

## QT Minilab

In this minilab, you will create a simple game in QT. In this game, the user clicks on a button 10 times and then wins. You are encouraged to use the slides from Monday as a reference

Deliverables: Record a video using Zoom or Quicktime Player of you playing your game. Turn in the video along with your clickgamewindow.cpp and clickgamewindow.h.

Learning objectives: by the end of this exercise you will be able to

- Create a basic project using QT
  - Integrate existing C++ classes into a QT project (Counter.cpp, Counter.h)
  - Connect slots and signals to enable interaction with a QT UI
  - Update the text of a QLabel widget and use .show() and .hide()
- 
1. Create a new project and call your primary class ClickGameWindow;
  2. Download counter.cpp and counter.h from Camino
  3. Add counter.cpp and counter.h to your project. To do this, first move counter.cpp and counter.h into the same folder as your QT project. Then, right-click the “Headers” folder on the left, and select “Add Existing Files,” and add Counter.h. Then right-click the “Sources” folder and add Counter.cpp.
  4. Add a Counter object as a private field to ClickGameWindow
  5. On the UI, create a single QPushButton, with the text “Click me” and a QLabel with the text set to “Number of Clicks: 0”.
  6. Connect the QPushButton to a slot in the ClickGameWindow. The slot should be defined such that, when the QPushButton is clicked, the Counter object adds one to the count, and then the QLabel has its text updated to “Number of Clicks: [insert # of clicks here].”
  7. When the number of Clicks reaches 10, the Button and Label should be hidden and a new Label with the text “You Win” should appear. To do this, you will need to create a new QLabel, hide it when the window opens, and then show it when the user wins.