

PRAKTIKUM ALGORITMA DAN PEMROGRAMAN

TOPIK LANJUT (PROGRAM GUI)



DISUSUN OLEH :

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PRODI INFORMATIKA

FAKULTAS KOMUNIKASI DAN INFORMATIKA

UNIVERSITAS MUHAMADIYAH SURAKARTA

2019/2020

Kegiatan 1.

Screenshot dari aplikasi Data Diri adalah sebagai berikut.

```
Kegiatan1.py - G:\New folder\Kegiatan1.py (3.7.4)
File Edit Format Run Options Window Help

from tkinter import Tk,Label,Entry,Button
from tkinter import messagebox

my_app = Tk(className = "Data Diri")

L = Label(my_app, text="Data Diri", font = ("Arial",24))
L.grid(row = 0, column = 0, sticky="w")

L1 = Label(my_app, text = "Nama")
L1.grid(row = 1, column = 0, sticky="w")

L2 = Label(my_app, text = "Indriarto Dwi Nugroho")
L2.grid(row = 1, column = 1, sticky="w")

L3 = Label(my_app, text = "NIM")
L3.grid(row = 2, column = 0, sticky="w")

L4 = Label(my_app, text = "L200190183")
L4.grid(row = 2, column = 1, sticky="w")

L5 = Label(my_app, text = "Buku favorit")
L5.grid(row = 3, column = 0, sticky="w")

L6 = Label(my_app, text = "Tertralogi Buru : Bumi Manusia, Anak Semua Bangsa, dst")
L6.grid(row = 3, column = 1, sticky="w")

L7 = Label(my_app, text = "Idola")
L7.grid(row = 4, column = 0, sticky="w")

L8 = Label(my_app, text = "Che Guevara")
L8.grid(row = 4, column = 1, sticky="w")

L9 = Label(my_app, text = "Motto")
L9.grid(row = 5, column = 0, sticky="w")

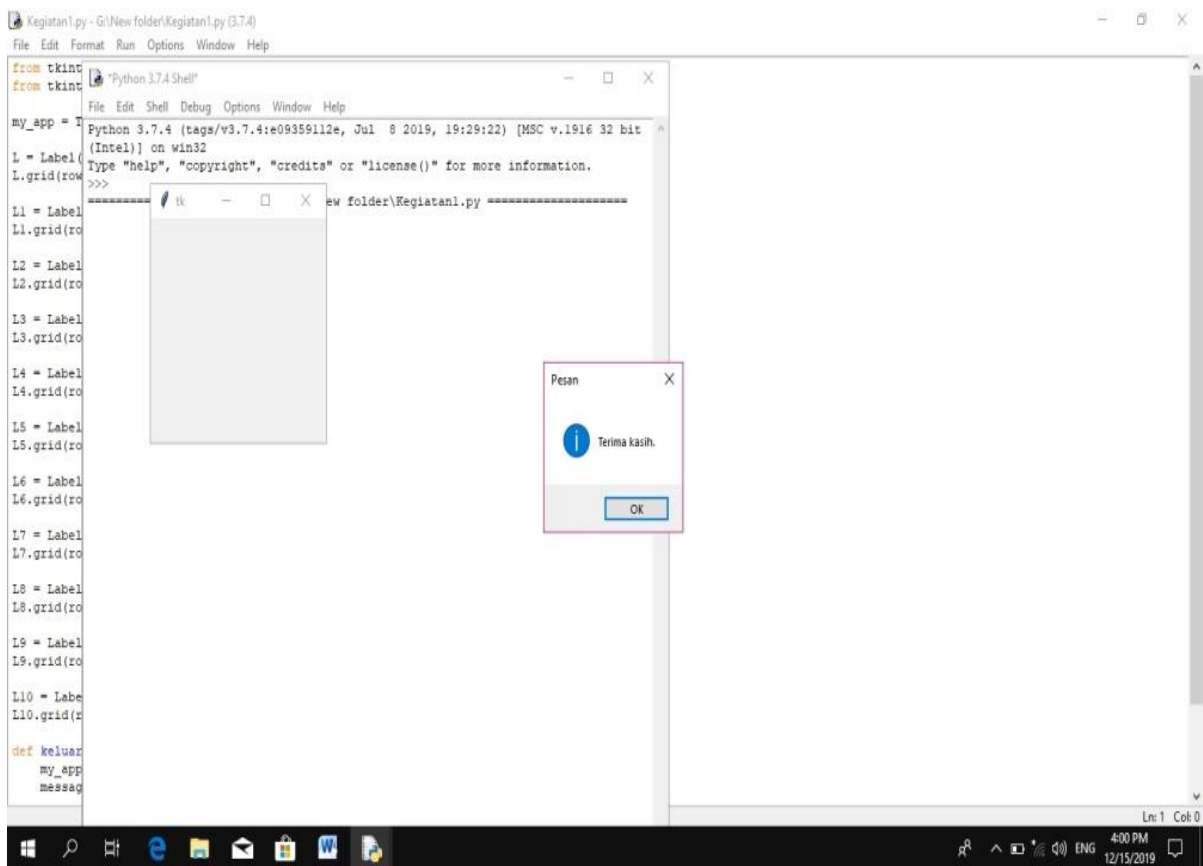
L10 = Label(my_app, text = "Belajar, Berkarya, & Berguna.")
L10.grid(row = 5, column = 1, sticky="w")

def keluar():
    my_app.destroy()
    messagebox.showinfo("Pesan", "Terima kasih.")

def keluar():
    my_app.destroy()
    messagebox.showinfo("Pesan", "Terima kasih.")

B = Button(my_app, text = "Tutup", command = keluar)
B.grid(row = 6, column = 1)

my_app.mainloop()
```



Kegiatan 2.

Screenshot dari kalkulator sederhana adalah sebagai berikut

```
Kegiatan2.py - G:\New folder\Kegiatan2.py (3.7.4)
File Edit Format Run Options Window Help

from tkinter import Tk,Label,Entry,Button,IntVar
from tkinter import messagebox

my_app = Tk(className = "Kalkulator Sederhana")

L = Label(my_app, text = "Angka 1")
L.grid(row = 0, column = 0, sticky="w")

angka1 = IntVar()
E = Entry(my_app, textvariable = angka1)
E.grid(row = 0, column = 1, columnspan = 3)

L1 = Label(my_app, text = "Angka 2")
L1.grid(row = 1, column = 0, sticky="w")

angka2 = IntVar()
E1 = Entry(my_app, textvariable = angka2)
E1.grid(row = 1, column = 1, columnspan = 3)

H = Label(my_app, text = "Hasil")
H.grid(row = 3, column = 0, sticky="w")

H1 = Label(my_app)
H1.grid(row = 3, column = 2, sticky="w")

def Hitung(op):
    if op == '+':
        hasil = angka1.get()+angka2.get()
    elif op == '-':
        hasil = angka1.get()-angka2.get()
    elif op == 'x':
        hasil = angka1.get()*angka2.get()
    elif op == ':':
        hasil = angka1.get()/angka2.get()

    H1.config(text = hasil)

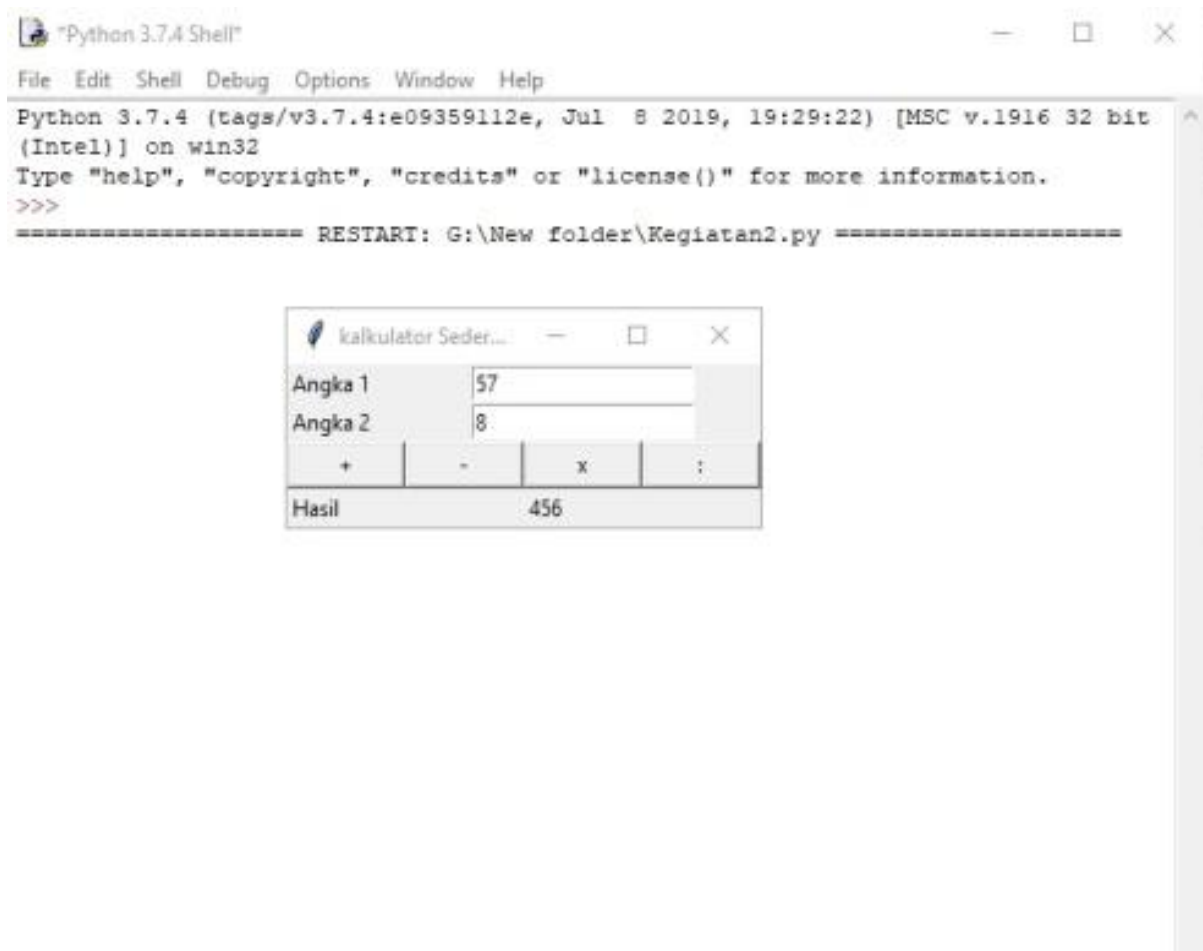
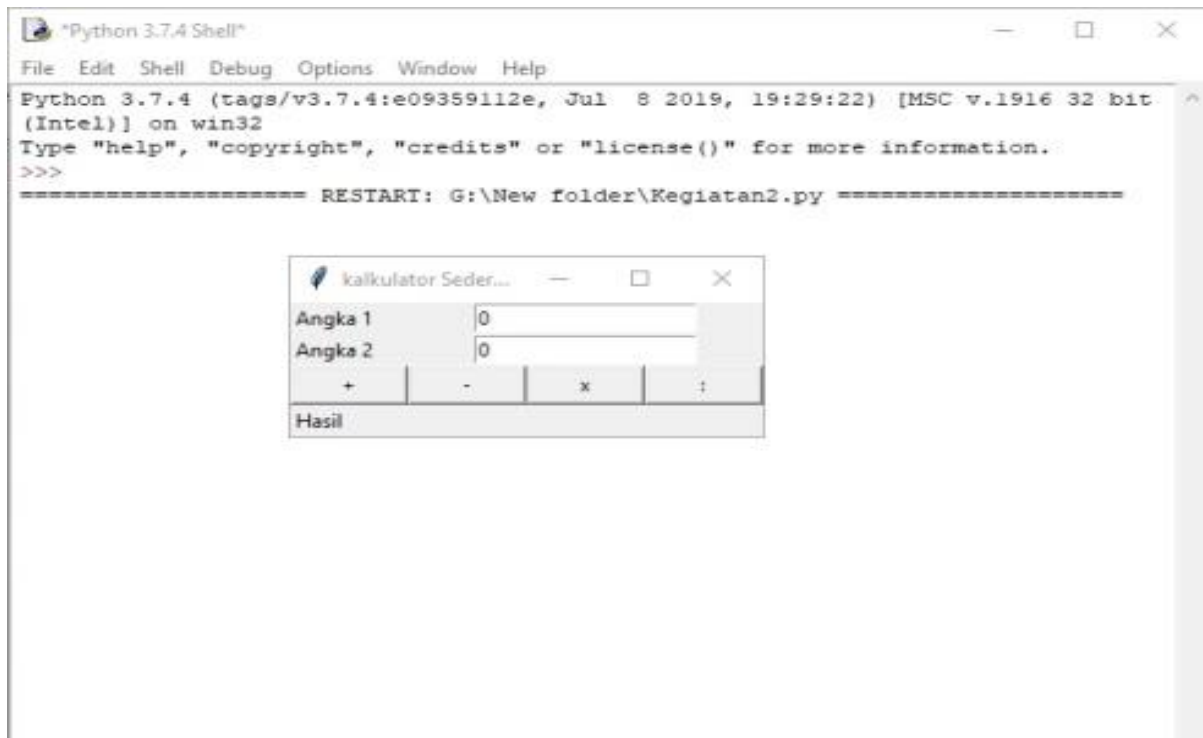
B1 = Button(my_app, text = "+", width="8", command = lambda:Hitung('+'))
B1.grid(row = 2, column = 0)

B2 = Button(my_app, text = "-", width="8", command = lambda:Hitung('-'))
B2.grid(row = 2, column = 1)

B3 = Button(my_app, text = "x", width="8", command = lambda:Hitung('x'))
B3.grid(row = 2, column = 2)

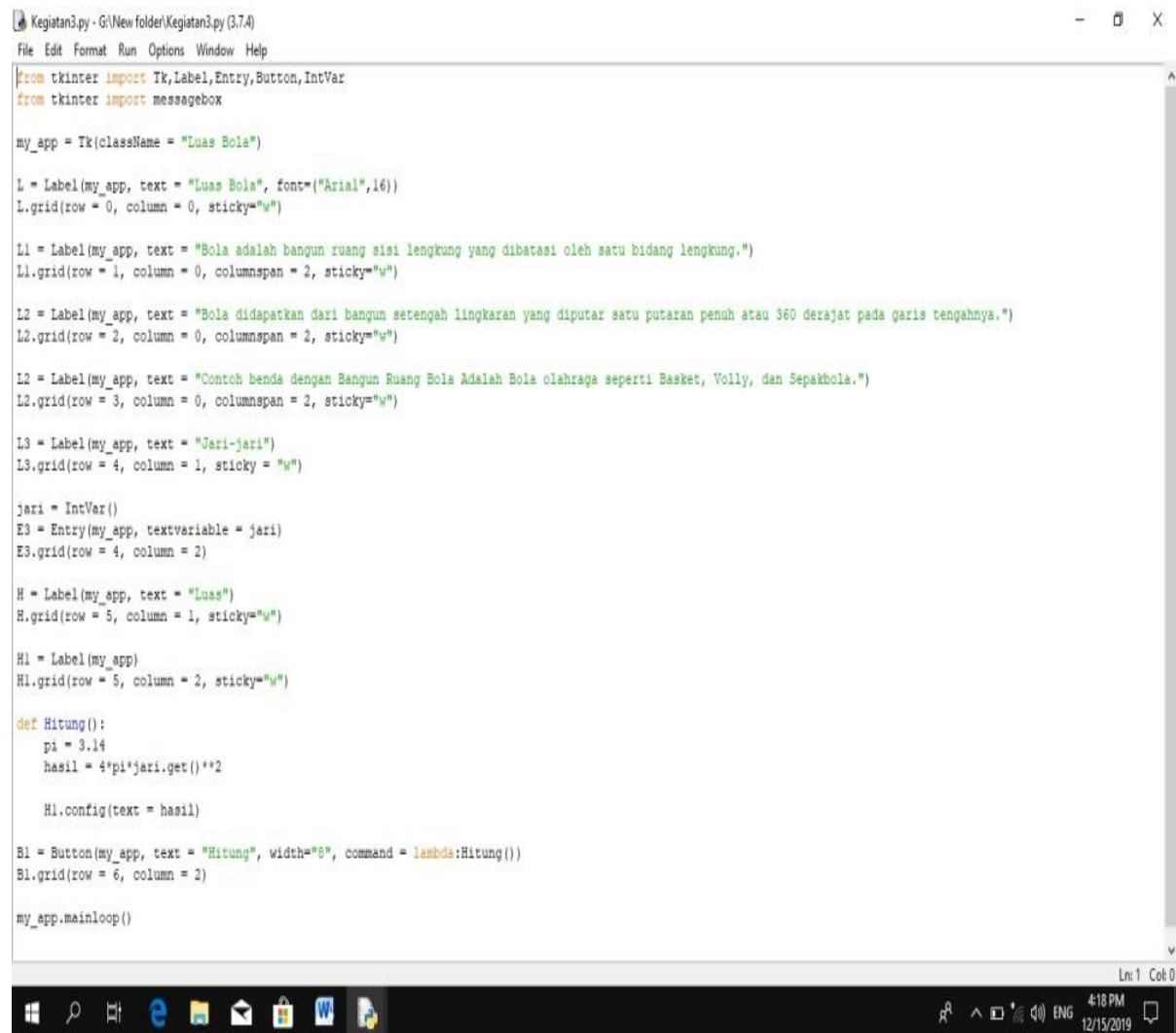
B4 = Button(my_app, text = ":", width="8", command = lambda:Hitung(':'))
B4.grid(row = 2, column = 3)

my_app.mainloop()
```



Kegiatan 3.

Screenshot dari aplikasi Bangun Geometri adalah sebagai berikut



```
Kegiatan3.py - G:\New folder\Kegiatan3.py (3.7.4)
File Edit Format Run Options Window Help

from tkinter import Tk,Label,Entry,Button,IntVar
from tkinter import messagebox

my_app = Tk(className = "Luas Bola")

L = Label(my_app, text = "Luas Bola", font=("Arial",16))
L.grid(row = 0, column = 0, sticky="w")

L1 = Label(my_app, text = "Bola adalah bangun ruang sisi lengkung yang dibatasi oleh satu bidang lengkung.")
L1.grid(row = 1, column = 0, columnspan = 2, sticky="w")

L2 = Label(my_app, text = "Bola didapatkan dari bangun setengah lingkaran yang diputar satu putaran penuh atau 360 derajat pada garis tengahnya.")
L2.grid(row = 2, column = 0, columnspan = 2, sticky="w")

L2 = Label(my_app, text = "Contoh benda dengan Bangun Ruang Bola Adalah Bola olahraga seperti Basket, Volly, dan Sepakbola.")
L2.grid(row = 3, column = 0, columnspan = 2, sticky="w")

L3 = Label(my_app, text = "Jari-jari")
L3.grid(row = 4, column = 1, sticky = "w")

jari = IntVar()
E3 = Entry(my_app, textvariable = jari)
E3.grid(row = 4, column = 2)

H = Label(my_app, text = "Luas")
H.grid(row = 5, column = 1, sticky="w")

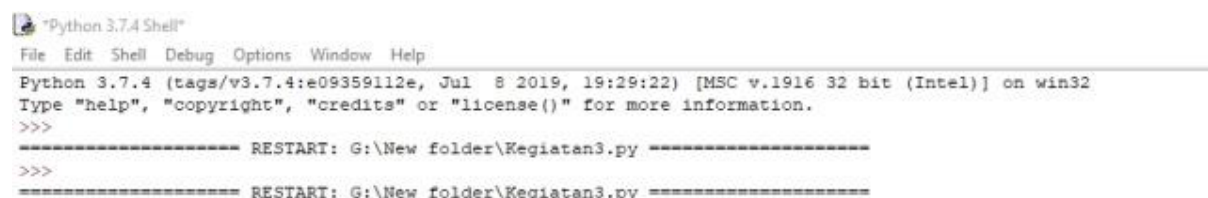
H1 = Label(my_app)
H1.grid(row = 5, column = 2, sticky="w")

def Hitung():
    pi = 3.14
    hasil = 4*pi*jari.get()**2

    H1.config(text = hasil)

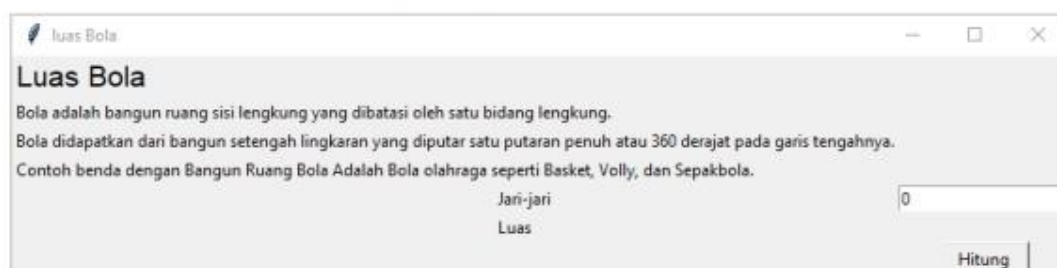
B1 = Button(my_app, text = "Hitung", width="8", command = lambda:Hitung())
B1.grid(row = 6, column = 2)

my_app.mainloop()
```



```
"Python 3.7.4 Shell"
File Edit Shell Debug Options Window Help

Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 19:29:22) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: G:\New folder\Kegiatan3.py =====
>>>
===== RESTART: G:\New folder\Kegiatan3.py =====
```



Python 3.7.4 Shell

File Edit Shell Debug Options Window Help

Python 3.7.4 (tags/v3.7.4:e09359112e, Jul 8 2019, 19:29:22) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: G:\New folder\Kegiatan3.py =====

>>>

===== RESTART: G:\New folder\Kegiatan3.py =====

luas Bola

Luas Bola

Bola adalah bangun ruang sisi lengkung yang dibatasi oleh satu bidang lengkung.

Bola didapatkan dari bangun setengah lingkaran yang diputar satu putaran penuh atau 360 derajat pada garis tengahnya.

Contoh benda dengan Bangun Ruang Bola Adalah Bola olahraga seperti Basket, Volly, dan Sepakbola.

Jari-jari	15
Luas	2826.0

Hitung