Before you start

You need Mac OS X to follow these instructions.

If you haven't already, follow the axiom setup instructions for [Mac OS X](https://wiki.cerner.com/display/pophealth/Device+Setup) to prepare your system.

Step 1 - Set up your virtualenvs

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| mkvirtualenv iqh\_billpay |

What virtualenvs should I make?

Best practice is to create many virtualenvs: one for each code branch or feature you work with. The common ones include:

* *trunk* - for our [trunk code](http://scm.iqhealth-emr.cerner.corp/svn/python/trunk/)
* go - for our [go branch code](http://scm.iqhealth-emr.cerner.corp/svn/python/branches/go/)
* A virtualenv for each jira you work on, e.g. "PORTALDEV-12502". These usually correspond to the branch name in svn.

*Don't know what a virtualenv is?* Read [more about virtualenvs](http://virtualenvwrapper.readthedocs.org/en/latest/).

Step 2 - Run the install script

Installing against a branch

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| --- |
| # cd to your virtual environment  cdvirtualenv    # Say your branch is at http://scm.iqhealth-emr.cerner.corp/svn/python/branches/my-branch  branch\_name=my-branch    # Download but don't run the install script.  curl http://scm.iqhealth-emr.cerner.corp/svn/python/branches/"$branch\_name"/iqh\_billpay/local\_install/install.py -O    # Run the install script against your branch.  python install.py --branch=$branch\_name    # Your code now is installed at $VIRTUAL\_ENV/src/branches/$branch\_name |

Installing trunk copy of bill pay - our dev environment

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| # cd to your virtual environment  cdvirtualenv      # Download and run the install script.  curl http://scm.iqhealth-emr.cerner.corp/svn/python/trunk/iqh\_billpay/local\_install/install.py | python    # Your trunk branch code now is installed at $VIRTUAL\_ENV/src/trunk |

Installing go copy of bill pay - our cert environment

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| # Download but don't run the install script.  cdvirtualenv  curl http://scm.iqhealth-emr.cerner.corp/svn/python/branches/go/iqh\_billpay/local\_install/install.py -O    # Run the install script against your go branch.  python install.py --branch=go    # Your code now is installed at $VIRTUAL\_ENV/src/branches/go |

Start the server

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| --- |
| python manage.py runserver localiqhbillpay.com:8019 |

Pre-reqs

1. A Mac with Cerner's image of OS X 10.9 or 10.10.
2. An Apple ID for downloading Xcode from the App Store.
   1. [Web Developer - Getting Started](https://wiki.cerner.com/display/pophealth/Web+Developer+-+Getting+Started) has a section with detailed instructions on getting Xcode setup.

**Turbo mode - Django AND Rails!**

Run [healthelife\_setup.bash](https://gist.github.cerner.com/EH012472/5d673018627479300a02) to set your device up for both Django and Rails. The short instructions at the top of that file explain more.

Installation steps

*(Note: follow the commands as they are, don't use sudo)*

1. Install [Xcode](https://itunes.apple.com/us/app/xcode/id497799835?mt=12).  
   This takes usually a lot of time to download(usually around an hour). Download and install it only via App Store.
2. Install Xcode command-line tools:

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| xcode-select --install |

1. Install [Homebrew](http://brew.sh/).
2. Brew install some packages:

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| --- |
| brew install libjpeg libmagic node gettext  brew link gettext --force  brew install swig |

1. Install [nvm](https://github.com/creationix/nvm" \l "installation) with a node version 6.5.0+ and npm 3.10+.

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| --- |
| curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.35.3/install.sh | bash  export NVM\_DIR="$HOME/.nvm"  [ -s "$NVM\_DIR/nvm.sh" ] && . "$NVM\_DIR/nvm.sh" # This loads nvm  nvm install 8.16 |

1. Above command works great on terminal that needs  to added to bash\_profile or bashrc,click on the  [link](https://github.com/creationix/nvm) how to make it work on your mac.
2. To install python, do brew install python@2 instead downloading and installing python via [this](https://www.python.org/downloads/). This will install a latest version of python2 and also installing it via homebrew makes this version the default Python version for your Mac.  
   (Usually having python version, at least 2.7.15 or higher will not result in any SSL version issues for OS versions Mojave or higher)
   1. Installing python this way does not install [setuptools](https://pypi.python.org/pypi/setuptools).  It needs to be installed as well. Otherwise pkg\_resources will not be installed (seen after sourcing virtualenvwrapper script).

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| --- |
| curl https://bootstrap.pypa.io/ez\_setup.py -o - | python |

1. Install pip (version 6.1.1 is most trusted)

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| easy\_install pip |

1. Check the SSL version on your machine using the following command:

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| python  >> import ssl  >> ssl.OPENSSL\_VERSION  'OpenSSL 1.0.2p  14 Aug 2018' |

1. If the version is older than August 2018, follow the steps in the solution section of <https://connect.ucern.com/docs/DOC-692581> to update the SSL version.
2. [Install virtualenv](https://virtualenv.pypa.io/en/stable/installation/) in usr/local/bin and edit the postmkvirtualenv as follows: (This step might belong after step 11, version 12.0.7 is most trusted)

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| --- |
| cd .virtualenvs  vi postmkvirtualenv |
| easy\_install readline  export PIP\_TRUSTED\_HOST=scm.healthe-axiom.cerner.corp  tgzs=http://scm.healthe-axiom.cerner.corp/svn/axiom-python-services/trunk/ext/tgz/  whls=http://scm.healthe-axiom.cerner.corp/svn/axiom-python-services/trunk/ext/whl/  export PIP\_FIND\_LINKS="$tgzs $whls"  sudo env LDFLAGS="-L/opt/local/lib" CFLAGS="-I/opt/local/include" SWIG\_FEATURES="-cpperraswarn -includeall -I/opt/local/include" pip install m2crypto==0.21.1  sudo env LDFLAGS="-L/opt/local/lib" CFLAGS="-I/opt/local/include" SWIG\_FEATURES="-cpperraswarn -includeall -I/opt/local/include" pip install pycrypto==2.6.1  pip install pylint |

1. [Install virtualenvwrapper](https://virtualenvwrapper.readthedocs.org/en/latest/install.html#basic-installation) and [modify your profile](https://virtualenvwrapper.readthedocs.org/en/latest/install.html#shell-startup-file).
   1. If there's a problem with [Six then follow these suggestions](https://github.com/pypa/pip/issues/3165)
   2. If you get a message which says "/usr/local/bin/virtualenvwrapper.sh: No such file or directory" type "which virtualenvwrapper.sh" and update your shells startup file (.profile/.bashrc) to match that location
2. Point pip to our TGZs by adding to your profile (by default it is *~/.bash\_profile*):

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| export PATH="/usr/local/opt/openssl/<your\_ssl\_version>/bin:$PATH"  export PATH="/usr/local/Cellar/python@2/<your\_python\_version>/bin:$PATH"  export LDFLAGS="-L/usr/local/opt/openssl/<your\_ssl\_version>/lib"  export CPPFLAGS="-I/usr/local/opt/openssl/<your\_ssl\_version>/include"  export WORKON\_HOME=$HOME/.virtualenvs  export PROJECT\_HOME=$HOME/Devel  source /usr/local/bin/virtualenvwrapper.sh  tgzs=http://scm.healthe-axiom.cerner.corp/svn/axiom-python-services/trunk/ext/tgz/  whls=http://scm.healthe-axiom.cerner.corp/svn/axiom-python-services/trunk/ext/whl/  export PIP\_FIND\_LINKS="$whls $tgzs"  export PIP\_TRUSTED\_HOST=scm.healthe-axiom.cerner.corp |

1. Install some Node packages

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| npm install less@1.7.0 -g  npm install uglify-js@1 -g |

1. Add these entries to your /etc/hosts file:

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| 0.0.0.0 localiqhealth.com  0.0.0.0 localiqhtools.com  0.0.0.0 localmoonpie.com |

1. There is a [healthe\_intent\_application\_survival\_guide](https://github.cerner.com/hi-infra/healthe_intent_application_survival_guide), which has a lot of overlap with the steps up till now. Going through these portions can help with other setup:
   1. Under [getting\_started/device\_setup.md](https://github.cerner.com/hi-infra/healthe_intent_application_survival_guide/blob/master/getting_started/device_setup.md) which links to [Web Developer - Getting Started](https://wiki.cerner.com/display/pophealth/Web+Developer+-+Getting+Started):
      1. RVM setup, if you want to use it instead of rbenv (setup above)
      2. Git configuration
      3. IE Testing? Skip for now, but it's there if needed later. (if anyone knows if this is still relevant to us, please update here)
   2. [getting\_started/daily\_tools.md](https://github.cerner.com/hi-infra/healthe_intent_application_survival_guide/blob/master/getting_started/daily_tools.md) has some other tools that might be helpful.