

# Challenge 1: Implement the Derived Class

Can you Implement the Derived Class function by using the Base Class functions? A solution is placed in the "solution" section to help you, but we would suggest you try to solve it on your own first.

## We'll cover the following ^

- Problem Statement
  - Input
  - Output
  - Sample Input
  - Sample Output
- Coding Exercise

## Problem Statement #

Implement a function `getDetails(String carName)` of the **Derived Class** `Car` which takes a string `carName` and appends it with model, name, and speed. We have already implemented the **Base Class** `Vehicle` with the member functions `getModel()` and `getSpeed()` which return the model and speed of the car respectively.

## Input #

Car Name

## Output #

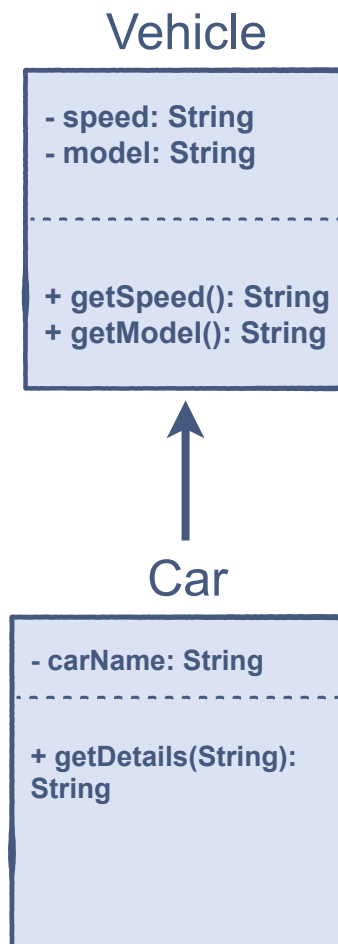
Car Name, Model, Speed

## Sample Input #

```
"Roadster";
```

## Sample Output #

```
"Roadster, Tesla, 100";
```



Based and Derived Classes Structure

## Coding Exercise #

First, take a close look and design a step-by-step algorithm before jumping to the implementation. This problem is designed for your practice, so initially try to solve it on your own. If you get stuck, you can always refer to the solution provided in the solution review.

**Good Luck!**

```
// Derived Class
class Car { // This line needs to be changed.

    public String name; // Name of a Car

    public Car() { // Default Constructor
        name = "";
    }

    // This function sets the name of the car
    public void setDetails(String name) { // Setter Function
        this.name = name;
    }
}
```



```
// This function calls the Base class functions and appends the input to the result
public String getDetails(String carName) {
    String details = "";

    // write your code here

    return details;
}
}
```



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The solution will be explained in the next lesson.