

Assignment 3 Solutions

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18CS45

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Task-01 –

```
2  # Author: Muhammad Turab
3
4  class Mobile:
5
6      def __init__(self, brand, model):
7          self.brand = brand
8          self.model = model
9
10     @property
11     def fullname(self):
12         return f'{self.brand} {self.model}'
13
14     @fullname.setter
15     def fullname(self, name):
16         brand, model = name.split(" ")
17         self.brand = brand
18         self.model = model
19
20     phone1 = Mobile("Iphone", "7plus")
21     print(phone1.fullname)
22     phone1.fullname = "Samsung S21"
23     print(phone1.fullname)
24
```

Output:

```
C:\Users\Turab Bajeer\Desktop\Python bootcamp\Day 6>"C:/Users/
Iphone 7plus
Samsung S21

C:\Users\Turab Bajeer\Desktop\Python bootcamp\Day 6>[]
```

Task-02 -

```
task2.py / ...
1  # Author: Muhammad Turab
2
3  class Mobile:
4
5      def __init__(self, brand, model, country):
6          self.brand = brand
7          self.model = model
8          self.country = country
9
10     @property
11     def manufacture(self):
12         return f"{self.brand} {self.model} was manufactured in {self.country}"
13
14
15 phone1 = Mobile("Iphone", "7plus", "California")
16 print(phone1.manufacture)
17 phone1.country = "China"
18 print(phone1.manufacture)
19
```

Output:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

Microsoft Windows [Version 10.0.19041.804]
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C:\Users\Turab Bajeer\Desktop\Python bootcamp\Day 6>"C:/Us
Iphone 7plus was manufactured in California
Iphone 7plus was manufactured in China

C:\Users\Turab Bajeer\Desktop\Python bootcamp\Day 6>
```

Task-03 - Difference between public, protected and private access modifiers.

Ans:

1. Public

The members of a class that are declared public are easily accessible from any part of the program. All data members and member functions of a class are public by default.

2. Private

The members of a class that are declared private are accessible within the class only, private access modifier is the most secure access modifier. Data members of a class are declared private by adding a double underscore '___' symbol before the data member of that class.

3. Protected

The members of a class that are declared protected are only accessible to a class derived from it. Data members of a class are declared protected by adding a single underscore '_' symbol before the data member of that class.

Task-04 - What are Special(magic/dunder) methods?

Ans:

In python method names that have leading and trailing double underscores are reserved for special use like the `__init__` method for constructors and `__call__` method to make objects callable. These methods are known as dunder methods, Dunder here means (Double Underscores). These dunder methods are often referred as magic methods.

Task-05 - Difference between `__str__` and `__repr__`.

Ans:

We use `__str__` when we want to show something to a user. It makes easier to understand for a user.

`__repr__` is used for developers. It makes clear that what parameters are passed to that particular class.