

KAVYA KASALA

# FITNESS GUIDE



# CONTENTS

- AIM
- MOTIVATION
- LOGIC
- CODE
- OUTPUT



# AIM

THE PROJECT'S GOAL IS TO ASSIST  
USERS IN DETERMINING THEIR  
FITNESS STATUS BASED ON THEIR  
LEVEL OF ACTIVITY AND SETTING A  
FITNESS GOAL.



# MOTIVATION

- Now-a-days, everyone aspires to stay healthy and fit.
- It is an opportunity to utilize coding to help improve health.
- It is a great example for the uses of health informatics.





# LOGIC

- BMR is calculated using:

$$\text{BMR}_{\text{MALE}} = 66 + (6.2 \times \text{Weight}) + (12.7 \times \text{Height}) - (6.76 \times \text{Age})$$

$$\text{BMR}_{\text{FEMALE}} = 655 + (4.35 \times \text{Weight}) + (4.7 \times \text{Height}) - (4.7 \times \text{Age})$$

- Calories Burnt = BMR x Activity Level
- In order to lose or gain 1lb per week, it is recommended that 500 calories be shaved off or added to the estimated calories necessary for weight maintenance per day.




# CODE

- The module used to create this app is Tkinter.
- This module helps in creating a GUI.



# CODE

 calculating\_calories.py ×

Users > kavyakasala > Desktop > python project >  calculating\_calories.py >  male\_calories\_1

```
1  def male_calories_1(weight, height, age):
2      return (66 + (6.2 * weight) + (12.7 * height) - (6.76 * age))* 1.2
3
4  def male_calories_2(weight, height, age):
5      return (66 + (6.2 * weight) + (12.7 * height) - (6.76 * age))* 1.37
6
7  def male_calories_3(weight, height, age):
8      return (66 + (6.2 * weight) + (12.7 * height) - (6.76 * age)) * 1.55
9
10 def male_calories_4(weight, height, age):
11     return (66 + (6.2 * weight) + (12.7 * height) - (6.76 * age)) * 1.725
12
13 def male_calories_5(weight, height, age):
14     return (66 + (6.2 * weight) + (12.7 * height) - (6.76 * age)) * 1.9
15
16 def female_calories_1(weight, height, age):
17     return (655 + (4.35 * weight) + (4.7 * height) - (4.7 * age)) * 1.2
18
19 def female_calories_2(weight, height, age):
20     return (655 + (4.35 * weight) + (4.7 * height) - (4.7 * age)) * 1.37
21
22 def female_calories_3(weight, height, age):
23     return (655 + (4.35 * weight) + (4.7 * height) - (4.7 * age)) * 1.55
24
25 def female_calories_4(weight, height, age):
26     return (655 + (4.35 * weight) + (4.7 * height) - (4.7 * age)) * 1.725
27
28 def female_calories_5(weight, height, age):
29     return (655 + (4.35 * weight) + (4.7 * height) - (4.7 * age)) * 1.9
30
```



# CODE

fitness\_guide.py •

▶ ▼ □ ...

Users > kavyakasala > Desktop > python project > fitness\_guide.py > ...

```
1  from tkinter import *
2  from calculating_calories import male_calories_1, male_calories_2, male_calories_3, male_calories_4, male_calories_5, female_calories_1, female_calories_2, female_calories_3, female_calories_4, female_calories_5
3  from tkinter import messagebox
4
5  root = Tk()
6  root.title("Fitness Guide")
7  gender = IntVar()
8  activity = IntVar()
9
10 def Calculate():
11     age = float(age_input.get())
12     weight = float(weight_input.get())
13     height = float(height_input.get())
14
15     if gender.get() == 0 and activity.get() == 0:
16         calories_burnt = male_calories_1(weight, height, age)
17     elif gender.get() == 0 and activity.get() == 1:
18         calories_burnt = male_calories_2(weight, height, age)
19     elif gender.get() == 0 and activity.get() == 2:
20         calories_burnt = male_calories_3(weight, height, age)
21     elif gender.get() == 0 and activity.get() == 3:
22         calories_burnt = male_calories_4(weight, height, age)
23     elif gender.get() == 0 and activity.get() == 4:
24         calories_burnt = male_calories_5(weight, height, age)
25     elif gender.get() == 1 and activity.get() == 0:
26         calories_burnt = female_calories_1(weight, height, age)
27     elif gender.get() == 1 and activity.get() == 1:
28         calories_burnt = female_calories_2(weight, height, age)
29     elif gender.get() == 1 and activity.get() == 2:
30         calories_burnt = female_calories_3(weight, height, age)
31     elif gender.get() == 1 and activity.get() == 3:
32         calories_burnt = female_calories_4(weight, height, age)
33     elif gender.get() == 1 and activity.get() == 4:
34         calories_burnt = female_calories_5(weight, height, age)
35
36
37     result = Toplevel()
38     result.title("Calories Burnt")
39     goal = IntVar()
40
41     message_label = Label(result, text=f"You are burning {calories_burnt} calories daily")
42     message_label.grid(row=0, column=1)
43     question = Label(result, text="What is your fitness goal")
44     question.grid(row=1, column= 1)
45
```



# CODE

fitness\_guide.py •



Users > kavyakasala > Desktop > python project > fitness\_guide.py > ...

```
47
48     def gain_or_lose():
49         activity = int(calories_burnt)
50
51         if goal.get() == 0:
52             new_goal= activity - 500
53         elif goal.get() == 1:
54             new_goal= activity + 500
55         else:
56             new_goal= activity
57
58         messagebox.showinfo("GOAL", f"In order to reach achieve your goal, your daily calorie intake should be {new_goal} calories")
59
60
61     goal_rb0 = Radiobutton(result, text="lose weight", variable=goal, value=0)
62     goal_rb0.grid(row=2, column=0)
63     goal_rb1 = Radiobutton(result, text="gain weight", variable=goal, value=1)
64     goal_rb1.grid(row=2, column=1)
65     goal_rb2 = Radiobutton(result, text="maintain weight", variable=goal, value=2)
66     goal_rb2.grid(row=2, column=2)
67
68     #fitness goal button
69     Goal_button = Button(result, width=10, text="NEXT", command=gain_or_lose)
70     Goal_button.grid(row=3, column=1, columnspan=2)
71
72
73     def clear():
74         age_input.delete(0,END)
75         weight_input.delete(0, END)
76         height_input.delete(0, END)
77
78
79     #labels and entry
80     age_label = Label(root, text="Age ")
81     age_label.grid(row=0, column=0, columnspan=2)
82     age_input = Entry(root, width=10)
83     age_input.grid(row=0, column=2, columnspan=2)
84
85     weight_label = Label(root, text="Weight(in lbs) ")
86     weight_label.grid(row=1, column=0, columnspan=2)
87     weight_input = Entry(root, width=10)
88     weight_input.grid(row=1, column=2, columnspan=2)
89
90     height_label = Label(root, text="Height(in inches) ")
91     height_label.grid(row=2, column=0, columnspan=2)
92     height_input = Entry(root, width=10)
93     height_input.grid(row=2, column=2, columnspan=2)
```

# CODE

fitness\_guide.py •



Users > kavyakasala > Desktop > python project > fitness\_guide.py > ...

```
95  activity_label = Label(root, text="Daily Activity Level : ")
96  activity_label.grid(row=4, column=0)
97
98  #radiobuttons
99  rb1 = Radiobutton(root, text = "Male", variable=gender, value=0)
100 rb1.grid(row=3, column=0)
101
102 rb2 = Radiobutton(root, text = "Female", variable=gender, value=1)
103 rb2.grid(row=3, column=2)
104
105 rb3 = Radiobutton(root, text ="No Excercise", variable=activity, value=0)
106 rb3.grid(row=5, column=0)
107
108 rb4 = Radiobutton(root, text="Light Excercise", variable=activity, value=1)
109 rb4.grid(row=6, column=0)
110
111 rb5 = Radiobutton(root, text="Moderate Excercise", variable=activity, value=2)
112 rb5.grid(row=7, column=0)
113
114 rb6 = Radiobutton(root, text="Active", variable=activity, value=3)
115 rb6.grid(row=8, column=0)
116
117 rb7 = Radiobutton(root, text="Very Active", variable=activity, value=4)
118 rb7.grid(row=9, column=0)
119
120 #calculate_button
121 calculate = Button(root, width=20, text="Calculate", command=Calculate)
122 calculate.grid(row=10, column=0, columnspan=4)
123
124 #exit_button
125 exit_button = Button(root, width=10, text="Exit", command=root.destroy)
126 exit_button.grid(row=11, column=0, columnspan=2)
127
128 #clear button
129 clear_button = Button(root, width=10, text="Clear", command=clear)
130 clear_button.grid(row=11, column=2, columnspan=2)
131
132 root.mainloop()
133
```

# OUTPUT

Fitness Guide

Age

24

Weight(in lbs)

137

Height(in inches)

64

☐ Male

☐ Female

Daily Activity Level :

☐ No Excercise

☒ Light Excercise

☐ Moderate Excercise

☐ Active

☐ Very Active

Calculate

Exit

Clear

Calories Burnt

You are burning 1971.3615 calories daily


What is your fitness goal

☒ lose weight

☐ gain weight

☐ maintain weight

NEXT



In order to reach achieve your goal, your daily calorie intake should be 1471 calories

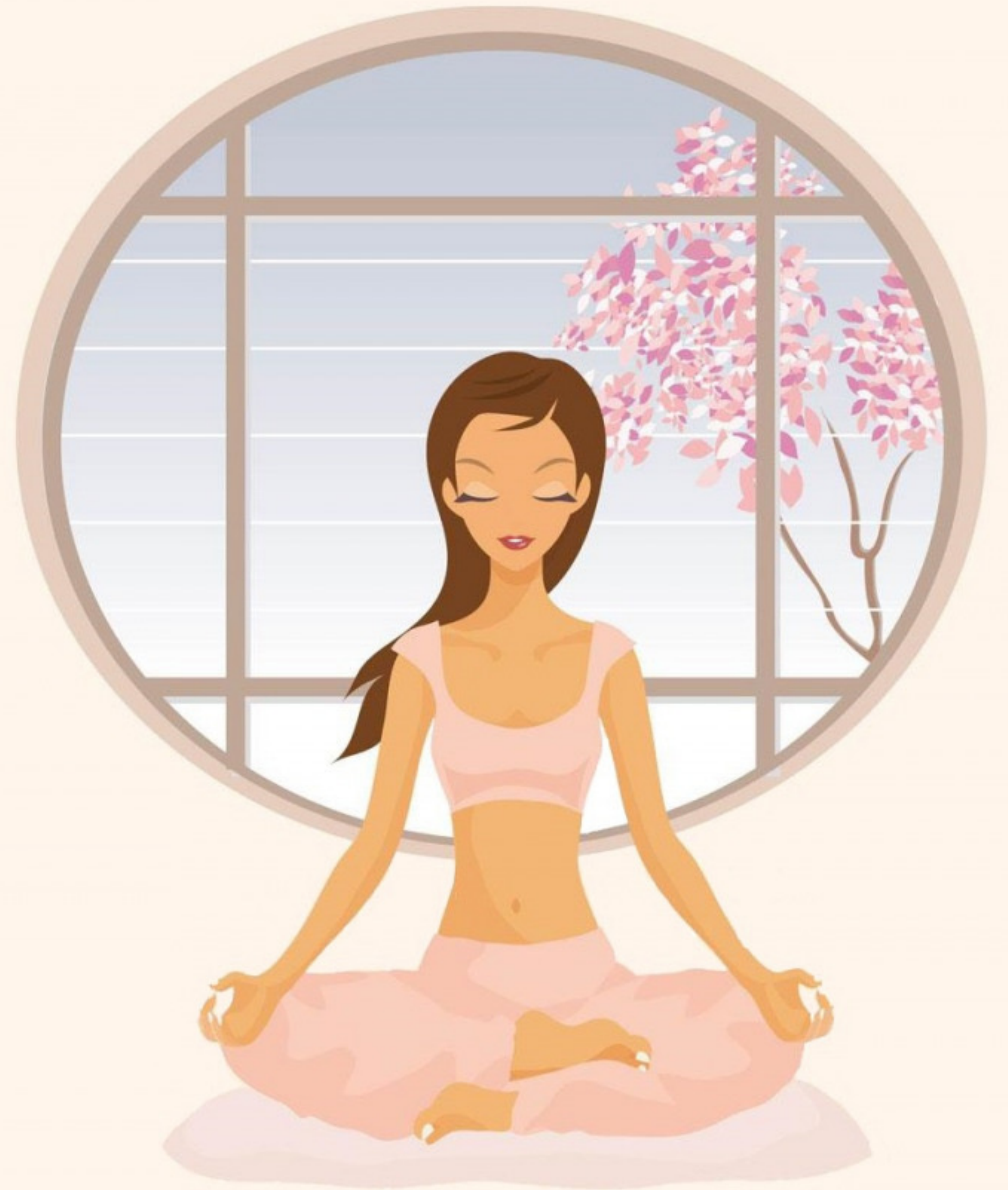
OK



*"Once you are exercising  
regularly, the hardest thing is to  
stop it."*

**– Erin Gray**

**THANK YOU**





## REFERENCES:

- CLASS MODULES
- [https://www.w3schools.com](https://www.w3schools.com/)  
/

