

E:\clock.py

```

1  # Import Required Library
2  from tkinter import *
3  import datetime
4  import time
5  import winsound
6  from threading import *
7
8  # Create Object
9  root = Tk()
10
11 # Set geometry
12 root.geometry("400x200")
13
14 # Use Threading
15 def Threading():
16     t1=Thread(target=alarm)
17     t1.start()
18
19 def alarm():
20     # Infinite Loop
21     while True:
22         # Set Alarm
23         set_alarm_time = f"{hour.get()}:{minute.get()}:{second.get()}"
24
25         # Wait for one seconds
26         time.sleep(1)
27
28         # Get current time
29         current_time = datetime.datetime.now().strftime("%H:%M:%S")
30         print(current_time,set_alarm_time)
31
32         # Check whether set alarm is equal to current time or not
33         if current_time == set_alarm_time:
34             print("Time to Wake up")
35             # Playing sound
36             winsound.PlaySound("sound.wav",winsound.SND_ASYNC)
37
38 # Add Labels, Frame, Button, Optionmenus
39 Label(root,text="Alarm Clock",font=("Helvetica 20 bold"),fg="red").pack(pady=10)
40 Label(root,text="Set Time",font=("Helvetica 15 bold")).pack()
41
42 frame = Frame(root)
43 frame.pack()
44
45 hour = StringVar(root)
46 hours = ('00', '01', '02', '03', '04', '05', '06', '07',
47          '08', '09', '10', '11', '12', '13', '14', '15',
48          '16', '17', '18', '19', '20', '21', '22', '23', '24'
49          )
50 hour.set(hours[0])
51
52 hrs = OptionMenu(frame, hour, *hours)
53 hrs.pack(side=LEFT)
54

```

```
55 minute = StringVar(root)
56 minutes = ('00', '01', '02', '03', '04', '05', '06', '07',
57            '08', '09', '10', '11', '12', '13', '14', '15',
58            '16', '17', '18', '19', '20', '21', '22', '23',
59            '24', '25', '26', '27', '28', '29', '30', '31',
60            '32', '33', '34', '35', '36', '37', '38', '39',
61            '40', '41', '42', '43', '44', '45', '46', '47',
62            '48', '49', '50', '51', '52', '53', '54', '55',
63            '56', '57', '58', '59', '60')
64 minute.set(minutes[0])
65
66 mins = OptionMenu(frame, minute, *minutes)
67 mins.pack(side=LEFT)
68
69 second = StringVar(root)
70 seconds = ('00', '01', '02', '03', '04', '05', '06', '07',
71            '08', '09', '10', '11', '12', '13', '14', '15',
72            '16', '17', '18', '19', '20', '21', '22', '23',
73            '24', '25', '26', '27', '28', '29', '30', '31',
74            '32', '33', '34', '35', '36', '37', '38', '39',
75            '40', '41', '42', '43', '44', '45', '46', '47',
76            '48', '49', '50', '51', '52', '53', '54', '55',
77            '56', '57', '58', '59', '60')
78 second.set(seconds[0])
79
80 secs = OptionMenu(frame, second, *seconds)
81 secs.pack(side=LEFT)
82
83 Button(root, text="Set Alarm", font=("Helvetica 15"), command=Threading).pack(pady=20)
84
85 # Execute Tkinter
86 root.mainloop()
```