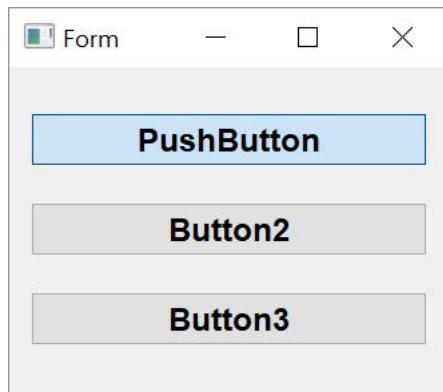


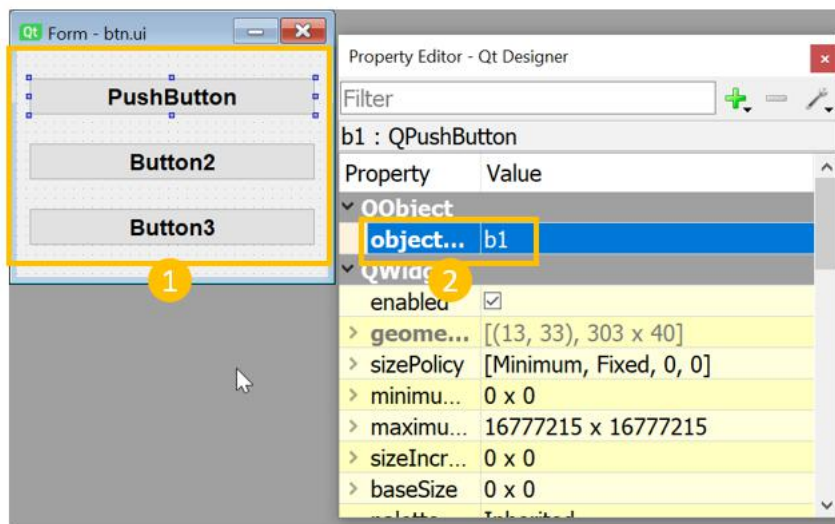
How to use QPushButton - An Example



Step 1

Adding the widgets to the form

1. Drop three instances of Push Button widgets on the form and put them in Vertical layout.
2. Assign object names as b1, b2 and b3.
3. Save the form as btn.ui and generate its Python script using pyuic5 utility.



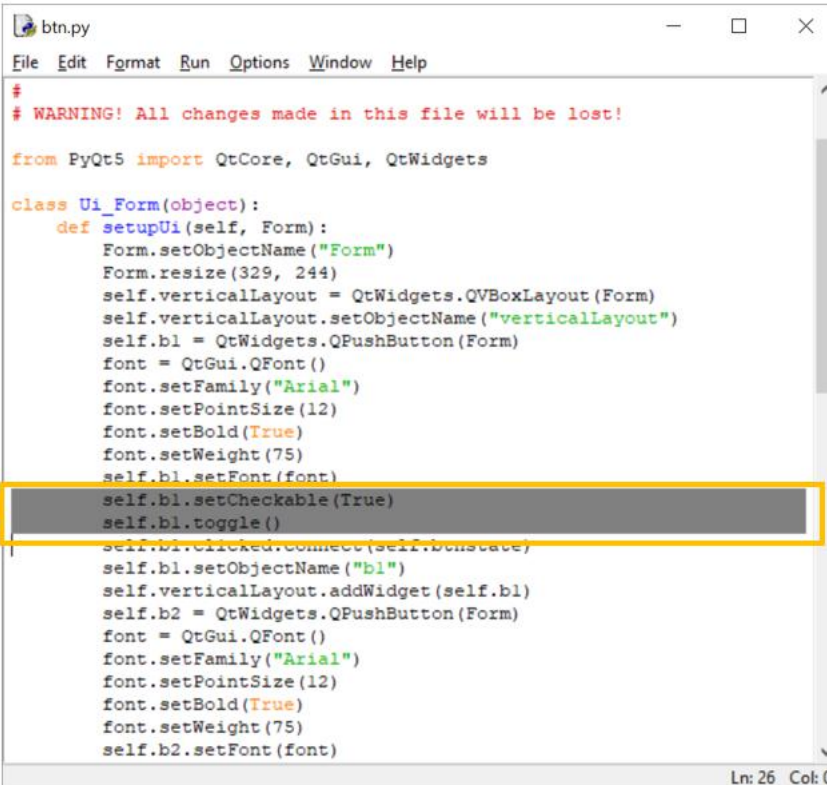
Step 2

Creating a toggle button

4. For setting btn 1 as a toggle button, add the following lines in `setupUi()` method:

self.b1.setCheckable(True)

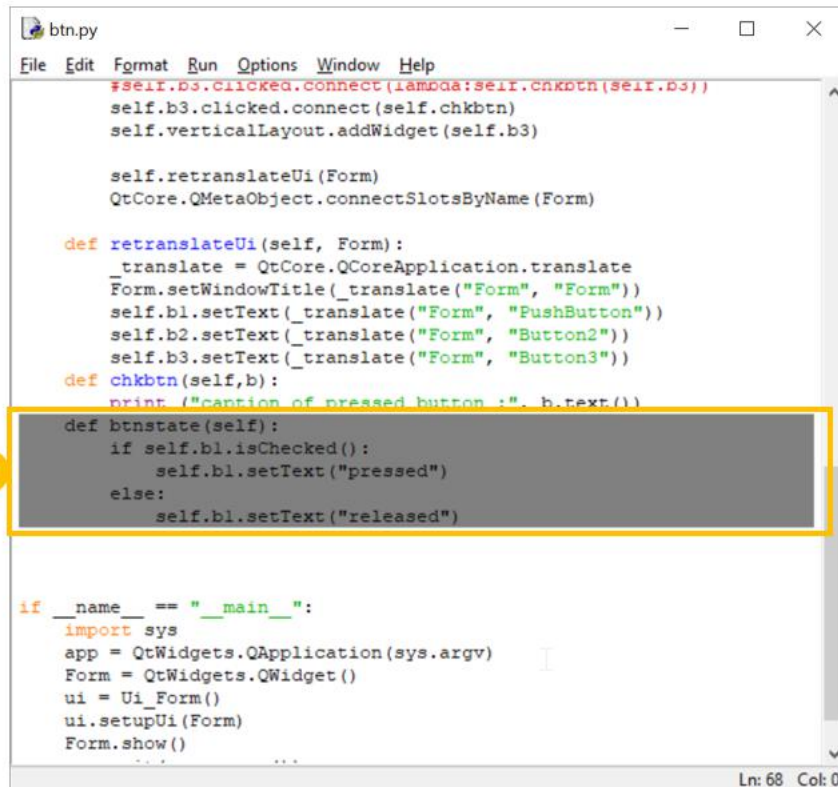
self.b1.toggle()



```
#  
# WARNING! All changes made in this file will be lost!  
  
from PyQt5 import QtCore, QtGui, QtWidgets  
  
class Ui_Form(object):  
    def setupUi(self, Form):  
        Form.setObjectName("Form")  
        Form.resize(329, 244)  
        self.verticalLayout = QtWidgets.QVBoxLayout(Form)  
        self.verticalLayout.setObjectName("verticalLayout")  
        self.b1 = QtWidgets.QPushButton(Form)  
        font = QtGui.QFont()  
        font.setFamily("Arial")  
        font.setPointSize(12)  
        font.setBold(True)  
        font.setWeight(75)  
        self.b1.setFont(font)  
        self.b1.setCheckable(True)  
        self.b1.toggle()  
        self.b1.clicked.connect(self.btnstate)  
        self.b1.setObjectName("b1")  
        self.verticalLayout.addWidget(self.b1)  
        self.b2 = QtWidgets.QPushButton(Form)  
        font = QtGui.QFont()  
        font.setFamily("Arial")  
        font.setPointSize(12)  
        font.setBold(True)  
        font.setWeight(75)  
        self.b2.setFont(font)
```

5. For the toggle button, to change the caption of b1 according to its state, add the following method in the `Ui-Form` class generated by `pyuic5` utility

***def btnstate(self): if self.b1.isChecked(): self.b1.setText("pressed") else:
self.b1.setText("released")***



```

btn.py
File Edit Format Run Options Window Help
#self.b3.clicked.connect(lambda:self.chkbtn(self.b3))
self.b3.clicked.connect(self.chkbtn)
self.verticalLayout.addWidget(self.b3)

self.retranslateUi(Form)
QtCore.QMetaObject.connectSlotsByName(Form)

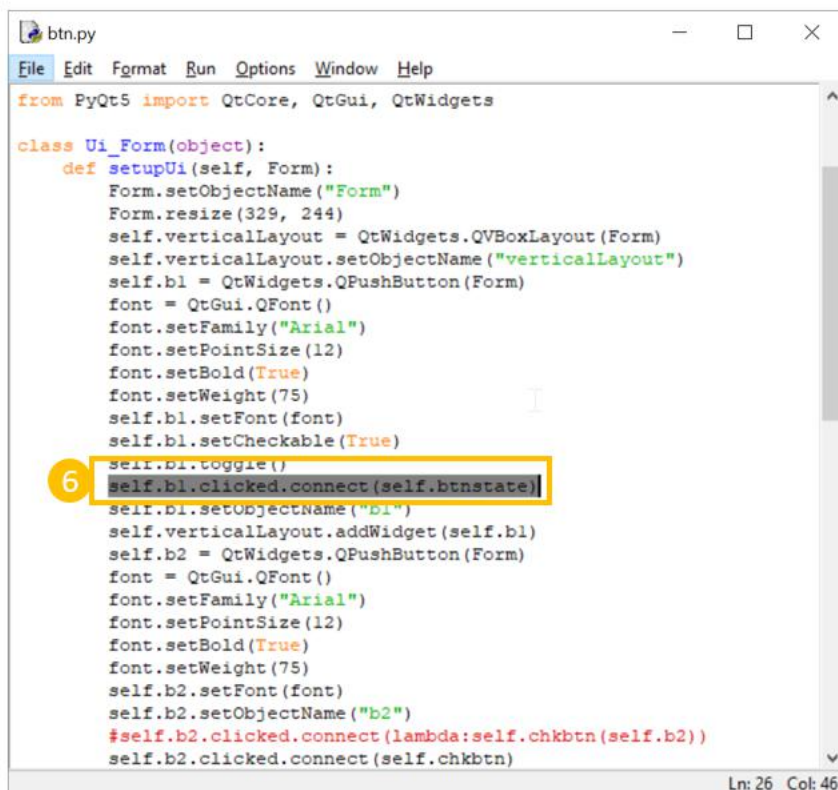
def retranslateUi(self, Form):
    _translate = QtCore.QCoreApplication.translate
    Form.setWindowTitle(_translate("Form", "Form"))
    self.b1.setText(_translate("Form", "PushButton"))
    self.b2.setText(_translate("Form", "Button2"))
    self.b3.setText(_translate("Form", "Button3"))
def chkbtn(self,b):
    print("caption of pressed button :", b.text())

def btnstate(self):
    if self.b1.isChecked():
        self.b1.setText("pressed")
    else:
        self.b1.setText("released")

if __name__ == "__main__":
    import sys
    app = QtWidgets.QApplication(sys.argv)
    Form = QtWidgets.QWidget()
    ui = Ui_Form()
    ui.setupUi(Form)
    Form.show()
    ...
Ln: 68 Col: 0

```

6. Use this method as slot for clicked signal emitted by b1. Add the following statement in the script. *self.b1.clicked.connect(self.btnstate)*



```

btn.py
File Edit Format Run Options Window Help
from PyQt5 import QtCore, QtGui, QtWidgets

class Ui_Form(object):
    def setupUi(self, Form):
        Form.setObjectName("Form")
        Form.resize(329, 244)
        self.verticalLayout = QtWidgets.QVBoxLayout(Form)
        self.verticalLayout.setObjectName("verticalLayout")
        self.b1 = QtWidgets.QPushButton(Form)
        font = QtGui.QFont()
        font.setFamily("Arial")
        font.setPointSize(12)
        font.setBold(True)
        font.setWeight(75)
        self.b1.setFont(font)
        self.b1.setCheckable(True)
        self.b1.toggle()
        self.b1.clicked.connect(self.btnstate)
        self.b1.setObjectName("b1")
        self.verticalLayout.addWidget(self.b1)
        self.b2 = QtWidgets.QPushButton(Form)
        font = QtGui.QFont()
        font.setFamily("Arial")
        font.setPointSize(12)
        font.setBold(True)
        font.setWeight(75)
        self.b2.setFont(font)
        self.b2.setObjectName("b2")
        self.b2.clicked.connect(lambda:self.chkbtn(self.b2))
        self.b2.clicked.connect(self.chkbtn)
Ln: 26 Col: 46

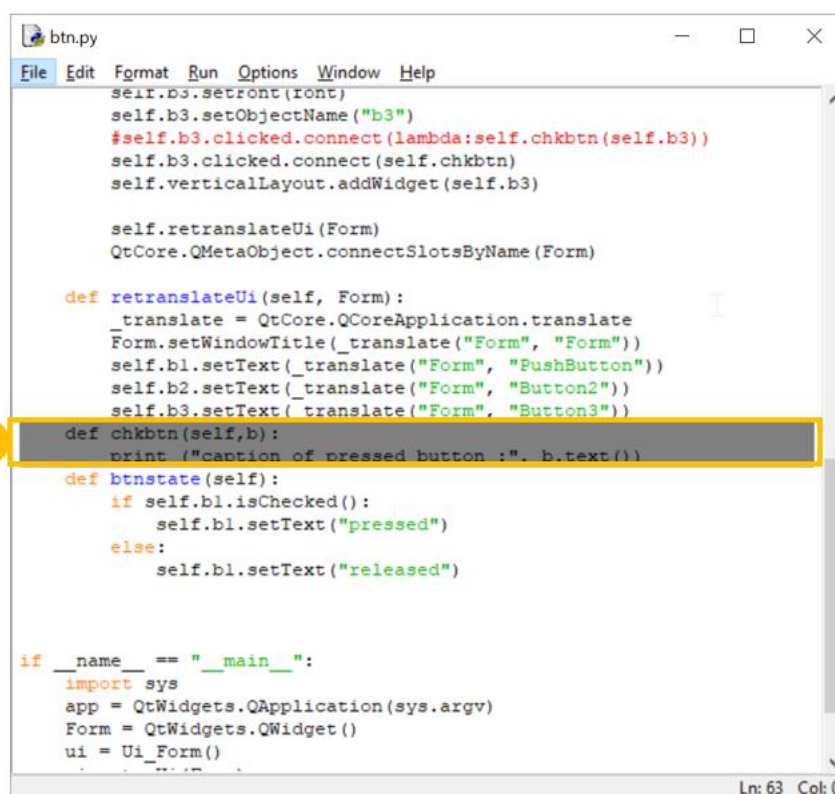
```

Step 3

Identifying which button has been clicked

7. We want to identify which button out of b2 and b3 has been clicked. Add following method in the class and connect the same to clicked signal of b2 and b3.

def chkbtn(self,b): print ("caption of pressed button :", b.text())

A screenshot of a Python IDE window titled 'btn.py'. The window contains a Python script for a Qt application. The script includes imports for Qt modules, a class definition with various methods, and a main block. The method 'def chkbtn(self,b):' is highlighted with a yellow background. A yellow circle with the number '7' is placed to the left of this method definition. The status bar at the bottom right shows 'Ln: 63 Col: 0'.

```
btn.py
File Edit Format Run Options Window Help
self.b3.setFront(front)
self.b3.setObjectName("b3")
#self.b3.clicked.connect(lambda:self.chkbtn(self.b3))
self.b3.clicked.connect(self.chkbtn)
self.verticalLayout.addWidget(self.b3)

self.retranslateUi(Form)
QtCore.QMetaObject.connectSlotsByName(Form)

def retranslateUi(self, Form):
    _translate = QtCore.QCoreApplication.translate
    Form.setWindowTitle(_translate("Form", "Form"))
    self.b1.setText(_translate("Form", "PushButton"))
    self.b2.setText(_translate("Form", "Button2"))
    self.b3.setText(_translate("Form", "Button3"))

7 def chkbtn(self,b):
    print ("caption of pressed button :", b.text())

def btnstate(self):
    if self.b1.isChecked():
        self.b1.setText("pressed")
    else:
        self.b1.setText("released")

if __name__ == "__main__":
    import sys
    app = QtWidgets.QApplication(sys.argv)
    Form = QtWidgets.QWidget()
    ui = Ui_Form()
    Form.setObjectName("Form")
    Form.resize(400, 300)
    self.setupUi(Form)
    app.exec_()
```

8. Add following lines in setupUi() method

self.b2.clicked.connect(lambda:self.chkbtn(self.b2))

self.b3.clicked.connect(lambda:self.chkbtn(self.b3))

```
font.setBold(True)
font.setWeight(75)
self.b1.setFont(font)
self.b1.setCheckable(True)
self.b1.toggle()
self.b1.clicked.connect(self.btnstate)
self.b1.setObjectName("b1")
self.verticalLayout.addWidget(self.b1)
self.b2 = QtWidgets.QPushButton(Form)
font = QtGui.QFont()
font.setFamily("Arial")
font.setPointSize(12)
font.setBold(True)
font.setWeight(75)
self.b2.setFont(font)
self.b2.setObjectName("b2")
self.b2.clicked.connect(lambda:self.chkbtn(self.b2))
self.b2.clicked.connect(self.chkbtn)
self.verticalLayout.addWidget(self.b2)
self.b3 = QtWidgets.QPushButton(Form)
font = QtGui.QFont()
font.setFamily("Arial")
font.setPointSize(12)
font.setBold(True)
font.setWeight(75)
self.b3.setFont(font)
self.b3.setObjectName("b3")
self.b3.clicked.connect(lambda:self.chkbtn(self.b3))
self.b3.clicked.connect(self.chkbtn)
self.verticalLayout.addWidget(self.b3)
```

Ln: 37 Col: 60

Step 4

Download Sample

Click [here](#) to download sample files for the use of this widget.