BMI CALCULATOR

INTRODUCTION

A Body Mass Index (BMI) calculator is a practical tool designed to evaluate an individual's body weight in relation to their height, providing an indication of whether they are underweight, normal weight, overweight, or obese. By entering basic information such as height and weight, the calculator generates a BMI value that helps assess overall health.

This metric is widely used by healthcare professionals, fitness trainers, and individuals to monitor and manage weight-related health risks. Although BMI does not directly measure body fat, it serves as a simple and quick screening tool to identify potential issues such as obesity or malnutrition.

Accessible through apps, websites, or even built-in health devices, BMI calculators promote awareness of healthy weight ranges and encourage proactive health management. While valuable, it is important to pair BMI assessments with other health indicators for a more comprehensive understanding of one’s physical well-being.

ABSTRACT

A BMI calculator evaluates body weight relative to height, providing a quick health assessment by categorizing individuals as underweight, normal, overweight, or obese. It aids in monitoring weight-related health risks and promoting awareness of healthy ranges. While simple and accessible, it’s best used alongside other health indicators for accuracy.

SOURCECODE

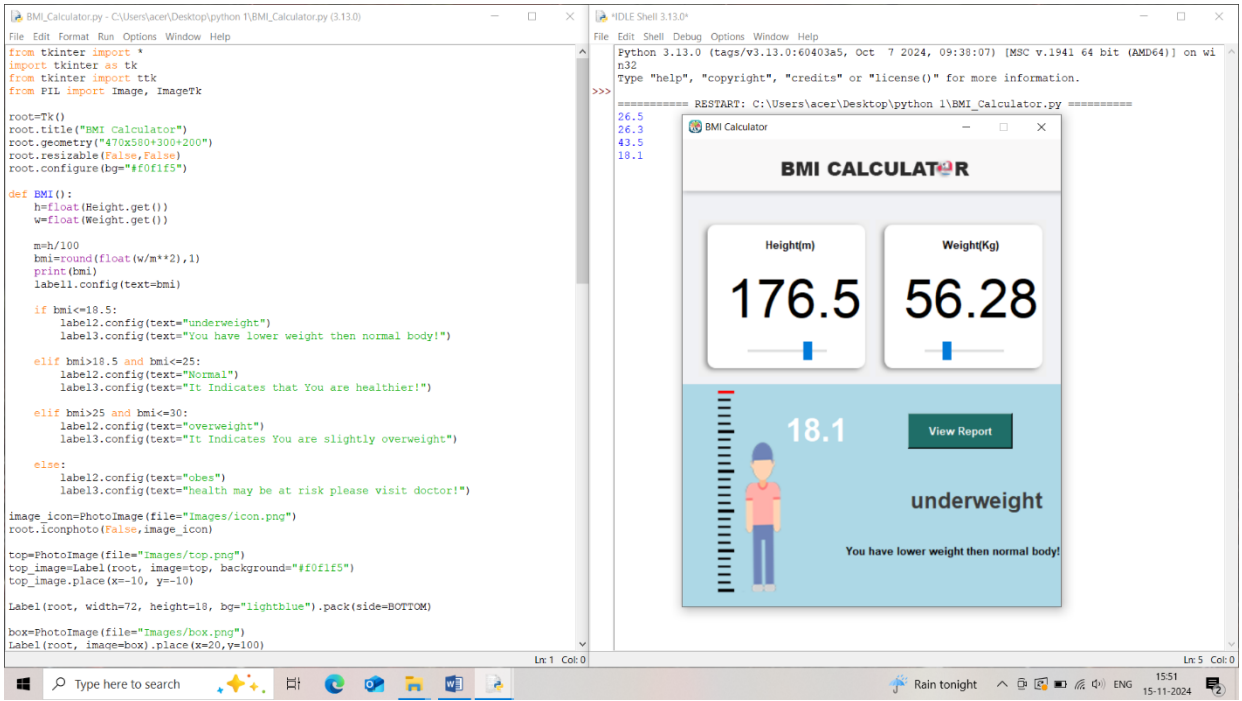
```
from tkinter import *
import tkinter as tk
from tkinter import ttk
from PIL import Image, ImageTk

root=Tk()
root.title("BMI Calculator")
```

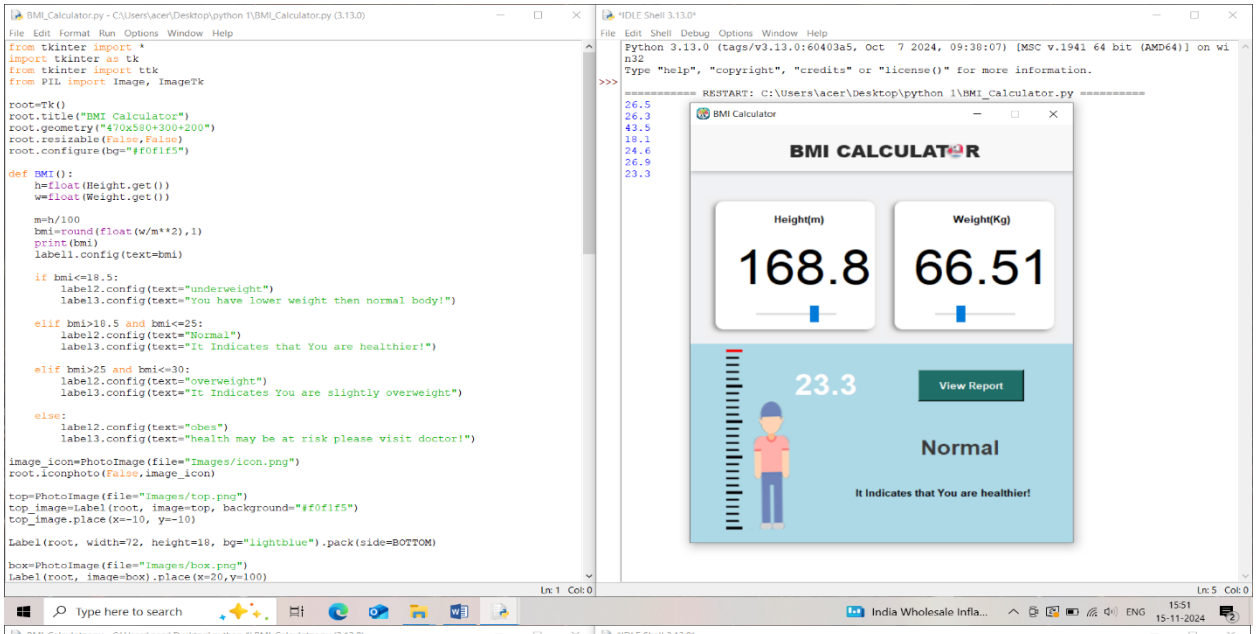
```
root.geometry("470x580+300+200")
root.resizable(False,False)
root.configure(bg="#f0f1f5")

def BMI():
    h=float(Height.get())
    w=float(Weight.get())

    m=h/100
    bmi=round(float(w/m**2),1)
    print(bmi)
    label1.config(text=bmi)

    if bmi<=18.5:
        label2.config(text="underweight")
        label3.config(text="You have lower weight then normal body!")

    elif bmi>18.5 and bmi<=25:
        label2.config(text="Normal")
        label3.config(text="It Indicates that You are healthier!")

    elif bmi>25 and bmi<=30:
        label2.config(text="overweight")
        label3.config(text="It Indicates You are slightly overweight")

    else:
        label2.config(text="obes")
        label3.config(text="health may be at risk please visit doctor!")

image_icon=PhotoImage(file="Images/icon.png")
root.iconphoto(False,image_icon)

top=PhotoImage(file="Images/top.png")
top_image=Label(root, image=top, background="#f0f1f5")
top_image.place(x=-10, y=-10)

Label(root, width=72, height=18, bg="lightblue").pack(side=BOTTOM)

box=PhotoImage(file="Images/box.png")
Label(root, image=box).place(x=20,y=100)
Label(root, image=box).place(x=240,y=100)


scale=PhotoImage(file="Images/scale.png")
Label(root, image=scale, bg="lightblue").place(x=20,y=310)

#slider1
current_value = tk.DoubleVar()
```

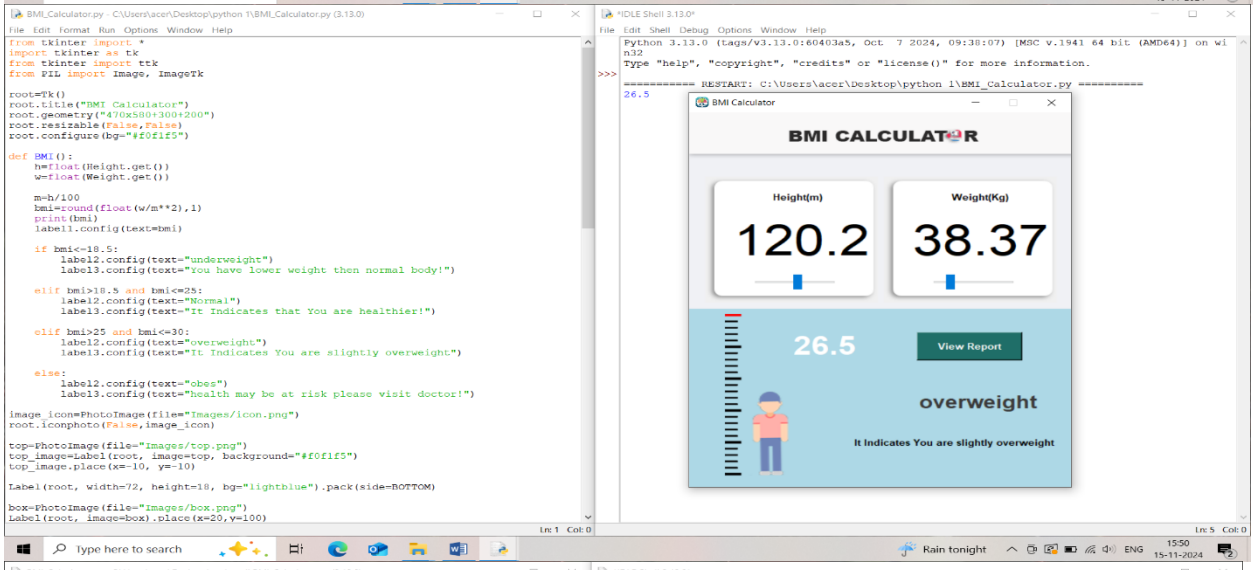
```
def get_current_value():
    return '{: .2f}'.format(current_value.get())

def slider_changed(event):
    Height.set(get_current_value())

    size=int(float(get_current_value()))
    img= (Image.open("Images/man.png"))
    resized_image=img.resize((50,10+size))
    photo2=ImageTk.PhotoImage(resized_image)
    secondimage.config(image=photo2)
    secondimage.place(x=70,y=550-size)
    secondimage.image=photo2

style= ttk.Style()
style.configure("TScale",background="white")
slider= ttk.Scale(root, from_=0, to=220,orient='horizontal', style="TScale",
command=slider_changed, variable=current_value)
slider.place(x=80,y=250)

#slider2
current_value2 = tk.DoubleVar()

def get_current_value2():
    return '{: .2f}'.format(current_value2.get())

def slider_changed2(event):
    Weight.set(get_current_value2())

style2= ttk.Style()
style2.configure("TScale", background="white")
slider2= ttk.Scale(root, from_=0, to=220,orient='horizontal', style="TScale",
command=slider_changed2, variable=current_value2)
slider2.place(x=300,y=250)

Height=StringVar()
Weight=StringVar()
height=Entry(root,textvariable=Height,width=5, font='arial 50',
bg="#fff",fg="#000",bd=0,justify=CENTER)
height.place(x=35,y=160)
Height.set(get_current_value())


weight=Entry(root, textvariable=Weight, width=5, font='arial 50',
bg="#fff",fg="#000",bd=0,justify=CENTER)
weight.place(x=255,y=160)
Weight.set(get_current_value2())
```

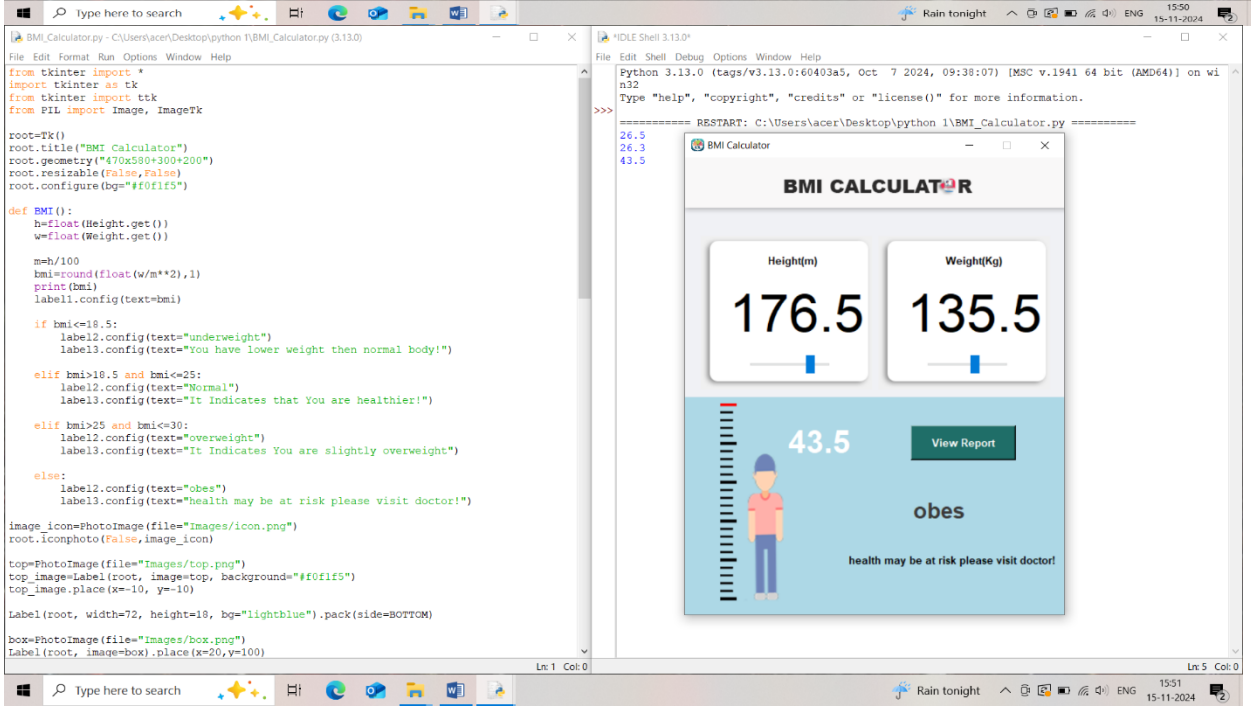
```
secondimage=Label(root, bg="lightblue")
secondimage.place(x=70,y=530)

Button(root,text="View Report",width=15,height=2, font="arial 10 bold",
bg="#1f6e68",fg="white", command=BMI).place(x=280,y=340)

label1=Label(root, font="arial 30 bold",bg="lightblue",fg="#fff")
label1.place(x=125,y=335)

label2=Label(root, font="arial 20 bold",bg="lightblue",fg="#3b3a3a")
label2.place(x=280,y=430)

label3=Label(root, font="arial 10 bold",bg="lightblue")
label3.place(x=200,y=500)


label4=Label(root, text="Height(m)", font="arial 10 bold",bg="white"
,fg="black")
label4.place(x=100,y=120)

label4=Label(root, text="Weight(Kg)", font="arial 10 bold",bg="white",
fg="black")
label4.place(x=320,y=120)


root.mainloop()
```

OUTPUT




BMI_Calculator.py - C:\Users\acer\Desktop\python 1\BMI_Calculator.py (3.13.0)
File Edit Format Run Options Window Help
from tkinter import *
import tkinter as tk
from tkinter import ttk
from PIL import Image, ImageTk
root=Tk()
root.title("BMI Calculator")
root.geometry("470x580+300+200")
root.resizable(False,False)
root.configure(bg="#f0f1f5")
def BMI():
h=float(Height.get())
w=float(Weight.get())
m=h/100
bmi=round(float(w/m**2),1)
print(bmi)
label1.config(text=bmi)
if bmi<=18.5:
label2.config(text="underweight")
label3.config(text="You have lower weight then normal body!")
elif bmi>18.5 and bmi<=25:
label2.config(text="Normal")
label3.config(text="It Indicates that You are healthier!")
elif bmi>25 and bmi<=30:
label2.config(text="overweight")
label3.config(text="It Indicates You are slightly overweight")
else:
label2.config(text="obes")
label3.config(text="health may be at risk please visit doctor!")
image_icon=PhotoImage(file="Images/icon.png")
root.iconphoto(False,image_icon)
top=PhotoImage(file="Images/top.png")
top_image=Label(root, image=top, background="#f0f1f5")
top_image.place(x=-10, y=-10)
Label(root, width=72, height=18, bg="lightblue").pack(side=BOTTOM)
box=PhotoImage(file="Images/box.png")
Label(root, image=box).place(x=20,y=100)
Ln: 1 Col: 0
IDLE Shell 3.13.0
File Edit Shell Debug Options Window Help
Python 3.13.0 (tags/v3.13.0:60403a5, Oct 7 2024, 09:38:07) [MSC v.1941 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\acer\Desktop\python 1\BMI_Calculator.py ==========
26.5
26.3
43.5
18.1
24.6
26.9
23.3
Ln: 5 Col: 0
BMI Calculator
BMI CALCULATOR
Height(m)
168.8
Weight(Kg)
66.51
23.3
View Report
Normal
It Indicates that You are healthier!
Type here to search
India Wholesale Infla...
ENG
15:51
15-11-2024


BMI_Calculator.py - C:\Users\acer\Desktop\python 1\BMI_Calculator.py (3.13.0)
File Edit Format Run Options Window Help
from tkinter import *
import tkinter as tk
from tkinter import ttk
from PIL import Image, ImageTk
root=Tk()
root.title("BMI Calculator")
root.geometry("470x580+300+200")
root.resizable(False,False)
root.configure(bg="#f0f1f5")
def BMI():
h=float(Height.get())
w=float(Weight.get())
m=h/100
bmi=round(float(w/m**2),1)
print(bmi)
label1.config(text=bmi)
if bmi<=18.5:
label2.config(text="underweight")
label3.config(text="You have lower weight then normal body!")
elif bmi>18.5 and bmi<=25:
label2.config(text="Normal")
label3.config(text="It Indicates that You are healthier!")
elif bmi>25 and bmi<=30:
label2.config(text="overweight")
label3.config(text="It Indicates You are slightly overweight")
else:
label2.config(text="obes")
label3.config(text="health may be at risk please visit doctor!")
image_icon=PhotoImage(file="Images/icon.png")
root.iconphoto(False,image_icon)
top=PhotoImage(file="Images/top.png")
top_image=Label(root, image=top, background="#f0f1f5")
top_image.place(x=-10, y=-10)
Label(root, width=72, height=18, bg="lightblue").pack(side=BOTTOM)
box=PhotoImage(file="Images/box.png")
Label(root, image=box).place(x=20,y=100)
Ln: 1 Col: 0
IDLE Shell 3.13.0
File Edit Shell Debug Options Window Help
Python 3.13.0 (tags/v3.13.0:60403a5, Oct 7 2024, 09:38:07) [MSC v.1941 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\acer\Desktop\python 1\BMI_Calculator.py ==========
26.5
Ln: 5 Col: 0
BMI Calculator
BMI CALCULATOR
Height(m)
120.2
Weight(Kg)
38.37
26.5
View Report
overweight
It Indicates You are slightly overweight
Type here to search
Rain tonight
ENG
15:50
15-11-2024


BMI_Calculator.py - C:\Users\acer\Desktop\python 1\BMI_Calculator.py (3.13.0)
File Edit Format Run Options Window Help
from tkinter import *
import tkinter as tk
from tkinter import ttk
from PIL import Image, ImageTk
root=Tk()
root.title("BMI Calculator")
root.geometry("470x580+300+200")
root.resizable(False,False)
root.configure(bg="#f0f1f5")
def BMI():
h=float(Height.get())
w=float(Weight.get())
m=h/100
bmi=round(float(w/m**2),1)
print(bmi)
label1.config(text=bmi)
if bmi<=18.5:
label2.config(text="underweight")
label3.config(text="You have lower weight then normal body!")
elif bmi>18.5 and bmi<=25:
label2.config(text="Normal")
label3.config(text="It Indicates that You are healthier!")
elif bmi>25 and bmi<=30:
label2.config(text="overweight")
label3.config(text="It Indicates You are slightly overweight")
else:
label2.config(text="obes")
label3.config(text="health may be at risk please visit doctor!")
image_icon=PhotoImage(file="Images/icon.png")
root.iconphoto(False,image_icon)
top=PhotoImage(file="Images/top.png")
top_image=Label(root, image=top, background="#f0f1f5")
top_image.place(x=-10, y=-10)
Label(root, width=72, height=18, bg="lightblue").pack(side=BOTTOM)
box=PhotoImage(file="Images/box.png")
Label(root, image=box).place(x=20,y=100)
Ln: 1 Col: 0
IDLE Shell 3.13.0
File Edit Shell Debug Options Window Help
Python 3.13.0 (tags/v3.13.0:60403a5, Oct 7 2024, 09:38:07) [MSC v.1941 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:\Users\acer\Desktop\python 1\BMI_Calculator.py ==========
26.5
26.3
43.5
Ln: 5 Col: 0
BMI Calculator
BMI CALCULATOR
Height(m)
176.5
Weight(Kg)
135.5
43.5
View Report
obes
health may be at risk please visit doctor!
Type here to search
Rain tonight
ENG
15:51
15-11-2024