

QUiLoader Mastery Exam

Your Name

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Introduction

This exam will guide you through a series of exercises to master the `QUiLoader` class. Start with the basics and progress to advanced concepts.

1 Basic Exercises

1.1 Exercise 1: Loading a Simple UI

Objective: Load a basic UI file and display the window.

1. Create a simple UI file with Qt Designer containing a `QLabel` with text "Hello Qt!"
2. Save it as `simple.ui`
3. Write a program that loads this file using `QUiLoader` and displays it

1.2 Exercise 2: Accessing Specific Widgets

Objective: Access and modify a widget after loading.

1. Modify the UI file to include a `QPushButton` named `myButton`
2. After loading, change the button's text to "Click Me!"

2 Intermediate Exercises

2.1 Exercise 3: Signal-Slot Connections

Objective: Connect signals to slots after loading.

1. Add a `QLineEdit` named `lineEdit` to your UI
2. Connect the `textChanged` signal to a slot that prints the text to console

2.2 Exercise 4: Dynamic Multi-UI Loading

Objective: Load and switch between multiple interfaces.

1. Create two UI files: `page1.ui` and `page2.ui`
2. Add a button in each page to switch to the other
3. Implement the switching logic

3 Advanced Exercises

3.1 Exercise 5: Custom Widget Integration

Objective: Integrate custom widgets with UI files.

1. Create a custom widget (e.g., a bordered `QLabel`)
2. Register it with `QUiLoader` before loading
3. Use it in your UI file

3.2 Exercise 6: Plugin-Based UI Architecture

Objective: Create a modular system loading UIs as plugins.

1. Create a plugin interface
2. Implement plugins that load different UIs
3. Create a main program that dynamically loads these plugins

Conclusion

Congratulations on completing this progressive exam! You should now have solid understanding of `QUiLoader`'s capabilities.