

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
- Explanation

Solution

```
1 class Car:
2     def __init__(self, model, color):
3         self.model = model
4         self.color = color
5
6     def printDetails(self):
7         print("Model:", self.model)
8         print("Color:", self.color)
9
10
11 class SedanEngine:
12     def start(self):
13         print("Car has started")
14
15     def stop(self):
16         print("Car has stopped")
17
18
19 class Sedan(Car):
20     def __init__(self, model, color):
21         super().__init__(model, color)
22         self.engine = SedanEngine()
23
24     def setStart(self):
25         self.engine.start()
26
27     def setStop(self):
28         self.engine.stop()
29
30
31 car1 = Sedan("Toyota", "Grey")
```



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.