

Code:

```
from tkinter import *

from random import randint

a = Tk()

a.title('The dietician')


def BMR():

    protein = ['Yogurt(1 cup)', 'Cooked meat(3 Oz)', 'Cooked fish(4 Oz)', '1 whole egg + 4 egg whites', 'Tofu(5 Oz)']

    fruit = ['Berries(80 Oz)', 'Apple', 'Orange', 'Banana', 'Dried Fruits(Handfull)', 'Fruit Juice(125ml)']

    vegetable = ['Any vegetable(80g)']

    grains = ['Cooked Grain(150g)', 'Whole Grain Bread(1 slice)', 'Half Large Potato(75g)', 'Oats(250g)', '2 corn tortillas']

    ps = ['Soy nuts(i Oz)', 'Low fat milk(250ml)', 'Hummus(4 Tbsp)', 'Cottage cheese (125g)', 'Flavored yogurt(125g)']

    taste_en = ['2 TSP (10 ml) olive oil', '2 TBSP (30g) reduced-calorie salad dressin', '1/4 medium avocado', 'Small handful of nuts', '1/2 ounce grated Parmesan cheese', '1 TBSP (20g) jam, jelly, honey, syrup, sugar']


    w = v3.get()

    h = v4.get()

    age = v5.get()

    act = str(Lb.get(ACTIVE))

    gender = Lb2.get(ACTIVE)


    if gender == 'Male':

        cal = float()

        cal = 88.362 + (13.397*float(w)) + (4.799*float(h)) - (5.677*float(age))

        print (cal)
```

```
elif gender == 'Female':  
    cal = float()  
    cal = 447.593 + (9.247*float(w)) + (3.098*float(h)) - (4.330*float(age))
```

```
if act == 'Sedentary (little or no exercise)':  
    cal = cal*1.2
```

```
elif act == 'Lightly active (1-3 days/week)':  
    cal = cal*1.375
```

```
elif act == 'Moderately active (3-5 days/week)':  
    cal = cal*1.55
```

```
elif act == 'Very active (6-7 days/week)':  
    cal = cal*1.725
```

```
elif act == 'Super active (twice/day)':  
    cal = cal*1.9
```

```
print (cal)
```

```
if cal<1500:  
    fin = StringVar()  
    l6 = Label(a, textvariable=fin, relief=RAISED )  
    fin.set("Breakfast: "+protein[randint(0, 5)]+" " + "fruit[randint(0, 5)])  
    l6.grid(row=0,column=3)
```

```
fin2 = StringVar()

l8 = Label(a, textvariable=fin2, relief=RAISED )

fin2.set("Lunch: "+protein[randint(0, 5)]+" "+vegetable[0]+" + Leafy  
Greens"+grains[randint(0,4)]+" "+taste_en[randint(0,5)])

l8.grid(row=1,column=3)
```

```
fin3 = StringVar()

l9 = Label(a, textvariable=fin3, relief=RAISED )

fin3.set("Snack: "+ps[randint(0, 4)]+" "+vegetable[0])

l9.grid(row=2,column=3)
```

```
fin4 = StringVar()

l10 = Label(a, textvariable=fin4, relief=RAISED )

fin4.set("Dinner: "+protein[randint(0, 5)]+" + 2 "+vegetable[0]+" + Leafy  
Greens"+grains[randint(0,4)]+" "+taste_en[randint(0,5)])

l10.grid(row=3,column=3)
```

```
fin5 = StringVar()

l11 = Label(a, textvariable=fin5, relief=RAISED )

fin5.set("Snack: "+fruit[randint(0, 5)])

l11.grid(row=4,column=3)
```

```
elif cal<1800:
```

```
fin = IntVar()
```

```
l6 = Label(a, textvariable=fin, relief=RAISED )
```

```
fin.set("Breakfast: "+protein[randint(0, 5)]+" " + "fruit[randint(0, 5)])
```

```
l6.grid(row=0,column=3)
```

```
fin2 = StringVar()
```

```
l8 = Label(a, textvariable=fin2, relief=RAISED )
```

```
fin2.set("Lunch: "+protein[randint(0, 5)]+" " + "vegetable[0]" + Leafy  
Greens"+grains[randint(0,4)]+" " + "taste_en[randint(0,5)]+" " + "fruit[randint(0, 5)])
```

```
l8.grid(row=1,column=3)
```

```
fin3 = StringVar()
```

```
l9 = Label(a, textvariable=fin3, relief=RAISED )
```

```
fin3.set("Snack: "+ps[randint(0, 4)]+" " + "vegetable[0])
```

```
l9.grid(row=2,column=3)
```

```
fin4 = StringVar()
```

```
l10 = Label(a, textvariable=fin4, relief=RAISED )
```

```
fin4.set("Dinner: 2 "+protein[randint(0, 5)]+" " + "vegetable[0]" + Leafy  
Greens"+grains[randint(0,4)]+" " + "taste_en[randint(0,5)])
```

```
l10.grid(row=3,column=3)
```

```
fin5 = StringVar()
```

```
l11 = Label(a, textvariable=fin5, relief=RAISED )
```

```
fin5.set("Snack: "+fruit[randint(0, 5)])
```

```
l11.grid(row=4,column=3)
```

elif cal<2200:

fin = StringVar()

l6 = Label(a, textvariable=fin, relief=RAISED)

fin.set("Breakfast: "+protein[randint(0, 5)]+" "+fruit[randint(0, 5)])

l6.grid(row=0,column=3)

fin2 = StringVar()

l8 = Label(a, textvariable=fin2, relief=RAISED)

fin2.set("Lunch: "+protein[randint(0, 5)]+" "+vegetable[0]+" Leafy
Greens"+grains[randint(0,4)]+" "+taste_en[randint(0,5)]+" "+fruit[randint(0, 5)])

l8.grid(row=1,column=3)

fin3 = StringVar()

l9 = Label(a, textvariable=fin3, relief=RAISED)

fin3.set("Snack: "+ps[randint(0, 4)]+" "+vegetable[0])

l9.grid(row=2,column=3)

fin4 = StringVar()

l10 = Label(a, textvariable=fin4, relief=RAISED)

fin4.set("Dinner: 2 "+protein[randint(0, 5)]+" 2 "+vegetable[0]+" Leafy
Greens"+grains[randint(0,4)]+" "+taste_en[randint(0,5)])

l10.grid(row=3,column=3)

fin5 = StringVar()

```
l11 = Label(a, textvariable=fin5, relief=RAISED )
```

```
fin5.set("Snack: "+fruit[randint(0, 5)])
```

```
l11.grid(row=4,column=3)
```

```
elif cal>=2200:
```

```
fin = StringVar()
```

```
l6 = Label(a, textvariable=fin, relief=RAISED )
```

```
fin.set("Breakfast: 2 "+protein[randint(0, 5)]+" " + "+fruit[randint(0, 5)]+" " + "+grains[randint(0,4)])
```

```
l6.grid(row=0,column=3)
```

```
fin2 = StringVar()
```

```
l8 = Label(a, textvariable=fin2, relief=RAISED )
```

```
fin2.set("Lunch: "+protein[randint(0, 5)]+" " + "+vegetable[0]+" + Leafy  
Greens"+grains[randint(0,4)]+" " + "+taste_en[randint(0,5)]+" " + "+fruit[randint(0, 5)])
```

```
l8.grid(row=1,column=3)
```

```
fin3 = StringVar()
```

```
l9 = Label(a, textvariable=fin3, relief=RAISED )
```

```
fin3.set("Snack: "+ps[randint(0, 4)]+" " + "+vegetable[0])
```

```
l9.grid(row=2,column=3)
```

```
fin4 = StringVar()
```

```
l10 = Label(a, textvariable=fin4, relief=RAISED )
```

```
fin4.set("Dinner: 2 "+protein[randint(0, 5)]+" " + 2 "+vegetable[0]+" + Leafy Greens + 2  
"+grains[randint(0,4)]+" " + 2 "+taste_en[randint(0,5)])
```

```
l10.grid(row=3,column=3)
```

```
fin5 = StringVar()
```

```
l11 = Label(a, textvariable=fin5, relief=RAISED )
```

```
fin5.set("Snack: "+fruit[randint(0, 5)])
```

```
l11.grid(row=4,column=3)
```

```
'''
```

```
v1 = IntVar()
```

```
c1 = Checkbutton(a, text = 'Male', variable = v1)
```

```
c1.grid(row=0,column=1)
```

```
v2 = IntVar()
```

```
c2 = Checkbutton(a, text = 'Female', variable = v2)
```

```
c2.grid(row=0,column=2)
```

```
'''
```

```
l1 = Label(a, text='Weight')
```

```
l2 = Label(a, text='Height(in cms)')
```

```
l3 = Label(a, text='Age  ')
```

```
l4 = Label(a, text = 'Gender', bg = 'white')
```

```
l5 = Label(a, text = 'Activity', bg = 'white')
```

```
l7 = Label(a, text = '')
```

```
v3=StringVar()
```

```
v4=StringVar()
```

```
v5=StringVar()
```

```
e3 = Entry(a, textvariable=v3, width=30)
```

```
e4 = Entry(a, textvariable=v4, width=30)
```

```
e5 = Entry(a, textvariable=v5, width=30)
```

```
Lb = Listbox(a, height=6, width=30)
```

```
Lb.insert(1, 'Sedentary (little or no exercise)')
```

```
Lb.insert(2, 'Lightly active (1-3 days/week)')
```

```
Lb.insert(3, 'Moderately active (3-5 days/week)')
```

```
Lb.insert(4, 'Very active (6-7 days/week)')
```

```
Lb.insert(5, 'Super active (twice/day)')
```

```
Lb2 = Listbox(a, height=2, width=30)
```

```
Lb2.insert(1, 'Male')
```

```
Lb2.insert(2, 'Female')
```

```
var = Lb.get(ACTIVE)
```

```
print (var)
```

```
l5 = Label(a, text = '')
```

```
l5.grid(row=5,column=0)
```

```
b1 = Button(a, text = 'Submit', width=25, command = BMR)
```

```
l1.grid(row=1,column=0)
```

```
l2.grid(row=2,column=0)
```

```
l3.grid(row=3,column=0)
```

```
l4.grid(row=0,column=0)
```



```
l5.grid(row=4,column=0)
```

```
l7.grid(row=0,column=2)
```

```
e3.grid(row=1, column=1)
```

```
e4.grid(row=2, column=1)
```

```
e5.grid(row=3, column=1)
```

```
Lb.grid(row=4, column = 1)
```

```
Lb2.grid(row=0, column = 1)
```

```
b1.grid(row=6,columns=3)
```

```
a.mainloop()
```