with the red error message indicating the duplicate error. Note that there is no 'Reconcile Subject' button available. For this subject to be fixed, the Curriculum spreadsheet (or .csv) file need to be fixed. Once the duplicates are fixed, the matching may be done using the single subject procedure below.

|   |                                                                                                                                   |                       |                                                            |
|---|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------|
| 2 | FR.1.10 - Connaitre la thématique de l'unité. - Faire la connaissance le personnage de l'unité. - Connaitre le projet de l'unité. | Duplicate Description | FR.1.17 Reconnaître les monuments celebres Paris           |
| 2 | FR.1.11 - Se sensibiliser aux nouveaux contenus. - Perfectionner la compréhension orale. - La reprise des acquis.                 |                       | FR.1.18 Demander le chemin                                 |
| 2 | FR.1.12 - Décrire des personnes. - Présenter et identifier sa famille - Parler de ses loisirs.                                    |                       | FR.1.19 Indiquer le chemin a quelqu'un                     |
|   |                                                                                                                                   |                       | FR.1.20 Decouvrir les grande ville francaises              |
|   |                                                                                                                                   |                       | FR.1.21 Demander quel sport en commun a prendre            |
|   |                                                                                                                                   |                       | FR.1.22 Demander des informations sur les correspondances  |
|   |                                                                                                                                   |                       | FR.1.23 Utiliser les moyens de transpor pour visiter Paris |
|   |                                                                                                                                   |                       | FR.1.24 Reconnaître les grandes gares francaises           |

Note: When save is done, all unmatched new records will be added, and all unmatched old records will be deactivated.

**Warning: Subject can only be reconciled once !**

**UPLOAD    Skip    Cancel**

- 15) If the Subject Supervisor is available immediately to determine the correct matchings to be placed in the New Learning Outcomes select boxes, the matching can be placed in the select boxes and the Reconcile Subject button may be clicked (to save the matches and move on to the next subject that needs manual matching).
- 16) If the Subject Supervisor is not available immediately or there are duplicate learning outcomes errors, this page should be saved as a pdf or printed and delivered to the Subject Supervisor. The following screen capture shows the print dialog for Chrome. Please note the 'Background Graphics' is checked so that the automatically matched Old Learning Outcomes are printed in gray. Note the 'Save as PDF' option available. Note this is the screen capture on a Mac, which will be slightly different from a Windows machine.

The screenshot shows a 'Maintenance' page titled 'Match Old LOs to New LOs'. It includes a note: 'Note: When save is done, all unmatched new records will be added, and all unmatched old records will be deactivated.' Below this is a table titled 'New Learning Outcomes' with columns for 'New MP Code', 'New Description', and 'Match'. The table lists several entries, each with a dropdown menu for selection. At the bottom of the page is a URL: [https://tracker.stemegypt.org/users/sign\\_in](https://tracker.stemegypt.org/users/sign_in).

- 17) When the correct matchings are returned, they may be entered by subject (see below). In this case click the 'Skip' button to move on to the next subject.

## Map the Resolved Learning Outcome pages when returned from Curriculum Supervisor.

- Minimize the Toolkit sidebar by clicking on the icon with three lines on the upper left of the header.

The screenshot shows the Tracker interface in a browser window. The left sidebar is labeled 'TOOLKIT' and contains icons for Home, Settings, Power, and Help. The main area is titled 'Tracker' with a 'Last Page' link. The URL in the address bar is [https://tracker.stemegypt.org/system\\_admin](https://tracker.stemegypt.org/system_admin). The title bar shows 'System Administrator: Dave Taylor'.

- Bring up the Schools Listing.

| School Listing                  |         |              |             |  |
|---------------------------------|---------|--------------|-------------|--|
| School Name                     | Acronym | City / Town  | School Year |  |
| Bolbitinic School               | BOL     | Bolbitinic   | 2015-2016   |  |
| Canopic School                  | CAN     | Canopic      | 2015-2016   |  |
| Damyat School                   | DAM     | Damyat       | 2015-2016   |  |
| Mendesian School                | MEN     | Mendesian    | 2015-2016   |  |
| Model School                    | MOD     | Cairo        | 2015-2016   |  |
| Phatnitic School                | PHA     | Phatnitic    | 2015-2016   |  |
| Pilaponesian School             | PIL     | Pilaponesian | 2015-2016   |  |
| Rosetta School                  | ROS     | Rosetta      | 2015-2016   |  |
| Sebennytic School               | SEB     | Sebennytic   | 2015-2016   |  |
| Stem Egypt Training High School | ETH     | Cairo        | 2016-17     |  |
| Tanitic School                  | TAN     | Tanitic      | 2015-2016   |  |
| Test Red Sea                    | RS      | Test Red Sea | 2015-2016   |  |

- Choose the Bulk Upload Learning Outcome icon for the Model school in the Schools listing page (the lightbulb and up arrow over a bar).

Maintenance

### Upload Learning Outcomes from Curriculum

**Upload Curriculum / LOs File**

Learning Outcomes Upload File:  Egypt STEM Schools Cu...ourses\_2016\_08\_17.csv

Subject:

| 1 | CP3.03 | (2) identify and analyze prior solution attempts from credible sources in terms of both strengths and shortcomings.                                                                                                                                              | C-CP3.03 |
|---|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1 | CP3.05 | (1) generate, compare and defend alternative design solutions and select a viable design meeting the design requirements, (2) support the proposed solution with sound STEM principles, practices, and evidence applicable to some design requirements and funct | D-CP3.05 |
| 1 | CP3.06 | (1) successfully create a testing plan to measure the prototype design requirements                                                                                                                                                                              | E-CP3.06 |
| 1 | CP3.07 | (1) successfully demonstrate construction/creation of a testable prototype or model meeting the design requirements The student will be able to clearly articulate well-developed re                                                                             | F-CP3.07 |
| 1 | CP3.08 | (1) successfully demonstrate construction/creation of a testable prototype or model meeting the design requirements                                                                                                                                              | G-CP3.08 |
| 1 | CP3.09 | (2) create and execute a testing plan, (3) analyze the resultant data, and (4) demonstrate learning transfer of STEM principles as applied to the capstone context. The studen                                                                                   | H-CP3.09 |
| 1 | CP3.10 | (2) create and execute a testing plan, (3) analyze the resultant data, and (4) demonstrate learning transfer of STEM principles as applied to the capstone context. The student team will be able to; (2) p                                                      | I-CP3.10 |
| 1 | CP3.11 | (1) document their capstone including detailed and salient recommendations regarding the conduct of a similar project in the future, (2) prepare documentation of sufficient detail to allow for evaluation of the Capstone by external experts, and (3) incorp  | J-CP3.11 |

Note: When save is done, all unmatched new records will be added, and all unmatched old records will be deactivated.

Warning: Subject can only be reconciled once !

- click Reconcile Subject when all learning outcomes are properly matched.

### Roll Over the Model School to a New School Year..

- Bring up the Schools Listing.
- Click on the Double Right Arrow (fast forward) icon on the Model School Year row, confirming that the school year listed is the prior school year.

Maintenance

### School Listing

| School Name       | Acron |           |           |  |  |  |  |
|-------------------|-------|-----------|-----------|--|--|--|--|
| Bolbitinic School | BOL   |           |           |  |  |  |  |
| Canopic School    | CAN   |           |           |  |  |  |  |
| Damyat School     | DAM   | Damyat    | 2015-2016 |  |  |  |  |
| Mendesian School  | MEN   | Mendesian | 2015-2016 |  |  |  |  |
| Model School      | MOD   | Cairo     | 2015-2016 |  |  |  |  |

tracker.stemegypt.org says:

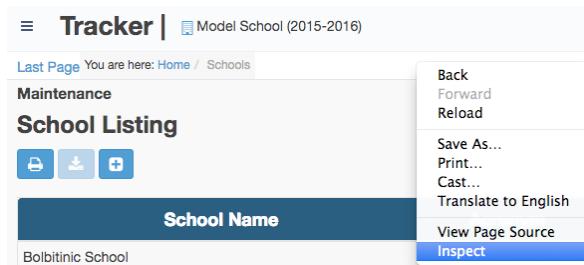
Are you sure you want to rollover to year  
'2016-2017?'

- There should be a green message indicating a successful new year rollover, and the school year on the model school should now show the new year.

| School Name       | Acronym | City / Town | School Year |  |
|-------------------|---------|-------------|-------------|--|
| Bolbitinic School | BOL     | Bolbitinic  | 2015-2016   |  |
| Canopic School    | CAN     | Canopic     | 2015-2016   |  |
| Damyat School     | DAM     | Damyat      | 2015-2016   |  |
| Mendesian School  | MEN     | Mendesian   | 2015-2016   |  |
| Model School      | MOD     | Cairo       | 2016-2017   |  |

## Troubleshooting the School Year Rollover process.

- If there is no green success message after clicking the school year rollover button, it is probable that the error message is too large to display in the error message section of the page. To see the error message right click on the white area near the top of the page where the green success message should have shown, and click inspect



- The chrome debugger should display. Click the arrows to open up any items needed (see below).

```

*** ▼<div id="breadcrumb-flash"> — $0
 ▶<div class="last">...</div>
 ▶<ol class="breadcrumb breadcrumb-top">...
 ▼<div id="breadcrumb-flash-msgs">
 ▼<div class="flash_alert">
 "Error on School Year rollover: ERROR: error saving Learning Outcome AR.1.02 - Applying Rhetorical Analysis to literary and poetic texts that deal with the emotions and the literary direction of the writer.

 2. أن يحمل الطالب النص الأدبي الشري أو الشعري تحليلاً ينطوي على عناصر الأدب والمعنى الأدبي والمفهوم البلاغي وعلم اليدعى بن Learning Outcome Code and Description are not unique for this Subject"
 </div>
 </div>
</div>

```

- Please send this message (such as the one above) to the appropriate Ruby on Rails developer to analyze and resolve the problem. Analysis and Resolution will likely require access to the Rails Console on the Web Server and to the source code.

## **Reload Learning Outcomes for a single subject.**

*Testing/Backup, and Web Servers*

Note: This procedure will not run if the subject has sections already.

### **Remove the original learning outcomes for the subject(s).**

Make sure you are logged in with the **newuser** account, switched user (**su -**) to root, and then switched user to deploy (# **su - deploy**).

- 1) Change directory to the current version of the software.

```
$ cd /web/parlo-tracker/stem-egypt/current
```

- 2) remove the learning outcomes for the subject

- a. Start the script to delete the learning outcomes

```
$ bundle exec rake all_schools_los_by_subject:delete
RAILS_ENV=production
```

- b. Enter the subject name to have the Learning Outcomes removed (use name as shown in the subjects listing page for the model school).

**French 1**

- c. Repeat this step to run the script for all subjects to be removed.

```
Davids-iMac:tracker daviddaylor$ bundle exec rake all_schools_los_by_subject:delete
Model School: Model School
Training School: Stem Egypt Training High School
This will delete all Learning Outcomes in the Schools for a Subject.
What subject do you wish to remove the learning outcomes from?
(hit enter key to exit this script):
French 1
answer: French 1, ans_subj: French 1
Processing subject: French 1
Checking school: DKA - Dakahlia
Deleting Learning Outcomes!
About to process school: MOD - Model School
Deleted 23 Learning Outcomes in school: MOD - Model School
About to process school: DKA - Dakahlia
Deleted 23 Learning Outcomes in school: DKA - Dakahlia
Davids-iMac:tracker daviddaylor$ bundle exec rake all_schools_los_by_subject:delete
Model School: Model School
Training School: Stem Egypt Training High School
This will delete all Learning Outcomes in the Schools for a Subject.
What subject do you wish to remove the learning outcomes from?
(hit enter key to exit this script):
French 2
answer: French 2, ans_subj: French 2
Processing subject: French 2
Checking school: DKA - Dakahlia
Deleting Learning Outcomes!
About to process school: MOD - Model School
Deleted 9 Learning Outcomes in school: MOD - Model School
About to process school: DKA - Dakahlia
Deleted 9 Learning Outcomes in school: DKA - Dakahlia
Davids-iMac:tracker daviddaylor$ bundle exec rake all_schools_los_by_subject:delete
Model School: Model School
Training School: Stem Egypt Training High School
This will delete all Learning Outcomes in the Schools for a Subject.
What subject do you wish to remove the learning outcomes from?
(hit enter key to exit this script):
French 3
answer: French 3, ans_subj: French 3
Processing subject: French 3
Checking school: DKA - Dakahlia
Deleting Learning Outcomes!
About to process school: MOD - Model School
Deleted 7 Learning Outcomes in school: MOD - Model School
About to process school: DKA - Dakahlia
Deleted 7 Learning Outcomes in school: DKA - Dakahlia
```

### **Reload the Learning Outcomes from the Curriculum file for the subject(s).**

1. Visit the PARLO Tracker website through a browser, and log in as a System Administrator.
2. Enter the Learning Outcomes from the Curriculum.
  - a) click on the schools item in the Toolkit.
  - b) Click on the lightbulb up arrow (upload learning outcomes) icon next to the Model School.
  - c) Select the curriculum spreadsheet (should be a csv file on the machine running the browser).
  - d) Select the subject to be reloaded (to the model school).

Maintenance

### Upload Learning Outcomes from Curriculum

**Upload Curriculum / LOs File**

Learning Outcomes Upload File:  Egypt STEM Schools Cu... Reviewed Courses.csv

Subject:

**Upload**

- e) Click the Upload button
- f) There should be no errors returned.

Maintenance

### Match Old LOs to New LOs

**Match**

| Old Subject | Old Grade | Old Marking Period | Old LO Code | Old Description | Similarity | Match | New Course | New Grade | New Marking Period | New LO Code | New Description                                                                          |
|-------------|-----------|--------------------|-------------|-----------------|------------|-------|------------|-----------|--------------------|-------------|------------------------------------------------------------------------------------------|
|             |           |                    |             |                 | / Add      |       | Advisory   | 1         | 2                  | AD.1.01     | ترسيخ وغرس رواجهاه القوم الاجتماعيه                                                      |
|             |           |                    |             |                 | / Add      |       | Advisory   | 2         | 2                  | AD.2.01     | فهم الفرد لخصائص ومتطلبات المرحلة العمرية التي يمر بها وكيف يتمتع بها ويكف عن تعامل معها |

- g) Click the Save All button at the bottom of the page.

**UPLOAD** **SAVE ALL**

- h) Should return a report of the added Learning Outcomes.

Maintenance

### Bulk LO Update Report

**Matching**

| Subject    | Grade Level | Marking Period | LO Code | Description                                                                                                                                                                                                                                        | Action |
|------------|-------------|----------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Advisory 1 | 1           | 2              | AD.1.01 | ترسيخ وغرس رواجهاه القوم الاجتماعيه                                                                                                                                                                                                                | Added  |
| Advisory 2 | 2           | 2              | AD.2.01 | فهم الفرد لخصائص ومتطلبات المرحلة العمرية التي يمر بها وكيف يتمتع بها ويكف عن تعامل معها                                                                                                                                                           | Added  |
| Advisory 2 | 2           | 2              | AD.2.02 | القدرة على اختيار الطالب للمجال العلمي والعملي                                                                                                                                                                                                     | Added  |
| Arabic 1   | 1           |                | AR.1.01 | Applying grammatical rules during speaking, discussion and presentations to apply what they were taught. 1- أن يطبق الطالب (القواعد التجريبية) أثناء الحديث والمناقشة والعرض التقديمي ببحث يوظف ما درسه عملياً و يحسن استخدامها في حياته اليومية . | Added  |

- i) Repeat this step for all subjects to be reloaded.

## Copy the learning outcomes for the subject(s) from the Model School to the schools.

Make sure you are logged in with the **newuser** account, switched user (**su -**) to root, and then switched user to deploy (# **su - deploy**).

- 1) Change directory to the current version of the software.

```
$ cd /web/parlo-tracker/stem-egypt/current
```

- 2) Copy the learning outcomes for the subject

- a. Start the script to copy the learning outcomes

```
$ bundle exec rake all_schools_loсs_by_subject:copy
RAILS_ENV=production
```

- b. Enter the subject name to have the Learning Outcomes removed (use name as shown in the subjects listing page for the model school).

**French 1**

- c. Repeat this step to run the script for all subjects to be removed.

```
Davids-iMac:tracker daviddaylor$ bundle exec rake all_schools_los_by_subject:copy
Model School: Model School
Training School: Stem Egypt Training High School
This will copy all Learning Outcomes from Model School to the other Schools for a Subject.
What subject do you wish to copy the learning outcomes from?
(hit enter key to exit this script):
French 1
answer: French 1, ans_subj: French 1
Processing subject: French 1
subject outcomes to copy count: 23
Copied 23 Learning Outcomes to school: DKA - Dakahlia
Davids-iMac:tracker daviddaylor$ bundle exec rake all_schools_los_by_subject:copy
Model School: Model School
Training School: Stem Egypt Training High School
This will copy all Learning Outcomes from Model School to the other Schools for a Subject.
What subject do you wish to copy the learning outcomes from?
(hit enter key to exit this script):
French 2
answer: French 2, ans_subj: French 2
Processing subject: French 2
subject outcomes to copy count: 9
Copied 9 Learning Outcomes to school: DKA - Dakahlia
Davids-iMac:tracker daviddaylor$ bundle exec rake all_schools_los_by_subject:copy
Model School: Model School
Training School: Stem Egypt Training High School
This will copy all Learning Outcomes from Model School to the other Schools for a Subject.
What subject do you wish to copy the learning outcomes from?
(hit enter key to exit this script):
French 3
answer: French 3, ans_subj: French 3
Processing subject: French 3
subject outcomes to copy count: 0
Error: No Subject Outcomes to copy in the Model School.
```

## Various data maintenance tasks.

*Testing/Backup, and Web Servers*

### Change a user's username.

Make sure you are logged in with the **newuser** account, switched user (**su -**) to root, and then switched user to deploy (# **su - deploy**).

- 1) go to current directory and ensure the ruby is the correct version

```
$ cd /web/parlo-tracker/stem-egypt/current
$ ruby -v
[deploy@li904-41 stem-egypt]$ cd current
[deploy@li904-41 current]$ ruby -v
ruby 1.9.3p551 (2014-11-13 revision 48407) [x86_64-linux]
[deploy@li904-41 current]$ rvm --default use ruby-1.9.3-p550
Using /home/deploy/.rvm/gems/ruby-1.9.3-p550
[deploy@li904-41 current]$ rvm list

rvm rubies

*= ruby-1.9.3-p550 [x86_64]
 ruby-1.9.3-p551 [x86_64]

=> - current
*= - current && default
* - default
```

- 2) Change the User's username.

- a. Start rails console

```
$ bundle exec rails console production
```

- b. Find the user who is to have the username changed and keep in the variable named user.

```
> user = User.where(username: username_to_change).first
```

- c. Console should return with the matching user record.

- d. Find any other users with the proposed new username (e.g. SCH\_proposed\_username). Note: when a username exists already, the PARLO Tracker convention is to add an underscore (\_) and a sequence number so the username is unique. Note: the PARLO Tracker convention is to prepend the users school acronym followed by an underscore(\_) for all users that are assigned to a school (Students, Parents, Teachers, School Administrators,...).

```
> Users.where('username like (?)', 'SCH_proposed_username
%').pluck(:username)
```

- e. If nothing is returned in the above step, the proposed username can be used as is, otherwise the proposed username should have an underscore and sequence number to make it unique.

- f. Change the username of the user found previously

```
> user.username = 'SCH_proposed_username_2'
```

- g. Save the changes

```
> save
```

```
irb(main):004:0> user = User.where(username: 'dave').first
 User Load (0.2ms) SELECT "users".* FROM "users" WHERE "users"."username" = 'dave' LIMIT 1
=> #<User id: 1, email: "", encrypted_password: "$2a$10$SMxGqEC5sff6koCeL5/YR0zIVLEHkgUVi4fgkDcM.Gq....", reset_password_token: nil, reset_password_sent_at: nil, remember_created_at: nil, sign_in_count: 10, current_sign_in_at: "2016-03-09 17:16:50", last_sign_in_at: "2016-03-08 15:03:11", current_sign_in_ip: "127.0.0.1", last_sign_in_ip: "127.0.0.1", username: "dave", created_at: "2016-02-18 15:04:59", updated_at: "2016-03-09 17:16:50", temporary_password: nil, first_name: nil, last_name: nil, school_id: nil, grade_level: nil, gender: nil, counselor: nil, school_administrator: nil, student: nil, systemAdministrator: true, teacher: nil, xid: nil, child_id: 0, parent: false, street_address: nil, city: nil, state: nil, zip_code: nil, phone: nil, absences: nil, tardies: nil, attendance_rate: nil, active: true, mastery_level: nil, subscription_status: nil, researcher: false, race: nil, special_ed: false, permissions: nil, duties: nil>
irb(main):005:0> User.where('username like (?)', 'dav%').pluck(:username)
 (0.1ms) SELECT username FROM "users" WHERE (username like ('dav%'))
=> ["dave"]
irb(main):006:0> user.username = 'dave'
=> "dave"
irb(main):007:0> user.save
 (0.1ms) begin transaction
 User Exists (0.1ms) SELECT 1 AS one FROM "users" WHERE ("users"."username" = 'dave' AND "users"."id" != 1) LIMIT 1
 (0.0ms) commit transaction
=> true
```