ASSIGNMENT 2

PROGRAM:

```python
# 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")
```

```python
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: ",
```

```python
    fg = "white",

    bg = "#034F84",

    relief = "solid",

    font = ("Helevetica", 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)
```
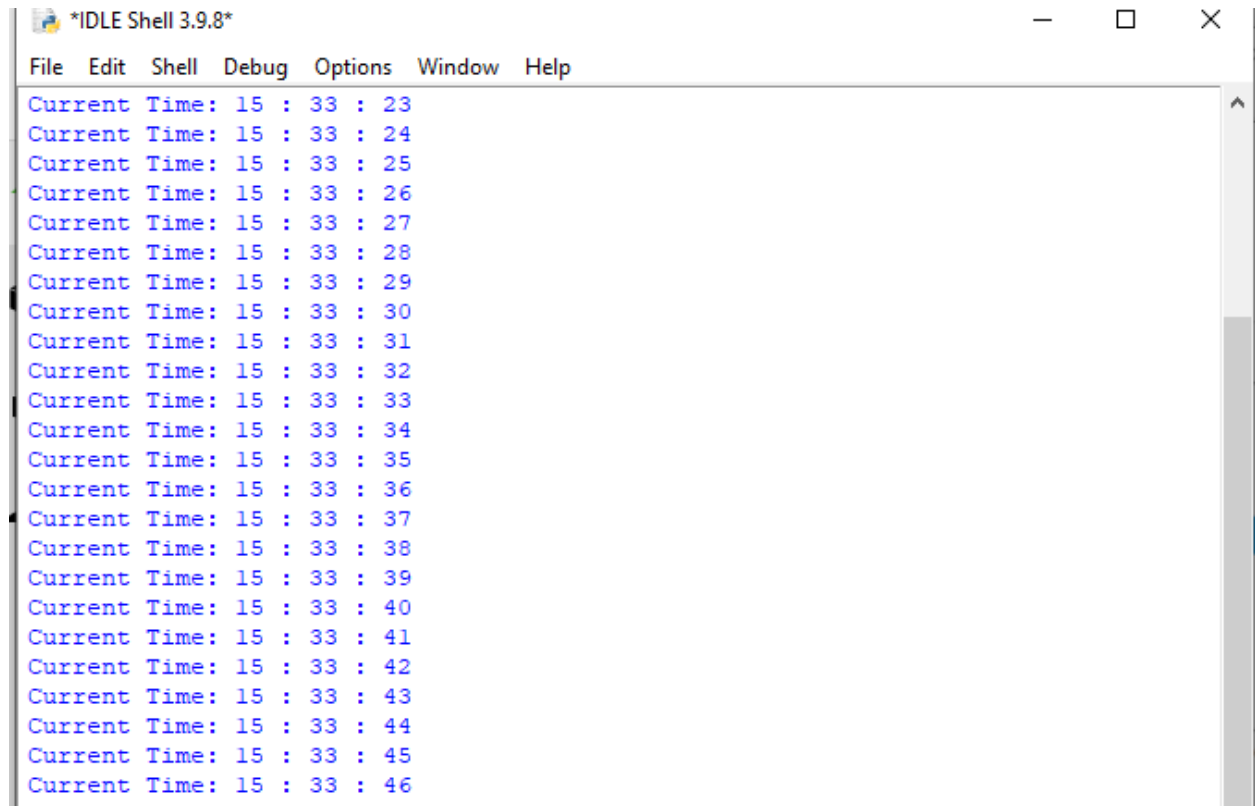
```python
    ).place(
        x = 297,
        y = 53
        )
secondTime = Entry(
    guiWindow,
    textvariable = second,
    bg = "#FEFBD8",
    width = 4,
    font = (20)
    ).place(
        x = 390,
        y = 53
        )


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


guiWindow.mainloop()
```

OUTPUT:

```
*IDLE Shell 3.9.8*                                          —   □   ×

File  Edit  Shell  Debug  Options  Window  Help

Current Time: 15 : 33 : 23
Current Time: 15 : 33 : 24
Current Time: 15 : 33 : 25
Current Time: 15 : 33 : 26
Current Time: 15 : 33 : 27
Current Time: 15 : 33 : 28
Current Time: 15 : 33 : 29
Current Time: 15 : 33 : 30
Current Time: 15 : 33 : 31
Current Time: 15 : 33 : 32
Current Time: 15 : 33 : 33
Current Time: 15 : 33 : 34
Current Time: 15 : 33 : 35
Current Time: 15 : 33 : 36
Current Time: 15 : 33 : 37
Current Time: 15 : 33 : 38
Current Time: 15 : 33 : 39
Current Time: 15 : 33 : 40
Current Time: 15 : 33 : 41
Current Time: 15 : 33 : 42
Current Time: 15 : 33 : 43
Current Time: 15 : 33 : 44
Current Time: 15 : 33 : 45
Current Time: 15 : 33 : 46
```