Installing PyQt5 and Qt Designer

PyQt is the Python bindings for *Qt* application development framework.
Qt, in turn, is a free and open-source widget toolkit for creating graphical user interfaces.

There are *two main options* on how to install *PyQt5* and *Qt Designer*:

- all together by *Anaconda*
- separately

PyQt5 and Qt Designer all together

The **easiest way** to install *PyQt5* and *Qt Designer* is by using *Anaconda*. Activate your *Python v3* environment and run following command in *Terminal* (or *Anaconda Prompt*):

```
conda install -c anaconda pyqt
```

This option works for **Linux**, **Windows** and **Mac**.

PyQt5 separately

In order to install *PyQt5* separately, activate your *Python v3* environment and run following command in *Terminal* (or *Anaconda Prompt*):

```
pip install PyQt5
```
or:
```
pip3 install PyQt5
```

This option works for **Linux**, **Windows** and **Mac**.

Qt Designer separately

For **Linux** (Debian/Ubuntu), in order to install *Qt Designer* separately, activate your *Python v3* environment and run following commands in *Terminal*:

```
sudo apt-get install python3-pyQt5
sudo apt-get install pyQt5-dev-tools
sudo apt-get install Qttools5-dev-tools
```

For **Windows**, in order to install *Qt Designer* separately, activate your *Python v3* environment and run following command in *Anaconda Prompt*:

```
pip install pyqt5-tools
```
or:
```
pip3 install pyqt5-tools
```

For **Mac**, in order to install *Qt Designer* separately, download *standalone installer* from given resource in *Useful Links* section below [4].

Verify installation of PyQt5

To check **if PyQt5 was installed**, run *Python* in any form (e.g., just activate your environment created with *conda* and type *python*) and use following two lines of code:

- ```
  from PyQt5.Qt import PYQT_VERSION_STR
  ```
- ```
  print(PYQT_VERSION_STR)
  ```

As a result, the version of installed *PyQt* has to be shown, like this: *5.9.2*

Also, you can verify installation by running only one line of the code in *Terminal* (or *Anaconda Prompt*), but don't forget to activate your environment:
```
python -c "from PyQt5.Qt import PYQT_VERSION_STR; print(PYQT_VERSION_STR)"
```

Verify installation of Qt Designer

To check **if Qt Designer was installed**, open *Terminal* (or *Anaconda Prompt*), activate your environment where you have installed *Qt Designer* and use following command:

- `designer`

As a result, the *main window* of *Qt Designer* will be opened.

For **Windows** you can also find executable file to open *Qt Designer*:

`UserName\Anaconda3\Library\bin\designer.exe`

or:

`UserName\Miniconda3\Library\bin\designer.exe`

For **Mac** you can find executable file to open *Qt Designer*:

`/Users/apple/anaconda3/bin/Designer.app/Contents/MacOS`

or:

`/Users/apple/miniconda3/bin/Designer.app/Contents/MacOS`

Useful Links

Check out additional links with other useful and free resources for installing *PyQt5* and *Qt Designer* that you might find great for your future work:

[1]   Anaconda package – installing *PyQt5* and *Qt Designer* **all together** by *Anaconda* for **Linux**, **Windows** and **Mac**

[2]   PyQt5 by pip – installing *PyQt5* **separately** for **Linux**, **Windows** and **Mac**

[3]   Qt Designer by pip for Windows – installing *Qt Designer* **separately** for **Windows**

[4]   Qt Designer for Mac – installing *Qt Designer* **separately** for **Mac** by standalone installer

[5]   Full Qt installation – installing full, free and open source *Qt* from official resource