Multiple Class Inheritance

Think about Inheritance but accepting more than just one class!

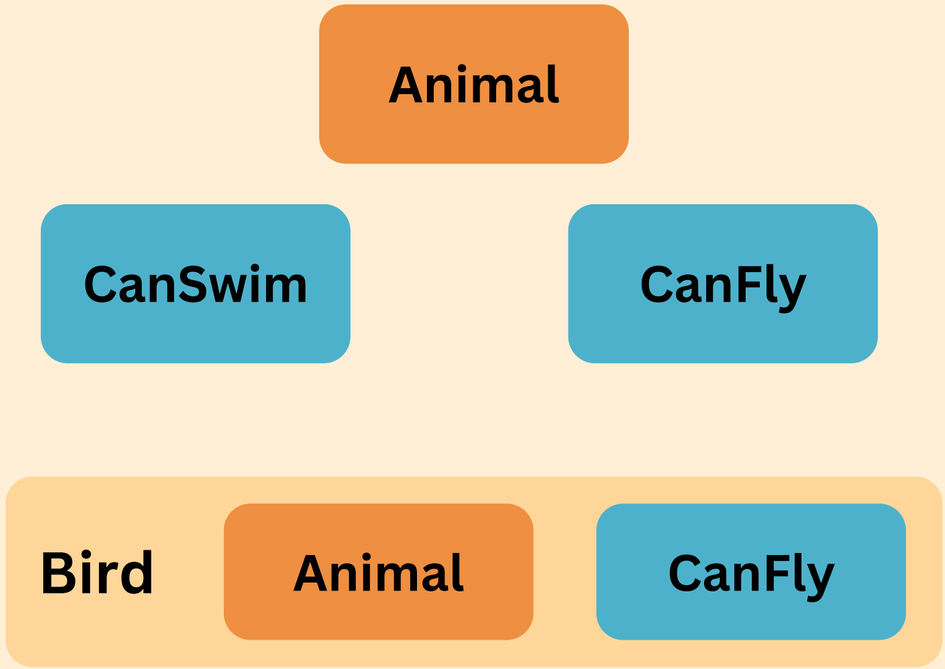
Inheriting Multiple Classes:

That's right! You can give a child class, multiple classes.

Example: The **Animal Class is the "Base class"** that provides the **basics for all the animals**.

Each animal can do something so we have two other classes, **CanFly** and **CanSwim**.

Finally we have an animal, **bird**. This object **will inherit both, Animal and CanFly**



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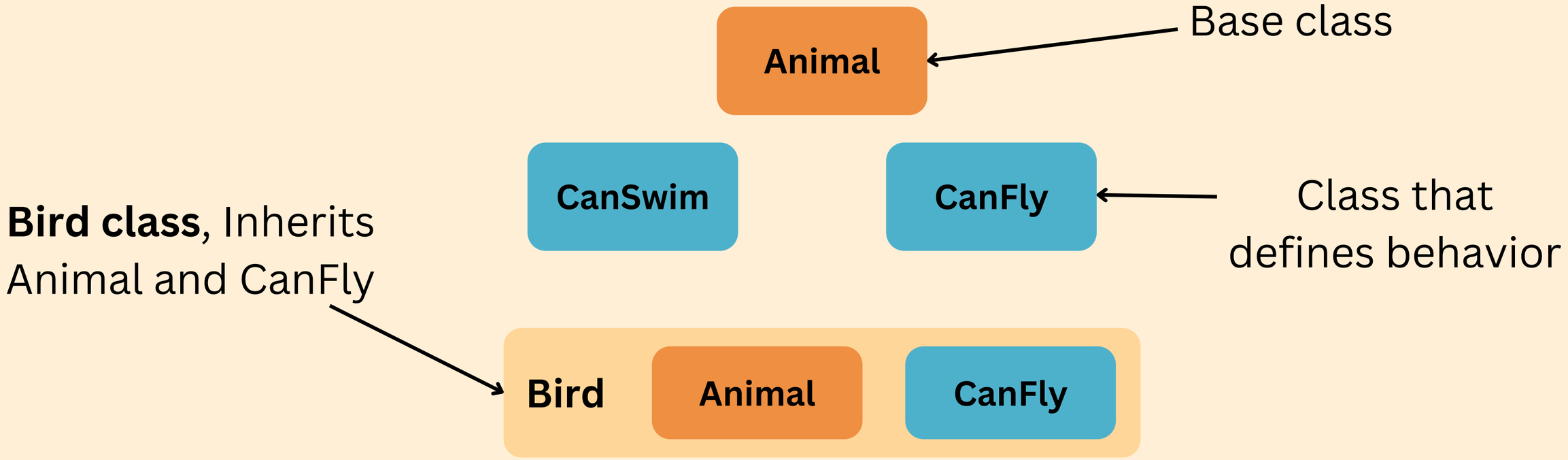

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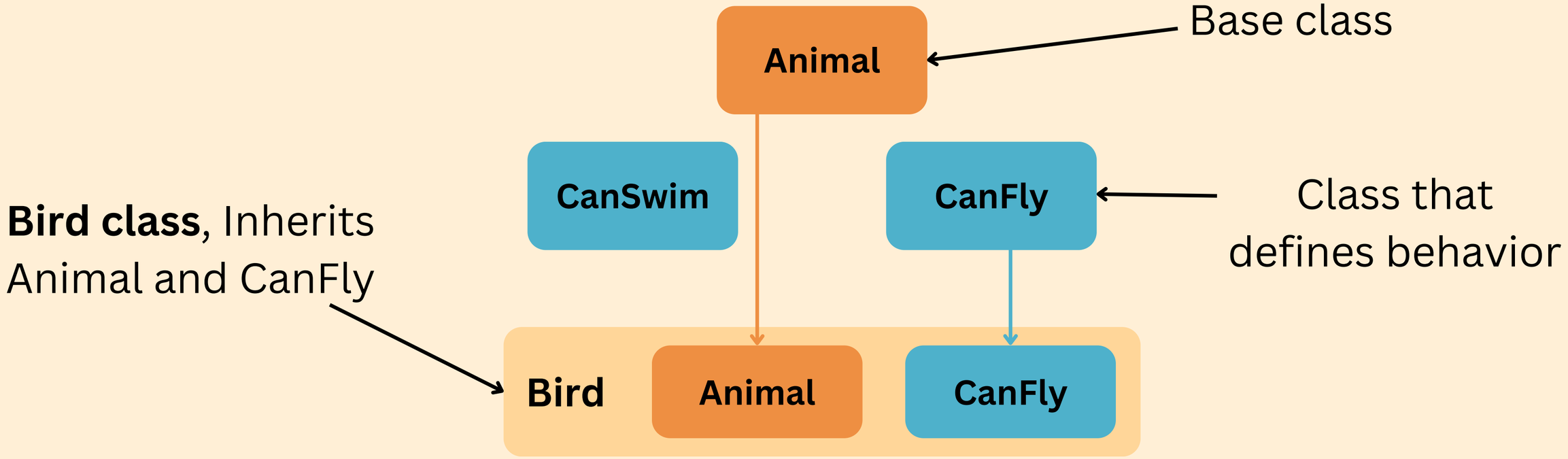

Inheriting Multiple Classes:

```
class Animal:
    def __init__(self, name):
        self.name = name

    def eat(self):
        print(f"{self.name} is eating.")

class CanFly:
    def fly(self):
        print(f"{self.name} is flying.")

class Bird( Animal, CanFly ):
    def __init__(self, name, color ):
        super().__init__( name )
        self.color = color
    def sleep(self):
        print(f"The {self.color} bird is sleeping")

my_bird = Bird("Canary")
my_bird.eat()
my_bird.fly()
my_bird.sleep()
```

Our Base Class

Our Behavior Class

Our final/specific class

Creating an Object

Using the methods from all 3 classes

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Because we are using super() in the Bird class, we can **pass the name to the parent classes**

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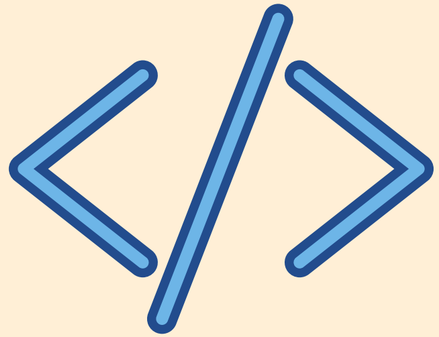
Challenge #1 in VS code:

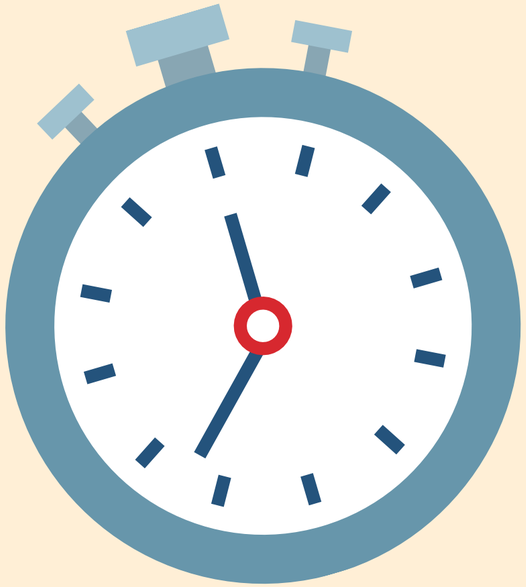
DO NOT GO BACK!

Try to recreate the code from previous slide!

Use it as an example to build your own



One Base Class - (Animal)



Two Behavior or Style **Classes** (CanFly, CanWalk)

One Child Class (final class)

Use print() to interact with each class

Use super() to **pass the arugument to each class**