

Calma, Michael Vincent, L.

C204

7OOP

Final Lab Task 1: Encapsulation

```
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("\nAction: Invoking the Car class constructor using Car(\"red\", 19999.85, 'M').")
car1 = Car( color: "Red", price: 19999.85, size: 'M')
print("Output:")
print(car1)

print("\nAction: Invoking the Car class constructor using Car(\"blue\", 50000.00, 'L').")
car2 = Car( color: "Blue", price: 50000.00, size: 'L')
print("Output:")
print(car2)

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

OUTPUT:

```
main ×
C:\Users\COMLAB\AppData\Local\Programs\Python\Python311\python.exe C:\Users\COMLAB\PycharmProjects\pythonProject2\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
```