Anubis C# Format Supported Documentation

This is the Documentation of a new version of the Anubis IDE evolving the editor by adding support for the C# Programming Language color Highlighting. (regarding the Design , Screenshots of the program, Code and Modifications)

Github Repository Link:
https://github.com/amrrbadawi/newAnubis.git

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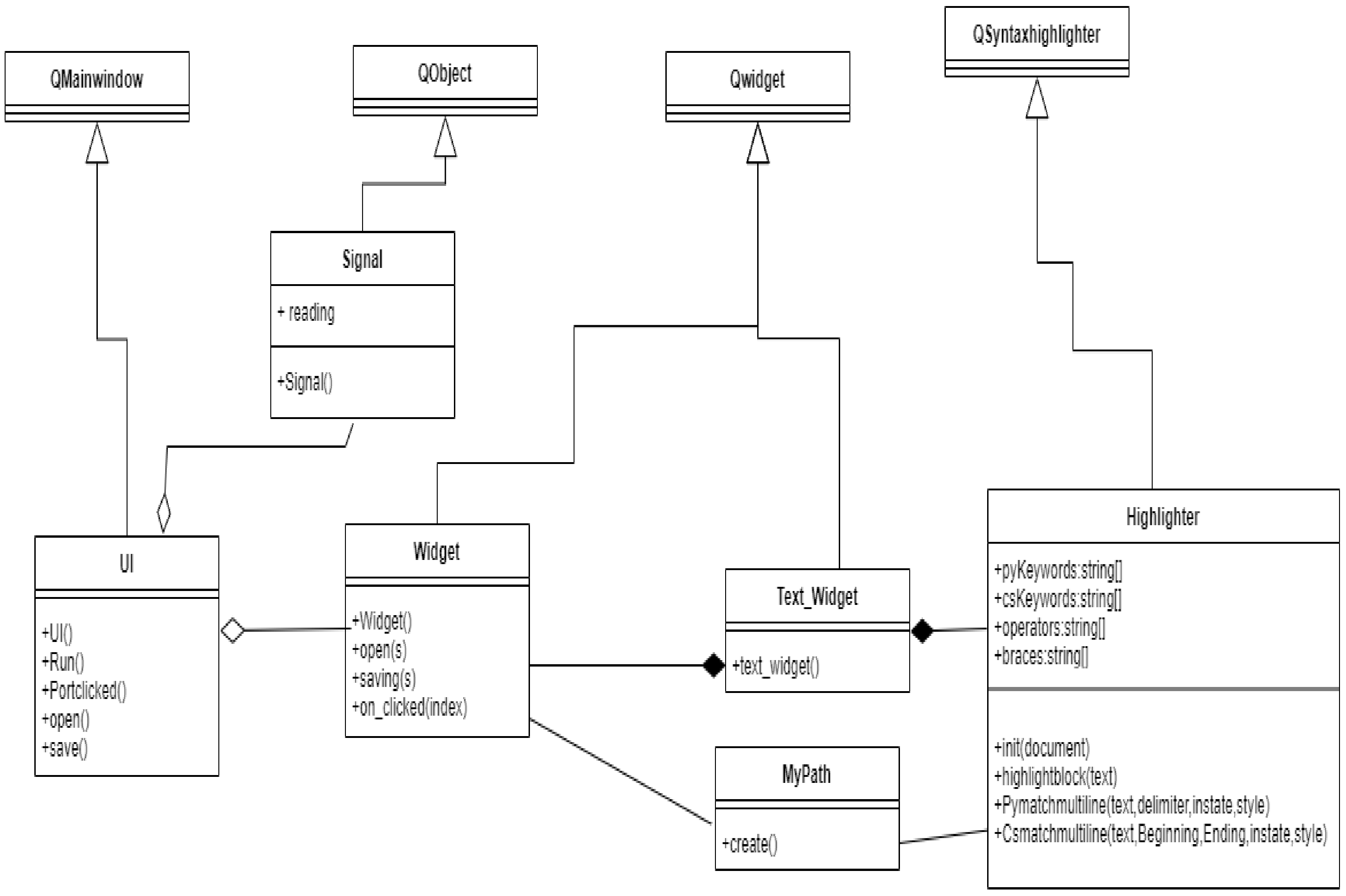
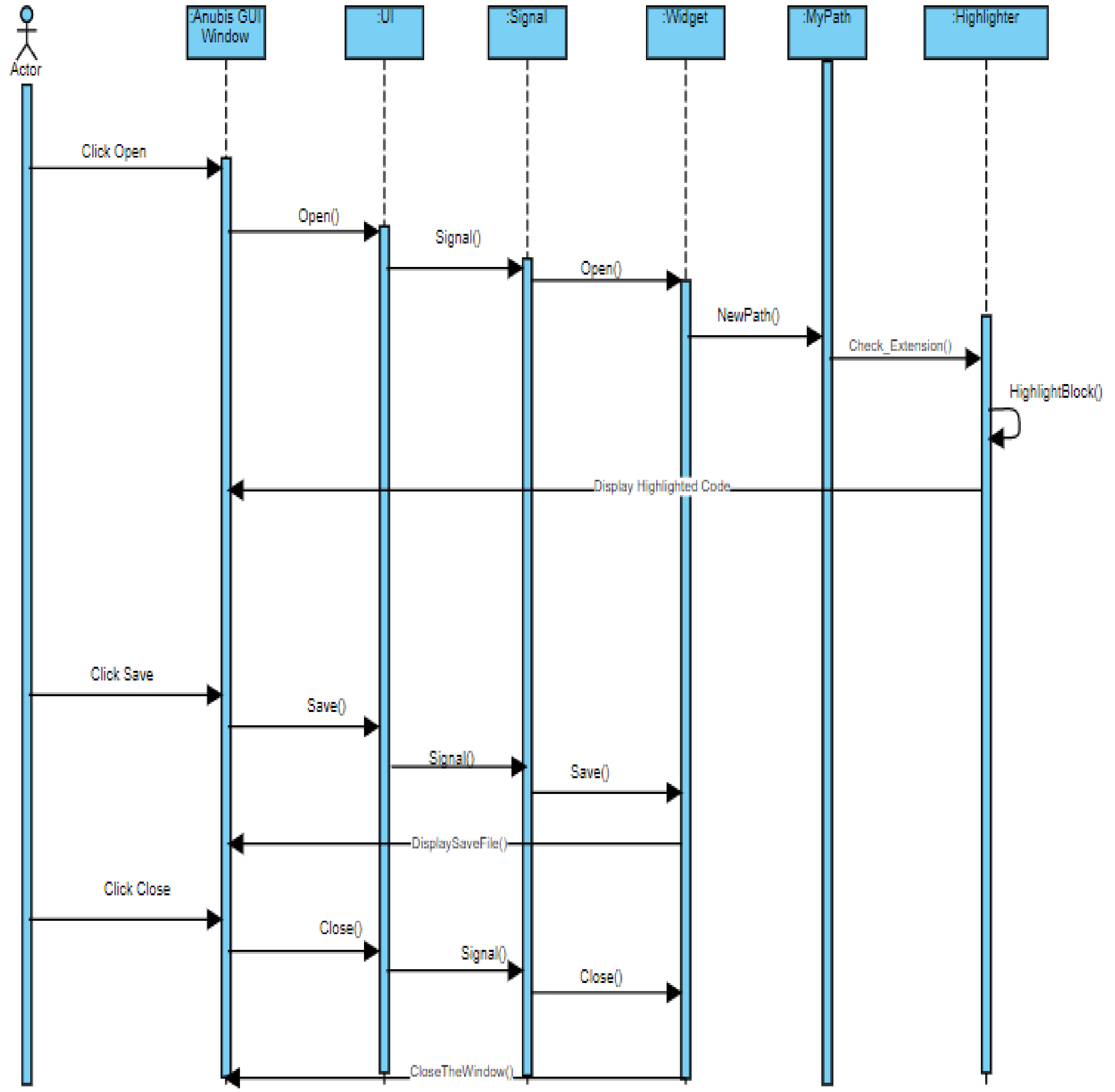
Design

Class Diagram



Design

Sequence Diagram



Code Modifications:

***Changed the name of PythonColoring.py to Coloring.py and the class pythonHighlighter to Highlighter (so that the name is more general for Python and C# coloring))**

Coloring.py

1.**In Highlighter class :** I divided Keywords[] to PyKewords[] and CsKeywords[] (one for Python's keywords and one for C#'s Keywords)

2.**In init() function** : rules[] to pyRules[] and CsRules[] and modified each to match with its own Keywords)

3.HighlightBlock Function Modified: I Check for the current Path extension (MyPath.nn)if it is a(.py) or (.cs) and respectively the highlighting is done.

4.**Divided the matchMultiline function ;** one for python Multiline Commenting and another for C# Commenting ,

* Modified the parameters of the C# version of matchMultiline () adding a beginning and an ending parameters.

*added the Qexp for C# expression multiline comment in the init() part

MyPath.py

*Created MyPath which is a small module to create a global variable for the path file to be used in deciding whether it's a python file or a C # file when highlighting in the Coloring Module

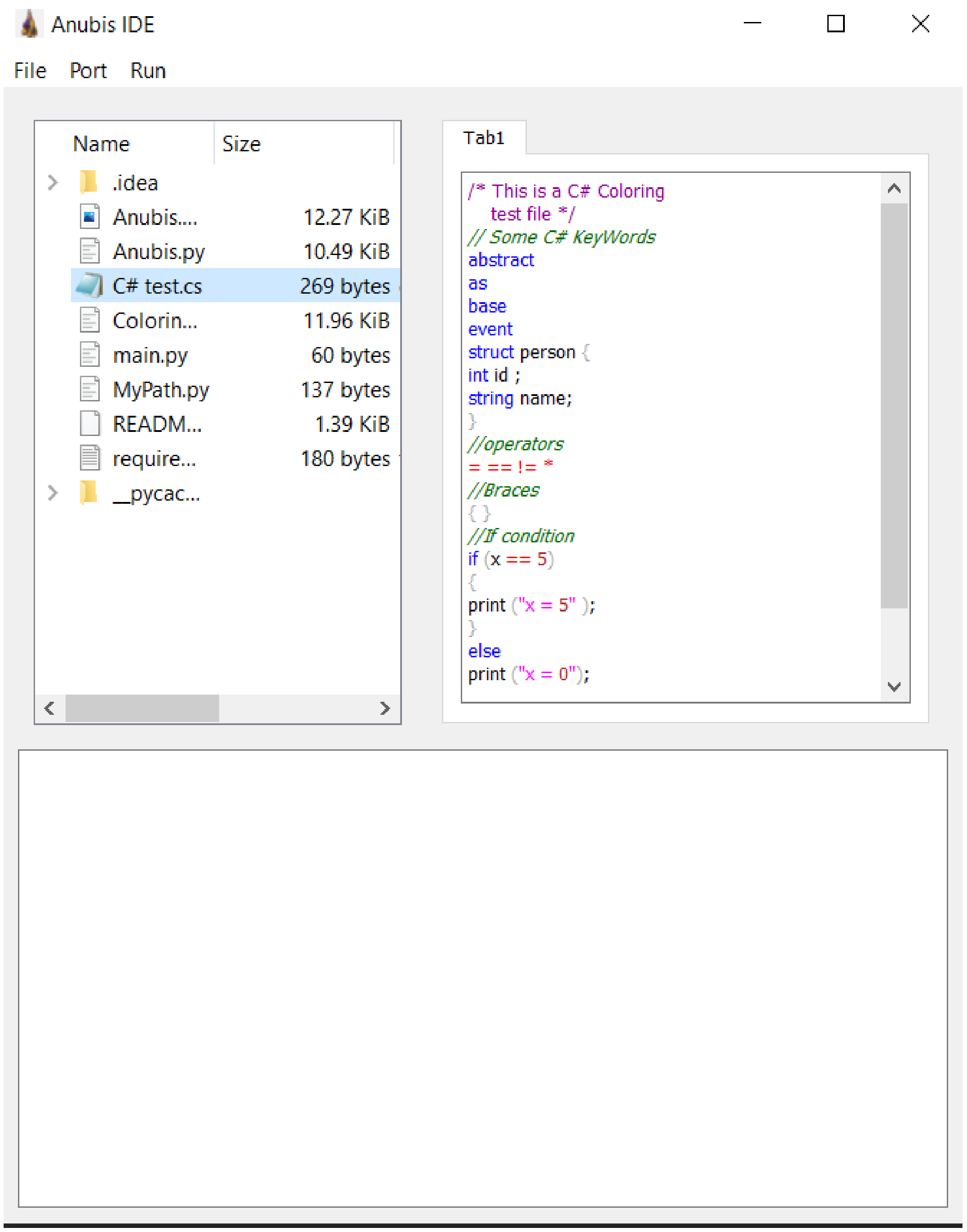
Anubis.py

*Changed on_clicked() function: the path variable to be shared as a global variable by the MyPath Module and importing the myPath module in Coloring.py and Anubis Modules .

*calling the MyPath.create() in the main to create the global variable in the beginning of the program.

Screenshots:

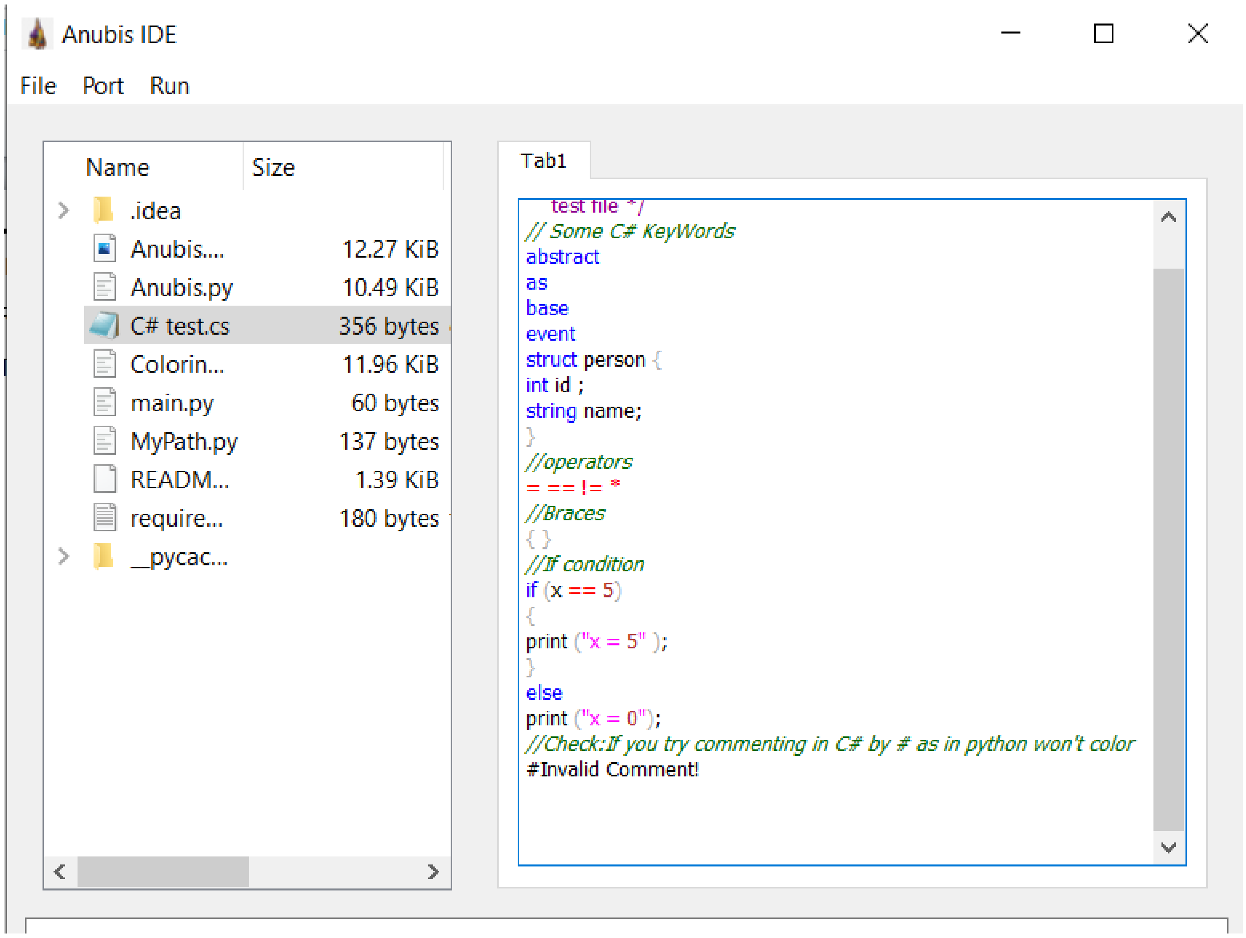
Here is a C# Highlighted File according its own Syntax after Modifying and adding the new C# Coloring function



Name	Size
.idea	
Anubis....	12.27 KiB
Anubis.py	10.49 KiB
C# test.cs	269 bytes
Colorin...	11.96 KiB
main.py	60 bytes
MyPath.py	137 bytes
READM...	1.39 KiB
require...	180 bytes
__pycac...	

```
/* This is a C# Coloring
    test file */
// Some C# KeyWords
abstract
as
base
event
struct person {
int id ;
string name;
}
//operators
= == != *
//Braces
{ }
//If condition
if (x == 5)
{
print ("x = 5" );
}
else
print ("x = 0");
```

Here, I Checked if the keywords of Python are separated from the C# (by trying to in-line comment with a # instead of a //)



Name	Size
.idea	
Anubis....	12.27 KiB
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C# test.cs	356 bytes
Colorin...	11.96 KiB
main.py	60 bytes
MyPath.py	137 bytes
READM...	1.39 KiB
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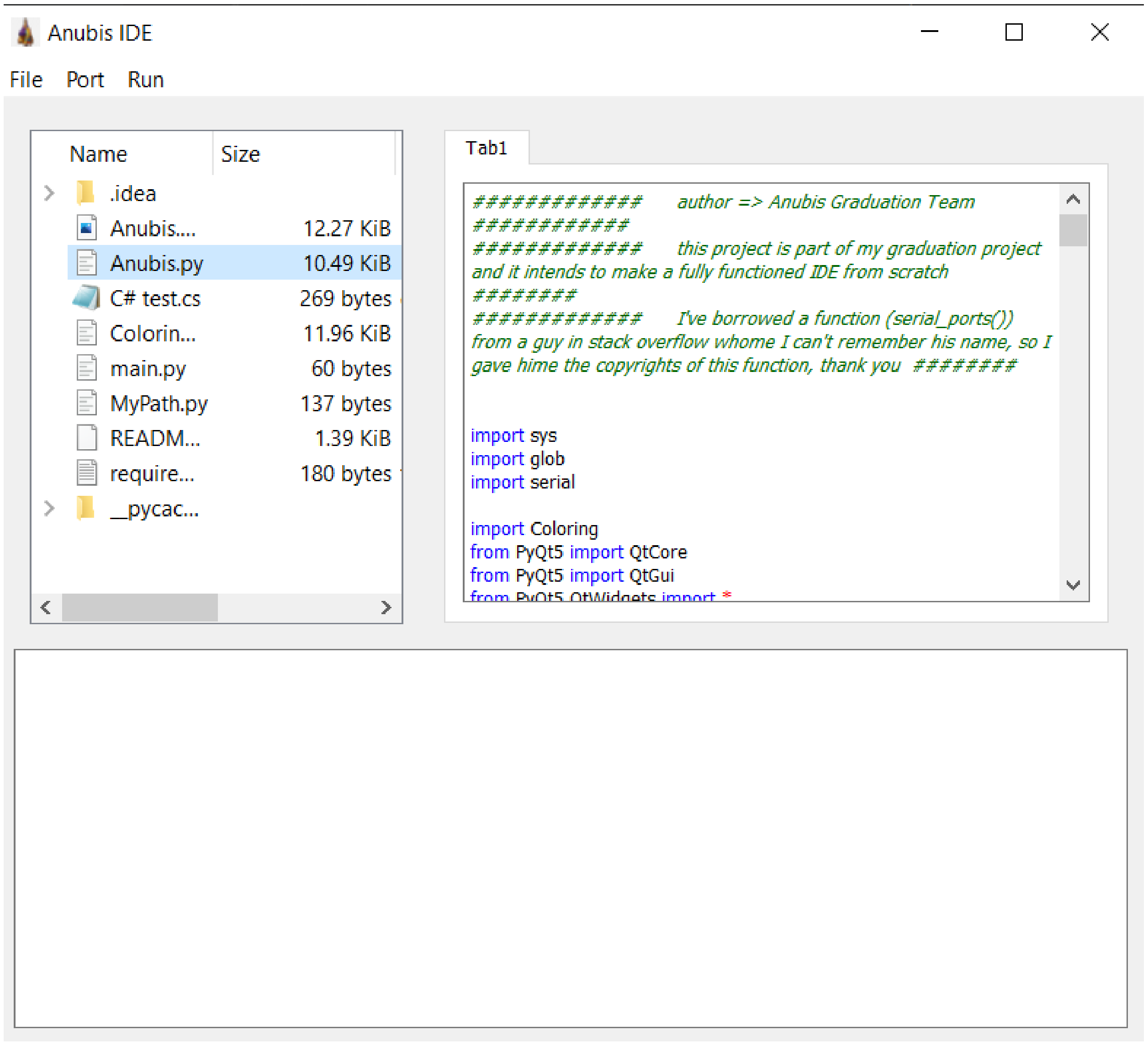
```
   test file */
// Some C# KeyWords
abstract
as
base
event
struct person {
int id ;
string name;
}
//operators
= == != *
//Braces
{ }
//If condition
if (x == 5)
{
print ("x = 5" );
}
else
print ("x = 0");
//Check:If you try commenting in C# by # as in python won't color
#Invalid Comment!
```

Here is a Python code Highlighted well according to its own Syntax.



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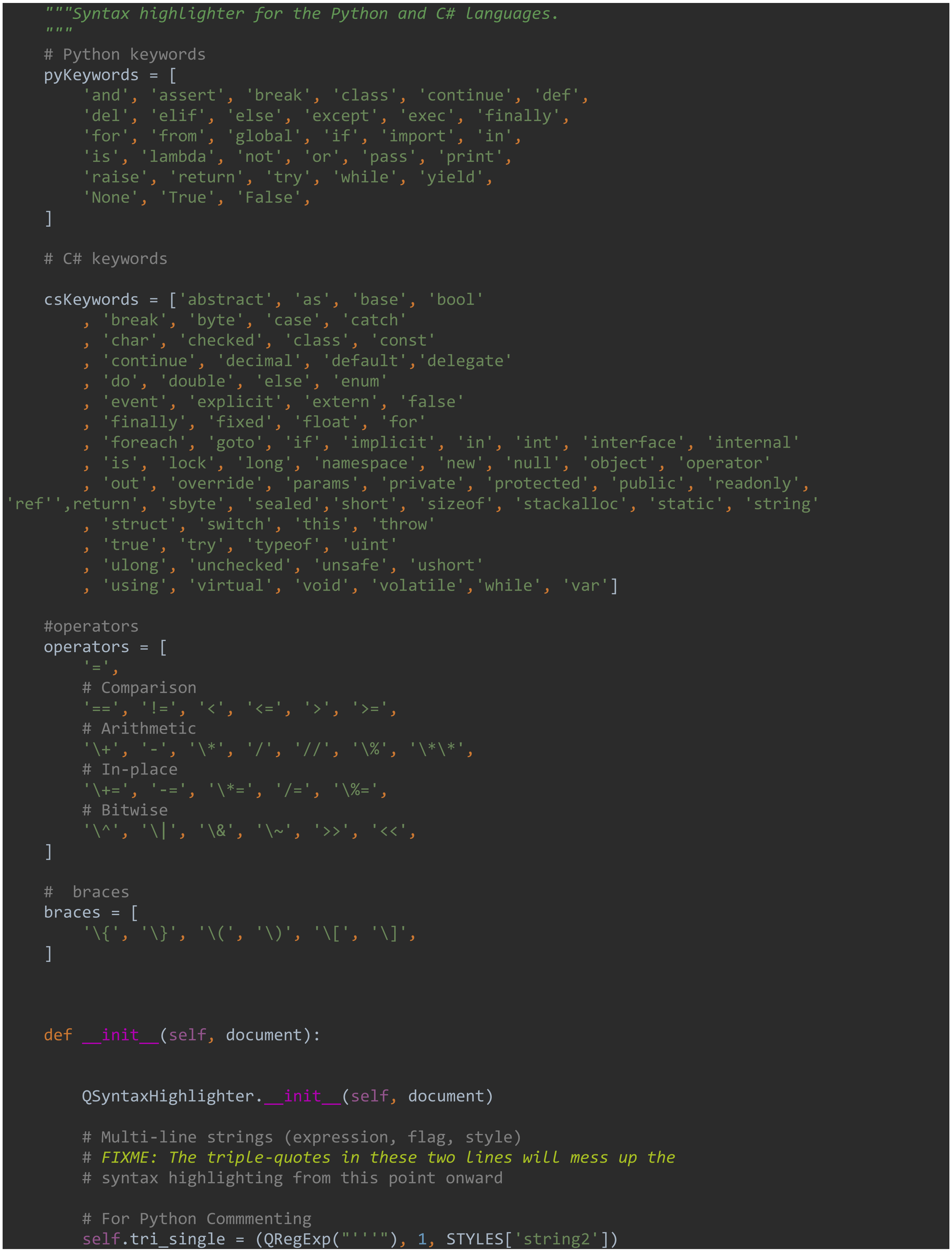
```
############    author => Anubis Graduation Team
###########
############    this project is part of my graduation project
and it intends to make a fully functioned IDE from scratch
#######
############    I've borrowed a function (serial_ports())
from a guy in stack overflow whome I can't remember his name, so I
gave hime the copyrights of this function, thank you  ########


import sys
import glob
import serial

import Coloring
from PyQt5 import QtCore
from PyQt5 import QtGui
from PyQt5.QtWidgets import *
```

Code

Coloring.py

```python
import sys
from PyQt5.QtCore import QRegExp
from PyQt5.QtGui import QColor, QTextCharFormat, QFont, QSyntaxHighlighter
import MyPath #A Module created for sharing a Global Variable for Path to be used based on
extension in Coloring


def format(color, style=''):
    """
    Return a QTextCharFormat with the given attributes.
    """
    _color = QColor()
    if type(color) is not str:
        _color.setRgb(color[0], color[1], color[2])
    else:
        _color.setNamedColor(color)

    _format = QTextCharFormat()
    _format.setForeground(_color)
    if 'bold' in style:
        _format.setFontWeight(QFont.Bold)
    if 'italic' in style:
        _format.setFontItalic(True)

    return _format


# Syntax styles that can be shared by all languages

STYLES2 = {
    'keyword': format([200, 120, 50], 'bold'),
    'operator': format([150, 150, 150]),
    'brace': format('darkGray'),
    'defclass': format([220, 220, 255], 'bold'),
    'string': format([20, 110, 100]),
    'string2': format([30, 120, 110]),
    'comment': format([128, 128, 128]),
    'self': format([150, 85, 140], 'italic'),
    'numbers': format([100, 150, 190]),
}
STYLES = {
    'keyword': format('blue'),
    'operator': format('red'),
    'brace': format('darkGray'),
    'defclass': format('black', 'bold'),
    'string': format('magenta'),
    'string2': format('darkMagenta'),
    'comment': format('darkGreen', 'italic'),
    'self': format('black', 'italic'),
    'numbers': format('brown'),
}


class Highlighter(QSyntaxHighlighter):
```



```
    """Syntax highlighter for the Python and C# languages.
    """
    # Python keywords
    pyKeywords = [
        'and', 'assert', 'break', 'class', 'continue', 'def',
        'del', 'elif', 'else', 'except', 'exec', 'finally',
        'for', 'from', 'global', 'if', 'import', 'in',
        'is', 'lambda', 'not', 'or', 'pass', 'print',
        'raise', 'return', 'try', 'while', 'yield',
        'None', 'True', 'False',
    ]

    # C# keywords

    csKeywords = ['abstract', 'as', 'base', 'bool'
        , 'break', 'byte', 'case', 'catch'
        , 'char', 'checked', 'class', 'const'
        , 'continue', 'decimal', 'default','delegate'
        , 'do', 'double', 'else', 'enum'
        , 'event', 'explicit', 'extern', 'false'
        , 'finally', 'fixed', 'float', 'for'
        , 'foreach', 'goto', 'if', 'implicit', 'in', 'int', 'interface', 'internal'
        , 'is', 'lock', 'long', 'namespace', 'new', 'null', 'object', 'operator'
        , 'out', 'override', 'params', 'private', 'protected', 'public', 'readonly',
'ref'',return', 'sbyte', 'sealed','short', 'sizeof', 'stackalloc', 'static', 'string'
        , 'struct', 'switch', 'this', 'throw'
        , 'true', 'try', 'typeof', 'uint'
        , 'ulong', 'unchecked', 'unsafe', 'ushort'
        , 'using', 'virtual', 'void', 'volatile','while', 'var']

    #operators
    operators = [
        '=',
        # Comparison
        '==', '!=', '<', '<=', '>', '>=',
        # Arithmetic
        '\+', '-', '\*', '/', '//', '\%', '\*\*',
        # In-place
        '\+=', '-=', '\*=', '/=', '\%=',
        # Bitwise
        '\^', '\|', '\&', '\~', '>>', '<<',
    ]

    #  braces
    braces = [
        '\{', '\}', '\(', '\)', '\[', '\]',
    ]



    def __init__(self, document):


        QSyntaxHighlighter.__init__(self, document)

        # Multi-line strings (expression, flag, style)
        # FIXME: The triple-quotes in these two lines will mess up the
        # syntax highlighting from this point onward

        # For Python Commmenting
        self.tri_single = (QRegExp("'''"), 1, STYLES['string2'])
```

```python
        self.tri_double = (QRegExp('"""'), 2, STYLES['string2'])

        # For CS Commmenting
        self.CS_Comment = (QRegExp('/\*'),QRegExp('\*/'), 3, STYLES['string2'])

        #
***************************************************************************************************
************

        # Python regular Expression Rules
        pyRules = []

        # Keyword, operator, and brace pyRules
        pyRules += [(r'\b%s\b' % w, 0, STYLES['keyword'])
                  for w in Highlighter.pyKeywords]
        pyRules += [(r'%s' % o, 0, STYLES['operator'])
                  for o in Highlighter.operators]
        pyRules += [(r'%s' % b, 0, STYLES['brace'])
                  for b in Highlighter.braces]

        # All other pyRules
        pyRules += [
            # 'self'
            (r'\bself\b', 0, STYLES['self']),

            # Double-quoted string, possibly containing escape sequences
            (r'"[^"\\]*(\\.[^"\\]*)*"', 0, STYLES['string']),
            # Single-quoted string, possibly containing escape sequences
            (r"'[^'\\]*(\\.[^'\\]*)*'", 0, STYLES['string']),

            # 'def' followed by an identifier
            (r'\bdef\b\s*(\w+)', 1, STYLES['defclass']),
            # 'class' followed by an identifier
            (r'\bclass\b\s*(\w+)', 1, STYLES['defclass']),

            # From '#' until a newline
            (r'#[^\n]*', 0, STYLES['comment']),

            # Numeric literals
            (r'\b[+-]?[0-9]+[lL]?\b', 0, STYLES['numbers']),
            (r'\b[+-]?0[xX][0-9A-Fa-f]+[lL]?\b', 0, STYLES['numbers']),
            (r'\b[+-]?[0-9]+(?:\.[0-9]+)?(?:[eE][+-]?[0-9]+)?\b', 0, STYLES['numbers']),
        ]

        # Build a QRegExp for each pattern
        self.pyRules = [(QRegExp(pat), index, fmt)
                      for (pat, index, fmt) in pyRules]


#**************************************************************************************************
*************

    # C# regular Expression Rules
        csRules = []

        # Keyword, operator, and brace C# Rules
        csRules += [(r'\b%s\b' % w, 0, STYLES['keyword'])
                    for w in Highlighter.csKeywords]
        csRules += [(r'%s' % o, 0, STYLES['operator'])
                    for o in Highlighter.operators]
        csRules += [(r'%s' % b, 0, STYLES['brace'])
```

```
                    for b in Highlighter.braces]

        # All other C# Rules
        csRules += [
            # 'self'
            (r'\bself\b', 0, STYLES['self']),

            # Double-quoted string, possibly containing escape sequences
            (r'"[^"\\]*(\\.[^"\\]*)*"', 0, STYLES['string']),
            # Single-quoted string, possibly containing escape sequences
            (r"'[^'\\]*(\\.[^'\\]*)*'", 0, STYLES['string']),

            # 'def' followed by an identifier
            (r'\bdef\b\s*(\w+)', 1, STYLES['defclass']),
            # 'class' followed by an identifier
            (r'\bclass\b\s*(\w+)', 1, STYLES['defclass']),

            # From '//' until a newline
            (r'//[^\n]*', 0, STYLES['comment']),

            # Numeric literals
            (r'\b[+-]?[0-9]+[lL]?\b', 0, STYLES['numbers']),
            (r'\b[+-]?0[xX][0-9A-Fa-f]+[lL]?\b', 0, STYLES['numbers']),
            (r'\b[+-]?[0-9]+(?:\.[0-9]+)?(?:[eE][+-]?[0-9]+)?\b', 0, STYLES['numbers']),
        ]

        # Build a QRegExp for each pattern
        self.csRules = [(QRegExp(pat), index, fmt)
                        for (pat, index, fmt) in csRules]

        #
***************************************************************************************************
************

    def highlightBlock(self, text):
        """Apply syntax highlighting to the given block of text.
        """
        # Python Highlighting

        if MyPath.nn[0][-3:] == '.py':


         for expression, nth, format in self.pyRules:
            index = expression.indexIn(text, 0)

            while index >= 0:
                # We actually want the index of the nth match
                index = expression.pos(nth)
                length = len(expression.cap(nth))
                self.setFormat(index, length, format)
                index = expression.indexIn(text, index + length)

         self.setCurrentBlockState(0)

         # Do Python multi-line strings
         in_multiline = self.Pymatch_multiline(text, *self.tri_single)
         if not in_multiline:
             in_multiline = self.Pymatch_multiline(text, *self.tri_double)

        #
```

```
**************************************************************************************************
************




     # C# Highlighting

        if MyPath.nn[0][-3:] == '.cs':

          for expression, nth, format in self.csRules:
            index = expression.indexIn(text, 0)

            while index >= 0:
                # We actually want the index of the nth match
                index = expression.pos(nth)
                length = len(expression.cap(nth))
                self.setFormat(index, length, format)
                index = expression.indexIn(text, index + length)

          self.setCurrentBlockState(0)

          # Do C# Multi-Line Strings
          self.CSmatch_multiline(text, *self.CS_Comment)

        #
**************************************************************************************************
************

        #Python Multi Commenting Function

    def Pymatch_multiline(self, text, delimiter, in_state, style):
        """Do highlighting of multi-line strings. ``delimiter`` should be a
        ``QRegExp`` for triple-single-quotes or triple-double-quotes, and
        ``in_state`` should be a unique integer to represent the corresponding
        state changes when inside those strings. Returns True if we're still
        inside a multi-line string when this function is finished.
        """
        # If inside triple-single quotes, start at 0
        if self.previousBlockState() == in_state:
            start = 0
            add = 0
        # Otherwise, look for the delimiter on this line
        else:
            start = delimiter.indexIn(text)
            # Move past this match
            add = delimiter.matchedLength()

        # As long as there's a delimiter match on this line...
        while start >= 0:
            # Look for the ending delimiter
            end = delimiter.indexIn(text, start + add)
            # Ending delimiter on this line?
            if end >= add:
                length = end - start + add + delimiter.matchedLength()
                self.setCurrentBlockState(0)
            # No; multi-line string
            else:
                self.setCurrentBlockState(in_state)
                length = len(text) - start + add
            # Apply formatting
            self.setFormat(start, length, style)
            # Look for the next match
            start = delimiter.indexIn(text, start + length)

        # Return True if still inside a multi-line string, False otherwise
        if self.currentBlockState() == in_state:
            return True
        else:
            return False
        #
*******************************************************************************************************
************

    # C# Multi Commenting

    def CSmatch_multiline(self, text, Beginning, Ending, in_state, style):
        """Do highlighting of multi-line strings. There should be a
          ``QRegExp`` for /* as  Beginning and */ as Ending(Delimiter) , and
          ``in_state`` should be a unique integer to represent the corresponding
          state changes when inside those strings. Returns True if we're still
          inside a multi-line string when this function is finished.
          """
        # If inside /* , start at 0
        if self.previousBlockState() == in_state:
            start = 0
            add = 0
        # Otherwise, look for the Ending on this line
        else:
            start = Beginning.indexIn(text)
            # Move past this match
            add = Beginning.matchedLength()

        # As long as there's a Ending match on this line...
        while start >= 0:
            # Look for the ending delimiter
            end = Ending.indexIn(text, start + add)
            # Ending delimiter on this line?
            if end >= add:
                length = end - start + add + Ending.matchedLength()
                self.setCurrentBlockState(0)
            # No; multi-line string
            else:
                self.setCurrentBlockState(in_state)
                length = len(text) - start + add
            # Apply formatting
            self.setFormat(start, length, style)
            # Look for the next match
            start = Ending.indexIn(text, start + length)

        # Return True if still inside a multi-line string, False otherwise
        if self.currentBlockState() == in_state:
            return True
        else:
            return False

        #
*******************************************************************************************************
************
```

MyPath.py

(*MyPath is a small module to create a global variable for the path file to be used in deciding whether it’s a python file or a C # file when highlighting in the Coloring Module)

Code

```
# global variable for file path to know the file extension for highlighting in Coloring
def create() :
    global nn
    nn = ""
```

Anubis.py

(*Changed on_clicked() function: the path variable to be shared as a global variable by the MyPath Module and importing the myPath module in Coloring.py and Anubis Modules .

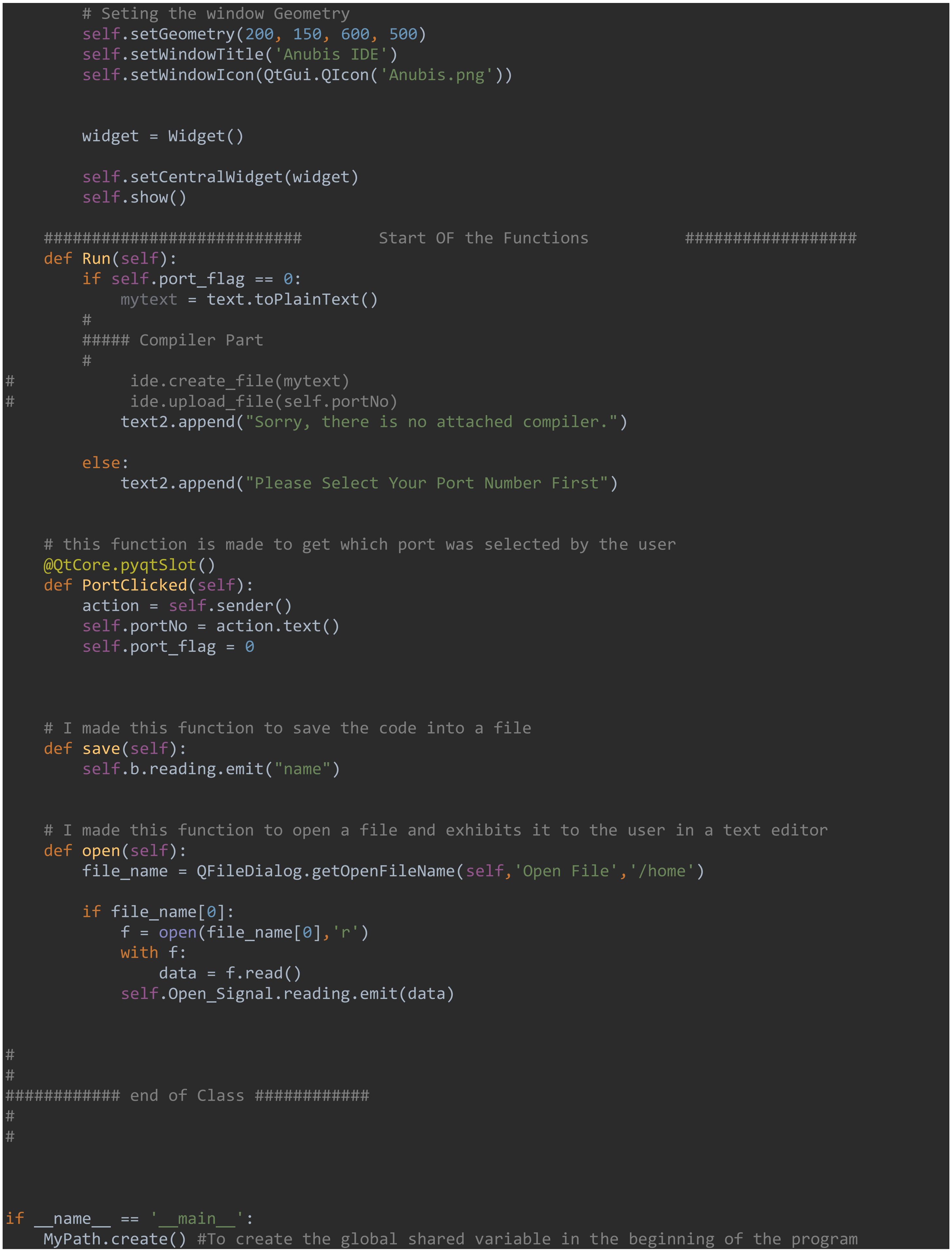
*calling the MyPath.create() in the main to create the global variable in the beginning of the program.)

Code:

```
#############      author => Anubis Graduation Team        ############
#############      this project is part of my graduation project and it intends to make a fully
functioned IDE from scratch    ########
#############      I've borrowed a function (serial_ports()) from a guy in stack overflow whome I
can't remember his name, so I gave hime the copyrights of this function, thank you  ########


import sys
import glob
import serial

import Coloring
from PyQt5 import QtCore
from PyQt5 import QtGui
from PyQt5.QtWidgets import *
from PyQt5.QtCore import *
```

```python
from pathlib import Path
import MyPath








def serial_ports():
    """ Lists serial port names
        :raises EnvironmentError:
            On unsupported or unknown platforms
        :returns:
            A list of the serial ports available on the system
    """
    if sys.platform.startswith('win'):
        ports = ['COM%s' % (i + 1) for i in range(256)]
    elif sys.platform.startswith('linux') or sys.platform.startswith('cygwin'):
        # this excludes your current terminal "/dev/tty"
        ports = glob.glob('/dev/tty[A-Za-z]*')
    elif sys.platform.startswith('darwin'):
        ports = glob.glob('/dev/tty.*')
    else:
        raise EnvironmentError('Unsupported platform')

    result = []
    for port in ports:
        try:
            s = serial.Serial(port)
            s.close()
            result.append(port)
        except (OSError, serial.SerialException):
            pass
    return result


#
#
#
#
############ Signal Class ############
#
#
#
#
class Signal(QObject):

    # initializing a Signal which will take (string) as an input
    reading = pyqtSignal(str)

    # init Function for the Signal class
    def __init__(self):
        QObject.__init__(self)

#
#
############ end of Class ############
#
#

# Making text editor as A global variable (to solve the issue of being local to (self) in widget
class)
text = QTextEdit
text2 = QTextEdit

#
#
#
#
############ Text Widget Class ############
#
#
#
#

# this class is made to connect the QTab with the necessary layouts
class text_widget(QWidget):
    def __init__(self):
        super().__init__()
        self.itUI()
    def itUI(self):
        global text
        text = QTextEdit()
        Coloring.Highlighter(text)
        hbox = QHBoxLayout()
        hbox.addWidget(text)
        self.setLayout(hbox)






#
#
############ end of Class ############
#
#




#
#
#
#
############ Widget Class ############
#
#
#
#
class Widget(QWidget):

    def __init__(self):
        super().__init__()
        self.initUI()

    def initUI(self):

        # This widget is responsible of making Tab in IDE which makes the Text editor looks nice
        tab = QTabWidget()
        tx = text_widget()
        tab.addTab(tx, "Tab"+"1")
        # second editor in which the error messeges and succeeded connections will be shown
        global text2
        text2 = QTextEdit()
        text2.setReadOnly(True)
        # defining a Treeview variable to use it in showing the directory included files
        self.treeview = QTreeView()

        # making a variable (path) and setting it to the root path (surely I can set it to
whatever the root I want, not the default)
        #path = QDir.rootPath()

        path = QDir.currentPath()

        # making a Filesystem variable, setting its root path and applying somefilters (which I
need) on it
        self.dirModel = QFileSystemModel()
        self.dirModel.setRootPath(QDir.rootPath())

        # NoDotAndDotDot => Do not list the special entries "." and "..".
        # AllDirs =>List all directories; i.e. don't apply the filters to directory names.
        # Files => List files.
        self.dirModel.setFilter(QDir.NoDotAndDotDot | QDir.AllDirs | QDir.Files)
        self.treeview.setModel(self.dirModel)
        self.treeview.setRootIndex(self.dirModel.index(path))
        self.treeview.clicked.connect(self.on_clicked)

        vbox = QVBoxLayout()
        Left_hbox = QHBoxLayout()
        Right_hbox = QHBoxLayout()

        # after defining variables of type QVBox and QHBox
        # I will Assign treevies variable to the left one and the first text editor in which the
code will be written to the right one
        Left_hbox.addWidget(self.treeview)
        Right_hbox.addWidget(tab)

        # defining another variable of type Qwidget to set its layout as an QHBoxLayout
        # I will do the same with the right one
        Left_hbox_Layout = QWidget()
        Left_hbox_Layout.setLayout(Left_hbox)

        Right_hbox_Layout = QWidget()
        Right_hbox_Layout.setLayout(Right_hbox)

        # I defined a splitter to seperate the two variables (left, right) and make it more easily
to change the space between them
        H_splitter = QSplitter(Qt.Horizontal)
        H_splitter.addWidget(Left_hbox_Layout)
        H_splitter.addWidget(Right_hbox_Layout)
        H_splitter.setStretchFactor(1, 1)

        # I defined a new splitter to seperate between the upper and lower sides of the window
        V_splitter = QSplitter(Qt.Vertical)
        V_splitter.addWidget(H_splitter)
        V_splitter.addWidget(text2)

        Final_Layout = QHBoxLayout(self)
        Final_Layout.addWidget(V_splitter)

        self.setLayout(Final_Layout)
```

```python
    # defining a new Slot (takes string) to save the text inside the first text editor
    @pyqtSlot(str)
    def Saving(s):
        with open('main.py', 'w') as f:
            TEXT = text.toPlainText()
            f.write(TEXT)

    # defining a new Slot (takes string) to set the string to the text editor
    @pyqtSlot(str)
    def Open(s):
        global text
        text.setText(s)

    def on_clicked(self, index):

        #Getting Path in a shared module for Extension deffering in Coloring
        MyPath.nn = self.sender().model().filePath(index)
        MyPath.nn = tuple([MyPath.nn])

        if MyPath.nn[0]:
            f = open(MyPath.nn[0],'r')
            with f:
                data = f.read()
                text.setText(data)

#
#
############ end of Class ############
#
#

# defining a new Slot (takes string)
# Actually I could connect the (mainwindow) class directly to the (widget class) but I've made
this function in between for futuer use
# All what it do is to take the (input string) and establish a connection with the widget class,
send the string to it
@pyqtSlot(str)
def reading(s):
    b = Signal()
    b.reading.connect(Widget.Saving)
    b.reading.emit(s)

# same as reading Function
@pyqtSlot(str)
def Openning(s):
    b = Signal()
    b.reading.connect(Widget.Open)
    b.reading.emit(s)
#
#
#
#
############ MainWindow Class ############
#
#
#
#
class UI(QMainWindow):
    def __init__(self):
        super().__init__()
        self.intUI()
    def intUI(self):
        self.port_flag = 1
        self.b = Signal()

        self.Open_Signal = Signal()

        # connecting (self.Open_Signal) with Openning function
        self.Open_Signal.reading.connect(Openning)

        # connecting (self.b) with reading function
        self.b.reading.connect(reading)

        # creating menu items
        menu = self.menuBar()

        # I have three menu items
        filemenu = menu.addMenu('File')
        Port = menu.addMenu('Port')
        Run = menu.addMenu('Run')

        # As any PC or laptop have many ports, so I need to list them to the User
        # so I made (Port_Action) to add the Ports got from (serial_ports()) function
        # copyrights of serial_ports() function goes back to a guy from stackoverflow(whome I
can't remember his name), so thank you (unknown)
        Port_Action = QMenu('port', self)

        res = serial_ports()

        for i in range(len(res)):
            s = res[i]
            Port_Action.addAction(s, self.PortClicked)

        # adding the menu which I made to the original (Port menu)
        Port.addMenu(Port_Action)

#        Port_Action.triggered.connect(self.Port)
#        Port.addAction(Port_Action)

        # Making and adding Run Actions
        RunAction = QAction("Run", self)
        RunAction.triggered.connect(self.Run)
        Run.addAction(RunAction)

        # Making and adding File Features
        Save_Action = QAction("Save", self)
        Save_Action.triggered.connect(self.save)
        Save_Action.setShortcut("Ctrl+S")
        Close_Action = QAction("Close", self)
        Close_Action.setShortcut("Alt+c")
        Close_Action.triggered.connect(self.close)
        Open_Action = QAction("Open", self)
        Open_Action.setShortcut("Ctrl+O")
        Open_Action.triggered.connect(self.open)


        filemenu.addAction(Save_Action)
        filemenu.addAction(Close_Action)
        filemenu.addAction(Open_Action)
```



```python
        # Seting the window Geometry
        self.setGeometry(200, 150, 600, 500)
        self.setWindowTitle('Anubis IDE')
        self.setWindowIcon(QtGui.QIcon('Anubis.png'))


        widget = Widget()

        self.setCentralWidget(widget)
        self.show()

    ###########################        Start OF the Functions          ##################
    def Run(self):
        if self.port_flag == 0:
            mytext = text.toPlainText()
        #
        ##### Compiler Part
        #
#            ide.create_file(mytext)
#            ide.upload_file(self.portNo)
            text2.append("Sorry, there is no attached compiler.")

        else:
            text2.append("Please Select Your Port Number First")


    # this function is made to get which port was selected by the user
    @QtCore.pyqtSlot()
    def PortClicked(self):
        action = self.sender()
        self.portNo = action.text()
        self.port_flag = 0



    # I made this function to save the code into a file
    def save(self):
        self.b.reading.emit("name")


    # I made this function to open a file and exhibits it to the user in a text editor
    def open(self):
        file_name = QFileDialog.getOpenFileName(self,'Open File','/home')

        if file_name[0]:
            f = open(file_name[0],'r')
            with f:
                data = f.read()
            self.Open_Signal.reading.emit(data)


#
#
############ end of Class ############
#
#



if __name__ == '__main__':
    MyPath.create() #To create the global shared variable in the beginning of the program
    app = QApplication(sys.argv)
    ex = UI()
    # ex = Widget()
    sys.exit(app.exec_())
```