Python Environment Setup on macOS

1. Install Package Manager

- Homebrew

  It is the `package manager` for macOS. Following the install step on the website to install it.

2. Install Python3

2-1. Homebrew

```
$ brew install python
```

2-2. Miniconda

1. Download installer

   ```
   $ wget https://repo.anaconda.com/miniconda/Miniconda3-latest-MacOSX-x86_64.sh
   ```

2. Install

   ```
   # install miniconda in ~/opt
   $ mkdir -p ~/opt
   $ chmod +x Miniconda3-latest-MacOSX-x86_64.sh
   $ bash Miniconda3-latest-MacOSX-x86_64.sh
   ```

```
Do you accept the license terms? [yes|no]
[no] >>> yes

Miniconda3 will now be installed into this location:
/Users/kakalin/miniconda3

  - Press ENTER to confirm the location
  - Press CTRL-C to abort the installation
  - Or specify a different location below

[/Users/kakalin/miniconda3] >>> /Users/kakalin/opt/miniconda3
```

```
Preparing transaction: done
Executing transaction: done
installation finished.
WARNING:
    You currently have a PYTHONPATH environment variable set. This may cause
    unexpected behavior when running the Python interpreter in Miniconda3.
    For best results, please verify that your PYTHONPATH only points to
    directories of packages that are compatible with the Python interpreter
    in Miniconda3: /Users/kakalin/opt/miniconda3
Do you wish the installer to initialize Miniconda3
by running conda init? [yes|no]
[yes] >>> yes
no change     /Users/kakalin/opt/miniconda3/condabin/conda
no change     /Users/kakalin/opt/miniconda3/bin/conda
no change     /Users/kakalin/opt/miniconda3/bin/conda-env
no change     /Users/kakalin/opt/miniconda3/bin/activate
no change     /Users/kakalin/opt/miniconda3/bin/deactivate
no change     /Users/kakalin/opt/miniconda3/etc/profile.d/conda.sh
no change     /Users/kakalin/opt/miniconda3/etc/fish/conf.d/conda.fish
no change     /Users/kakalin/opt/miniconda3/shell/condabin/Conda.psm1
no change     /Users/kakalin/opt/miniconda3/shell/condabin/conda-hook.ps1
no change     /Users/kakalin/opt/miniconda3/lib/python3.7/site-packages/xontrib/conda.xsh
no change     /Users/kakalin/opt/miniconda3/etc/profile.d/conda.csh
modified      /Users/kakalin/.bash_profile

==> For changes to take effect, close and re-open your current shell. <==

If you'd prefer that conda's base environment not be activated on startup,
   set the auto_activate_base parameter to false:

conda config --set auto_activate_base false

Thank you for installing Miniconda3!
```
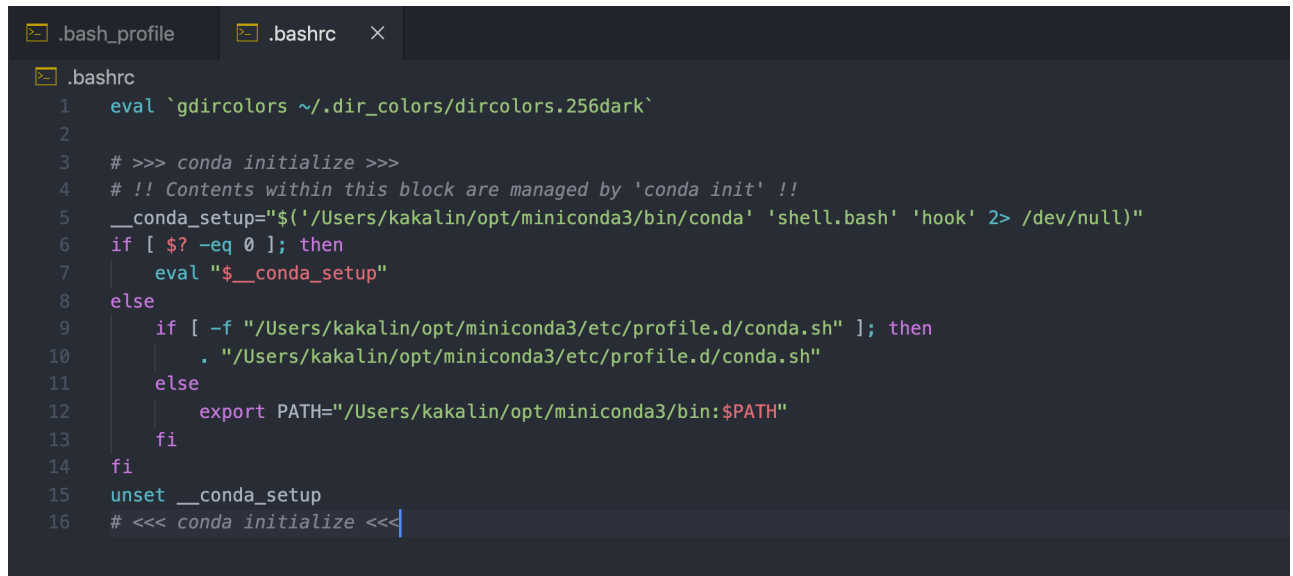
3. Activate conda

   - bash
   - zsh

1. bash

- Copy `conda initialize` in `~/.bash_profile` to `~/.bashrc`, as below:

```
.bash_profile        .bashrc    ✕                        3 / 4

.bashrc
  1    eval `gdircolors ~/.dir_colors/dircolors.256dark`
  2
  3    # >>> conda initialize >>>
  4    # !! Contents within this block are managed by 'conda init' !!
  5    __conda_setup="$('/Users/kakalin/opt/miniconda3/bin/conda' 'shell.bash' 'hook' 2> /dev/null)"
  6    if [ $? -eq 0 ]; then
  7        eval "$__conda_setup"
  8    else
  9        if [ -f "/Users/kakalin/opt/miniconda3/etc/profile.d/conda.sh" ]; then
 10            . "/Users/kakalin/opt/miniconda3/etc/profile.d/conda.sh"
 11        else
 12            export PATH="/Users/kakalin/opt/miniconda3/bin:$PATH"
 13        fi
 14    fi
 15    unset __conda_setup
 16    # <<< conda initialize <<<
```

- Activate

```
$ source ~/.bashrc # or open new Terminal
```

```
(base) bash-3.2$ conda -V
conda 4.7.12
(base) bash-3.2$ python3 -V
Python 3.7.4
(base) bash-3.2$ pip -V
pip 19.3.1 from /Users/kakalin/opt/miniconda3/lib/python3.7/site-packages/pip (python 3.7)
(base) bash-3.2$ █
```

2. zsh

- Copy `conda initialize` in `~/.bash_profile` to `~/.zshrc`, as below:

```
 .bash_profile        .bashrc         .zshrc    ✕

 .zshrc

160     ################################################################################
161
162     # >>> conda initialize >>>
163     # !! Contents within this block are managed by 'conda init' !!
164     __conda_setup="$('/Users/kakalin/opt/miniconda3/bin/conda' 'shell.bash' 'hook' 2> /dev/null)"
165     if [ $? -eq 0 ]; then
166         eval "$__conda_setup"
167     else
168         if [ -f "/Users/kakalin/opt/miniconda3/etc/profile.d/conda.sh" ]; then
169             . "/Users/kakalin/opt/miniconda3/etc/profile.d/conda.sh"
170         else
171             export PATH="/Users/kakalin/opt/miniconda3/bin:$PATH"
172         fi
173     fi
174     unset __conda_setup
175     # <<< conda initialize <<<
```

- Activate

```
$ source ~/.zshrc # or open new Terminal
```

```
kakalin   ~/Projects/pyenv-setup-tutorials/macOS    master   source ~/.zshrc
 (miniconda3)  kakalin   ~/Projects/pyenv-setup-tutorials/macOS    master   conda -V
conda 4.7.12
 (miniconda3)  kakalin   ~/Projects/pyenv-setup-tutorials/macOS    master   python3 -V
Python 3.7.4
 (miniconda3)  kakalin   ~/Projects/pyenv-setup-tutorials/macOS    master   pip -V
pip 19.3.1 from /Users/kakalin/opt/miniconda3/lib/python3.7/site-packages/pip (python 3.7)
 (miniconda3)  kakalin   ~/Projects/pyenv-setup-tutorials/macOS    master
```