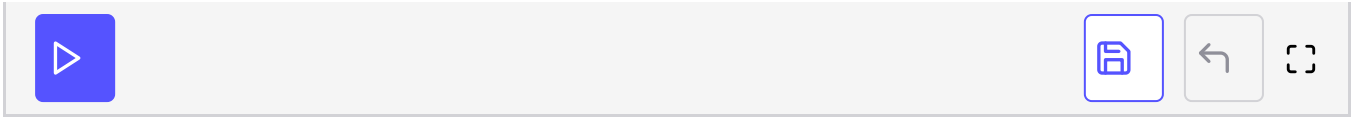
Solution Review 1: Cars and Engines!

This lesson provides the solution to the challenge, "Cars and Engines!" with an explanation.

WE'LL COVER THE FOLLOWING

Solution

```
class Car:
    def __init__(self, model, color):
        self.model = model
        self.color = color

    def printDetails(self):
        print("Model:", self.model)
        print("Color:", self.color)


class SedanEngine:
    def start(self):
        print("Car has started.")

    def stop(self):
        print("Car has stopped.")


class Sedan(Car):
    def __init__(self, model, color):
        super().__init__(model, color)
        self.engine = SedanEngine()

    def setStart(self):
        self.engine.start()

    def setStop(self):
        self.engine.stop()


car1 = Sedan("Toyota", "Grey")
car1.setStart()
car1.printDetails()
car1.setStop()
```



Explanation

- **Line 2-4**: Initialized car properties
- **Line 6-8**: `printDetails()` prints properties of `Car`.
- **Line 12-16**: `start()` and `stop()` functions defined with their respective outputs.
- **Line 20-22**: Initializer for `Sedan` defined which also refers to the *parent class* initializer using `super()`.
- Created an object of `SedanEngine` and assigned it to the `Sedan` class property `engine`.
- **Line 24-25**: `start()` method of `SedanEngine` object is called to start the car.
- **Line 27-28**: `stop()` method of `SedanEngine` object is called to stop the car.