

V.S.B. ENGINEERING COLLEGE, KARUR
Department of Electronics and Communication
Engineering

TITLE : Signs with smart connectivity for
better Road Safety

DOMAIN NAME : Internet of Things

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Coding :

```
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)
```

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# 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,

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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()
```

CIRCUIT DIAGRAM :

