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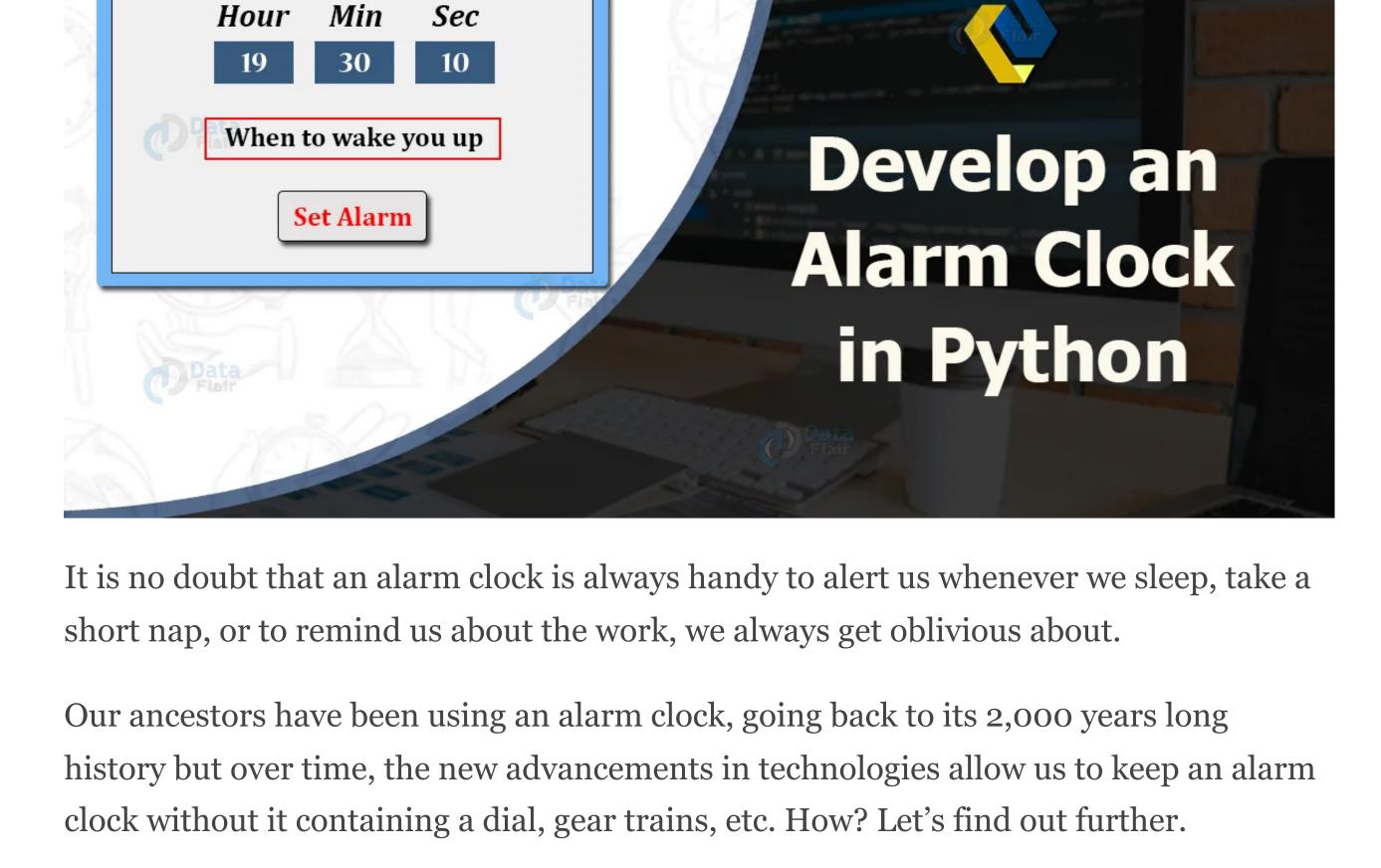
# Python Project for Beginners – Alarm Clock with GUI [Source Code Included] Free Python course with 35 real-time projects Start Now!!

Being a beginner it's critical to work in the right direction. To master a programming

project – Alarm clock

DataFlair Alarm Clock – 🗆 X

language, you should work on projects. In this article, we will develop a basic python



Develop an Alarm Clock
About the Python Project

The objective of our project is to implement an alarm clock using Python. Python consists of some very innovative libraries such as datetime and tkinter which help us to build the project using the current date and time as well as to provide a user interface to

### Prerequisites This project requires good knowledge of Python and GUI (Graphic User Interface).

set the alarm according to the requirement in 24-hour format.

#### Python when combined with Tkinter provides a fast and easy way to create GUI applications. Tkinter provides a powerful object-oriented interface to the Tk GUI

environment used for python programming.

• Create a display window for user input.

from tkinter import \*

import datetime

import time

**Explanation:** 

Download Project Code

Project File Structure
First, let's check the steps to build an Alarm Clock program in Python:
Importing all the libraries and modules required
Putting forward a while loop which takes the argument of the time, the user wants

to set the alarm on and automatically breaks when the time is up, with sound

libraries like NumPy, thus this project will be user friendly and accessible in any virtual

toolkit. All the modules used need not be downloaded beforehand like the other

#### Before proceeding ahead, please download source code: <u>Alarm Clock Project Code</u> So that is basically what we will do in this Python project. Let's start.

1. First, we import all the necessary libraries and modules:

#Importing all the necessary libraries to form the alarm clock:

• **Tkinter** module belongs to a standard library of GUI in Python. It helps us to

- 5. import winsound
- create a dialog box with any information that we want to provide or get from the users.

def alarm(set\_alarm\_timer):

time.sleep(1)

print(now)

alarm(set alarm timer)

break

while True:

```
    Winsound module provides access to the basic sound playing machinery provided by Windows platforms. This is useful to generate the sound immediately when a function is called.
```

current time = datetime.datetime.now()

now = current\_time.strftime("%H:%M:%S")

print("The Set Date is:", date)

print("Time to Wake up")

if now == set\_alarm\_timer:

date = current time.strftime("%d/%m/%Y")

winsound.PlaySound("sound.wav", winsound.SND ASYNC)

set\_alarm\_timer = f"{hour.get()}:{min.get()}:{sec.get()}"

• <u>Datetime</u> and **time** modules in python help us to work with the dates and time of

#### 13. 14. **def** actual time():

15.

16.

11.

12.

2.

2. Create a while loop:

```
Define a function named as alarm() which takes the argument of (set_alarm_timer). It contains a while loop with a Boolean function True which makes the program automatic to work.
time.sleep(1) halts the execution of the further commands given until we get the time value from the user later in the code and returns the background thread of the clock time going on at a regular interval.
Get the current time using current_time which takes the argument of datetime.datetime.now().
now is used to print the time and date is used to print the current date by string
```

conversion using strftime().Define another function here named actual\_time() which takes in the user value

8.

10.

11.

for setting the alarm in the string format. The same argument of
(set\_alarm\_timer) as alarm before to execute the while loop which we further use while making GUI.
If loop suggests that if the user input time set\_alarm\_timer matches with the

while loop ongoing time now, the message is printed as" **Time to Wake up**".

• winsound.SND\_ASYNC plays the system generated sound as soon the condition

addTime = Label(clock, text = "Hour Min Sec", font=60).place(x = 110)

"solid", font=("Helevetica", 7, "bold")).place(x=0, y=29)

16. minTime= Entry(clock, textvariable = min, bg = "pink", width =

# The Variables we require to set the alarm(initialization):

setYourAlarm = Label(clock,text = "When to wake you up",fg="blue",relief =

12. sec = StringVar()
13.
14. #Time required to set the alarm clock:
15. hourTime= Entry(clock, textvariable = hour, bg = "pink", width =

15) .place(x=110, y=30)

15) .place(x=150, y=30)

hour = StringVar()

min = StringVar()

satisfies, acting as a reminder for the alarm clock.

```
secTime = Entry(clock,textvariable = sec,bg = "pink",width =
          15) .place(x=200, y=30)
     18.
           #To take the time input by user:
     19.
           submit = Button(clock,text = "Set Alarm",fg="red",width = 10,command =
     20.
          actual time).place(x =110, y=70)
     21.
           clock.mainloop()
     22.
           #Execution of the window.
Explanation:
 • To Initialize tkinter, we pass a command under the name clock as Tk().
 • The dialog box has the title as DataFlair Alarm Clock with a geometry of (400*200).
   We pass on the heading to mention the time format for 24 hours using
   time_format.
 • The second heading is given above the user input boxes for the labeling to be "Hour
   Min Sec" using addTime.
 • Just to make the dialog box look funkier, adding another label as "when to wake
   you up" using setYourAlarm.
 • As we have already converted the current time in the string before (actual time), the
   variables we initialize for the user input dialog boxes are in StringVar().
 • Finally make the input boxes such as hourTime, minTime, and secTime which
```

takes the entry of the time the user wants to set the alarm on in 24-hour format.

• Submit takes the command of the defined function **actual\_time** and executes the

• Clock.mainloop() is the basic and the last command was given to compile all the

previous commands with their basic settings of color, font, width, axis, etc. and

Yay!! The alarm clock is ready for execution for your next work nap 😉 . Save the source

clock as it acts as a set button to start the program.

displays the window as soon as the program is run.

code with DataFlair-Alarm-Clock.py and run the file:

1. python3 DataFlair-Alarm-Clock.py

With this project in Python, we have successfully made the Alarm Clock. We used the

popular GUI library for rendering graphics on a display window. We learned how to

extract the current time from the computer and to use it for manipulation using the

programming which rings with the default machine sound for Windows.

Your 15 seconds will encourage us to work even harder

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DateTime library. This way we can set an alarm in the computer interface using python

## Summary

Output

Tags: alarm clock in python Python project python project for beginners

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pls help

Reply

Shreyas © March 6, 2022 at 12:00 pm

\_tkinter.TclError: bitmap "dataflair-logo.ico" not defined

```
Abbas Fathy © April 2, 2022 at 10:52 am

It's not working. No Alarm is executing.
```

<u>Reply</u>

here is the full error

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Pardhu © February 5, 2022 at 10:06 am

Is it possible to set multiple alarms

**Shreyas** © March 6, 2022 at 11:57 am

**rutvik** © April 23, 2022 at 12:54 am

there is some simple error there

if now == set\_alarm\_timer:

bitmap "dataflair-logo.ico" not defined

clock.iconbitmap(r"dataflair-logo.ico")
return self.tk.call('wm', 'iconbitmap', self.\_w, bitmap)
\_tkinter.TclError: bitmap "dataflair-logo.ico" not defined

Reply

xavier © April 27, 2022 at 2:15 pm

print("Time to Wake up")
winsound.PlaySound("sound.wav",winsound.SND\_ASYNC)
break

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make sure windsound and break in if condition. or it will not be executed

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