

2024-07-10 Logging Data

- [#LINK](https://docs.python.org/3/library/logging.html#logrecord-attributes) - <https://docs.python.org/3/library/logging.html#logrecord-attributes>

IT-SEC

Logs

formats with Python

main.py

```
import logging as log
import os
import other_module

log.basicConfig(level=log.DEBUG)


#SECTION - Get the script's directory
script_dir = os.path.dirname(__file__)


#SECTION - Create the log directory if it doesn't exist
log_dir = os.path.join(script_dir, 'log')
if not os.path.exists(log_dir):
    os.makedirs(log_dir)


#SECTION - Specify the full path to the log file
log_file = os.path.join(log_dir, 'calc_logs.log')

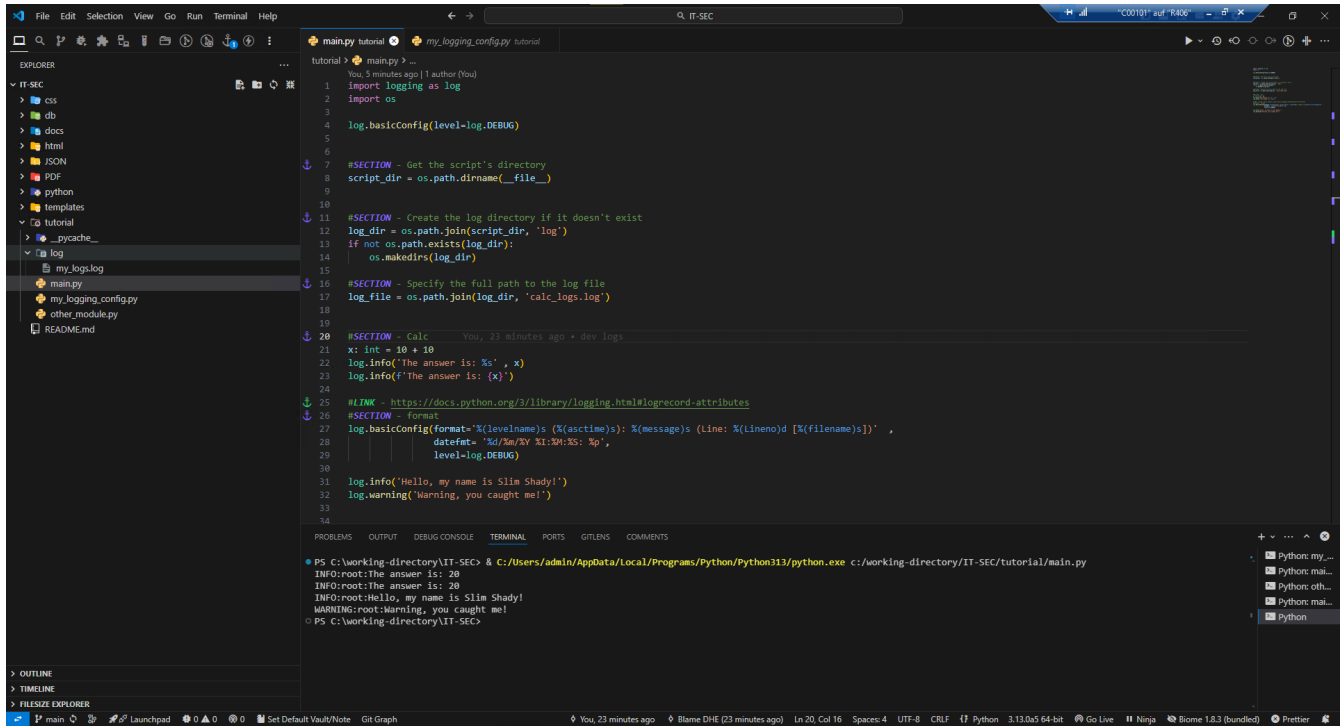

#SECTION - Calc
x: int = 10 + 10
log.info('The answer is: %s' , x)
log.info(f'The answer is: {x}')


#LINK - https://docs.python.org/3/library/logging.html#logrecord-attributes
#SECTION - format
log.basicConfig(format='%(levelname)s %(asctime)s: %(message)s (Line: %(Lineno)d [%'
```

```
(filename)s]]' ,

    datefmt= '%d/%m/%Y %I:%M:%S: %p',
    level=log.DEBUG)

log.info('Hello, my name is Slim Shady!')
log.warning('Warning, you caught me!')
```



The screenshot shows a VS Code editor with a Python logging tutorial. The main.py file contains the following code:

```
1 import logging as log
2 import os
3
4 log.basicConfig(level=log.DEBUG)
5
6
7 #SECTION - Get the script's directory
8 script_dir = os.path.dirname(__file__)
9
10
11 #SECTION - Create the log directory if it doesn't exist
12 log_dir = os.path.join(script_dir, 'log')
13 if not os.path.exists(log_dir):
14     os.makedirs(log_dir)
15
16 #SECTION - Specify the full path to the log file
17 log_file = os.path.join(log_dir, 'calc_logs.log')
18
19
20 #SECTION - Calc
21 x: int = 10 + 10
22 log.info('The answer is: %s' , x)
23 log.info(f'The answer is: {x}')
24
25 #LINK - https://docs.python.org/3/library/logging.html#logrecord-attributes
26 #SECTION - format
27 log.basicConfig(format='%(levelname)s %(asctime)s: %(message)s (Line: %(lineno)d [%(filename)s])' ,
28                 datefmt= '%d/%m/%Y %I:%M:%S: %p',
29                 level=log.DEBUG)
30
31 log.info('Hello, my name is Slim Shady!')
32 log.warning('Warning, you caught me!')
```

The terminal output shows the following messages:

```
PS C:\working-directory\IT-SEC> & C:/Users/admin/AppData/Local/Programs/Python/Python313/python.exe c:/working-directory/IT-SEC/tutorial/main.py
INFO:root:The answer is: 20
INFO:root:The answer is: 20
INFO:root:Hello, my name is Slim Shady!
WARNING:root:Warning, you caught me!
PS C:\working-directory\IT-SEC>
```