

pyQt5



```
## Very Simple App
from PyQt5.QtWidgets import *

app = QApplication([])

window = QWidget()
window.setGeometry(100,100,300,400) #x, y, width, height
window.setWindowTitle("Very Simple App")
window.show()

label = QLabel(window)
label.setText("Hello World!")
label.move(50,50)
label.show()

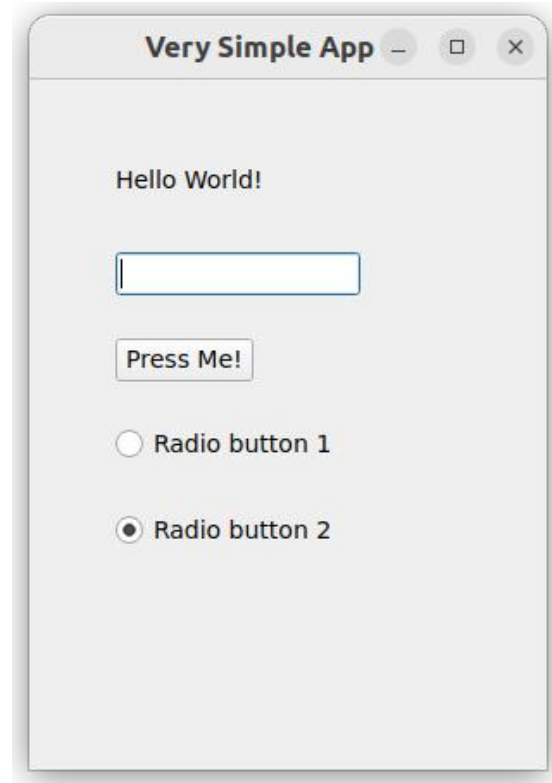
lineEdit = QLineEdit(window)
lineEdit.move(50,100)
lineEdit.show()

button = QPushButton(window)
button.setText("Press Me!")
button.move(50,150)
button.show()

radioButton1 = QRadioButton("Radio button 1", window)
radioButton1.move(50,200)
radioButton1.show()

radioButton2 = QRadioButton("Radio button 2", window)
radioButton2.move(50,250)
radioButton2.setChecked(True)
radioButton2.show()

app.exec()
```



```
import sys
from PyQt5.QtCore import QSize, Qt
from PyQt5.QtWidgets import (
    QApplication,
    QMainWindow,
    QPushButton,
)
```

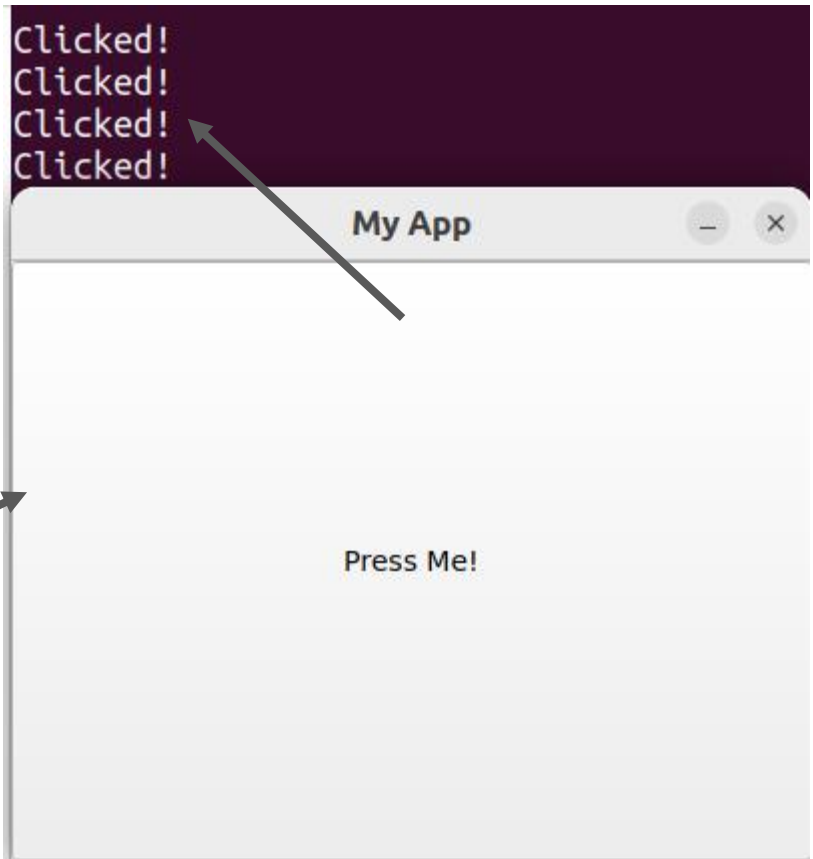
```
class MainWindow(QMainWindow):
    def __init__(self):
        super().__init__()
        self.setWindowTitle("My App")
        self.setFixedSize(QSize(400, 300))

        button = QPushButton("Press Me!")
        button.setCheckable(True)
        button.clicked.connect(self.the_button_was_clicked)

        # Set the central widget of the Window.
        self.setCentralWidget(button)

    #Action slot
    def the_button_was_clicked(self):
        print("Clicked!")
```

```
app = QApplication(sys.argv)
window = MainWindow()
window.show()
app.exec()
```



Simple App with Layouts

```
from PyQt5.QtWidgets import *  
from PyQt5.QtGui import QFont
```

```
def main():
```

```
    app = QApplication([])  
    window = QWidget()
```

```
    window.setGeometry(100,100,200,300)    #x, y, width, height  
    window.setWindowTitle("First App")
```

```
    #-----
```

```
    layout = QVBoxLayout()    #vertical layout
```

```
    label = QLabel("Press the Button")
```

```
    textbox = QTextEdit()
```

```
    button = QPushButton("Press Me!")
```

```
    #button.clicked.connect(on_clicked)    #linked with simple on_clicked
```

```
    button.clicked.connect(lambda: on_clicked(textbox.toPlainText()))
```

```
    layout.addWidget(label)
```

```
    #or layout.addWidget(QLabel("Press the Button"))
```

```
    layout.addWidget(textbox)
```

```
    layout.addWidget(button)
```

```
    window.setLayout(layout)
```

```
    #-----
```

```
    window.show()
```

```
    app.exec()
```

```
# simple output
```

```
#def on_clicked():
```

```
    # print("Hello World!")
```

```
    # or
```

```
    # message = QMessageBox()
```

```
    # message.setText("Hello
```

```
World!")
```

```
    # message.exec()
```

```
# output textbox content
```

```
def on_clicked(msg):
```

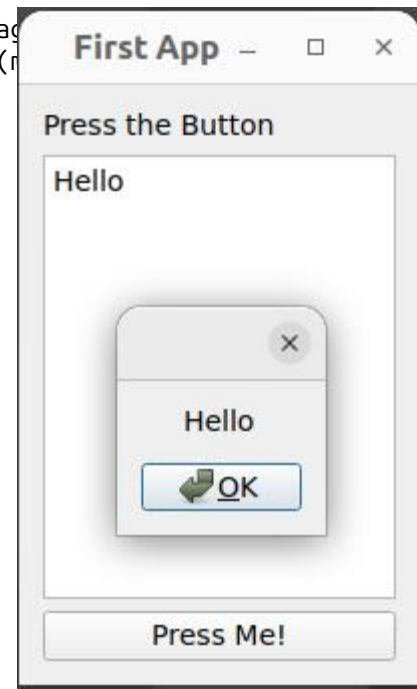
```
    message = QMessageBox()
```

```
    message.setText(msg)
```

```
    message.exec()
```

```
if __name__ == "__main__":
```

```
    main()
```



#Basic app with Widgets

```
import sys
from PyQt5.QtCore import QSize, Qt
from PyQt5.QtGui import QPixmap
from PyQt5.QtWidgets import *

class MainWindow(QMainWindow):
    def __init__(self):
        super().__init__()
        self.setWindowTitle("My App")
        self.setFixedSize(QSize(400, 500))

        layout = QVBoxLayout()

        label = QLabel("Hello, World!")

        img = QLabel("tux")
        img.setPixmap(QPixmap("tux.png"))

        button = QPushButton("Press Me!")

        button.clicked.connect(self.the_button_was_clicked)

        lineedit = QLineEdit()
        lineedit.setMaxLength(10)
        lineedit.setPlaceholderText("Enter your text")

        checkbox = QCheckBox("This is a checkbox")
        checkbox.setChecked(Qt.CheckState.Checked)

        combobox = QComboBox()
        combobox.addItem("One")
        combobox.addItem("Two")
        combobox.addItem("Three")
```

```
listwidget = QListWidget()
listwidget.addItem("One")
listwidget.addItem("Two")
listwidget.addItem("Three")
```

```
dial = QDial()
dial.setRange(-10, 100)
dial.setSingleStep(1)
```

```
layout.addWidget(label)
layout.addWidget(img)
layout.addWidget(button)
layout.addWidget(lineedit)
layout.addWidget(checkbox)
layout.addWidget(combobox)
layout.addWidget(listwidget)
layout.addWidget(dial)
```

```
widget = QWidget()
widget.setLayout(layout)
self.setCentralWidget(widget)
```

```
def the_button_was_clicked(self):
    print("Clicked!")
```

```
app = QApplication(sys.argv)
window = MainWindow()
window.show()
app.exec()
```

