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Tutorial 1

Exercise (1):

Write a class called *Pen*, which has two attributes : *inkLevel*, and *color*. A new pen always comes with inkLevel of 10, while the color is different from one pen to another. In addition to the constructor, a pen has a method called *write* which reduce the level of the ink of the pen by 1, then returns the current inkLevel. A *refill* method sets the inkLevel to 10. Finally, a *display* method prints on the screen the details of the pen (color and inkLevel).

Exercise (2):

Create a class *Rectangle*, which has attributes *length* and *width*, each of read from user. It has member function that *calculate* the perimeter and area of the rectangle. It has *set* and *get* functions for both length and width. The set function should verify that length and width are each floating – point numbers greater than 0.0 and less than 20.0.

[Hints]:

- Perimeter = 2*(length + width).
- Area = length *width.