

# PYTHON FOR PROFESSIONALS –

## SESSION 14, 15, 16

### IMPORTING TKINTER

```
import tkinter as tk
```

### INITIALIZING GUI

#### Intializing a GUI

```
import tkinter as tk

calc=tk.Tk()

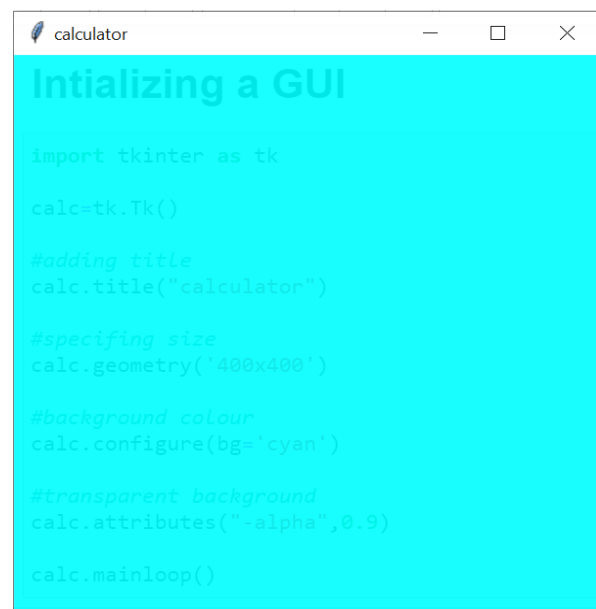
#adding title
calc.title("calculator")

#specifying size
calc.geometry('400x400')

#background colour
calc.configure(bg='cyan')

#transparent background
calc.attributes("-alpha",0.9)

calc.mainloop()
```



### LABLE

#### Lable (Place with Pack Horizontally)

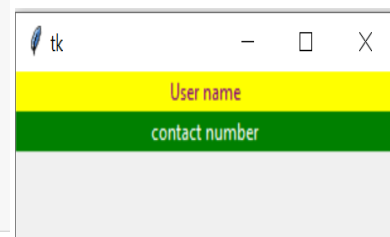
```
from tkinter import*

data=Tk()
data.geometry("300x120")

a=Label(data,text="User name", fg="purple", bg="yellow")
a.pack(fill=X)

b=Label(data,text="contact number",bg="green",fg="white")
b.pack(fill=X)

data.mainloop()
```



## ENTRY BOX

# Entry Box (Place with Pack Vertically)

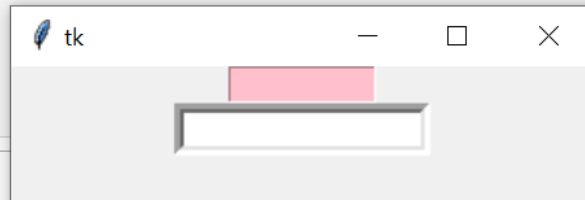
```
from tkinter import*

data=Tk()
data.geometry("300x120")

name = tk.StringVar()
c=Entry(data, bg="pink", width =12, textvariable=name)
c.pack(fill=Y)

a=Entry(data,bd=5)
a.pack(fill=Y)

data.mainloop()
```



## BUTTON

# Button with Command (Place with Pack and Side)

```
from tkinter import*

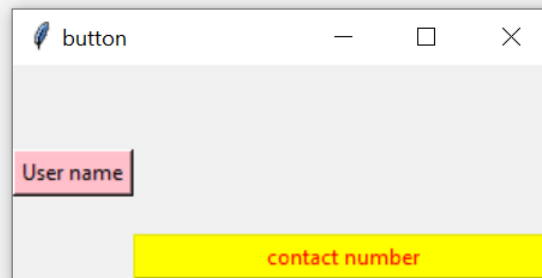
win=Tk()
win.title("button")
win.geometry("300x120")

def info():
    print("Please type your name")

def contact():
    print("Please type your contact number")

a=Button(win,text="User name",bg="pink",fg="black",command=info)
a.pack(fill=X,side=LEFT)
a=Button(win,text="contact number",bg="yellow",fg="red",command=contact)
a.pack(fill=X,side=BOTTOM)

win.mainloop()
```



Please type your name  
Please type your contact number

## RADIO BUTTON

### Radio Button (Place with Pack)

#Anchor defining the position of West (check readme file)

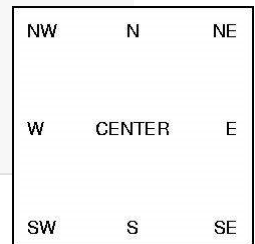
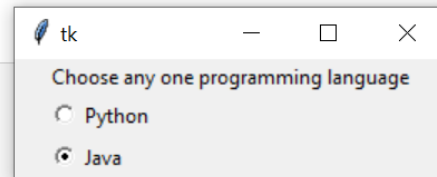
```
import tkinter as tk
from tkinter import *

root=tk.Tk()

tk.Label(root,text="Choose any one programming language",justify=tk.LEFT,padx=20).pack()

v=IntVar()
tk.Radiobutton(root,text="Python",padx=20,variable=v,value=1).pack(anchor=tk.W)
tk.Radiobutton(root,text="Java",padx=20,variable=v,value=2).pack(anchor=tk.W)

root.mainloop()
```



## CHECK BOX

### Check Button (Place with Grid)

#- with select, deselect and disable functions

```
: import tkinter as tk
from tkinter import *

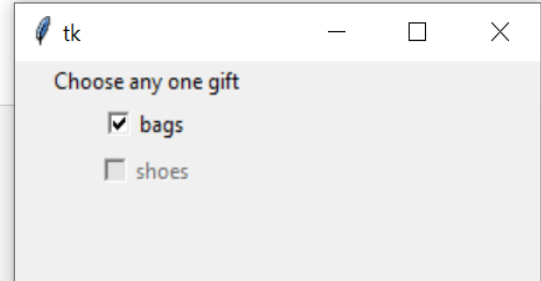
master=Tk()
master.geometry("300x120")

a = Label(master,text="Choose any one gift",justify=tk.LEFT,padx=20).grid(row=0)

var1=IntVar()
check1=Checkbutton(master,text="bags",variable=var1)
check1.select()
check1.grid(row=1, column = 0)

var2=IntVar()
check2=Checkbutton(master,text="shoes",variable=var2, state="disable")
check2.deselect()
check2.grid(row=2, column = 0)

mainloop()
```



## SCROLL TEXT

### Scrolltext (Place with Grid)

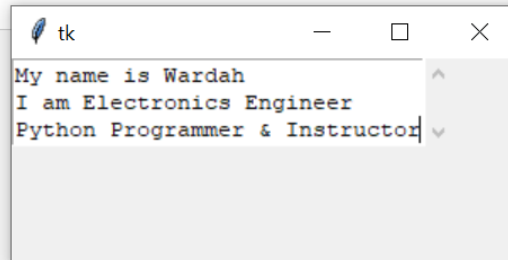
#wrap text #columnspan

```
import tkinter as tk
from tkinter import *
from tkinter import scrolledtext

master=Tk()
master.geometry("300x120")

#using scrolled text control
scroll_w = 30
scroll_h = 3
scr = scrolledtext.ScrolledText(master, width=scroll_w, height=scroll_h, wrap=tk.WORD)
scr.grid(row = 3, columnspan=3)

master.mainloop()
```



## COMBO BOX

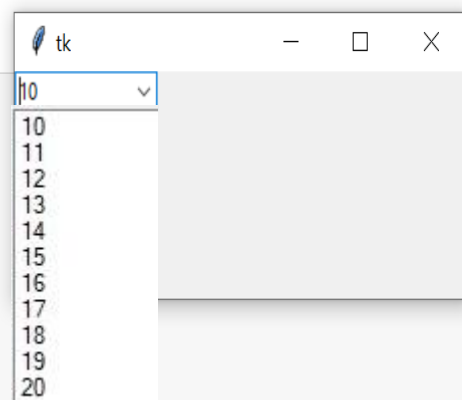
### Combo Box/ List Box (Place with Grid)

```
import tkinter as tk
from tkinter import ttk
from tkinter import *

win=Tk()
win.geometry("300x120")

number=tk.StringVar()
number_chosen=ttk.Combobox(win,width=12,textvariable=number)
number_chosen['value']=[10,11,12,13,14,15,16,17,18,19,20]
number_chosen.grid(column=1,row=2)
number_chosen.current(0)

win.mainloop()
```



## Simple Hello Game - Game 1

```
import tkinter as tk
from tkinter import ttk
from tkinter import *

win=Tk()

#Entry Box
name=tk.StringVar()
name_entered=tk.Entry(win,width=12, textvariable=name)
name_entered.grid(column=0,row=2)

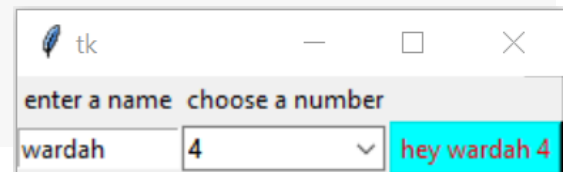
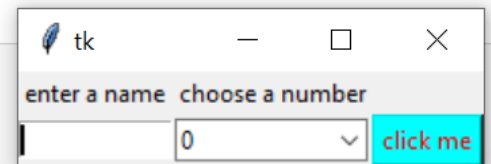
#Button with Command
def click_me():
    btn.configure(text="hey"+" "+name.get()+" "+number_chosen.get())
    a.configure(text="hello")

btn=tk.Button(win, text="click me", bg="cyan",fg="red",command=click_me)
btn.grid(column=2,row=2)

#Lable
a=tk.Label(win,text="enter a name").grid(column=0,row=1)
b=tk.Label(win,text="choose a number").grid(column=1,row=1)

#Combo Box/List Box
number=tk.StringVar()
number_chosen=ttk.Combobox(win,width=12,textvariable=number)
number_chosen['value']=[0,1,2,3,4,5,6,7,8,9,10]
number_chosen.grid(column=1,row=2)
number_chosen.current(0)
name_entered.focus_set()

win.mainloop()
```



## Number Guessing Game - Game 2

#with font properties

```
import tkinter as tk
from tkinter import *

guess=tk.Tk()
guess.title("Number guessing Game")
guess.geometry('400x400')
guess.configure(bg='green')

def click_me1():
    btn1.configure(text="You Loose")
    btn1.configure(bg="red")
    mylable.configure(text="1")

def click_me2():
    btn2.configure(text="You Win")
    btn2.configure(bg="white")
    mylable.configure(text="10")

def click_me3():
    btn3.configure(text="You Loose")
    btn3.configure(bg="red")
    mylable.configure(text="100")

def click_me4():
    btn4.configure(text="You Loose")
    btn4.configure(bg="red")
    mylable.configure(text="1000")

#Lable
mylable = tk.Label(guess, text="Guess the number 10", fg="red", bg="yellow")
mylable.grid(row=0, column=0)

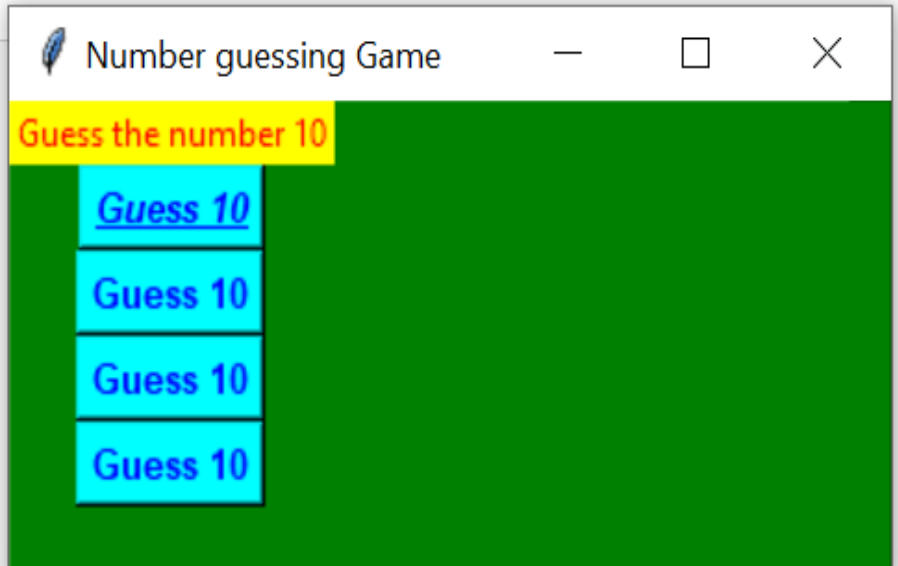
#Buttons
btn1 = tk.Button(guess, text="Guess 10", font=("arial",10,"bold","italic", "underline"), bg="cyan", fg="blue",command=click_me1)
btn1.grid(row= 1, column=0)

btn2 = tk.Button(guess, text="Guess 10", font=("arial",10, "bold"), bg="cyan", fg="blue",command=click_me2)
btn2.grid(row= 2, column=0)

btn3 = tk.Button(guess, text="Guess 10", font=("arial",10, "bold"), bg="cyan", fg="blue",command=click_me3)
btn3.grid(row= 3, column=0)

btn4 = tk.Button(guess, text="Guess 10", font=("arial",10, "bold"), bg="cyan", fg="blue",command=click_me4)
btn4.grid(row= 4, column=0)

guess.mainloop()
```



Number guessing Game

