

Course Name	ITD 2313 – Script Programming
Instructor	Andy Tripp
Student Name	Timothy Obinda
Due date	11/09/2025
Grade	Put grade earned here
Grading Comments	Put instructor comments here

INSTRUCTIONS FOR THE EXERCISE

You should always read the instructions in full. It is best to do a full read through before starting the assignment. Each screenshot needs to be appropriately labeled.

In this instruction, you are given information about a specific project in the text. In some cases, specific instructions for a particular project will be given. There also may be specific test data given. All specific instructions should be followed. When test data is given, screen shots must include that test data, and those results will need to be grabbed via screen shot. All screen shots will go into your submission document.

Some advice, copy this instruction set into your submission document and then put the screen shots under each numbered task. This will take care of making the appropriate labels for you. Each individual book page in the instructions should be in a different screen shot. For any single book page, you may have all the numbered tasks on that page to be in a single screen shot.

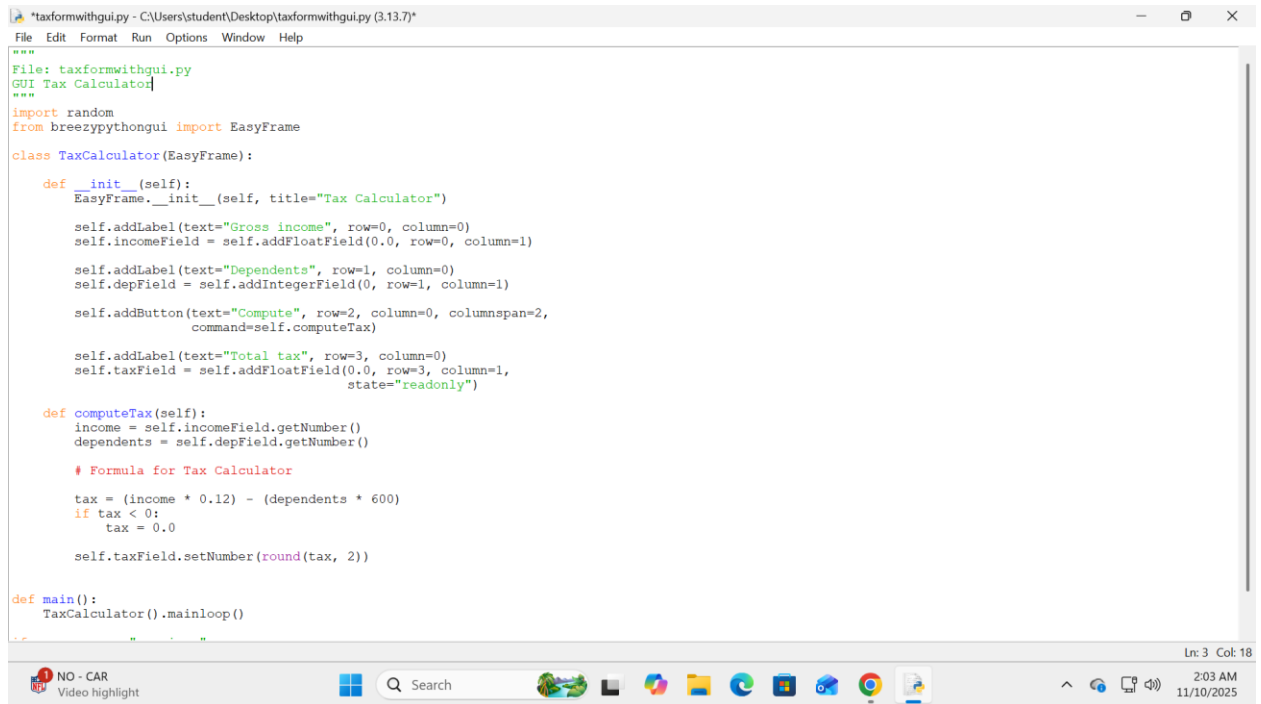
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Project # 1

Special Instructions:

1. This project is to be done in a python program file. The file needs to be submitted as part of the submission for this assignment. Place

the program file into the zip file that is submitted for this assignment.



The screenshot shows a Python IDE window titled "taxformwithgui.py - C:\Users\student\Desktop\taxformwithgui.py (3.13.7)". The code defines a GUI tax calculator using the breezypythongui library. It includes fields for Gross income, Dependents, and Total tax, along with a Compute button. The computeTax method calculates the tax based on the input values.

```
"""
File: taxformwithgui.py
GUI Tax Calculator
"""
import random
from breezypythongui import EasyFrame

class TaxCalculator(EasyFrame):

    def __init__(self):
        EasyFrame.__init__(self, title="Tax Calculator")

        self.addLabel(text="Gross income", row=0, column=0)
        self.incomeField = self.addFloatField(0.0, row=0, column=1)

        self.addLabel(text="Dependents", row=1, column=0)
        self.depField = self.addIntegerField(0, row=1, column=1)

        self.addButton(text="Compute", row=2, column=0, columnspan=2,
                        command=self.computeTax)

        self.addLabel(text="Total tax", row=3, column=0)
        self.taxField = self.addFloatField(0.0, row=3, column=1,
                                           state="readonly")

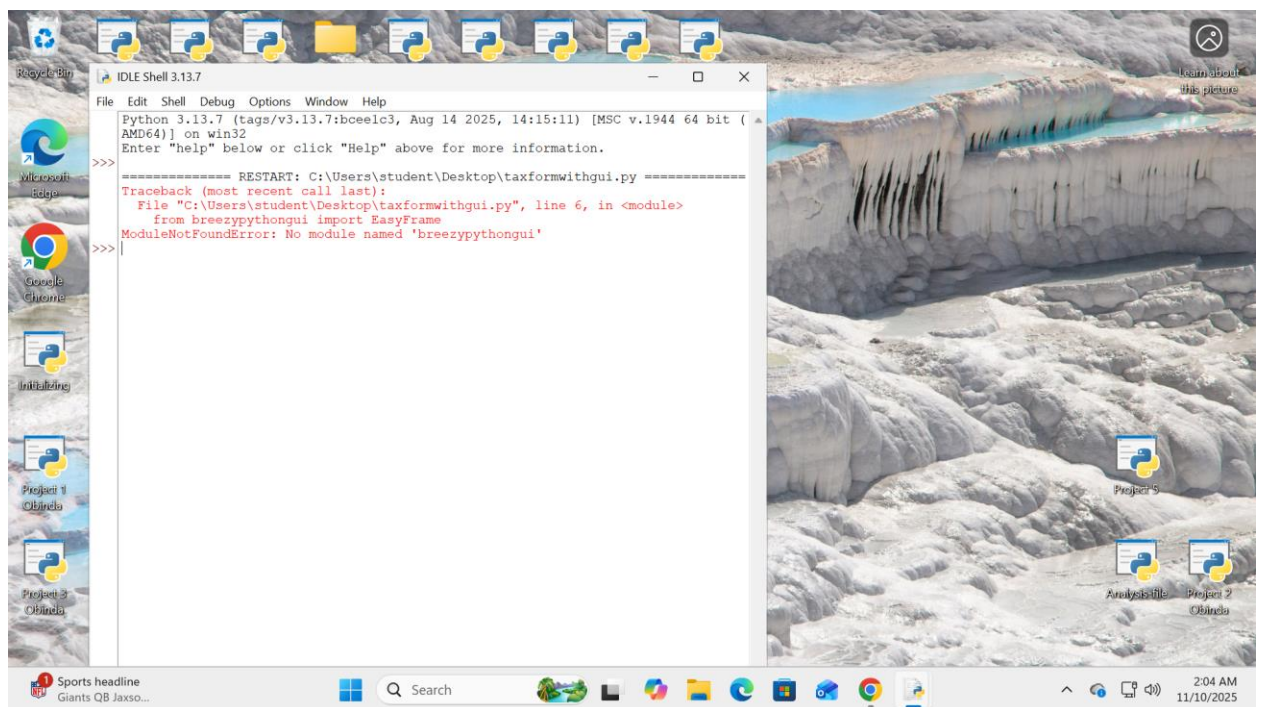
    def computeTax(self):
        income = self.incomeField.getNumber()
        dependents = self.depField.getNumber()

        # Formula for Tax Calculator
        tax = (income * 0.12) - (dependents * 600)
        if tax < 0:
            tax = 0.0

        self.taxField.setNumber(round(tax, 2))

def main():
    TaxCalculator().mainloop()

if __name__ == '__main__':
    main()
```



The screenshot shows a desktop environment with a Python IDE window titled "IDLE Shell 3.13.7". The window displays a traceback error message indicating a ModuleNotFoundError for the 'breezypythongui' module. The error message is as follows:

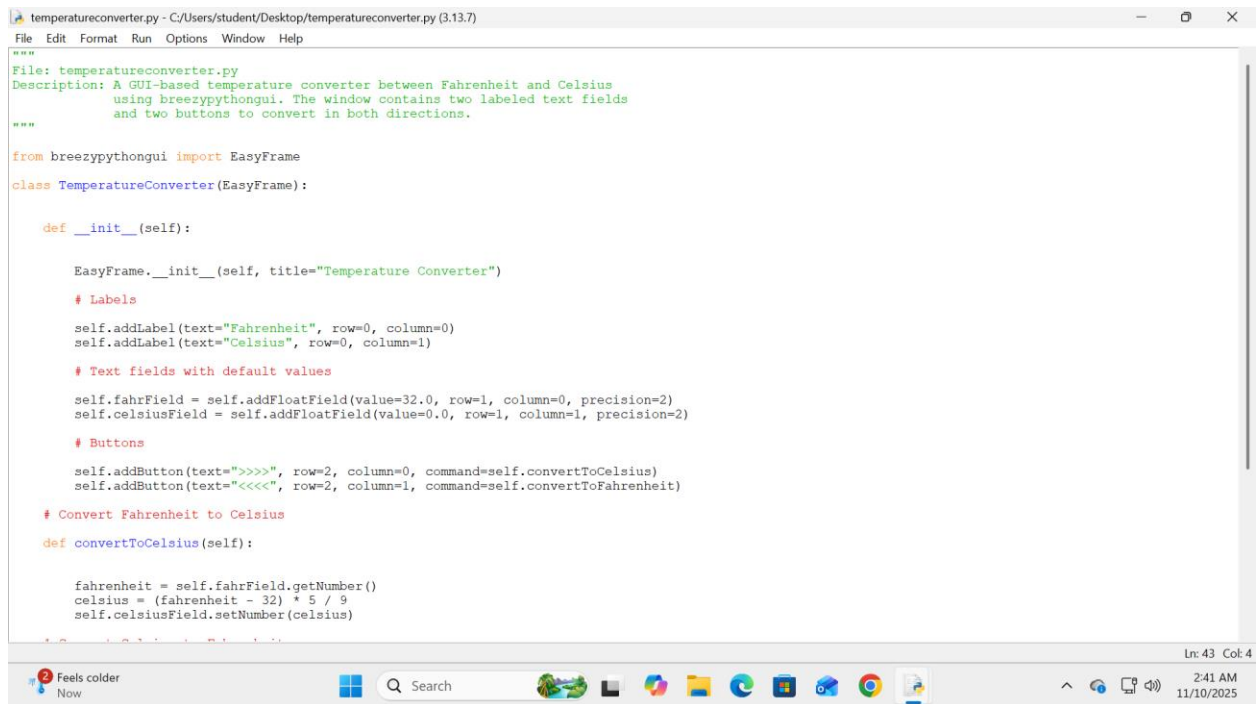
```
Python 3.13.7 (tags/v3.13.7:bceelc3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32
Enter "help" below or click "Help" above for more information.

===== RESTART: C:\Users\student\Desktop\taxformwithgui.py =====
Traceback (most recent call last):
  File "C:\Users\student\Desktop\taxformwithgui.py", line 6, in <module>
    from breezypythongui import EasyFrame
ModuleNotFoundError: No module named 'breezypythongui'
```

Project # 3

Special Instructions:

1. This project is to be done in a python program file. The file needs to be submitted as part of the submission for this assignment. Place the program file into the zip file that is submitted for this assignment.

A screenshot of a Python IDE window titled 'temperatureconverter.py - C:/Users/student/Desktop/temperatureconverter.py (3.13.7)'. The window contains a Python script for a temperature converter. The script uses the breezypythongui library to create an EasyFrame. It includes labels for 'Fahrenheit' and 'Celsius', two float fields with default values of 32.0 and 0.0, and two buttons for conversion. The convertToCelsius method is defined, which takes the Fahrenheit value, converts it to Celsius using the formula (fahrenheit - 32) * 5 / 9, and sets the Celsius field's value. The IDE's status bar at the bottom shows 'Ln: 43 Col: 4'. The Windows taskbar is visible at the bottom of the screen, showing the Start button, search bar, and various application icons. A weather widget in the bottom left corner indicates 'Feels colder Now'. The system clock in the bottom right corner shows '2:41 AM 11/10/2025'.

```
"""
File: temperatureconverter.py
Description: A GUI-based temperature converter between Fahrenheit and Celsius
            using breezypythongui. The window contains two labeled text fields
            and two buttons to convert in both directions.
"""

from breezypythongui import EasyFrame

class TemperatureConverter(EasyFrame):

    def __init__(self):

        EasyFrame.__init__(self, title="Temperature Converter")

        # Labels
        self.addLabel(text="Fahrenheit", row=0, column=0)
        self.addLabel(text="Celsius", row=0, column=1)

        # Text fields with default values
        self.fahrField = self.addFloatField(value=32.0, row=1, column=0, precision=2)
        self.celsiusField = self.addFloatField(value=0.0, row=1, column=1, precision=2)

        # Buttons
        self.addButton(text=">>>", row=2, column=0, command=self.convertToCelsius)
        self.addButton(text="<<<<", row=2, column=1, command=self.convertToFahrenheit)

        # Convert Fahrenheit to Celsius
        def convertToCelsius(self):

            fahrenheit = self.fahrField.getNumber()
            celsius = (fahrenheit - 32) * 5 / 9
            self.celsiusField.setNumber(celsius)
```

