Bondoc, Moses Fidel S

7OOP

Finals Lab Task 1. Encapsulation

A Car That Works

Code:

```
class Car:
    def __init__(self, color: str, price: float, size: str):
        self.color = color
        self.price = price
        self.size = size.upper()


    def get_color(self) -> str:
        return self.color

    def get_price(self) -> float:
        return self.price

    def get_size(self) -> str:
        return self.size


    def set_color(self, color: str) -> None:
        self.color = color

    def set_price(self, price: float) -> None:
        self.price = price

    def set_size(self, size: str) -> None:
        self.size = size.upper()

    def __str__(self) -> str:
        size_descriptor = {
            'S': 'small',
            'M': 'medium',
            'L': 'large'
        }.get(self.size, 'unknown')

        return f"Car ({self.color}) - ₱{self.price:.2f} - {size_descriptor}"



print("Action: Invoking the Car class constructor using Car(\"red\",
19999.85, 'M').")
car1 = Car("Red", 19999.85, 'M')
print("Output:")
print(car1)


print("\nAction: Invoking the Car class constructor using Car(\"blue\",
```

```
50000.00, 'L').")
car2 = Car("Blue", 50000.00, 'L')
print("Output:")
print(car2)


print("\nAction: Invoking the Car class constructor using Car(\"green\",
12345.67, 'S').")
car3 = Car("Orange", 12345.67, 'S')
print("Output:")
print(car3)
```

Output :

```
C:\Users\COMLAB\PycharmProjects\pythonProject3\venv\Scripts\python.exe C:\Users\COMLAB\PycharmProjects\pythonProject3\main.py
Action: Invoking the Car class constructor using Car("red", 19999.85, 'M').
Output:
Car (Red) - ₱19999.85 - medium

Action: Invoking the Car class constructor using Car("blue", 50000.00, 'L').
Output:
Car (Blue) - ₱50000.00 - large

Action: Invoking the Car class constructor using Car("green", 12345.67, 'S').
Output:
Car (Orange) - ₱12345.67 - small

Process finished with exit code 0
```