Solution Review: Playing with Cars and Engines!

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

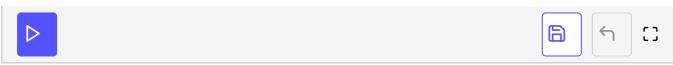
WE'LL COVER THE FOLLOWING ^

- Solution
 - Explanation

Solution

```
// Car class
class Car {
  // Declaring data members and methods
  private int id;
  private String model;
  private String color;
 public void carFeatures() { // Function to print out car features
    System.out.println("Car Model: " + model);
   System.out.println("Car Color: " + color);
 public void setModel(String model) {
   this.model = model;
 public void setColor(String color) {
   this.color = color;
  }
}
// Toyota Class, which is a child class of Car class.
class Toyota extends Car {
 // Inherits all properties of Car class
  public void setStart() {
    // Declaring an engine object and calling the start() function of the engine.
   ToyotaEngine engine = new ToyotaEngine();
    engine.start();
  }
}
```

```
// Engine class
class ToyotaEngine {
  // This function simply prints out on screen that Engine has been started!
  public void start() {
    System.out.println("Engine has been started.");
  // This function simply prints out on screen that Engine has been stopped!
  public void stop() {
    System.out.println("Engine has been stopped.");
}
class Main {
  public static void main(String[] args) {
    // Declaring and initializing Toyota object
    Toyota t = new Toyota();
    t.setModel("Fortuner");
    t.setColor("Silver");
   t.carFeatures();
    t.setStart();
  }
}
```



Explanation

- Line 25: Extended Toyota class from Car class.
- Line **28**: In the **setStart()** function, we've declared an instance of **ToyotaEngine()** which is now bounded with the instance of **Toyota** class.
- Line **55**: We are declaring a **Toyota** object, named **t**.
- Line **59**: Calling carFeatures() of the "**t**" object, after initializing its *model* and its *color* above.
- Line **60**: We are then calling the <code>start()</code> function of <code>ToyotaEngine()</code> through the instance of <code>Toyota</code> i.e. **t**.