

Ergisa Koci

ELEC 3225

Assignment 2

05.18.2025

## **Integrate and Configure**

Buying a system from Banner and updating it for LeopardWeb is ideal for this scenario because there aren't any previous systems/code that I can reuse for this project. Since this LeopardWeb project will be coded in C++, the best user interface that I came across was Qt Framework. This is a cross-platform application development framework which is primarily used to build GUIs. Qt provides a set of libraries and tools for building cross-platform applications as well as a web engine that uses WebKit. WebKit provides a set of APIs for rendering web pages and it handles user interactions. I concluded that it would be easier to create an application for the users instead of a website, since the program will be written in C++ and typically Java is primarily used for websites. Qt also supports database integration, which is a plus since that will be needed for this project, using Qt Sql which provides a set of APIs for database integration. Specifically, QSqlDatabase is a class within the framework which establishes and manages connections to various SQL database servers. The estimated time at which the database integration will come in to play is before the GUI development since it will be the foundation for the application's logic, it will essentially help test if the data operations such as making changes to schedules and so on actually work. Once this portion is properly integrated, then I will use provided data (I assume) to develop the GUI.

## **Citations**

Cengizhan Varlı. "QT SQL Operations - Cengizhan Varlı - Medium." *Medium*, 16 Feb. 2024,

[cengizhanvarli.medium.com/qt-sql-operations-b9031dfc1a20](https://cengizhanvarli.medium.com/qt-sql-operations-b9031dfc1a20). Accessed 18 May 2025.

codezup. "C++ Web Development with Qt and WebKit." *Codez Up*, 27 Dec. 2024,

[codezup.com/c-web-development-qt-webkit/](https://codezup.com/c-web-development-qt-webkit/). Accessed 18 May 2025.

Company, The Qt. "Embedded Software Development Tools | Cross Platform IDE | Qt Creator."

[Www.qt.io](http://www.qt.io), [www.qt.io/product/development-tools](http://www.qt.io/product/development-tools).

