

### Exercise 17: Define a Shape Class with an Area Calculation

Create a `Shape` class with attributes `width` and `height`.

1. Add a method `area` that calculates the area ( $\text{width} \times \text{height}$ ).
2. Create a `Shape` object with `width` 4 and `height` 5, and print the area.

### Exercise 18: Define a Clock Class with Time Display

Create a `Clock` class with attributes `hours`, `minutes`, and `seconds`.

1. Add a method `display_time` that prints the time in `hh:mm:ss` format.
2. Create a `Clock` object with specific hours, minutes, and seconds, and display the time.

### Exercise 19: Define a Plant Class with Watering Feature

Create a `Plant` class with attributes `name` and `water_level` (initially set to 0).

1. Add a method `water` that increases `water_level` by a specified amount.
2. Create a `Plant` object, water it a few times, and print the final water level.

### Exercise 20: Define a Counter Class with a Decrement Method

Create a `Counter` class with an attribute `count` (initially set to 0).

1. Add methods `increment` (increases `count` by 1) and `decrement` (decreases `count` by 1).
2. Create a `Counter` object, increment and decrement it a few times, and print the final count.

### Exercise 21: Define a Book Class with a read Method

Create a `Book` class with attributes `title`, `author`, and `pages`.

1. Add a method `read` that takes a number of pages as an argument and prints "You read X pages."
2. Create a `Book` object and call the `read` method with a specific number of pages.

### Exercise 22: Define a Bottle Class with a Fill Method

Create a `Bottle` class with an attribute `capacity` and `content` (initially set to 0).

1. Add a method `fill` that increases `content` by a specified amount, without exceeding `capacity`.
2. Create a `Bottle` object, fill it multiple times, and print the final content.

### **Exercise 23: Define a Square Class with Area Calculation**

Create a `Square` class with an attribute `side_length`.

1. Add a method `area` that calculates the area ( $\text{side\_length}^2$ ).
2. Create a `Square` object, set a side length, and print the area.

### **Exercise 24: Define a Pen Class with Ink Level**

Create a `Pen` class with an attribute `ink_level` (initially set to 100).

1. Add a method `write` that reduces the `ink_level` by a specified amount, but doesn't allow it to go below 0.
2. Create a `Pen` object, use it to write multiple times, and print the final ink level.