

Finals Lab Task 1. Encapsulation

A Car That Works

car.py

```
class Car:

    def __init__(self, color: str, price: float, size: str):
        self._color = color
        self._price = float(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 = float(price)

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

    def __str__(self) -> str:
        size_map = {'S': 'small', 'M': 'medium', 'L': 'large'}
        size_desc = size_map.get(self._size, 'unknown')
        return f"Car ({self._color}) - P{self._price:.2f} - {size_desc}"
```

testCar.py

```
from car import Car

def main():
    c1 = Car("red", 19999.85, 'M')
    print(c1)
    c2 = Car("blue", 50000.00, 'L')
    print(c2)
    c3 = Car("green", 12345.67, 'S')
    print(c3)

if __name__ == "__main__":
    main()
```

Sample Output:

```
Car (red) - P19999.85 - medium
Car (blue) - P50000.00 - large
Car (green) - P12345.67 - small
```