**QT vs PyQt vs PySide**

QT, PyQt, and PySide are all related to the Qt application framework but differ in their specific implementations and usage in the Python ecosystem. Here's a detailed comparison of these three:

**Qt:**

* Qt is a powerful cross-platform application framework used for developing application software with a graphical user interface (GUI) and other functionalities. It provides comprehensive libraries for building applications that can run on various platforms.
* It is written in C++ and offers support for various programming languages, including Python, through bindings like PyQt and PySide.

**PyQt:**

* PyQt is a set of Python bindings for the Qt application framework. It allows Python programmers to access Qt's functionality using Python.
* PyQt is available under the GPL and a commercial license. If your application is open-source, you can use PyQt for free under the GPL. If your application is proprietary, you need to purchase a commercial license from Riverbank Computing.
* PyQt provides complete coverage of Qt's functionality and includes Qt Designer, a visual design tool.

**PySide:**

* PySide is another set of Python bindings for the Qt application framework. It allows Python programmers to use Qt's functionality using Python, similar to PyQt.
* PySide was originally developed as the official set of Python bindings for Qt by Nokia, later taken over by Digia, and is now maintained by the Qt for Python project.
* PySide is available under the LGPL, allowing you to use it for both open-source and proprietary applications without having to pay for a commercial license.

In summary, Qt is the core framework, PyQt is a set of Python bindings for Qt, and PySide is an alternative set of Python bindings for Qt. They enable Python developers to create cross-platform applications with a native look and feel. The main differences lie in their licensing, origins, and the specific features each offers. When choosing between PyQt and PySide, your decision may depend on the licensing requirements of your project and the level of community support and documentation you need.