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.Net Final Project  
Brief Explanation of Implementation

**1. Vehicle.cs**

This is the base class from which all vehicle types inherit.

Properties:  
Name, Color, and Speed are common properties shared by all vehicles.

Constructor:  
Initializes the vehicle’s name, color, and speed.

Move Method:  
A virtual method that can be overridden by subclasses to implement specific movement logic.

**2. Subclasses**

Each derived class represents a specific type of vehicle with its own behavior:

Car:  
Inherits from Vehicle and adds an Acceleration property, and overrides the Move method to increase speed by the acceleration value.

Motorbike:  
Similar to Car, it has an Acceleration property and the Move method adds acceleration to the speed.

Truck:  
Inherits from Vehicle but does not have an acceleration property. The Move method uses only the speed, without acceleration.

Bicycle:  
Inherits from Vehicle and has an Acceleration property, which is negative. The Move method decreases speed by the acceleration value.

**3. Form1.cs**

This file manages the user interface and orchestrates the race simulation.

Vehicle Initialization (InitializeVehicles):  
Vehicles are created with specific names, colors, speeds, and (if applicable) acceleration.  
These vehicles are added to ListBox controls for user selection.  
  
Adding Vehicles to the Race (buttonAddToRace\_Click):  
When the user selects vehicles, they are added to a queue (raceQueue), and their names are displayed in a list. Labels corresponding to each vehicle type (labelCar, labelBicycle, etc.) are updated with the selected vehicle's name.

Starting the Race (buttonStartRace\_Click):  
The race starts only if exactly four vehicles are selected. The race timer begins, triggering the timerRace\_Tick method.

Updating Progress Bars (UpdateProgressBars):  
As the timer ticks, each vehicle's progress bar is updated based on its speed and acceleration. The color of each progress bar is set to match the vehicle’s color. The race stops when the first vehicle’s progress bar reaches its maximum value, and a message is displayed indicating the winner.

Resetting the Race (buttonResetRace\_Click):  
The race can be reset by stopping the timer, clearing the selected vehicles and queue, and resetting the progress bars and labels.