FREEDOM INTERNATIONAL SCHOOL

33, Sector IV, HSR Layout, Bengaluru, Karnataka 560102

SCHOOL CODE: 45175 AFFILIATION NUMBER: 830183

COMPUTER SCIENCE PROJECT

FlexZone

SUBMITTED BY

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Class XI A

Under the guidance of

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Bangalore

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CERTIFICATE

This is to certify that the Computer Science Project Report entitled

FlexZone,

was carried out by **Navneeth, Anurag and Nishanth** of Class **XI**, Roll No. **27, 8 , 29**,

students of

FREEDOM INTERNATIONAL SCHOOL in partial fulfilment of the Computer Science Practical Examinations prescribed by the CBSE during the Academic Year 2023-2024.

I certify that this project has been done by him/her with his/her own effort with the guidance of the teacher.

Signature of the Teacher In-Charge
Ms. Sumita Tyagi

Signature of the Principal
Ms. Sneha Rai

Name of the Examiners **Signature with date**

1. _____ _____

2. _____ _____

ACKNOWLEDGEMENT

I would like to express my special thanks and gratitude to my teacher and project guide Ms. Sumita Tyagi who gave me the opportunity to work on this project. A lot of research was involved which helped me in learning more about the topic and discovering many new things. This has been an important learning experience.

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I also thank my parents for their motivation and support.

Last but not least, I would like to thank all those who had helped directly or indirectly towards the completion of this project.

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PROJECT DESCRIPTION

Flex zone is an easy-to-use app that helps you to become healthier and keep your body in shape. It is an app that helps the user to improve their health and keep a track of their progress throughout their fitness journey. It helps in keeping track of your sugar levels by generating a graph with respect to your sugar levels over the past year. It provides you with workouts and a description on how to perform them depending upon the muscle group you want to train with or without any equipment. It helps in calculating your body mass index and can also generate a health score depending upon the number of calories that you burnt and the number of steps you have walked/ran throughout your day. Hence, this app is going to play a huge role in your fitness journey.

PROJECT REQUIREMENTS

1. Tkinter
2. Pillow module
3. CustomTkinter module
4. Matplotlib module
5. Tkcalendar module

SOURCE CODE

```
from tkinter import *
from PIL import ImageTk, Image
import customtkinter
import matplotlib.pyplot as plt
from tkcalendar import *


window = Tk()
window.geometry('500x650')
window.config(bg='black')
window.title('FITNESS APP')
window.iconbitmap("icon.ico")
window.resizable(False,False)
window.overrideredirect(True)

def dob_screen():
screen = Toplevel()
screen.geometry('500x400')
screen.config(bg='black')
screen.title('FITNESS APP')
screen.iconbitmap("icon.ico")
screen.resizable(False,False)

cal = Calendar(screen,selectmode='day',year=2023,month=12,day=23)
cal.pack(pady=20,fill='both', expand=True)

def grab_date():
global dates
display = Label(screen, text=cal.get_date(),fg='white',bg='black',font=('Bahnschrift SemiBold SemiCondensed', 16))
dates = cal.get_date()
display.pack()


date_button = Button(screen, text='GET DATE', fg='white', bg='black',font=('Bahnschrift SemiBold SemiCondensed', 18), command=grab_date)
date_button.pack(pady=10)


def login_screen():
```

```
window.destroy()

login = Tk()
login.geometry('600x900')
login.config(bg='black')
login.title('FITNESS APP')
login.iconbitmap("icon.ico")
login.resizable(False,False)

name = Label(login,text='Enter name:',font=('Bahnschrift SemiBold SemiCondensed', 24), fg = 'white', bg='black')
name.place(x=200, y=60)

name_box= Entry(login,width=20, font=('Arial', 15))
name_box.place(x=170,y=120)

dob = Label(login,text='Enter date of birth:',font=('Bahnschrift SemiBold SemiCondensed', 24), fg = 'white', bg='black')
dob.place(x=160, y=240)

open_cal = next = Button(login, text='OPEN', bg='white', fg='black',font=('Bahnschrift SemiBold SemiCondensed', 14),command=dob_screen)
open_cal.place(x=410,y=245)


gender = Label(login,text='Select gender:',font=('Bahnschrift SemiBold SemiCondensed', 24), fg = 'white', bg='black')
gender.place(x=190, y=350)

r = IntVar()
Radiobutton(login, text='Male', variable=r,value=1,font=('Bahnschrift SemiBold SemiCondensed', 16)).place(x=250, y=400)
Radiobutton(login, text='Female', variable=r,value=2,font=('Bahnschrift SemiBold SemiCondensed', 16)).place(x=240, y=440)



next = Button(login, text='>>>', bg='black', fg='white', command=open)
next.place(x=500,y=640)

window.after(3000, login_screen)




def open():
```

```
options = Toplevel()
options.geometry('600x900')
options.config(bg='black')
options.title('FITNESS APP')
options.iconbitmap("icon.ico")
options.resizable(False,False)

BMI_button = Button(options, text='BMI', bg='black', fg='white', height=1, width=15, font=('Bahnschrift SemiBold SemiCondensed',30), command=bmi_window)
BMI_button.place(x=150, y=50)

Health_button = Button(options,text='Health Score', bg='black', fg='white', height=1, width=15, font=('Bahnschrift SemiBold SemiCondensed',30), command=health_start)
Health_button.place(x=150, y=200)

Sugar_levels = Button(options,text='Sugar level tracker', bg='black', fg='white', height=1, width=16, font=('Bahnschrift SemiBold SemiCondensed',30), command=sugar_win)
Sugar_levels.place(x=140, y=350)

workouts_button = Button(options,text='Workouts', bg='black', fg='white', height=1, width=16, font=('Bahnschrift SemiBold SemiCondensed',30),command=workout_win)
workouts_button.place(x=140, y=500)

close = Button(options, text='<<<',bg='black', fg='white', command=options.destroy)
close.place(x=500,y=640)


def bmi_window():
calc = Toplevel()
calc.geometry('600x900')
calc.config(bg='black')
calc.title('FITNESS APP')
calc.iconbitmap("icon.ico")
calc.resizable(False,False)

top = Label(calc,text='BMI CALCULATOR' ,font=('Bahnschrift SemiBold SemiCondensed', 40), fg = 'white', bg='black', width=28, height=1)
top.pack()

height_label = Label(calc,font=('Bahnschrift SemiBold SemiCondensed', 30), fg = 'white', bg='black', width=17, height=4)
height_label.place(x=20, y=60)

height_text = Label(calc,text='HEIGHT (CM)' ,font=('Bahnschrift SemiBold SemiCondensed', 30), fg = 'white', bg='black', width=10, height=1)
height_text.place(x=180, y=100)
```

```
weight_label = Label(calc ,font=('Bahnschrift SemiBold SemiCondensed', 30,'bold'), fg = 'white', bg='black', width=17, height=4)
weight_label.place(x=20, y=210)

weight_text = Label(calc,text='WEIGHT (KG)' ,font=('Bahnschrift SemiBold SemiCondensed', 30,'bold'), fg = 'white', bg='black', width=10, height=1)
weight_text.place(x=180, y=280)

height = StringVar()
weight = StringVar()


height_value = IntVar()
weight_value = IntVar()

txt = StringVar()

def get_height_value():
return height_value.get()

def slider1(event):
return height.set(get_height_value())

def get_weight_value():
return weight_value.get()

def slider2(event):
return weight.set(get_weight_value())

height_entry = customtkinter.CTkEntry(calc, textvariable=height, bg_color='black',fg_color='white',border_width=0, text_color='black', font=customtkinter.CTkFont(family='Bahnschrift SemiBold SemiCondensed',size=20))
height_entry.place(x=220, y=170)

weight_entry = customtkinter.CTkEntry(calc, textvariable=weight, bg_color='black',fg_color='white',border_width=0, text_color='black', font=customtkinter.CTkFont(family='Bahnschrift SemiBold SemiCondensed',size=20))
weight_entry.place(x=220, y=350)


height_slider = customtkinter.CTkSlider(calc, variable=height_value,from_=0, to=300, width=260, bg_color='black', fg_color='white', button_hover_color='yellow', command=slider1)
height_slider.place(x=150, y=220)

weight_slider = customtkinter.CTkSlider(calc,variable=weight_value,from_=0, to=120, width=260, bg_color='black', fg_color='white', button_hover_color='yellow', command=slider2)
weight_slider.place(x=150, y=400)
```

```
def BMI():
cm = int(height_entry.get())
m = (cm/100)*(cm/100)
w = int(weight_entry.get())
bmi = float(format(w/m,'.2f'))
if(bmi<=18.5):
txt.set('Underweight')
elif(bmi<=24.5):
txt.set('Normal')
elif(bmi<=29.9):
txt.set('Overweight')
elif(bmi<=34.9):
txt.set('Obese I')
elif(bmi<=39.9):
txt.set('Obese II')
else:
txt.set('Obese III')


result1_label = customtkinter.CTkLabel(calc, text=f'{bmi}',font=customtkinter.CTkFont(family='Arial',size=30), text_color='white')
result1_label.place(x=250, y=580)

result2_label = customtkinter.CTkLabel(calc, textvariable=txt,font=customtkinter.CTkFont(family='Bahnschrift SemiBold SemiCondensed',size=30), text_color='white')
result2_label.place(x=235, y=630)

calc_button = customtkinter.CTkButton(calc,text='CALCULATE', command=BMI, width=170, height=50,hover_color='white',
fg_color='white',text_color='black',font=customtkinter.CTkFont(family='Bahnschrift SemiBold SemiCondensed',size=20))
calc_button.place(x=200, y= 500)

close = Button(calc, text='<<<',bg='black', fg='white', command=calc.destroy)
close.place(x=500,y=640)



def health_start():
hs_calc = Toplevel()
hs_calc.geometry('600x900')
hs_calc.config(bg='black')
hs_calc.title('FITNESS APP')
hs_calc.iconbitmap("icon.ico")
hs_calc.resizable(False,False)
```

```
top = Label(hs_calc,text='HEALTH SCORE CALCULATOR' ,font=('Bahnschrift SemiBold SemiCondensed', 40), fg = 'white', bg='black', width=28, height=1)
top.pack()

def hs_entry():
steps = int(e1.get())
cal = int(e2.get())
age = int(e3.get())

if age<13:
m1 = "Too young."

elif 13 <= age < 60:
step_score = steps/200
cal_score = cal/50
scr_count = step_score+cal_score
m1 = scr_count

if m1 <=20:
m3 = Label(hs_calc, text='You need to get some exercise NOW!!',font=('Arial',16),fg='white', bg='black')
m3.place(x=130,y=670)

elif 20 < scr_count <= 40:
m4 = Label(hs_calc, text="It's time for you to be more active",font=('Arial',16),fg='white', bg='black')
m4.place(x=140,y=670)

elif 40 < scr_count <= 60:
m5 = Label(hs_calc, text="Keep going...you are making good progress",font=('Arial',16),fg='white', bg='black')
m5.place(x=100,y=670)

elif 60 < scr_count <= 80:
m6 = Label(hs_calc, text="Good work...push for more",font=('Arial',16),fg='white', bg='black')
m6.place(x=170,y=670)

elif 80 < scr_count <= 90:
m7 = Label(hs_calc, text="You are an athlete....go for 100%",font=('Arial',16),fg='white', bg='black')
m7.place(x=140,y=670)

elif 90 < scr_count < 100:
m8 = Label(hs_calc, text="You are a beast...keep pushing!!!",font=('Arial',16),fg='white', bg='black')
m8.place(x=140,y=670)

elif scr_count>=100:
m9 = Label(hs_calc, text="""You have done it...good work...
keep this up and you will be in the top 1%""",font=('Arial',16),fg='white', bg='black')
```

```
m9.place(y=660)



elif age > 60:
step_score = steps/160
cal_score = cal/50
scr_count = step_score+cal_score
m1 = scr_count
m2 = Label(hs_calc, text='''
You dont need this health score.
Just make sure to stay active and go on regular walks.''',
font=('Arial', 14), fg='white', bg='black')
m2.place(y=630)


score_text = Label(hs_calc,text='Your score is', font=('Bahnschrift SemiBold SemiCondensed',24),fg='white',bg='black')
score_text.place(x=210, y=580)


score = Label(hs_calc, text=m1, font=('Arial',20), fg='white', bg='black')
score.place(x=255, y=620)

steps_label = Label(hs_calc, text='Enter steps',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
steps_label.place(x=130,y=80)
e1 = Entry(hs_calc,width=30, font=('Arial', 15))
e1.place(x=130, y=130)


cal_label = Label(hs_calc, text='Enter calories burned',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
cal_label.place(x=130,y=230)
e2 = Entry(hs_calc,width=30, font=('Arial', 15))
e2.place(x=130, y=280)


age_label = Label(hs_calc, text='Enter age',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
age_label.place(x=130,y=380)
e3 = Entry(hs_calc,width=30, font=('Arial', 15))
e3.place(x=130, y=430)

calc_button = Button(hs_calc,text='CALCULATE', font=('Bahnschrift SemiBold SemiCondensed',18),bg='white',fg='black',command=hs_entry)
calc_button.place(x=230,y=500)
```

```
close = Button(hs_calc, text='<<<',bg='black', fg='white', command=hs_calc.destroy)
close.place(x=500,y=640)


def sugar_win():
sugar_gen = Toplevel()
sugar_gen.geometry('600x900')
sugar_gen.config(bg='black')
sugar_gen.title('FITNESS APP')
sugar_gen.iconbitmap("icon.ico")
sugar_gen.resizable(False,False)


def graphing():
global levels
months = ['Jan','Feb','Mar','Apr','May','Jun','July','Aug','Sep','Oct','Nov','Dec']
s1_value = int(s1.get())
s2_value = int(s2.get())
s3_value = int(s3.get())
s4_value = int(s4.get())
s5_value = int(s5.get())
s6_value = int(s6.get())
s7_value = int(s7.get())
s8_value = int(s8.get())
s9_value = int(s9.get())
s10_value = int(s10.get())
s11_value = int(s11.get())
s12_value = int(s12.get())
levels =
[s1_value,s2_value,s3_value,s4_value,s5_value,s6_value,s7_value,s8_value,s9_value,s10_value,s11_v
alue,s12_value]


plt.plot(months,levels,marker = 'o', markerfacecolor='black',color='black')
plt.xlabel('MONTHS')
plt.ylabel('SUGAR LEVELS')
plt.title('SUGAR LEVEL GRAPH')
plt.show()

top_name = Label(sugar_gen,text='SUGAR LEVEL GRAPH' ,font=('Bahnschrift SemiBold SemiCondensed',
40), fg = 'white', bg='black', width=28, height=1)
top_name.pack()


s_level = Label(sugar_gen, text='Enter sugar levels',font=('Bahnschrift SemiBold SemiCondensed',24),
fg='white', bg='black')
```

```
s_level.place(x=170,y=80)

s1_name = Label(sugar_gen,text='January:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s1_name.place(x=50,y=180)
s1 = Entry(sugar_gen,width=10, font=('Arial', 15))
s1.place(x=35,y=220)

s2_name = Label(sugar_gen,text='February:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s2_name.place(x=243,y=180)
s2 = Entry(sugar_gen,width=10, font=('Arial', 15))
s2.place(x=235,y=220)

s3_name = Label(sugar_gen,text='March:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s3_name.place(x=455,y=180)
s3 = Entry(sugar_gen,width=10, font=('Arial', 15))
s3.place(x=435,y=220)

s4_name = Label(sugar_gen,text='April:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s4_name.place(x=60,y=280)
s4 = Entry(sugar_gen,width=10, font=('Arial', 15))
s4.place(x=35,y=320)

s5_name = Label(sugar_gen,text='May:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s5_name.place(x=265,y=280)
s5 = Entry(sugar_gen,width=10, font=('Arial', 15))
s5.place(x=235,y=320)

s6_name = Label(sugar_gen,text='June:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s6_name.place(x=465,y=280)
s6 = Entry(sugar_gen,width=10, font=('Arial', 15))
s6.place(x=435,y=320)

s7_name = Label(sugar_gen,text='July:', font=('Bahnschrift SemiBold
```

```
SemiCondensed',18),fg='white',bg='black')
s7_name.place(x=65,y=380)
s7 = Entry(sugar_gen,width=10, font=('Arial', 15))
s7.place(x=35,y=420)

s8_name = Label(sugar_gen,text='August:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s8_name.place(x=255,y=380)
s8= Entry(sugar_gen,width=10, font=('Arial', 15))
s8.place(x=235,y=420)

s9_name = Label(sugar_gen,text='September:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s9_name.place(x=435,y=380)
s9= Entry(sugar_gen,width=10, font=('Arial', 15))
s9.place(x=435,y=420)

s10_name = Label(sugar_gen,text='October:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s10_name.place(x=50,y=480)
s10 = Entry(sugar_gen,width=10, font=('Arial', 15))
s10.place(x=35,y=520)

s11_name = Label(sugar_gen,text='November:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s11_name.place(x=235,y=480)
s11 = Entry(sugar_gen,width=10, font=('Arial', 15))
s11.place(x=235,y=520)

s12_name = Label(sugar_gen,text='December:', font=('Bahnschrift SemiBold SemiCondensed',18),fg='white',bg='black')
s12_name.place(x=435,y=480)
s12 = Entry(sugar_gen,width=10, font=('Arial', 15))
s12.place(x=435,y=520)

calc_button = Button(sugar_gen,text='Generate Graph', font=('Bahnschrift SemiBold SemiCondensed',26),fg='black',bg='white', command=graphing)
calc_button.place(x=170, y=600)
```

```
close = Button(sugar_gen, text='<<<',bg='black', fg='white', command=sugar_gen.destroy)
close.place(x=500,y=640)

def knee_screen():
k_screen = Toplevel()
k_screen.geometry('900x200')
k_screen.config(bg='black')
k_screen.title('FITNESS APP')
k_screen.iconbitmap("icon.ico")
k_screen.resizable(False,False)

msg = Label(k_screen, text='1) Begin in a push-up position on your knees. Break at the elbow and shoulder joint.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(k_screen, text='2) Lower your body, keeping elbows close.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(k_screen, text='3) Push back up to the starting position.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

def inc_screen():
i_screen = Toplevel()
i_screen.geometry('900x200')
i_screen.config(bg='black')
i_screen.title('FITNESS APP')
i_screen.iconbitmap("icon.ico")
i_screen.resizable(False,False)

msg = Label(i_screen, text='1) Stand facing bench or sturdy elevated platform.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(i_screen, text='2) Place hands on edge of bench or platform, slightly wider than shoulder width.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(i_screen, text='3) Slowly lower your body until your chest almost touches the bench.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

msg4 = Label(i_screen, text='4) Push body up until arms are extended.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg4.pack()
```

```
def push():
p_screen = Toplevel()
p_screen.geometry('900x200')
p_screen.config(bg='black')
p_screen.title('FITNESS APP')
p_screen.iconbitmap("icon.ico")
p_screen.resizable(False,False)

msg = Label(p_screen, text='1) Place your hands firmly on the ground, directly under shoulders.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(p_screen, text='2) Flatten your back so your entire body is straight and slowly lower your body.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(p_screen, text='3) Draw shoulder blades back and down, keeping elbows tucked close to your body.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

msg4 = Label(p_screen, text='4) Exhale as you push back to the starting position.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg4.pack()

def dip_screen():
d_screen = Toplevel()
d_screen.geometry('900x200')
d_screen.config(bg='black')
d_screen.title('FITNESS APP')
d_screen.iconbitmap("icon.ico")
d_screen.resizable(False,False)

msg = Label(d_screen, text='1) Hold your body with arms locked above the equipment.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(d_screen, text='2) Lower your body slowly while leaning forward, flare out your elbows.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(d_screen, text='3) Raise your body above the bars until your arms are locked.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()


def dec_screen():
de_screen = Toplevel()
```

```
de_screen.geometry('900x200')
de_screen.config(bg='black')
de_screen.title('FITNESS APP')
de_screen.iconbitmap("icon.ico")
de_screen.resizable(False,False)

msg = Label(de_screen, text='1) Use a bench to elevate your feet.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(de_screen, text='2) Put your hands slightly wider than shoulder-width.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(de_screen, text='3) Slowly lower your body until your chest almost touches the ground.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

msg4 = Label(de_screen, text='4) Raise your body until you almost lock your elbows.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg4.pack()


def chest_wkt():
chest_screen = Toplevel()
chest_screen.geometry('600x900')
chest_screen.config(bg='black')
chest_screen.title('FITNESS APP')
chest_screen.iconbitmap("icon.ico")
chest_screen.resizable(False,False)

msg = Label(chest_screen, text='For hitting chest here are',font=('Bahnschrift SemiBold SemiCondensed',28), fg='white', bg='black')
msg.pack(pady=20)

msg2 = Label(chest_screen, text='some workouts with increasing intensity',font=('Bahnschrift SemiBold SemiCondensed',28), fg='white', bg='black')
msg2.pack()

knee = Button(chest_screen,text='Knee pushups', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=knee_screen)
knee.pack(pady=20)

inc = Button(chest_screen,text='Incline pushups', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=inc_screen)
inc.pack(pady=10)
```

```
pushups = Button(chest_screen,text='Pushups', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=push)
pushups.pack(pady=10)

dips = Button(chest_screen,text='Dips', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=dip_screen)
dips.pack(pady=10)

dec = Button(chest_screen,text='Decline pushups', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=dec_screen)
dec.pack(pady=10)

close = Button(chest_screen, text='<<<',bg='black', fg='white', command=chest_screen.destroy)
close.place(x=500,y=640)

def sq():
sq_screen = Toplevel()
sq_screen.geometry('900x200')
sq_screen.config(bg='black')
sq_screen.title('FITNESS APP')
sq_screen.iconbitmap("icon.ico")
sq_screen.resizable(False,False)

msg = Label(sq_screen, text='1) Stand with your feet shoulder width apart.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(sq_screen, text='2) Flex your knees and hips and sit back into the squat while lowering your body.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(sq_screen, text='3) Continue down to full depth.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

msg4 = Label(sq_screen, text='4) Return to starting position.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg4.pack()

def lunges():
l_screen = Toplevel()
l_screen.geometry('900x200')
l_screen.config(bg='black')
l_screen.title('FITNESS APP')
l_screen.iconbitmap("icon.ico")
l_screen.resizable(False,False)
```

```
msg = Label(l_screen, text='1) Step forward with one leg.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(l_screen, text='2) Lower your body until your rear knee nearly touches the ground.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(l_screen, text='3) Ensure you remain upright, and your front knee stay above the front foot.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

msg4 = Label(l_screen, text='4) Push off the floor with your front foot until you return to the starting position.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg4.pack()

msg5 = Label(l_screen, text='Switch legs',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg5.pack()

def jsq_screen():
jsqs = Toplevel()
jsqs.geometry('900x200')
jsqs.config(bg='black')
jsqs.title('FITNESS APP')
jsqs.iconbitmap("icon.ico")
jsqs.resizable(False,False)

msg = Label(jsqs, text='1) Stand with your feet shoulder-width apart.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(jsqs, text='2) Start by doing a regular squat, then engage your core and jump up explosively.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(jsqs, text='3) When you land, lower your body back into the squat position.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()


def bsq_screen():
bsqs = Toplevel()
bsqs.geometry('900x200')
bsqs.config(bg='black')
bsqs.title('FITNESS APP')
bsqs.iconbitmap("icon.ico")
```

```
bsqs.resizable(False,False)

msg = Label(bsqs, text='1) Stand with your back to a bench and place one of your feet on the bench.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(bsqs, text='2) Squat down until your front leg is about parallel to the floor.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(bsqs, text='3) Go back to the starting position.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()


def quads_wkt():
quads_screen = Toplevel()
quads_screen.geometry('600x900')
quads_screen.config(bg='black')
quads_screen.title('FITNESS APP')
quads_screen.iconbitmap("icon.ico")
quads_screen.resizable(False,False)


msg = Label(quads_screen, text='Here are some workouts to hit your Quads',font=('Bahnschrift SemiBold SemiCondensed',26), fg='white', bg='black')
msg.pack(pady=20)

squats = Button(quads_screen,text='Squats', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=sq)
squats.pack(pady=20)

lung = Button(quads_screen,text='Forward lunges', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=lunges)
lung.pack(pady=10)

jsq = Button(quads_screen,text='Jump squats', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=jsq_screen)
jsq.pack(pady=10)

bsq = Button(quads_screen,text='Bulgarian split squats', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=bsq_screen)
bsq.pack(pady=10)

close = Button(quads_screen, text='<<<',bg='black', fg='white', command=quads_screen.destroy)
close.place(x=500,y=640)
```

```
def bw_screen():
bw_select = Toplevel()
bw_select.geometry('600x900')
bw_select.config(bg='black')
bw_select.title('FITNESS APP')
bw_select.iconbitmap("icon.ico")
bw_select.resizable(False,False)

mus = Label(bw_select, text='What muscles do you want to workout?',font=('Bahnschrift SemiBold SemiCondensed',28), fg='white', bg='black')
mus.pack(pady=20)

chest = Button(bw_select,text='Chest', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=chest_wkt)
chest.pack(pady=60)

quads = Button(bw_select,text='Quads', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=quads_wkt)
quads.pack(pady=60)

close = Button(bw_select, text='<<<',bg='black', fg='white', command=bw_select.destroy)
close.place(x=500,y=640)


def dc():
dcurls = Toplevel()
dcurls.geometry('900x200')
dcurls.config(bg='black')
dcurls.title('FITNESS APP')
dcurls.iconbitmap("icon.ico")
dcurls.resizable(False,False)

msg = Label(dcurls, text="1) Stand up straight with a dumbbell in each hand at arm's length.",font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(dcurls, text='2) Raise one dumbbell and twist your forearm until it is vertical and your palm faces the shoulder.',font=('Bahnschrift SemiBold SemiCondensed',17), fg='white', bg='black')
msg2.pack()

msg3 = Label(dcurls, text='3) Lower to original position and repeat with opposite arm.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()


def dhcurls():
```

```
dhammer = Toplevel()
dhammer.geometry('900x200')
dhammer.config(bg='black')
dhammer.title('FITNESS APP')
dhammer.iconbitmap("icon.ico")
dhammer.resizable(False,False)

msg = Label(dhammer, text="1) Hold the dumbbells with a neutral grip (thumbs facing the ceiling).",font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(dhammer, text='2) Slowly lift the dumbbell up to chest height.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(dhammer, text='3) Return to starting position and repeat.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

def dr():
drev = Toplevel()
drev.geometry('900x200')
drev.config(bg='black')
drev.title('FITNESS APP')
drev.iconbitmap("icon.ico")
drev.resizable(False,False)

msg = Label(drev, text="1) Grab the dumbbells with a pronated (overhand) grip.",font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(drev, text="You can do this exercise thumbless if it's more comfortable on your wrists.",font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(drev, text='2) Flex at the elbows until your biceps touch your forearms.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

msg4 = Label(drev, text='Try not to let your elbows flair outward.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg4.pack()

def drdrow():
drows = Toplevel()
drows.geometry('900x200')
drows.config(bg='black')
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```
drows.title('FITNESS APP')
drows.iconbitmap("icon.ico")
drows.resizable(False,False)

msg = Label(drows, text="1) Hinge forward at the hips while maintaining a flat back.",font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(drows, text="Try to get your torso as close to parallel with the ground as your mobility will allow for.",font=('Bahnschrift SemiBold SemiCondensed',19), fg='white', bg='black')
msg2.pack()

msg3 = Label(drows, text='Let your arms hang in front of you.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

msg4 = Label(drows, text='Pull your elbows back towards the ceiling while flaring your elbows outward.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg4.pack()


def biceps_wkt():
bi_screen = Toplevel()
bi_screen.geometry('600x900')
bi_screen.config(bg='black')
bi_screen.title('FITNESS APP')
bi_screen.iconbitmap("icon.ico")
bi_screen.resizable(False,False)


msg = Label(bi_screen, text='For hitting biceps here are',font=('Bahnschrift SemiBold SemiCondensed',28), fg='white', bg='black')
msg.pack(pady=20)

msg2 = Label(bi_screen, text='some workouts with increasing intensity',font=('Bahnschrift SemiBold SemiCondensed',28), fg='white', bg='black')
msg2.pack()

dcurl = Button(bi_screen,text='Dumbell curl', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=dc)
dcurl.pack(pady=20)

dhcurl = Button(bi_screen,text='Dumbell hammer curl', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=dhcurls)
dhcurl.pack(pady=10)

drcurl = Button(bi_screen,text='Dumbell reverse curl', font=('Bahnschrift SemiBold
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SemiCondensed',30),bg='white',fg='black', command=dr)
drcurl.pack(pady=10)

drdr = Button(bi_screen,text='Dumbell real delt row', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=drdrow)
drdr.pack(pady=10)

close = Button(bi_screen, text='<<<',bg='black', fg='white', command=bi_screen.destroy)
close.place(x=500,y=640)

def dpress():
press = Toplevel()
press.geometry('900x200')
press.config(bg='black')
press.title('FITNESS APP')
press.iconbitmap("icon.ico")
press.resizable(False,False)

msg = Label(press, text="1) Start by lying flat on a bench with a dumbbell in each hand.",font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg.pack()

msg2 = Label(press, text="2) Hold the dumbbells at chest level with your palms facing forward.",font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(press, text='3) Engage your core and press the dumbbells upward until your arms are fully extended.',font=('Bahnschrift SemiBold SemiCondensed',19), fg='white', bg='black')
msg3.pack()

def skull():
skullcrush = Toplevel()
skullcrush.geometry('900x200')
skullcrush.config(bg='black')
skullcrush.title('FITNESS APP')
skullcrush.iconbitmap("icon.ico")
skullcrush.resizable(False,False)

msg = Label(skullcrush, text="1) Lay flat on the floor or a bench with your fists extended to the ceiling and a neutral grip.",font=('Bahnschrift SemiBold SemiCondensed',19), fg='white', bg='black')
msg.pack()

msg2 = Label(skullcrush, text="2) Break at the elbows until your fists are by your temples.",font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(skullcrush, text='Then extend your elbows and flex your triceps at the
```

```
top.',font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg3.pack()

def seated():
sover = Toplevel()
sover.geometry('920x200')
sover.config(bg='black')
sover.title('FITNESS APP')
sover.iconbitmap("icon.ico")
sover.resizable(False,False)

msg = Label(sover, text="1) Sit on the bench and hold a dumbbell with both hands. Raise the dumbbell overhead at arms length,",font=('Bahnschrift SemiBold SemiCondensed',17), fg='white', bg='black')
msg.pack()

msg2 = Label(sover, text="holding the weight up with the palms of your hands.",font=('Bahnschrift SemiBold SemiCondensed',20), fg='white', bg='black')
msg2.pack()

msg3 = Label(sover, text='2) Keep your elbows in while you lower the weight behind your head, your upper arms stationary.',font=('Bahnschrift SemiBold SemiCondensed',17), fg='white', bg='black')
msg3.pack()

msg4 = Label(sover, text='3) Raise the weight back to starting position.',font=('Bahnschrift SemiBold SemiCondensed',19), fg='white', bg='black')
msg4.pack()

def kick():
kickback = Toplevel()
kickback.geometry('960x200')
kickback.config(bg='black')
kickback.title('FITNESS APP')
kickback.iconbitmap("icon.ico")
kickback.resizable(False,False)

msg = Label(kickback, text="1) Start by standing with your feet shoulder-width apart and holding a dumbbell in one hand.",font=('Bahnschrift SemiBold SemiCondensed',18), fg='white', bg='black')
msg.pack()

msg2 = Label(kickback, text="2) Bend at the waist and place your opposite hand on your knee for support.",font=('Bahnschrift SemiBold SemiCondensed',18), fg='white', bg='black')
msg2.pack()

msg3 = Label(kickback, text='3) From this starting position, extend your arm backwards so that the dumbbell is behind your body.',font=('Bahnschrift SemiBold SemiCondensed',18), fg='white', bg='black')
msg3.pack()
```

```
msg4 = Label(kickback, text='4) Make sure to keep your elbow close to your body and your core engaged throughout the movement.',font=('Bahnschrift SemiBold SemiCondensed',18), fg='white', bg='black')
msg4.pack()


def triceps_wkt():
tri_screen = Toplevel()
tri_screen.geometry('600x900')
tri_screen.config(bg='black')
tri_screen.title('FITNESS APP')
tri_screen.iconbitmap("icon.ico")
tri_screen.resizable(False,False)


msg = Label(tri_screen, text='For hitting triceps here are',font=('Bahnschrift SemiBold SemiCondensed',28), fg='white', bg='black')
msg.pack(pady=20)

msg2 = Label(tri_screen, text='some workouts with increasing intensity',font=('Bahnschrift SemiBold SemiCondensed',28), fg='white', bg='black')
msg2.pack()

dbpress = Button(tri_screen,text='Dumbell bench press', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=dpress)
dbpress.pack(pady=20)

dskull = Button(tri_screen,text='Dumbell skullcrusher', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=skull)
dskull.pack(pady=10)

dsote = Button(tri_screen,text='Dumbell seated overhead tricep extension', font=('Bahnschrift SemiBold SemiCondensed',24),bg='white',fg='black', command=seated)
dsote.pack(pady=10)

dkick = Button(tri_screen,text='Dumbell tricep kickback', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=kick)
dkick.pack(pady=10)

close = Button(tri_screen, text='<<<',bg='black', fg='white', command=tri_screen.destroy)
close.place(x=500,y=640)


def w_screen():
w_select = Toplevel()
w_select.geometry('600x900')
w_select.config(bg='black')
w_select.title('FITNESS APP')
```

```
w_select.iconbitmap("icon.ico")
w_select.resizable(False,False)

mus = Label(w_select, text='What muscles do you want to workout?',font=('Bahnschrift SemiBold SemiCondensed',28), fg='white', bg='black')
mus.pack(pady=20)

biceps = Button(w_select,text='Biceps', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=biceps_wkt)
biceps.pack(pady=60)

triceps = Button(w_select,text='Triceps', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=triceps_wkt)
triceps.pack(pady=60)

close = Button(w_select, text='<<<',bg='black', fg='white', command=w_select.destroy)
close.place(x=500,y=640)


def workout_win():
workout_screen = Toplevel()
workout_screen.geometry('600x900')
workout_screen.config(bg='black')
workout_screen.title('FITNESS APP')
workout_screen.iconbitmap("icon.ico")
workout_screen.resizable(False,False)

work_eq = Label(workout_screen, text='What type of workout equipment',font=('Bahnschrift SemiBold SemiCondensed',26), fg='white', bg='black')
work_eq.pack(pady=20)

work_eq2 = Label(workout_screen, text='do you have?',font=('Bahnschrift SemiBold SemiCondensed',26), fg='white', bg='black')
work_eq2.pack()


body_weight = Button(workout_screen,text='Bodyweights', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=bw_screen)
body_weight.pack(pady=60)

weight = Button(workout_screen,text='Weights', font=('Bahnschrift SemiBold SemiCondensed',30),bg='white',fg='black', command=w_screen)
weight.pack(pady=20)



close = Button(workout_screen, text='<<<',bg='black', fg='white', command=workout_screen.destroy)
```

```
close.place(x=500,y=640)



my_pic = Image.open('Logoo.png')
resized = my_pic.resize((500,500))
new_pic = ImageTk.PhotoImage(resized)

logo = Label(window, image=new_pic, bg='black')
logo.pack()

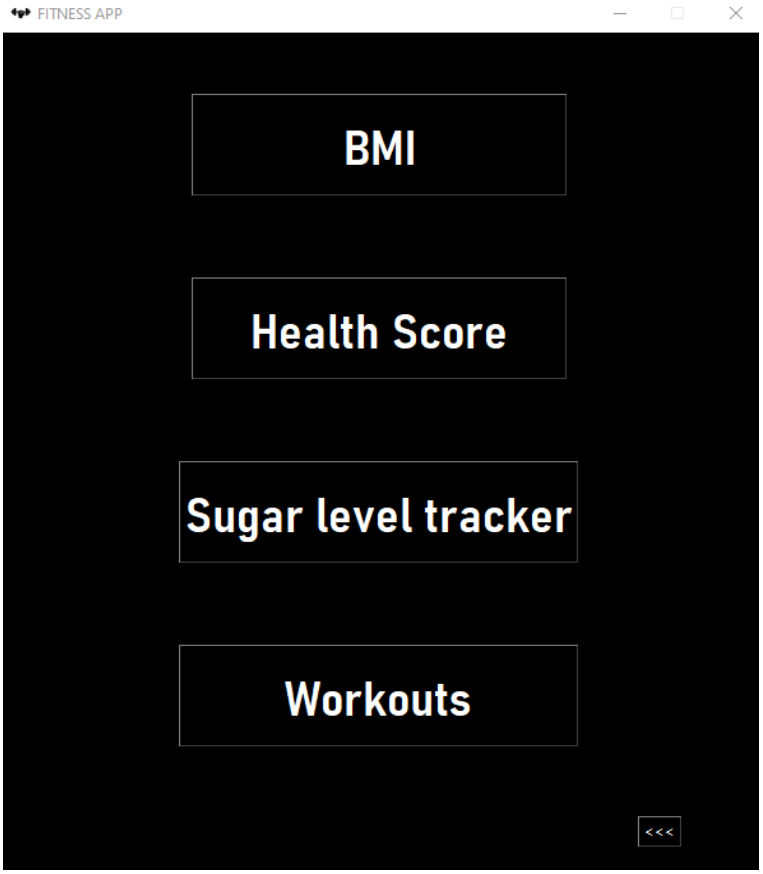


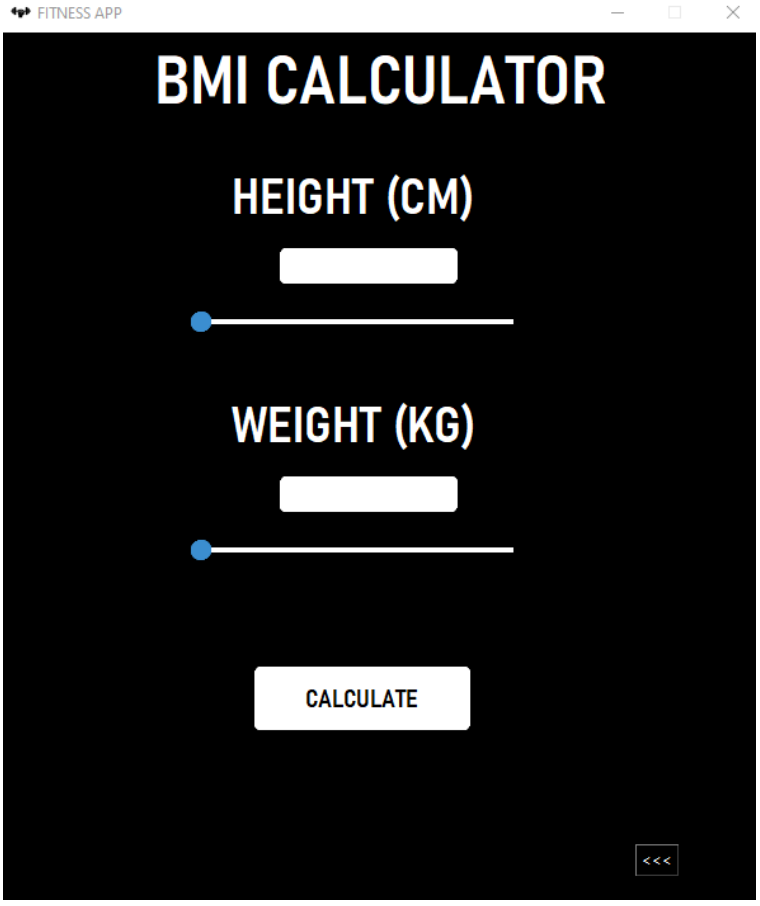
slogan = Label(window,text="FlexZone", fg='white', bg='black', font=('Bahnschrift SemiBold SemiCondensed',50))
slogan.pack()


window.mainloop()
```

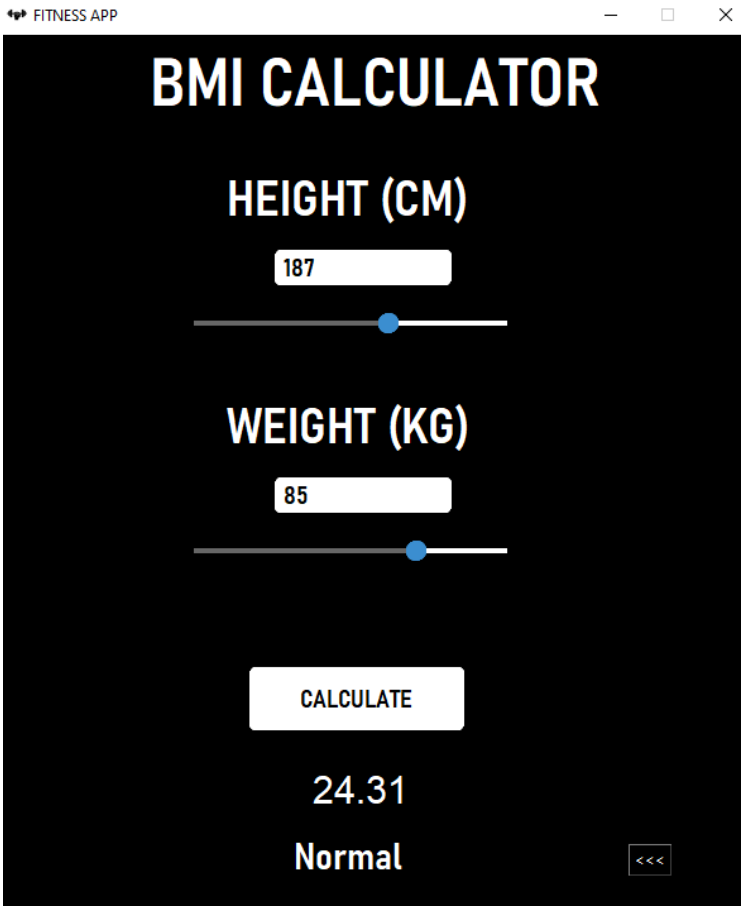
OUTPUT SCREENSHOTS

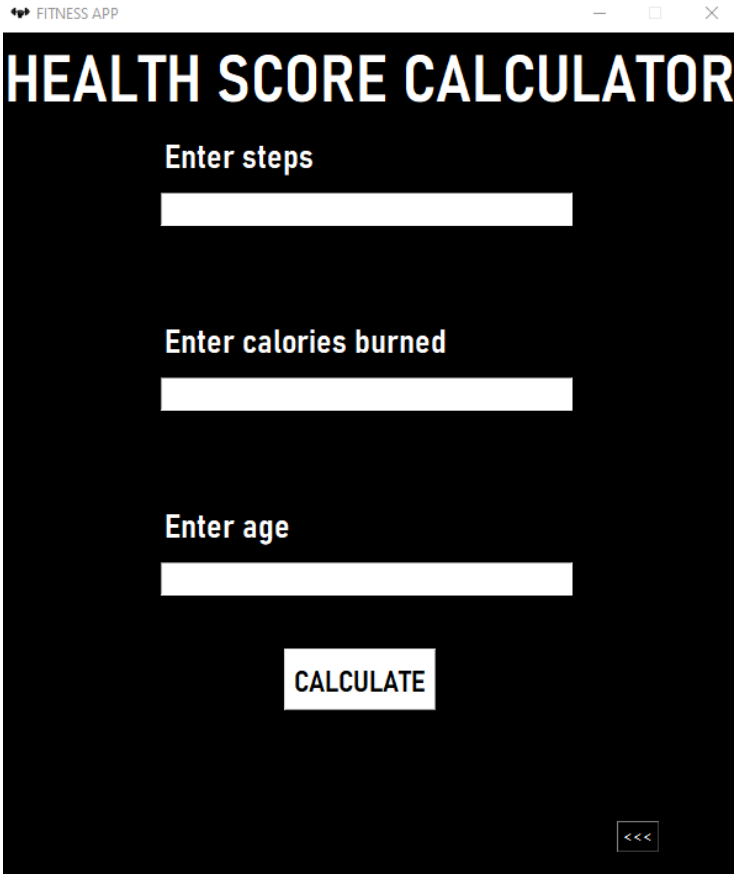
OUTPUT SCREENSHOTS



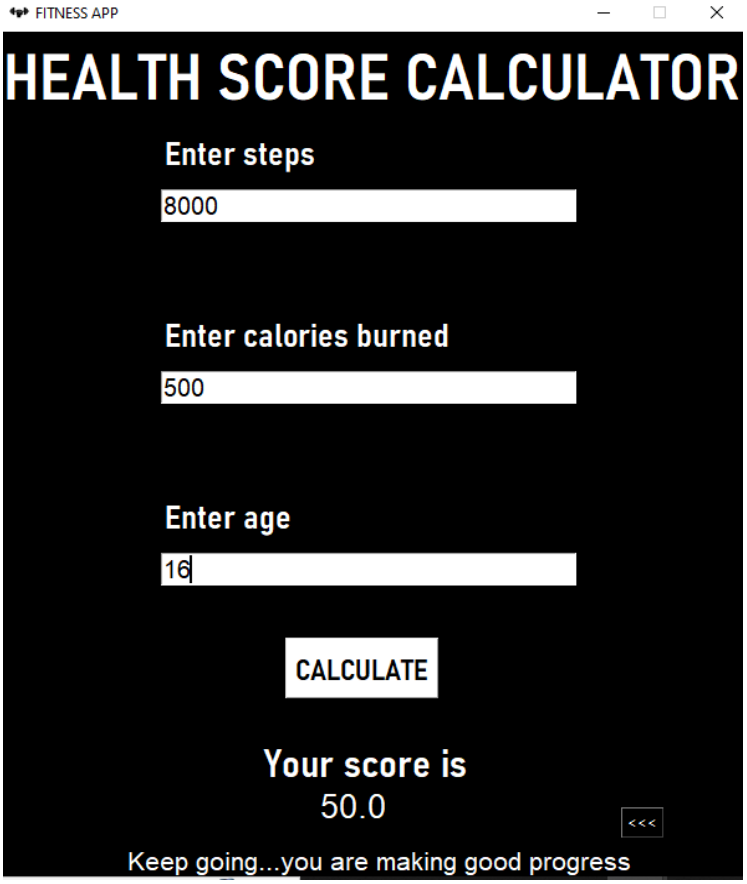


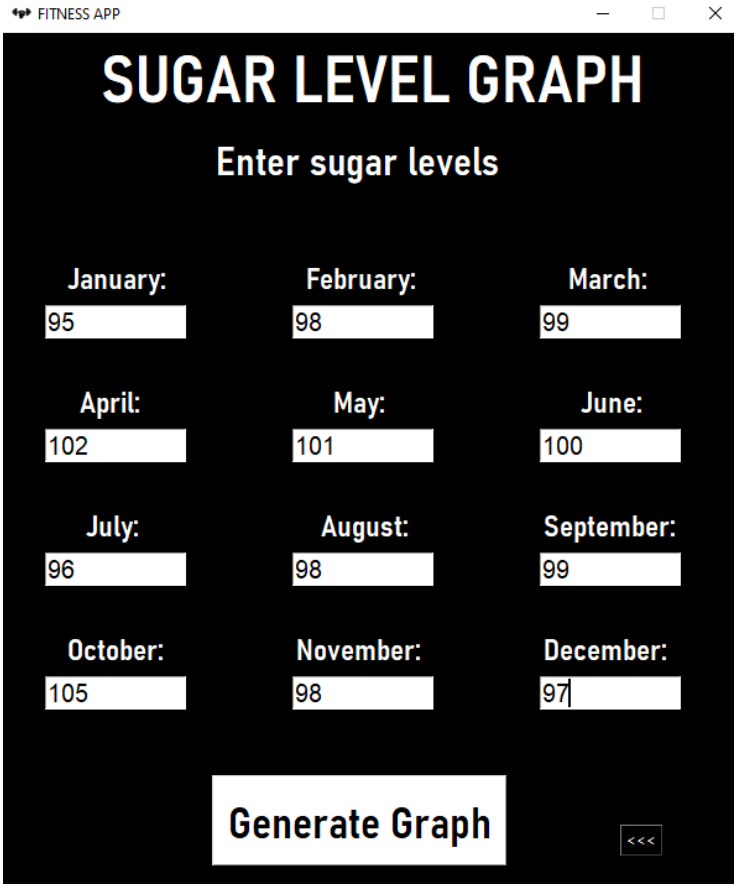
OUTPUT SCREENSHOTS



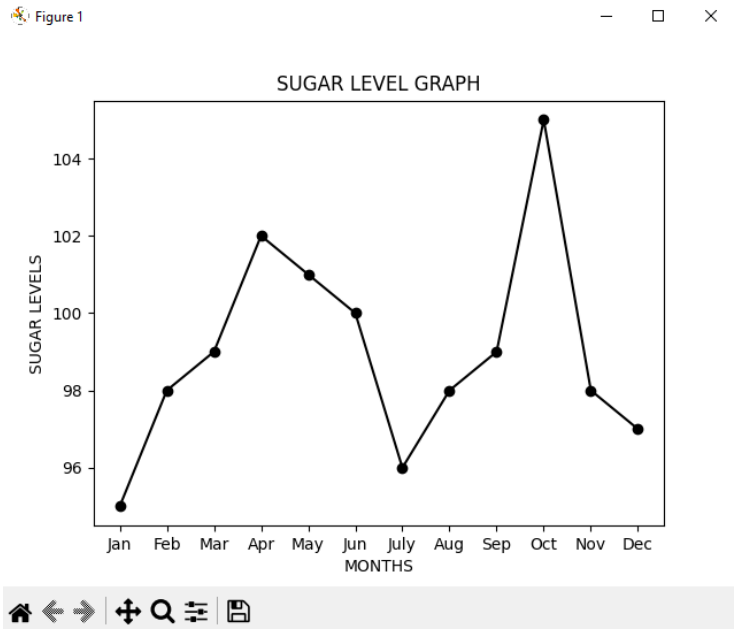


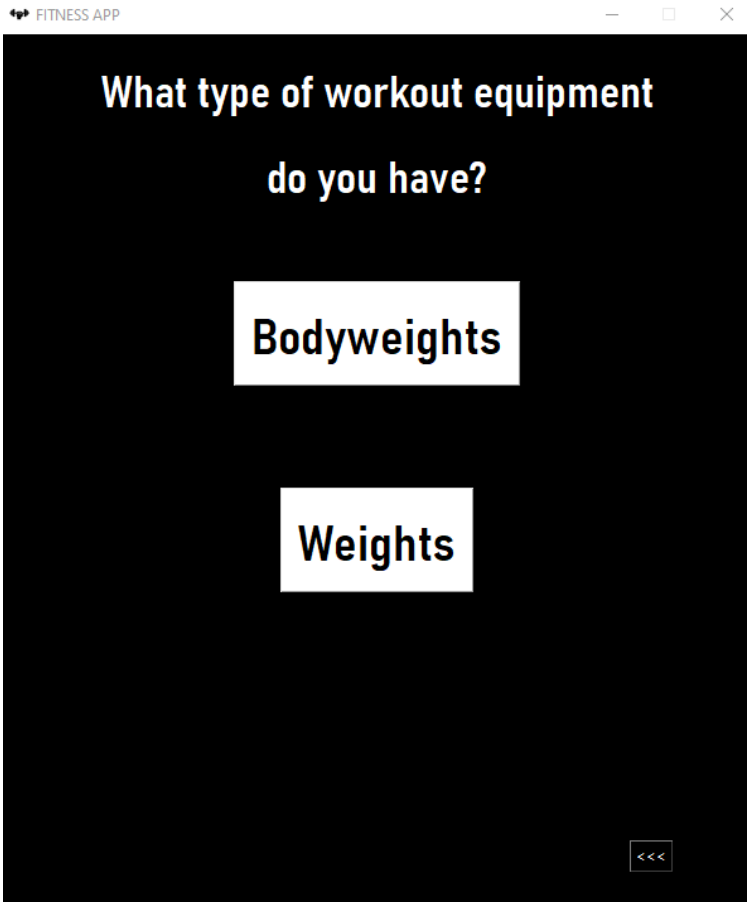
OUTPUT SCREENSHOTS



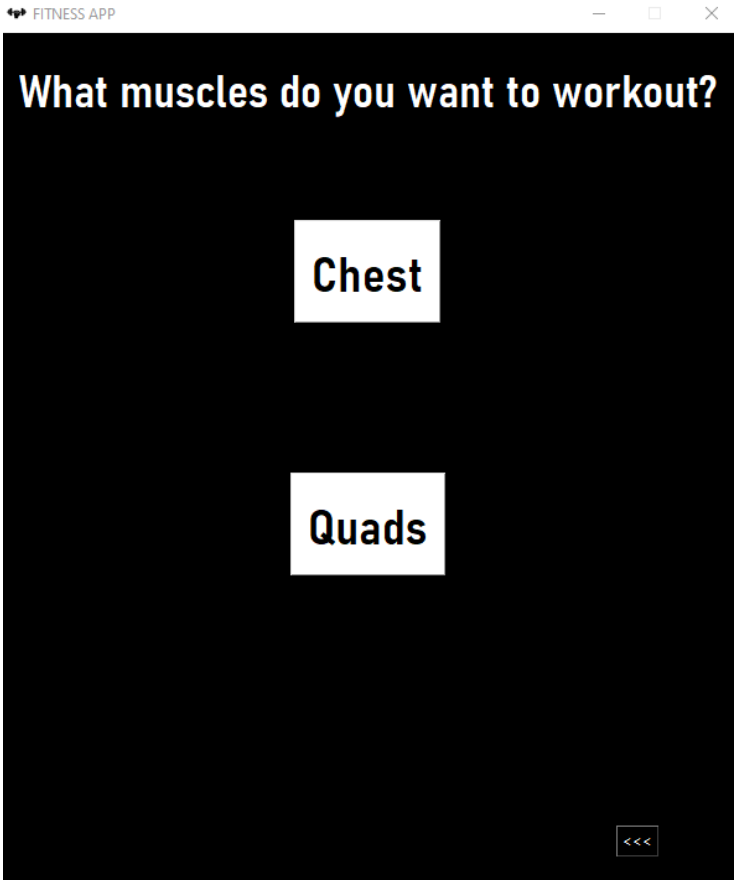


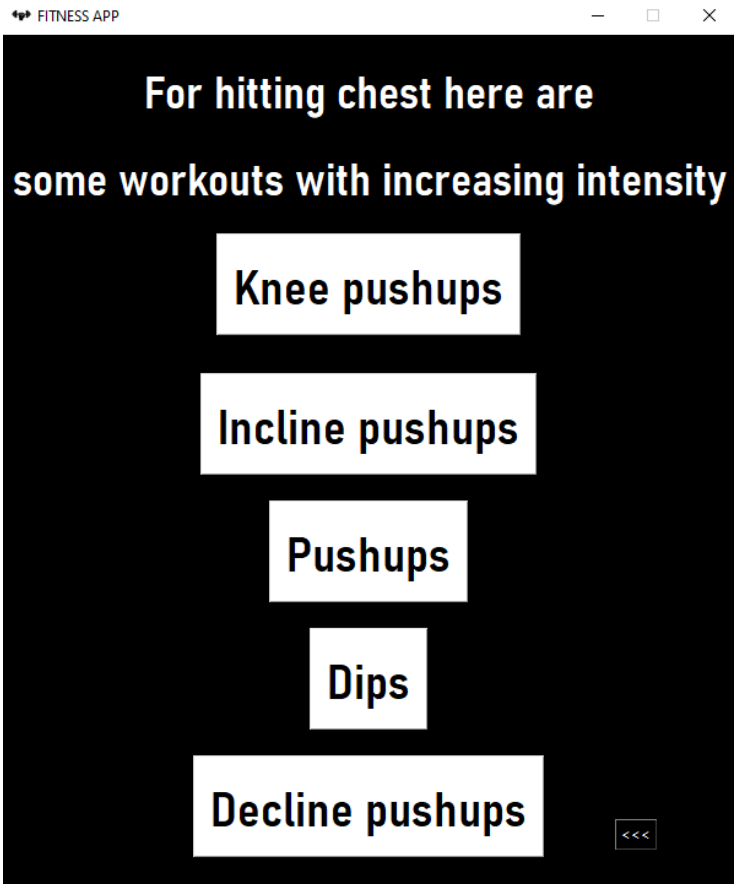
OUTPUT SCREENSHOTS





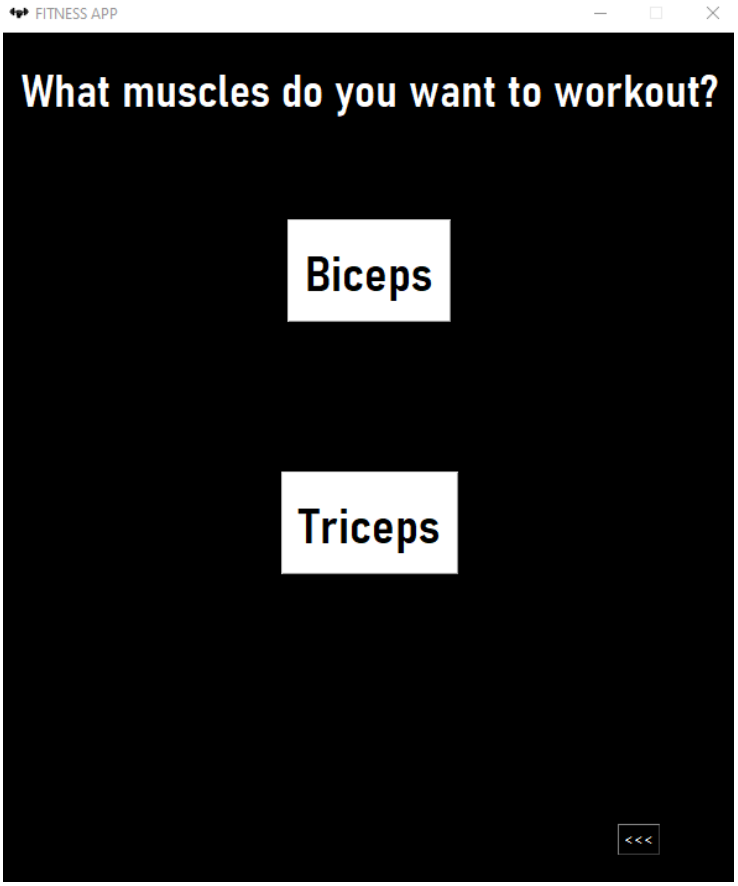
OUTPUT SCREENSHOTS



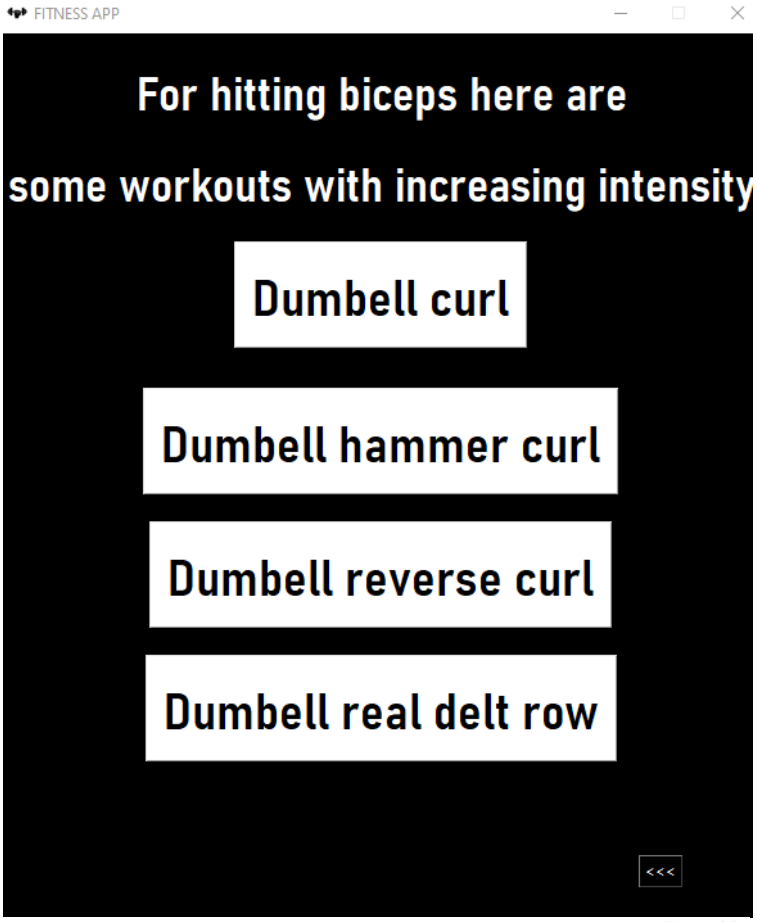


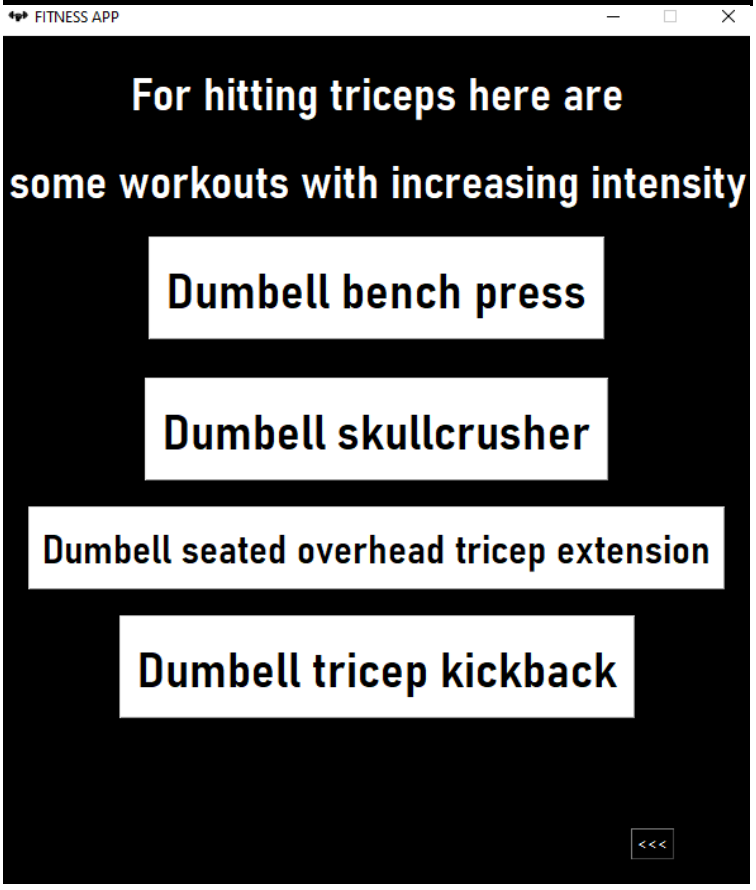
(Click on button for description)

OUTPUT SCREENSHOTS



OUTPUT SCREENSHOTS





FUTURE SCOPE

The following enhancements can be easily added, to make this software even more useful:

1. Add workout videos
2. Create user profiles that saves all progress and information
3. Add more workouts for different parts of the muscles
4. Improve the looks of the user interface like adding smoother transitions between different windows of the app
5. Suggest a workout routine for a user depending upon body mass index, health score and age, and much more…

REFERENCES

1. https://www.youtube.com/@Codemycom
2. https://musclewiki.com
3. https://www.youtube.com