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Assignment 1 Day 2

Write a dataclass describing a mountain (containing fields for name and elevation) and:

- Construct an instance of the dataclass**
- Convert it to string .**

Solution:

1). The dataclass decorator is imported from the data classes module. @dataclass is a decorator provided by the datalasses module.

2). Mountain dataclass is defined using dataclass decorator with name and elevation fields.

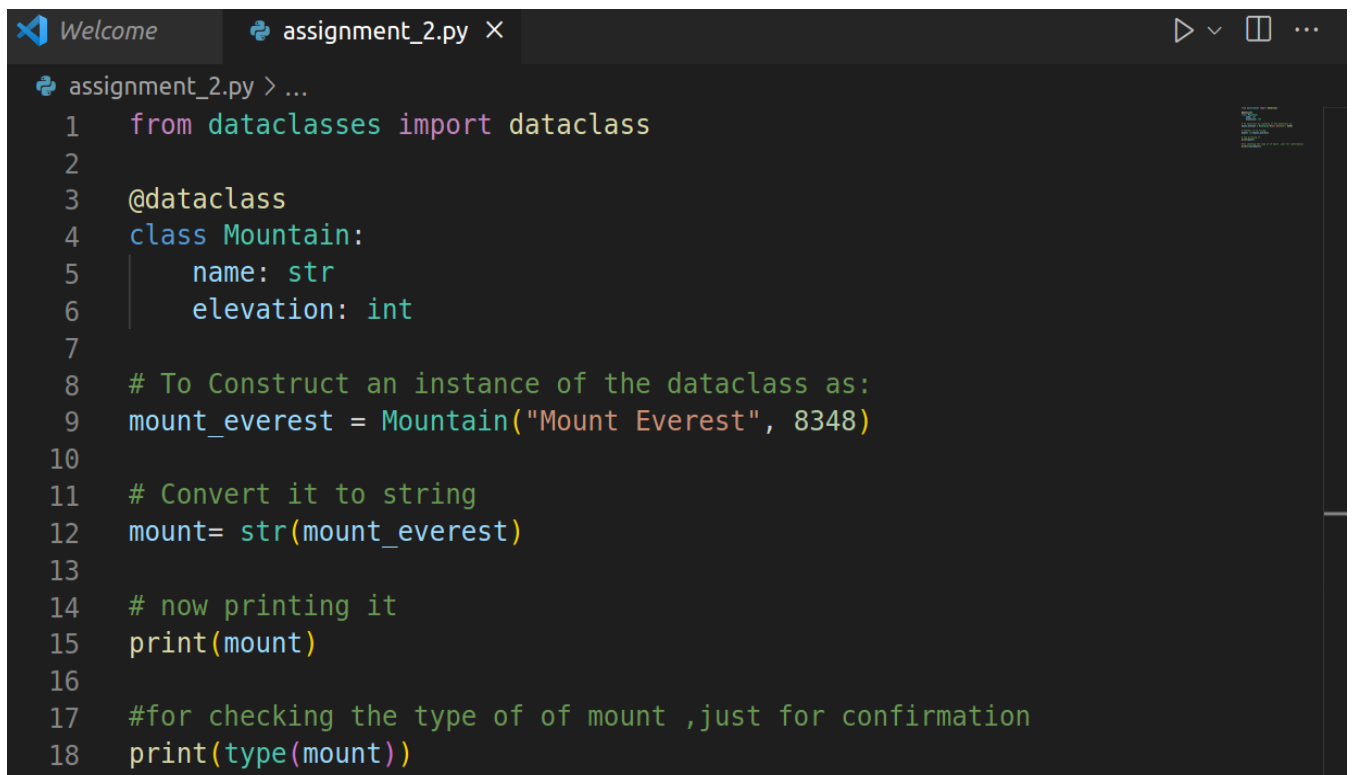
3). Created an instance of dataclass representing Mount Everest with an elevation of 8848 meters.

4). `str()` is used to convert the `mount_everest` instance to a string, the resulting string is assigned to the `mount` variable.

5). Now `mount` is printed which is string representation of the object using the `print()` function.

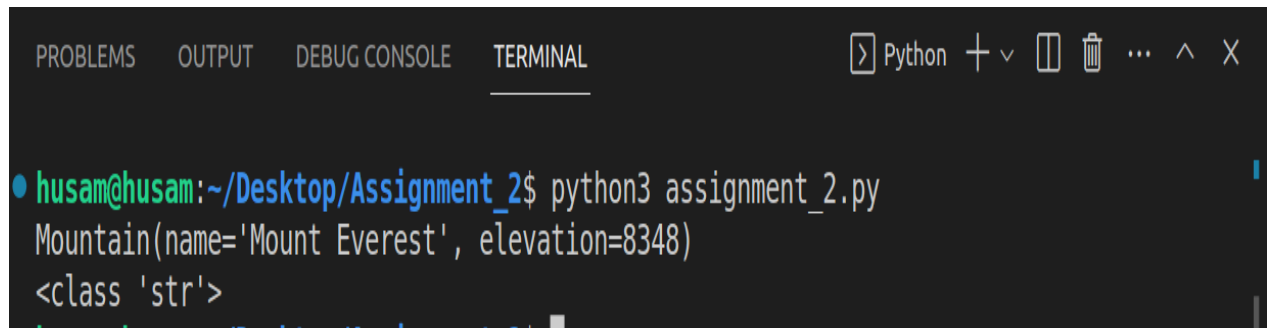
6). For checking the type just for confirmation that the result type should be string ,we used `type()` function

code

A screenshot of a code editor window with a dark theme. The window has two tabs: 'Welcome' and 'assignment_2.py'. The 'assignment_2.py' tab is active, showing a Python script. The script defines a dataclass named 'Mountain' with attributes 'name' (string) and 'elevation' (integer). It then creates an instance 'mount_everest' with the name 'Mount Everest' and elevation 8348. The instance is converted to a string using 'str()', the result is stored in 'mount', and finally, 'mount' is printed and its type is confirmed using 'type()'.

```
assignment_2.py > ...
1  from dataclasses import dataclass
2
3  @dataclass
4  class Mountain:
5      name: str
6      elevation: int
7
8  # To Construct an instance of the dataclass as:
9  mount_everest = Mountain("Mount Everest", 8348)
10
11 # Convert it to string
12 mount= str(mount_everest)
13
14 # now printing it
15 print(mount)
16
17 #for checking the type of of mount ,just for confirmation
18 print(type(mount))
```

Output

A screenshot of a terminal window with a dark background. The terminal has tabs at the top labeled 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', and 'TERMINAL'. The 'TERMINAL' tab is active. In the top right corner, there is a 'Python' icon, a plus sign, a minus sign, a window icon, a trash icon, and other standard window controls. The terminal shows a command prompt where the user has entered 'python3 assignment_2.py'. The output of the script is displayed on the next two lines: 'Mountain(name='Mount Everest', elevation=8348)' and '<class 'str'>'.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL Python + - [] [X] ... ^ X
• husam@husam:~/Desktop/Assignment_2$ python3 assignment_2.py
Mountain(name='Mount Everest', elevation=8348)
<class 'str'>
```

python3 assignment_2.py command is used to run file.

Output results are shown in image which is converted string as :

Mountain(name='Mount Everest', elevation=8348)