

Assignment 2

Signs with smart connectivity for Better road safety

PROBLEM STATEMENT:

Build a python code,assume u get temperature and humidity values(generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

```

importing the required modules
from tkinter import *
import datetime as dt
import time
import winsound as ws

# defining the function for the alarm clock
def alarm(setAlarmTimer):
    while True:
        time.sleep(1)
        actualTime = dt.datetime.now()
        currentTime = actualTime.strftime("%H : %M : %S")
        currentDate = actualTime.strftime("%d / %m / %Y")
        the_message = "Current Time: " + str(currentTime)
        print(the_message)
        if currentTime == setAlarmTimer:
            ws.PlaySound("sound.wav", ws.SND_ASYNC)
            break

def getAlarmTime():
    alarmSetTime = f"{hour.get()} : {minute.get()} : {second.get()}"
    alarm(alarmSetTime)

# creating the GUI for the application
guiWindow = Tk()
guiWindow.title("The Alarm Clock")
guiWindow.geometry("464x200")
guiWindow.config(bg = "#87BDD8")
guiWindow.resizable(width = False, height = False)

timeFormat = Label(
    guiWindow,
    text = "Remember to set time in 24-hour format!",
    fg = "white",
    bg = "#36486B",
    font = ("Arial", 15)
).place(
    x = 0,
    y = 160
)

add_time = Label(
    guiWindow,
    text = "Hour    Minute    Second",
    font = 60,
    fg = "white",
    bg = "#87BDD8"
).place(

```

```
x = 220,  
y = 10  
)
```

```
setAlarm = Label(  
    guiWindow,  
    text = "Set Time for Alarm: ",  
    fg = "white",  
    bg = "#034F84",  
    relief = "solid",  
    font = ("Helvetica", 13, "bold")  
)place(  
    x = 5,  
    y = 50  
)
```

```
hour = StringVar()  
minute = StringVar()  
second = StringVar()
```

```
hourTime = Entry(  
    guiWindow,  
    textvariable = hour,  
    bg = "#FEFBD8",  
    width = 4,  
    font = (20)  
)place(  
    x = 220,  
    y = 53  
)
```

```
minuteTime = Entry(  
    guiWindow,  
    textvariable = minute,  
    bg = "#FEFBD8",  
    width = 4,  
    font = (20)  
)place(  
    x = 297,  
    y = 53  
)
```

```
secondTime = Entry(  
    guiWindow,  
    textvariable = second,  
    bg = "#FEFBD8",  
    width = 4,  
    font = (20)  
)place(  
    x = 390,
```

```
y = 53  
)
```

```
submit = Button(  
    guiWindow,  
    text = "Set The Alarm",  
    fg = "white",  
    bg = "#82B74B",  
    width = 15,  
    command = getAlarmTime,  
    font = (20)  
).place(  
    x = 140,  
    y = 100  
)
```

```
guiWindow.mainloop()
```