Challenge 5: Inheritance

Solve an exercise on inheritance to brush up on the previous inheritance concepts.

WE'LL COVER THE FOLLOWING

Problem Statement

The code for the `Rectangle` class is implemented below:

1. Create a `Square` class as a subclass of `Rectangle`.
2. Implement the `Square` constructor. The constructor should have only the `x1`, `y1` coordinates and the `length` of a side. Notice which arguments you'll have to use when you invoke the `Rectangle` constructor while using `super`.

The following test cases will calculate the area of the square to check that the `Square` class correctly inherits attributes and methods from `Rectangle`.

Input

The coordinates and the length of the square

Output

Area of the square

Sample Input

Sample Input

Square([2, 3, 5])

x1 = 2, y1 = 3, length = 5

Sample Output

Area = 25

Coding Exercise

Write your code below. It is recommended that you try solving the exercise yourself before viewing the solution.

```
class Rectangle:
  def __init__(self, x1, y1, x2, y2): # class constructor
    self.x1 = x1 # class variable
    self.y1 = y1 # class variable
    self.x2 = x2 # class variable
    self.y2 = y2 # class variable

  def width(self):
    return self.x2 - self.x1

  def height(self):
    return self.y2 - self.y1

  def area(self):
    return self.width() * self.height()

#class Square():
  #write your code here
```

The next lesson discusses the solution of this exercise.