BABIKA A

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ALARM CLOCK

PROGRAM:

```python
import datetime

import os

import time

import random

import webbrowser

print ("Now the current time is" , time.strftime("%H:%M:%S"))

print("FORMAT TO SET ALARM","\n1.HH[9 or
09]","\n2.HH:MM[05:15]","\n3.HH:MM:SS[01:20:30]")

a=input("Set a time for the alarm:")

b=input("Select AM/PM:")

def check_alarm_time(alarm_time):

        if len(alarm_time) == 1: # HH

                if alarm_time[0] < 24 and alarm_time[0] >= 0:

                        return True

        if len(alarm_time) == 2: #HH:MM

                if alarm_time[0] < 24 and alarm_time[0] >= 0 \
                and alarm_time[1] < 60 and alarm_time[1] >= 0:

                        return True

        elif len(alarm_time) == 3: #HH:MM:SS

                if alarm_time[0] < 24 and alarm_time[0] >= 0 \
                and alarm_time[1] < 60 and alarm_time[1] >= 0 \
                and alarm_time[2] < 60 and alarm_time[2] >= 0:

                        return True
```

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```python
        return False
while True:
        alarm_input =a
        try:
                alarm_time = [int(n) for n in alarm_input.split(":")]
                if check_alarm_time(alarm_time):
                        break
                else:
                        raise ValueError
        except ValueError:
                print("ERROR: Enter time in HH or HH:MM or HH:MM:SS format")


seconds_hms = [3600, 60, 1] # Number of seconds in an Hour, Minute, and
Second
alarm_seconds = sum([a*b for a,b in zip(seconds_hms[:len(alarm_time)],
alarm_time)])
now = datetime.datetime.now()
current_time_seconds = sum([a*b for a,b in zip(seconds_hms, [now.hour,
now.minute, now.second])])
time_diff_seconds = alarm_seconds - current_time_seconds

if time_diff_seconds < 0:
        time_diff_seconds += 86400 # number of seconds in a day
print("Alarm set to go off in %s" %
datetime.timedelta(seconds=time_diff_seconds))
```
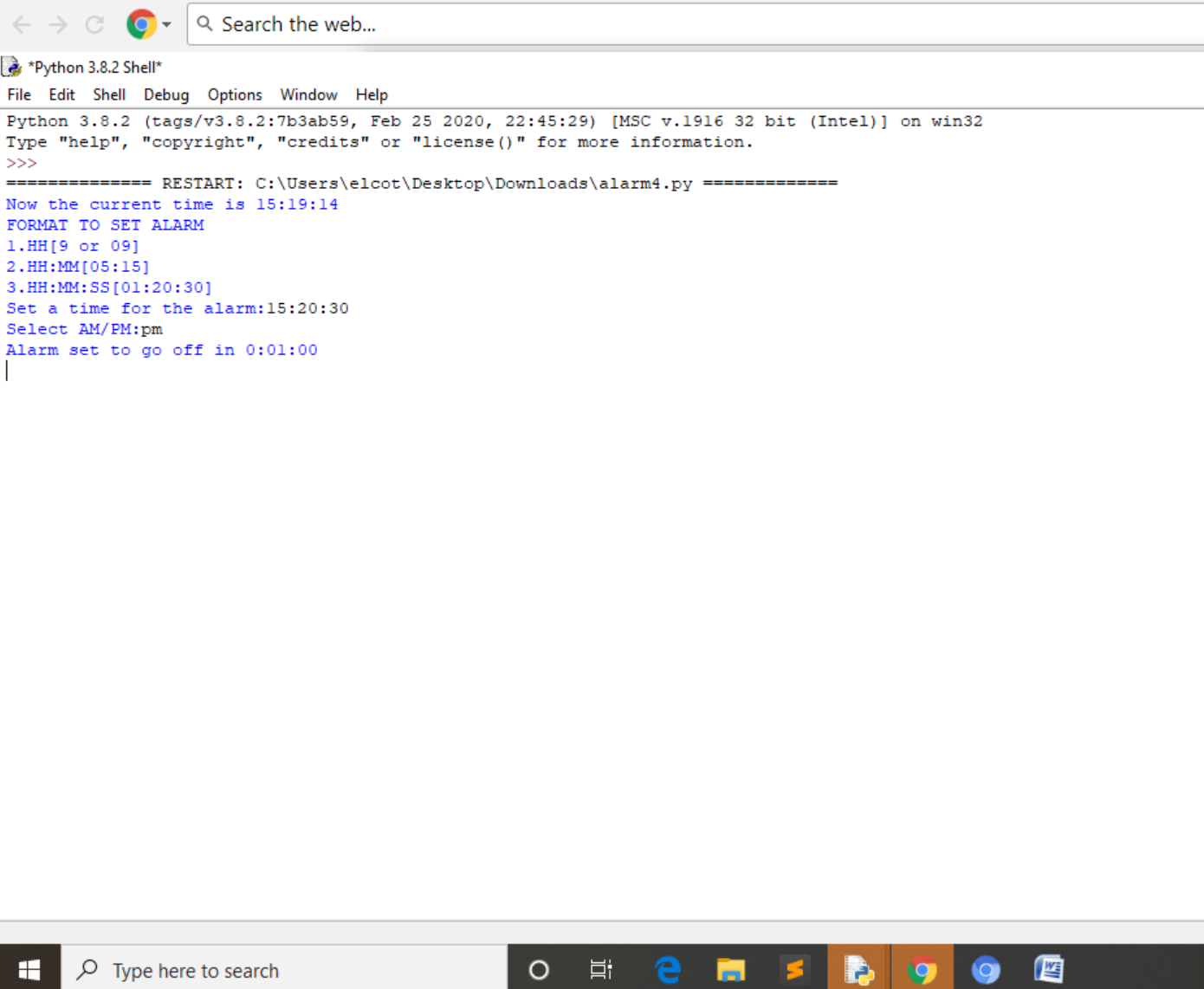
ALARM CLOCK

```python
time.sleep(time_diff_seconds)

print("You need to Wake Up!")

print("please Wake Up!")

print("Now the TIME is",alarm_input,b)
```

OUTPUT:

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After the remaining time for alarm 0:01:00

```
Python 3.8.2 Shell
File  Edit  Shell  Debug  Options  Window  Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============== RESTART: C:\Users\elcot\Desktop\Downloads\alarm4.py =============
Now the current time is 15:19:14
FORMAT TO SET ALARM
1.HH[9 or 09]
2.HH:MM[05:15]
3.HH:MM:SS[01:20:30]
Set a time for the alarm:15:20:30
Select AM/PM:pm
Alarm set to go off in 0:01:00
You need to Wake Up!
please Wake Up!
Now the TIME is 15:20:30 pm
>>>
```
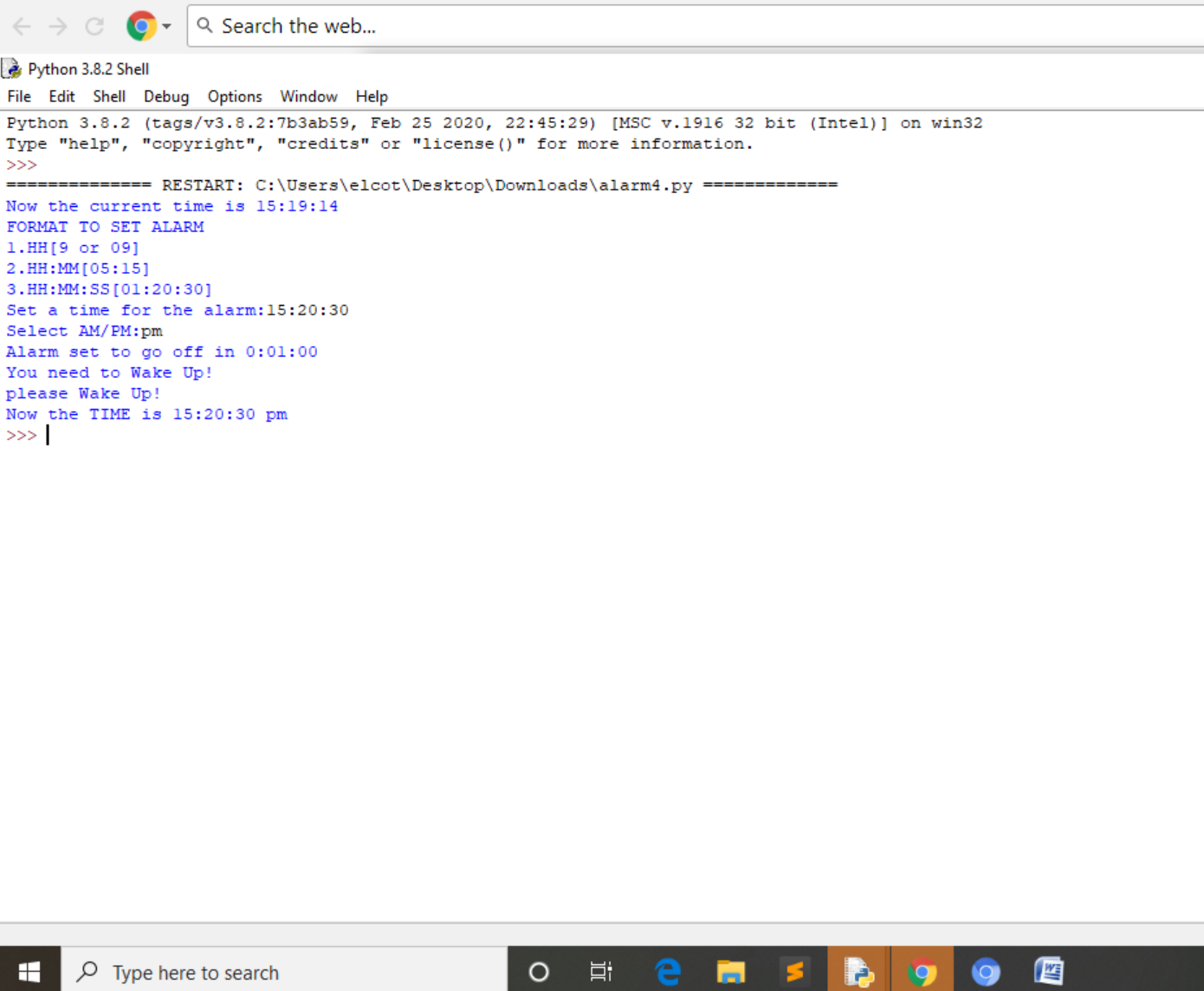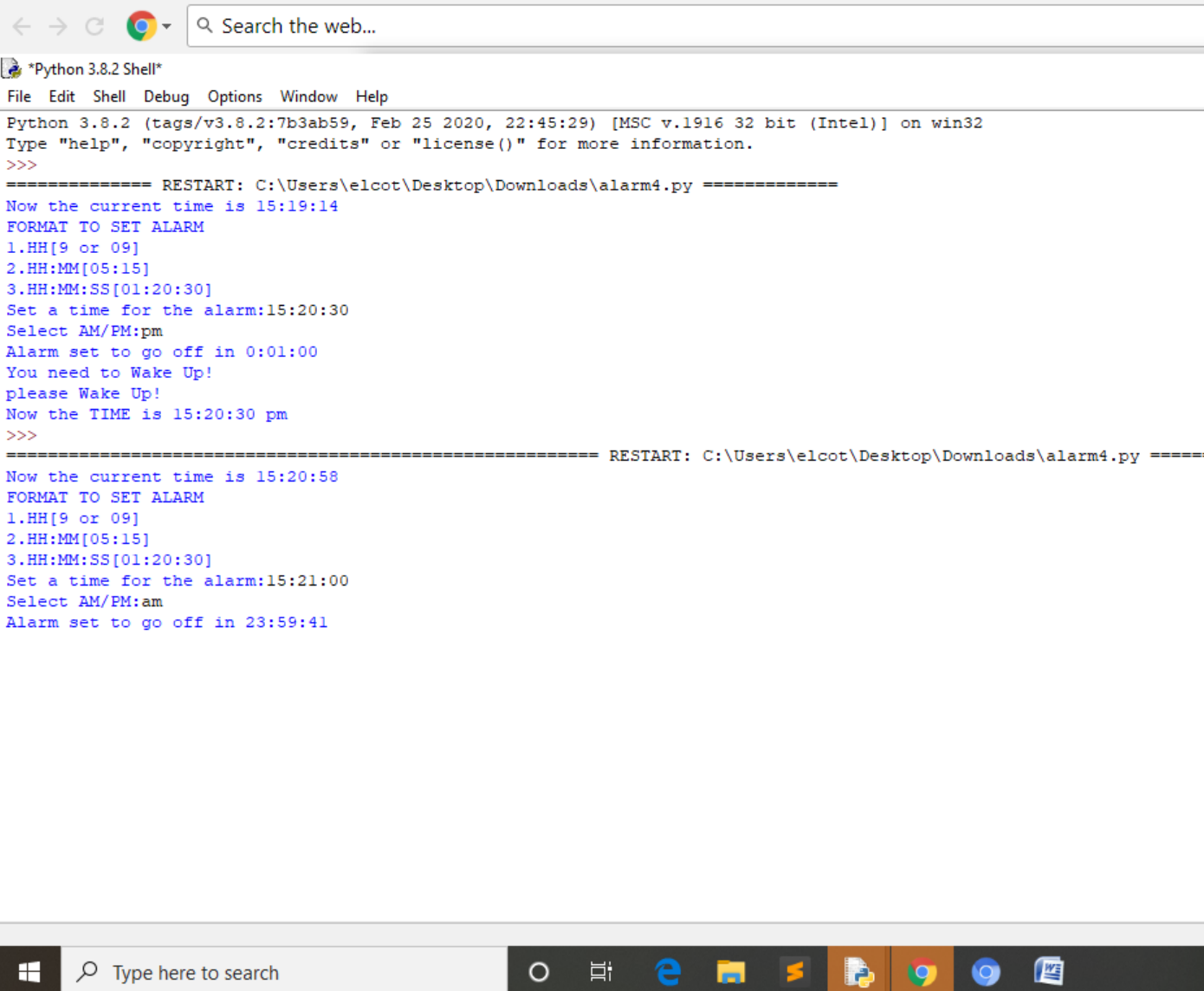
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ALARM CLOCK

Selected AM, then the time will goes on.

```
Q Search the web...

*Python 3.8.2 Shell*
File  Edit  Shell  Debug  Options  Window  Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
============== RESTART: C:\Users\elcot\Desktop\Downloads\alarm4.py =============
Now the current time is 15:19:14
FORMAT TO SET ALARM
1.HH[9 or 09]
2.HH:MM[05:15]
3.HH:MM:SS[01:20:30]
Set a time for the alarm:15:20:30
Select AM/PM:pm
Alarm set to go off in 0:01:00
You need to Wake Up!
please Wake Up!
Now the TIME is 15:20:30 pm
>>>
========================================================= RESTART: C:\Users\elcot\Desktop\Downloads\alarm4.py =====
Now the current time is 15:20:58
FORMAT TO SET ALARM
1.HH[9 or 09]
2.HH:MM[05:15]
3.HH:MM:SS[01:20:30]
Set a time for the alarm:15:21:00
Select AM/PM:am
Alarm set to go off in 23:59:41
```

Type here to search