UNIT 1.2 GRADED ASSIGNMENT 1

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Write a dataclass describing a mountain (containing fields for name and elevation) and:
- Construct an instance of the dataclass
- Convert it to string

Code:

```
from dataclasses import dataclass

@dataclass

class Mountain:

    name: str

    elevation: int


mountain = Mountain(name="Mount Everest", elevation=8848)

print(mountain)

mountain_str = str(mountain)

print(mountain_str)
```

Explanation of the code:

In the above program I import dataclass from the module dataclasses. Dataclass is a class which is used to hold data values and they are used to print the class object, comparison between the objects etc.

We use the dataclass as a decorator in the class we are creating. Then I create a class Mountain which have two attributes name and elevation.

Then I create an object of the class Mountain and pass the values of name and elevation. Here we can see that by using dataclass we don't need to create a constructor of the class to give values to the class variables. We can directly pass the values to the object of the class by using dataclass.

Now if we print the object directly without converting it to the string, we can see that the dataclass decorator automatically convert the object into string.

However, we can convert the object into string by using the following line of code to store the string representation of the object separately in a variable:

mountain_str = str(mountain)

Output:

```
PS C:\Users\asdd\Desktop\DE Lectures>  c:; cd 'c:\Users\asdd\Desktop\DE Lectures'; & 'C:\Users\asdd\anaconda3\python
ers\asdd\.vscode\extensions\ms-python.python-2023.6.0\pythonFiles\lib\python\debugpy\adapter/../..\debugpy\launcher'
' 'c:\Users\asdd\Desktop\DE Lectures\assignment.py'
Mountain(name='Mount Everest', elevation=8848)
Mountain(name='Mount Everest', elevation=8848)
```