**Technical Architecture - Unit Converter + Calculator**

# 1. Planned Classes and Modules

- MainWindow: The main application window containing buttons to open the Unit Converter and Calculator dialogs.  
- UnitConverterDialog: A QDialog-based window that allows the user to perform unit conversions (e.g., meters to feet).  
- CalculatorDialog: A QDialog-based window that performs arithmetic calculations between two numbers.  
- UtilityFunctions (optional): A helper module containing methods for unit conversions and arithmetic operations.

# 2. Custom Signal Design

Custom signals will be used to notify the main window when a conversion or calculation is completed. Example:  
- signalConversionComplete: emitted by UnitConverterDialog when a result is generated  
- signalCalculationComplete: emitted by CalculatorDialog when a result is calculated

# 3. Menu Structure and Keyboard Shortcuts

The application will include a menu bar with the following structure:

- File  
 - Exit (Ctrl+Q)  
- Tools  
 - Open Unit Converter (Ctrl+U)  
 - Open Calculator (Ctrl+C)  
- Help  
 - About

Each menu item will be created using QAction and linked with keyboard shortcuts.