

GUI(Graphical User Interface) application development:

python provides various libraries to developing an GUI applications,they are

- tkinter(3.x)/Tkinter(2.x)
- PyQT/QT5
- wxpython
-
-

tkinter programming?

tkinter is the builtin Python GUI framework.

it is a standard Python GUI framework,to build the GUI applications very easy and faster.

tkinter framework/library provides some widgets like buttons,checkbox,radio buttons,entry fields,...etc

the tkinter framerwork provides some geometric configurations like pack(),place(),grid()

ex1:

wap to create a simple plane window?

```
import tkinter
window=tkinter.Tk()
#write something here
window.mainloop()
```

ex2:

wap to create a simple plane window with specific size?

```
import tkinter
window=tkinter.Tk()
window.geometry("500x400")
window.mainloop()
```

ex3:

wap to create a simple plane window with background color?

```
import tkinter
window=tkinter.Tk()
window.geometry("500x400")
window['bg']="powderblue"
```

```
window.mainloop()
```

ex4:

wap to create a simple plane window with title?

```
import tkinter
window=tkinter.Tk()
window.geometry("500x400")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.mainloop()
```

ex5:

wap to create a simple plane window with logo?

first we need to convert our images like .jpg,.png into .ico format.

```
import tkinter
window=tkinter.Tk()
window.geometry("500x400")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
window.mainloop()
```

ex6:

wap to create a label?

```
from tkinter import *
window=Tk()
window.geometry("500x400")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L=Label(window,
        text="welcome to Vagdevi Technologies and Entri app")
L.pack()
window.mainloop()
```

ex7:

wap to create a labels with pack geometry configuration?

```
from tkinter import *
window=Tk()
```

```

window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L1=Label(window,
          text="welcome to Vagdevi Technologies and Entri app")
L1.pack()
L2=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red")
L2.pack(side="left")
L3=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red",bg="yellow")
L3.pack(side="right")
L4=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red",bg="yellow",font=("elephant",20,"italic"))
L4.pack(side="bottom")
window.mainloop()

```

ex8:

wap to create a labels with place geometry configurations?

```

from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L1=Label(window,
          text="welcome to Vagdevi Technologies and Entri app")
L1.place(x=10,y=20)
L2=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red")
L2.place(x=50,y=70)
L3=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red",bg="yellow")
L3.place(x=90,y=120)
L4=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red",bg="yellow",font=("elephant",20,"italic"))
L4.place(x=130,y=170)
window.mainloop()

```

ex9:

wap to create a labels with grid geometry configurations?

```
from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L1=Label(window,
          text="welcome to Vagdevi Technologies and Entri app")
L1.grid(row=0,column=0)
L2=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red")
L2.grid(row=0,column=1)
L3=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red",bg="yellow")
L3.grid(row=1,column=0)
L4=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red",bg="yellow",font=("elephant",20,"italic"))
L4.grid(row=1,column=1)
window.mainloop()
```

(or)

```
from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L1=Label(window,
          text="welcome to Vagdevi Technologies and Entri app")
L1.grid(padx=10,pady=20)
L2=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red")
L2.grid(padx=200,pady=20)
L3=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red",bg="yellow")
L3.grid(padx=20,pady=100)
L4=Label(window,
          text="welcome to Vagdevi Technologies and Entri app",
          fg="red",bg="yellow",font=("elephant",20,"italic"))
L4.grid(padx=200,pady=100)
window.mainloop()
```

ex10:

wap to create a window with radio button's?

```
from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L=Label(window,
        text="welcome to Vagdevi Technologies and Entri app",
        fg="red",bg="yellow",font=("elephant",20,"italic"))
L.pack()
L1=Label(window,text="select your Gender: ",font=20)
L1.place(x=10,y=50)
R1=Radiobutton(window,text="Male",value="m",name="male")
R1.place(x=150,y=50)
R2=Radiobutton(window,text="Female",value="f",name="female")
R2.place(x=200,y=50)

window.mainloop()
```

ex11:

wap to create a check buttons?

```
from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L=Label(window,
        text="welcome to Vagdevi Technologies and Entri app",
        fg="red",bg="yellow",font=("elephant",20,"italic"))
L.pack()
L1=Label(window,text="select your Curses: ",font=20)
L1.place(x=10,y=50)
C1=Checkbutton(window,text="Python",name="python")
C1.place(x=200,y=50)
C2=Checkbutton(window,text="Django",name="django")
C2.place(x=300,y=50)
C3=Checkbutton(window,text="Flask",name="flsak")
C3.place(x=400,y=50)
C4=Checkbutton(window,text="RESTapi",name="restapi")
C4.place(x=500,y=50)

window.mainloop()
```

(or)

```
from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L=Label(window,
        text="welcome to Vagdevi Technologies and Entri app",
        fg="red",bg="yellow",font=("elephant",20,"italic"))
L.pack()
L1=Label(window,text="select your Curses: ",font=20)
L1.place(x=10,y=50)
C1=Checkbutton(window,text="Python",name="python")
C1.place(x=50,y=100)
C2=Checkbutton(window,text="Django",name="django")
C2.place(x=50,y=150)
C3=Checkbutton(window,text="Flask",name="flsak")
C3.place(x=50,y=200)
C4=Checkbutton(window,text="RESTapi",name="restapi")
C4.place(x=50,y=250)

window.mainloop()
```

ex12:

wap to create a window with entry fields?

```
from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L=Label(window,
        text="welcome to Vagdevi Technologies and Entri app",
        fg="red",bg="yellow",font=("elephant",20,"italic"))
L.pack()
L1=Label(window,text="Enter your First Name: ",
        fg="red",font=20)
L1.place(x=10,y=50)
E1=Entry(window,bd=5,fg="blue",font=20)
E1.place(x=200,y=50)
L2=Label(window,text="Enter your Last Name: ",
        fg="red",font=20)
L2.place(x=10,y=100)
E2=Entry(window,bd=5,fg="blue",font=20)
E2.place(x=200,y=100)
```

```
window.mainloop()
```

ex13:

wap to create a button without any action?

```
from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
L=Label(window,
        text="welcome to Vagdevi Technologies and Entri app",
        fg="red",bg="yellow",font=("elephant",20,"italic"))
L.pack()
B1=Button(window,text="clickme")
B1.place(x=100,y=100)
window.mainloop()
```

ex14:

wap to create a button with action?

```
from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
def msg():
    L1.config(text="hello siva good afternoon")

L=Label(window,
        text="welcome to Vagdevi Technologies and Entri app",
        fg="red",bg="yellow",font=("elephant",20,"italic"))
L.pack()
B1=Button(window,text="clickme",command=msg)
B1.place(x=100,y=100)
L1=Label(window,fg="blue",font=30)
L1.place(x=50,y=150)
window.mainloop()
```

(or)

```
from tkinter import *
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
```

```

window.iconbitmap('vt.ico')
def msg():
    L1.config(text="hello siva good afternoon")

L=Label(window,
        text="welcome to Vagdevi Technologies and Entri app",
        fg="red",bg="yellow",font=("elephant",20,"italic"))
L.pack()
B1=Button(window,text="clickme",command=lambda:msg())
B1.place(x=100,y=100)
L1=Label(window,fg="blue",font=30)
L1.place(x=50,y=150)
window.mainloop()

```

ex15:

wap to create a button with action by using message box?

```

from tkinter import *
from tkinter import messagebox
window=Tk()
window.geometry("1000x900")
window['bg']="powderblue"
window.title('Vagdevi Technologies and Entri App')
window.iconbitmap('vt.ico')
def msg():
    messagebox.showinfo("wishes","hell siva good afternoon")

L=Label(window,
        text="welcome to Vagdevi Technologies and Entri app",
        fg="red",bg="yellow",font=("elephant",20,"italic"))
L.pack()
B1=Button(window,text="clickme",command=msg)
B1.place(x=100,y=100)
window.mainloop()

```