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BSCS – C204

Simple Polymorphism:

Source Code:

```
main.py
1 from Sparrow import Sparrow
2 from Parrot import Parrot
3 from BirdCage import BirdCage
4
5 # Create objects
6 sparrow = Sparrow()
7 parrot = Parrot()
8
9 # Put birds in a list
10 birds = [sparrow, parrot]
11
12 # Bird cage makes the birds produce sounds
13 cage = BirdCage()
14 cage.make_bird_sounds(birds)
```

```
Bird.py
class Bird: 6 usages
    def make_sound(self) -> None: 1 usage
        # Abstract method
        # No specific implementation in the base class
        pass
```

```
Sparrow.py
from Bird import Bird
class Sparrow(Bird): 2 usages
    def make_sound(self) -> None:
        print("Chirp Chirp")
```

```
Parrot.py
from Bird import Bird
class Parrot(Bird): 2 usages
    def make_sound(self) -> None:
        print("Tweet Tweet")
```

```
BirdCage.py
from typing import List
from Bird import Bird
class BirdCage: 2 usages
    def make_bird_sounds(self, birds: List[Bird]) -> None: 1 usage
        for bird in birds:
            bird.make_sound()
```

Sample output:

```
C:\Users\CCA_College
Chirp Chirp
Tweet Tweet
```