LAPORAN PRAKTIKUM

PEMROGRAMAN VISUAL

2023

Prepared By:

LAPORAN TUGAS 1

MEMBUAT APLIKASI PERHITUNGAN DENGAN KONSEP OBJECT ORIENTED PROGRAMMING MENGGUNAKAN PYTHON DAN GUI TKINTER

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S1 TEKNIK INFORMATIKA

FAKULTAS TEKNIK

UNIVERISTAS MUHAMMADIYAH CIREBON

2023

Membuat aplikasi perhitungan dengan menggunakan ***Object Oriented Programming*** **(OOP)** dengan Bahasa pemrogramman python dan GUI Tkinter.

Aplikasi perhitungan yang dibuat:

1. Persegi Panjang
2. Persegi
3. Segitiga
4. Lingkaran
5. Belah Ketupat
6. Layang-Layang
7. Trapesium

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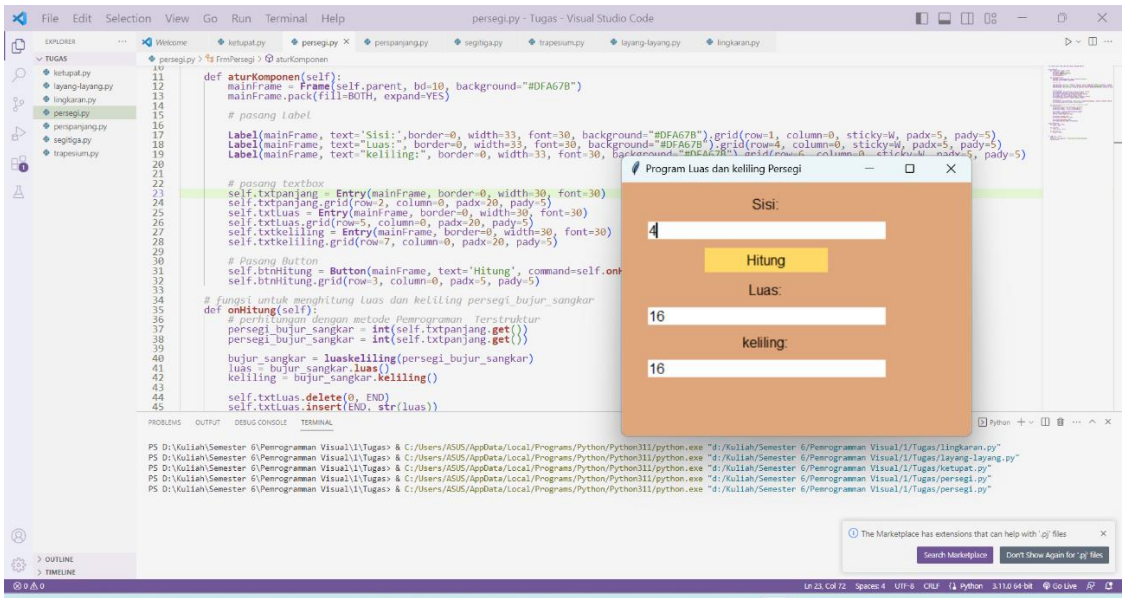
1. Persegi

Script:

```
from tkinter import Frame,Label,Entry,Button,YES,BOTH,END,Tk,W

class FrmPersegi:
    def __init__(self, parent, title):
        self.parent = parent
        self.parent.geometry("400x290")
        self.parent.title(title)
        self.aturKomponen()

    def aturKomponen(self):
        mainFrame = Frame(self.parent, bd=10, background="#DFA67B")
        mainFrame.pack(fill=BOTH, expand=YES)

        # pasang Label
        Label(mainFrame, text='Sisi:',border=0, width=33, font=30,
background="#DFA67B").grid(row=1, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Luas:", border=0, width=33, font=30,
background="#DFA67B").grid(row=4, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="keliling:", border=0, width=33, font=30,
background="#DFA67B").grid(row=6, column=0, sticky=W, padx=5, pady=5)

        # pasang textbox
        self.txtpanjang = Entry(mainFrame, border=0, width=30, font=30)
        self.txtpanjang.grid(row=2, column=0, padx=20, pady=5)
        self.txtLuas = Entry(mainFrame, border=0, width=30, font=30)
        self.txtLuas.grid(row=5, column=0, padx=20, pady=5)
        self.txtkeliling = Entry(mainFrame, border=0, width=30, font=30)
        self.txtkeliling.grid(row=7, column=0, padx=20, pady=5)

        # Pasang Button
        self.btnHitung = Button(mainFrame, text='Hitung', command=self.onHitung,  border=0,
width=15, font=20, background="#FFD966")
        self.btnHitung.grid(row=3, column=0, padx=5, pady=5)

    # fungsi untuk menghitung luas dan keliling persegi_bujur_sangkar
    def onHitung(self):
        # perhitungan dengan metode Pemrograman  Terstruktur
        persegi_bujur_sangkar = int(self.txtpanjang.get())
```

```
        persegi_bujur_sangkar = int(self.txtpanjang.get())

        bujur_sangkar = luaskeliling(persegi_bujur_sangkar)
        luas = bujur_sangkar.luas()
        keliling = bujur_sangkar.keliling()

        self.txtLuas.delete(0, END)
        self.txtLuas.insert(END, str(luas))

        self.txtkeliling.delete(0, END)
        self.txtkeliling.insert(END, str(keliling))

class luaskeliling:
    def __init__(self, sisi):
        self.s = sisi

    def luas(self):
        return self.s * self.s

    def keliling(self):
        return 4 * self.s

if __name__ == '__main__':
    root = Tk()
    aplikasi = FrmPersegi(root, "Program Luas dan keliling Persegi")
    root.mainloop()
```

Hasil Praktikum:



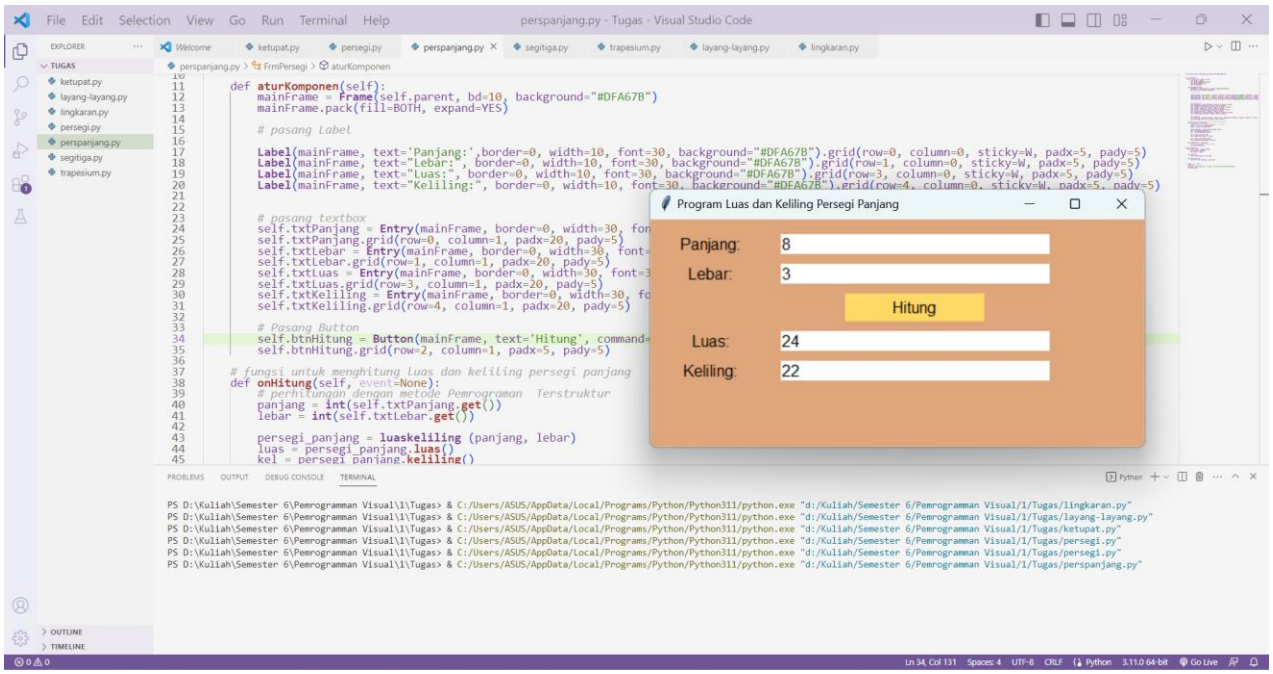
2. Persegi Panjang

Script:

```
from tkinter import Frame,Label,Entry,Button,YES,BOTH,END,Tk,W

class FrmPerspanjang:
    def __init__(self, parent, title):
        self.parent = parent
        self.parent.geometry("500x230")
        self.parent.title(title)
        self.aturKomponen()

    def aturKomponen(self):
        mainFrame = Frame(self.parent, bd=10, background="#DFA67B")
        mainFrame.pack(fill=BOTH, expand=YES)

        # pasang Label
        Label(mainFrame, text="Panjang:",border=0, width=10, font=30,
background="#DFA67B").grid(row=0, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Lebar:", border=0, width=10, font=30,
background="#DFA67B").grid(row=1, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Luas:", border=0, width=10, font=30,
background="#DFA67B").grid(row=3, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Keliling:", border=0, width=10, font=30,
background="#DFA67B").grid(row=4, column=0, sticky=W, padx=5, pady=5)

        # pasang textbox
        self.txtPanjang = Entry(mainFrame, border=0, width=30, font=30)
        self.txtPanjang.grid(row=0, column=1, padx=20, pady=5)
        self.txtLebar = Entry(mainFrame, border=0, width=30, font=30)
        self.txtLebar.grid(row=1, column=1, padx=20, pady=5)
        self.txtLuas = Entry(mainFrame, border=0, width=30, font=30)
        self.txtLuas.grid(row=3, column=1, padx=20, pady=5)
        self.txtKeliling = Entry(mainFrame, border=0, width=30, font=30)
        self.txtKeliling.grid(row=4, column=1, padx=20, pady=5)

        # Pasang Button
        self.btnHitung = Button(mainFrame, text='Hitung', command=self.onHitung,  border=0,
width=15, font=20, background="#FFD966")
        self.btnHitung.grid(row=2, column=1, padx=5, pady=5)

    # fungsi untuk menghitung luas dan keliling persegi panjang
    def onHitung(self, event=None):
        # perhitungan dengan metode Pemrograman  Terstruktur
        panjang = int(self.txtPanjang.get())
        lebar = int(self.txtLebar.get())

        persegi_panjang = luaskeliling (panjang, lebar)
        luas = persegi_panjang.luas()
        kel = persegi_panjang.keliling()

        self.txtLuas.delete(0, END)
        self.txtLuas.insert(END, str(luas))

        self.txtKeliling.delete(0, END)
        self.txtKeliling.insert(END, str(kel))
```

```
    def onKeluar(self, event=None):
        # memberikan perintah menutup aplikasi
        self.parent.destroy()

class luaskeliling:
    def __init__(self, panjang, lebar):
        self.panjang = panjang
        self.lebar = lebar

    def luas(self):
        return self.panjang * self.lebar

    def keliling(self):
        return 2 * (self.panjang + self.lebar)

if __name__ == '__main__':
    root = Tk()
    aplikasi = FrmPerspanjang(root, "Program Luas dan Keliling Persegi Panjang")
    root.mainloop()
```

Hasil Praktikum:



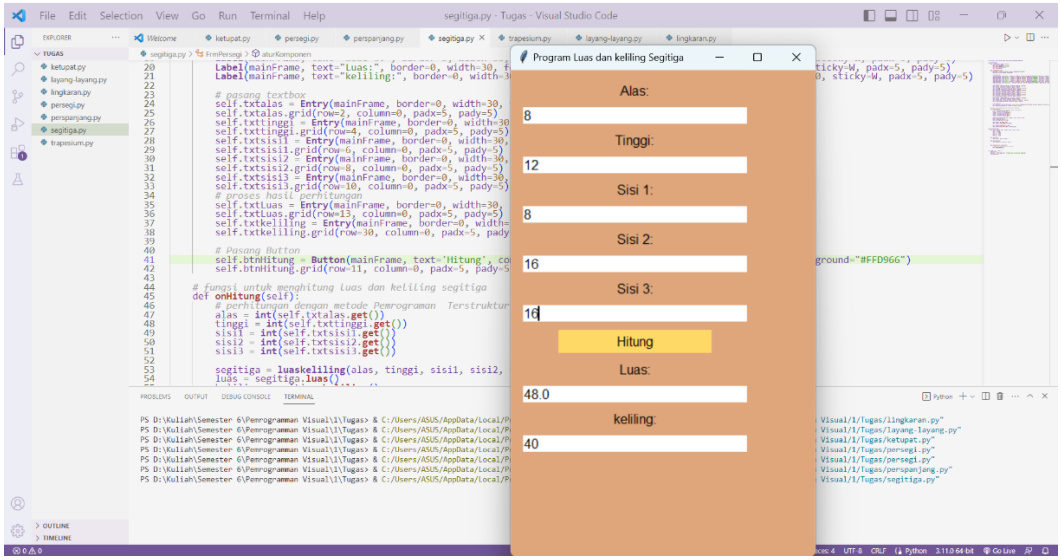
3. **Segitiga**

Script:

```
from tkinter import Frame,Label,Entry,Button,YES,BOTH,END,Tk,W

class FrmSegitiga:
    def __init__(self, parent, title):
        self.parent = parent
        self.parent.geometry("370x590")
        self.parent.title(title)
        self.aturKomponen()

    def aturKomponen(self):
        mainFrame = Frame(self.parent, bd=10, background="#DFA67B")
        mainFrame.pack(fill=BOTH, expand=YES)

        # pasang Label
        Label(mainFrame, text='Alas:', border=0, width=30, font=30,
background="#DFA67B").grid(row=1, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Tinggi:", border=0, width=30, font=30,
background="#DFA67B").grid(row=3, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi 1:", border=0, width=30, font=30,
background="#DFA67B").grid(row=5, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi 2:", border=0, width=30, font=30,
background="#DFA67B").grid(row=7, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi 3:", border=0, width=30, font=30,
background="#DFA67B").grid(row=9, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Luas:", border=0, width=30, font=30,
background="#DFA67B").grid(row=12, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="keliling:", border=0, width=30, font=30,
background="#DFA67B").grid(row=14, column=0, sticky=W, padx=5, pady=5)

        # pasang textbox
        self.txtalas = Entry(mainFrame, border=0, width=30, font=30)
        self.txtalas.grid(row=2, column=0, padx=5, pady=5)
        self.txttinggi = Entry(mainFrame, border=0, width=30, font=30)
        self.txttinggi.grid(row=4, column=0, padx=5, pady=5)
        self.txtsisi1 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtsisi1.grid(row=6, column=0, padx=5, pady=5)
        self.txtsisi2 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtsisi2.grid(row=8, column=0, padx=5, pady=5)
        self.txtsisi3 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtsisi3.grid(row=10, column=0, padx=5, pady=5)
        # proses hasil perhitungan
        self.txtLuas = Entry(mainFrame, border=0, width=30,  font=30)
        self.txtLuas.grid(row=13, column=0, padx=5, pady=5)
        self.txtkeliling = Entry(mainFrame, border=0, width=30,  font=30)
        self.txtkeliling.grid(row=30, column=0, padx=5, pady=5)

        # Pasang Button
        self.btnHitung = Button(mainFrame, text='Hitung', command=self.onHitung, border=0,
width=20, font=30, background="#FFD966")
        self.btnHitung.grid(row=11, column=0, padx=5, pady=5)

    # fungsi untuk menghitung luas dan keliling segitiga
    def onHitung(self):
        # perhitungan dengan metode Pemrograman  Terstruktur
```

```
        alas = int(self.txtalas.get())
        tinggi = int(self.txttinggi.get())
        sisi1 = int(self.txtsisi1.get())
        sisi2 = int(self.txtsisi2.get())
        sisi3 = int(self.txtsisi3.get())

        segitiga = luaskeliling(alas, tinggi, sisi1, sisi2, sisi3)
        luas = segitiga.luas()
        keliling =segitiga.keliling()

        self.txtLuas.delete(0, END)
        self.txtLuas.insert(END, str(luas))

        self.txtkeliling.delete(0, END)
        self.txtkeliling.insert(END, str(keliling))

class luaskeliling:
    def __init__(self, alas, tinggi, sisi1, sisi2, sisi3):
        self.a = alas
        self.t = tinggi
        self.s1 = sisi1
        self.s2 = sisi2
        self.s3 = sisi3

    def luas(self):
        return 0.5 * self.a * self.t

    def keliling(self):
        return self.s1 + self.s2 + self.s3

    def onKeluar(self, event=None):
        # memberikan perintah menutup aplikasi
        self.parent.destroy()

if __name__ == '__main__':
    root = Tk()
    aplikasi = FrmSegitiga(root, "Program Luas dan keliling Segitiga")
    root.mainloop()
```

Hasil Praktikum:



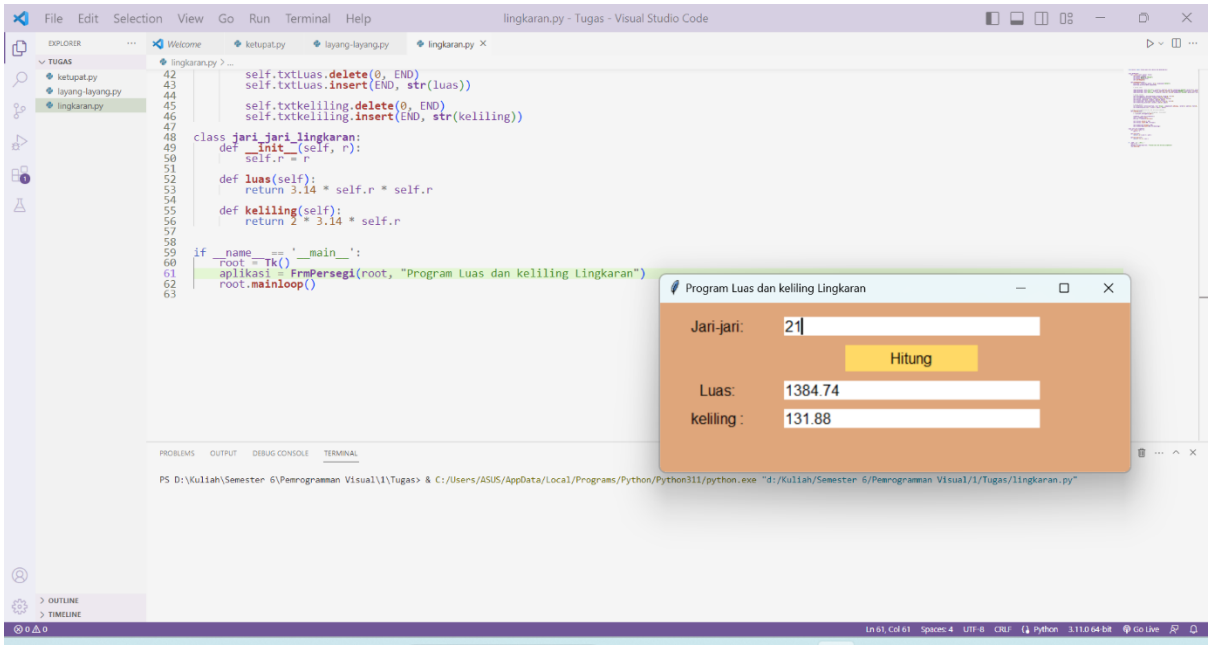
4. **Lingkaran**

Script:

```
from tkinter import Frame,Label,Entry,Button,YES,BOTH,END,Tk,W

class FrmLingkaran:
    def __init__(self, parent, title):
        self.parent = parent
        self.parent.geometry("500x180")
        self.parent.title(title)
        self.aturKomponen()

    def aturKomponen(self):
        mainFrame = Frame(self.parent, bd=10, background="#DFA67B")
        mainFrame.pack(fill=BOTH, expand=YES)

        # pasang Label
        Label(mainFrame, text='Jari-jari:',border=0, width=10, font=30,
background="#DFA67B").grid(row=0, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Luas:", border=0, width=10, font=30,
background="#DFA67B").grid(row=3, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="keliling :", border=0, width=10, font=30,
background="#DFA67B").grid(row=4, column=0, sticky=W, padx=5, pady=5)

        # pasang textbox
        self.txtlingkaran = Entry(mainFrame, border=0, width=30, font=30)
        self.txtlingkaran.grid(row=0, column=1, padx=20, pady=5)
        self.txtLuas = Entry(mainFrame, border=0, width=30, font=30)
        self.txtLuas.grid(row=3, column=1, padx=20, pady=5)
        self.txtkeliling = Entry(mainFrame, border=0, width=30, font=30)
        self.txtkeliling.grid(row=4, column=1, padx=20, pady=5)

        # Pasang Button
        self.btnHitung = Button(mainFrame, text='Hitung', command=self.onHitung,  border=0,
width=15, font=20, background="#FFD966")
        self.btnHitung.grid(row=2, column=1, padx=5, pady=5)

    # fungsi untuk menghitung luas dan keliling lingkaran
    def onHitung(self):
        # perhitungan dengan metode Pemrograman  Terstruktur
        r = int(self.txtlingkaran.get())

        lingkaran = jari_jari_lingkaran(r)
        luas = lingkaran.luas()
        keliling = lingkaran.keliling()

        self.txtLuas.delete(0, END)
        self.txtLuas.insert(END, str(luas))

        self.txtkeliling.delete(0, END)
        self.txtkeliling.insert(END, str(keliling))

class jari_jari_lingkaran:
    def __init__(self, r):
        self.r = r

    def luas(self):
```

```
        return 3.14 * self.r * self.r

    def keliling(self):
        return 2 * 3.14 * self.r

if __name__ == '__main__':
    root = Tk()
    aplikasi = FrmLingkaran(root, "Program Luas dan keliling Lingkaran")
    root.mainloop()
```

Hasil Praktikum:



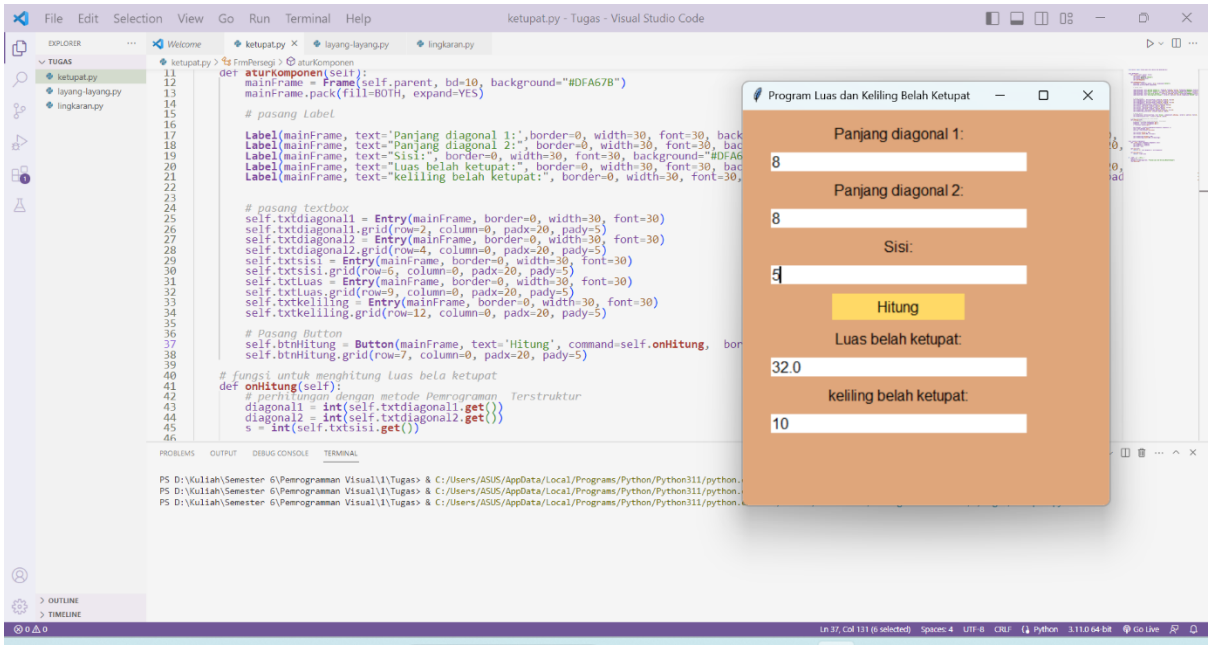
5. **Belah Ketupat**

Script:

```
from tkinter import Frame,Label,Entry,Button,YES,BOTH,END,Tk,W

class FrmKetupat:
    def __init__(self, parent, title):
        self.parent = parent
        self.parent.geometry("390x420")
        self.parent.title(title)
        self.aturKomponen()

    def aturKomponen(self):
        mainFrame = Frame(self.parent, bd=10, background="#DFA67B")
        mainFrame.pack(fill=BOTH, expand=YES)

        # pasang Label
        Label(mainFrame, text='Panjang diagonal 1:',border=0, width=30,
font=30, background="#DFA67B").grid(row=1, column=0, sticky=W, padx=20,
pady=5)
        Label(mainFrame, text="Panjang diagonal 2:", border=0, width=30,
font=30, background="#DFA67B").grid(row=3, column=0, sticky=W, padx=20,
pady=5)
        Label(mainFrame, text="Sisi:", border=0, width=30, font=30,
background="#DFA67B").grid(row=5, column=0, sticky=W, padx=20, pady=5)
        Label(mainFrame, text="Luas belah ketupat:", border=0, width=30,
font=30, background="#DFA67B").grid(row=8, column=0, sticky=W, padx=20,
pady=5)
        Label(mainFrame, text="keliling belah ketupat:", border=0,
width=30, font=30, background="#DFA67B").grid(row=11, column=0, sticky=W,
padx=20, pady=5)


        # pasang textbox
        self.txtdiagonal1 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtdiagonal1.grid(row=2, column=0, padx=20, pady=5)
        self.txtdiagonal2 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtdiagonal2.grid(row=4, column=0, padx=20, pady=5)
        self.txtsisi = Entry(mainFrame, border=0, width=30, font=30)
        self.txtsisi.grid(row=6, column=0, padx=20, pady=5)
        self.txtLuas = Entry(mainFrame, border=0, width=30, font=30)
        self.txtLuas.grid(row=9, column=0, padx=20, pady=5)
        self.txtkeliling = Entry(mainFrame, border=0, width=30, font=30)
        self.txtkeliling.grid(row=12, column=0, padx=20, pady=5)

        # Pasang Button
        self.btnHitung = Button(mainFrame, text='Hitung',
command=self.onHitung,  border=0, width=15, font=20, background="#FFD966")
        self.btnHitung.grid(row=7, column=0, padx=20, pady=5)

    # fungsi untuk menghitung luas bela ketupat
    def onHitung(self):
        # perhitungan dengan metode Pemrograman  Terstruktur
```

```
        diagonal1 = int(self.txtdiagonal1.get())
        diagonal2 = int(self.txtdiagonal2.get())
        s = int(self.txtsisi.get())

        bela_ketupat = LuaskelilingDiagonal(diagonal1, diagonal2, s)
        luas = bela_ketupat.luas()
        keliling = bela_ketupat.keliling()

        self.txtLuas.delete(0, END)
        self.txtLuas.insert(END, str(luas))

        self.txtkeliling.delete(0, END)
        self.txtkeliling.insert(END, str(keliling))


class LuaskelilingDiagonal:
    def __init__(self, diagonal1, diagonal2, sisi):
        self.diagonal1 = diagonal1
        self.diagonal2 = diagonal2
        self.sisi = sisi

    def luas(self):
        return 0.5 * (self.diagonal1 * self.diagonal2)

    def keliling(self):
        return 2 * self.sisi

if __name__ == '__main__':
    root = Tk()
    aplikasi = FrmKetupat(root, "Program Luas dan Keliling Belah Ketupat")
    root.mainloop()
```

Hasil Praktikum:



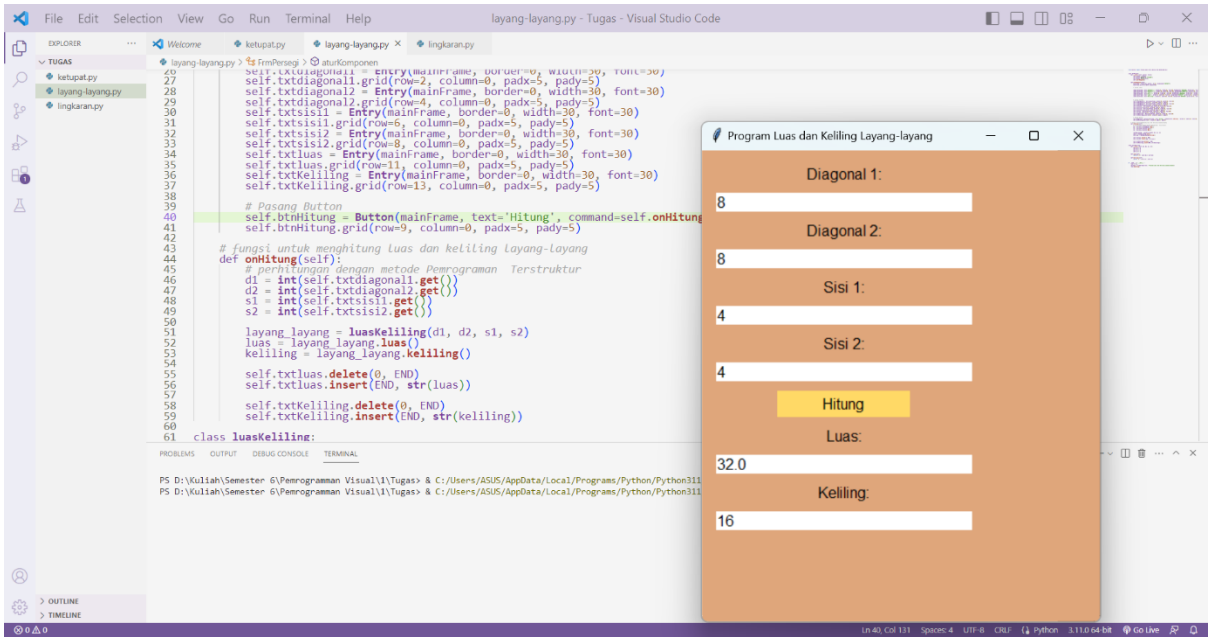
6. **Layang-Layang**

Script:

```
from tkinter import Frame,Label,Entry,Button,YES,BOTH,END,Tk,W

class FrmLayang:
    def __init__(self, parent, title):
        self.parent = parent
        self.parent.geometry("370x500")
        self.parent.title(title)
        self.aturKomponen()

    def aturKomponen(self):
        mainFrame = Frame(self.parent, bd=10, background="#DFA67B")
        mainFrame.pack(fill=BOTH, expand=YES)

        # pasang Label
        Label(mainFrame, text='Diagonal 1:',border=0, width=30, font=30,
background="#DFA67B").grid(row=1, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Diagonal 2:", border=0, width=30, font=30,
background="#DFA67B").grid(row=3, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi 1:", border=0, width=30, font=30,
background="#DFA67B").grid(row=5, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi 2:", border=0, width=30, font=30,
background="#DFA67B").grid(row=7, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Luas:", border=0, width=30, font=30,
background="#DFA67B").grid(row=10, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Keliling:", border=0, width=30, font=30,
background="#DFA67B").grid(row=12, column=0, sticky=W, padx=5, pady=5)

        # pasang textbox
        self.txtdiagonal1 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtdiagonal1.grid(row=2, column=0, padx=5, pady=5)
        self.txtdiagonal2 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtdiagonal2.grid(row=4, column=0, padx=5, pady=5)
        self.txtsisi1 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtsisi1.grid(row=6, column=0, padx=5, pady=5)
        self.txtsisi2 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtsisi2.grid(row=8, column=0, padx=5, pady=5)
        self.txtluas = Entry(mainFrame, border=0, width=30, font=30)
        self.txtluas.grid(row=11, column=0, padx=5, pady=5)
        self.txtKeliling = Entry(mainFrame, border=0, width=30, font=30)
        self.txtKeliling.grid(row=13, column=0, padx=5, pady=5)

        # Pasang Button
        self.btnHitung = Button(mainFrame, text='Hitung', command=self.onHitung,  border=0,
width=15, font=20, background="#FFD966")
        self.btnHitung.grid(row=9, column=0, padx=5, pady=5)

    # fungsi untuk menghitung luas dan keliling layang-layang
    def onHitung(self):
        # perhitungan dengan metode Pemrograman  Terstruktur
        d1 = int(self.txtdiagonal1.get())
        d2 = int(self.txtdiagonal2.get())
        s1 = int(self.txtsisi1.get())
        s2 = int(self.txtsisi2.get())
```

```
        layang_layang = luasKeliling(d1, d2, s1, s2)
        luas = layang_layang.luas()
        keliling = layang_layang.keliling()

        self.txtluas.delete(0, END)
        self.txtluas.insert(END, str(luas))

        self.txtKeliling.delete(0, END)
        self.txtKeliling.insert(END, str(keliling))

class luasKeliling:
    def __init__(self, d1, d2, s1, s2):
        self.d1 = d1
        self.d2 = d2
        self.s1 = s1
        self.s2 = s2

    def luas(self):
        return 0.5 * (self.d1 * self.d2)

    def keliling(self):
        return  2 * (self.s1 + self.s2)

if __name__ == '__main__':
    root = Tk()
    aplikasi = FrmLayang(root, "Program Luas dan Keliling Layang-layang")
    root.mainloop()
```

Hasil Praktikum:



7. **Trapesium**

Script:

```
from tkinter import Frame,Label,Entry,Button,YES,BOTH,END,Tk,W

class FrmTrapesium:
    def __init__(self, parent, title):
        self.parent = parent
        self.parent.geometry("420x710")
        self.parent.title(title)
        self.aturKomponen()

    def aturKomponen(self):
        mainFrame = Frame(self.parent, bd=10, background="#DFA67B")
        mainFrame.pack(fill=BOTH, expand=YES)

        # pasang Label
        Label(mainFrame, text='Alas:',border=0, width=35, font=30,
background="#DFA67B").grid(row=1, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi Sejajar:", border=0, width=35, font=30,
background="#DFA67B").grid(row=3, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Tinggi: ", border=0, width=35, font=30,
background="#DFA67B").grid(row=5, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi 1:", border=0, width=35, font=30,
background="#DFA67B").grid(row=7, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi 2:", border=0, width=35, font=30,
background="#DFA67B").grid(row=9, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi 3:", border=0, width=35, font=30,
background="#DFA67B").grid(row=11, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Sisi 4:", border=0, width=35, font=30,
background="#DFA67B").grid(row=13, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Luas:", border=0, width=35, font=30,
background="#DFA67B").grid(row=16, column=0, sticky=W, padx=5, pady=5)
        Label(mainFrame, text="Keliling:", border=0, width=35, font=30,
background="#DFA67B").grid(row=18, column=0, sticky=W, padx=5, pady=5)

        # pasang textbox
        self.txtmasukan_alas = Entry(mainFrame, border=0, width=30, font=30)
        self.txtmasukan_alas.grid(row=2, column=0, padx=20, pady=5)
        self.txtmasukan_sisi_yang_sejajar_dengan_alas = Entry(mainFrame, border=0,
width=30, font=30)
        self.txtmasukan_sisi_yang_sejajar_dengan_alas.grid(row=4, column=0,
padx=20, pady=5)
        self.txtmasukan_tinggi = Entry(mainFrame, border=0, width=30, font=30)
        self.txtmasukan_tinggi.grid(row=6, column=0, padx=20, pady=5)
        self.txtmasukan_sisi_1 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtmasukan_sisi_1.grid(row=8, column=0, padx=20, pady=5)
        self.txtmasukan_sisi_2 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtmasukan_sisi_2.grid(row=10, column=0, padx=20, pady=5)
        self.txtmasukan_sisi_3 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtmasukan_sisi_3.grid(row=12, column=0, padx=20, pady=5)
        self.txtmasukan_sisi_4 = Entry(mainFrame, border=0, width=30, font=30)
        self.txtmasukan_sisi_4.grid(row=14, column=0, padx=20, pady=5)
        self.txtLuas = Entry(mainFrame, border=0, width=30, font=30)
        self.txtLuas.grid(row=17, column=0, padx=20, pady=5)
        self.txtkeliling = Entry(mainFrame, border=0, width=30, font=30)
        self.txtkeliling.grid(row=19, column=0, padx=20, pady=5)
```

```
        # Pasang Button
        self.btnHitung = Button(mainFrame, text='Hitung',
command=self.onHitung,  border=0, width=15, font=20, background="#FFD966")
        self.btnHitung.grid(row=15, column=0, padx=5, pady=5)

    # fungsi untuk menghitung luas dan keliling trapesium
    def onHitung(self):
        # perhitungan dengan metode Pemrograman  Terstruktur
        a = int(self.txtmasukan_alas.get())
        c = int(self.txtmasukan_sisi_yang_sejajar_dengan_alas.get())
        t = int(self.txtmasukan_tinggi.get())
        sa = int(self.txtmasukan_sisi_1.get())
        sb = int(self.txtmasukan_sisi_2.get())
        sc = int(self.txtmasukan_sisi_3.get())
        sd = int(self.txtmasukan_sisi_4.get())

        trapesium = Luas_Keliling(a, c, t, sa, sb, sc, sd)
        luas = trapesium.luas()
        keliling = trapesium.keliling()

        self.txtLuas.delete(0, END)
        self.txtLuas.insert(END, str(luas))

        self.txtkeliling.delete(0, END)
        self.txtkeliling.insert(END, str(keliling))

class Luas_Keliling:
    def __init__(self, a, c, t, sa, sb, sc, sd):
        self.a = a
        self.c = c
        self.t = t
        self.sa= sa
        self.sb = sb
        self.sc = sc
        self.sd = sd

    def luas(self):
        return 0.5 * (self.a + self.c) * self.t

    def keliling(self):
        return self.sa + self.sb + self.sc + self.sd


if __name__ == '__main__':
    root = Tk()
    aplikasi = FrmTrapesium(root, "Program Luas dan Keliling Trapesium")
    root.mainloop()
```

Hasil Praktikum: