Classes and Inheritance

1. Define a Python class named `Vehicle`. It should have a constructor that takes two parameters, `make` and `model`, and sets them as instance variables. Provide a method called `display_info` that prints the make and model of the vehicle.

2. Create a subclass of `Vehicle` called `Car`. Add a constructor that takes three parameters: `make`, `model`, and `year`. In the constructor, call the constructor of the `Vehicle` class using `super()`. Then, add a method called `display_info` to the `Car` class that displays the make, model, and year of the car.

3. Create a subclass of `Rectangle` called `Square`. Add a constructor that takes a single parameter, `side_length`, and uses it to set the width and height of the square. Then, add a method called `perimeter` to the `Square` class that calculates and returns the perimeter of the square.

4. Define a class named `Person` with a constructor that takes two parameters, `first_name` and `last_name`, and sets them as instance variables. Create a method called `get_full_name` that returns the person's full name. Then, create an instance of the `Person` class with the first name "John" and the last name "Doe," and print their full name.

5. Define an abstract base class named `Shape` with an abstract method `area`. Create two subclasses: `Rectangle` and `Circle`. Implement the `area` method for both subclasses to calculate and return the area of the rectangle and the circle, respectively.

6. Create a class named `ColorMixin` that contains an instance variable `color`. Implement this mixin class in both the `Rectangle` and `Circle` classes, allowing you to set and retrieve the color of each shape.