

Installing Canvas LMS on CentOS 5.8

Part one of this tutorial we will go from a fresh installation of CentOS 5.8 and prepare the server for the Canvas LMS software.

1. Install Base CentOS 5.8 on a computer. I did not select any of the specific roles for this computer.
 1. Upon completion of the installation, perform **yum update** to get the latest updates for this version
2. Download the following files and place them within a directory of your choice. The directory I use for this is /root and not of why but I just do.
 1. Git: <http://git-core.googlecode.com/files/git-1.7.9.6.tar.gz>
 2. Ruby: <http://ftp.ruby-lang.org/pub/ruby/1.8/ruby-1.8.7-p357.tar.gz>
 3. RubyGems: <http://rubyforge.org/frs/download.php/75952/rubygems-1.8.21.tgz>
 4. SQLite: <http://www.sqlite.org/sqlite-autoconf-3071100.tar.gz>
3. Install the following packages
 1. Run command **yum install gcc zlib-devel mysql-devel httpd openssl-devel gcc-c++ curl-devel**
 2. Run command **yum install httpd-devel apr-util-devel libxml2-devel libxslt-devel postgresql-devel**
 3. Run command **yum install mod_ssl**
4. Install EPEL Repository by issuing the following command
 1. Run command **rpm -ivh http://mirror.chpc.utah.edu/pub/epel/5/ {Either x86_64 or i386} /epel-release-5.4.noarch.rpm**
 2. Run command **yum install libyaml libyaml-devel**
5. Install Git
 1. Run command **gunzip git-1.7.9.6.tar.gz ; tar xvf git-1.7.9.6.tar**
 2. Run command **cd git-1.7.9.6**
 3. Run command **./configure**
 1. A Period and a forward slash is before the word configure
 4. Run command **make**
 5. Run command **make test**
 6. Run command **make install**
6. Install Ruby
 1. Run command **gunzip ruby-1.8.7-p357.tar.gz ; tar xvf ruby-1.8.7-p357.tar**
 2. Run command **cd ruby-1.8.7-p357**
 3. Run command **./configure**
 1. A period and a forward slash is before the word configure
 4. Run command **make**
 5. Run command **make test**
 6. Run command **make install**

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7. Install RubyGems

1. Run command **gunzip rubygems-1.8.21.tgz ; tar xvf rubygems-1.8.21.tar**
2. Run command **cd rubygems-1.8.21**
3. Run command **ruby ./setup.rb**
 1. A period and a forward slash is before the work setup.rb

8. Install SQLite

1. Run command **gunzip sqlite-autoconf-3071100.tar.gz ; tar xvf sqlite-autoconf-3071100.tar**
2. Run command **./configure**
 1. A period and a forward slash is before the work configure
3. Run command **make**
4. Run command **make install**

9. Install Rails

1. Run command **gem install rails**

10. Install Passenger

1. Run command **gem install passenger**
2. Run command **passenger-install-apache2-module**
 1. Follow the prompts on the screen. If it says a package is missing you would need to resolve this before running the command again.
3. Modify your apache2 httpd.conf file and add the following lines which the output of the passenger-install-apache2-module will explain. Copy those lines exact as written from your output.
 1. **LoadModule passenger_module /usr/local/lib/ruby/gems/1.9.1/gems/passenger-3.0.12/ext/apache2/mod_passenger.so**
 2. **PassengerRoot /usr/local/lib/ruby/gems/1.9.1/gems/passenger-3.0.12**
 3. **PassengerRuby /usr/local/bin/ruby**

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Part two of this tutorial we acquire the Canvas LMS source from the GitHub repository and prepare the configuration files for later editing.

1. Acquire Canvas LMS Source
 - a. Create directory on machine someplace. On the computer I have canvas running in production and for this tutorial, I have created a directory under /root called instructure. This will be a place where the canvas repository files will be stored. We will move them later to a directory where the web server can access them.
 - b. Inside of the directory you just created you will run the command **git clone <http://github.com/instructure/canvas-lms.git> canvas**
2. Create two directories in the apache path of the server these can be located in /var/www
 - a. The first directory will be the one holding all of the canvas files. In the server that I am using to create this tutorial this directory is at the location of **/var/www/canvas**
 - b. The second directory will be the one holding rail gem programs. In the server that I am using to create this tutorial this directory is at the location of **/var/www/gems**
3. Navigate to the directory that was created above that was created in step 1a of this page. You will then copy the files to the directory that was created in 2a of this page by typing in: **cp -av * /var/www/canvas**
4. Run command **export GEM_HOME=/var/www/gems**
5. Run command **gem install bundler**
6. Run command **\$GEM_HOME/bin/bundle install**
7. Navigate to the directory that was created in 2a of this page and change directory to the config folder. We will be copying many files to remove the .example extension
 - a. The files we want to change are: amazon_s2, database, delayed_jobs, domain file_store, outgoing_mail and security by issuing:
 - b. **cp amazon_s2.yml.example amazon_s2.yml**
 - c. **cp database.yml.example database.yml**
 - d. **cp delayed_jobs.yml.example delayed_jobs.yml**
 - e. **cp domain.yml.example domain.yml**
 - f. **cp file_store.yml.example file_store.yml**
 - g. **cp outgoing_mail.yml.example outgoing_mail.yml**gem install
 - h. **cp security.yml.example security.yml**