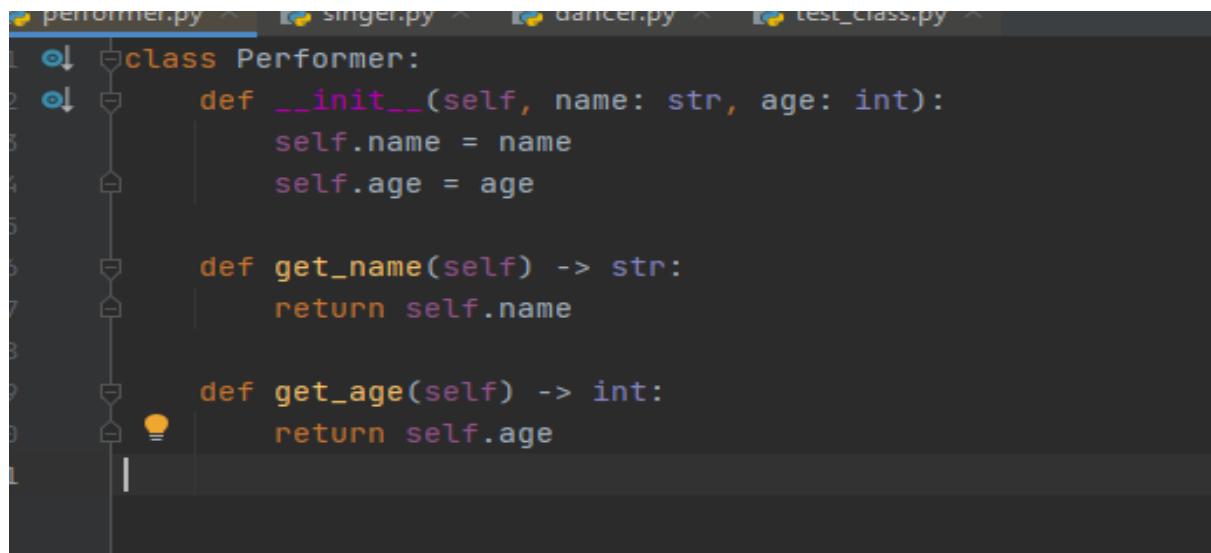


## Finals Task 2. Inheritance

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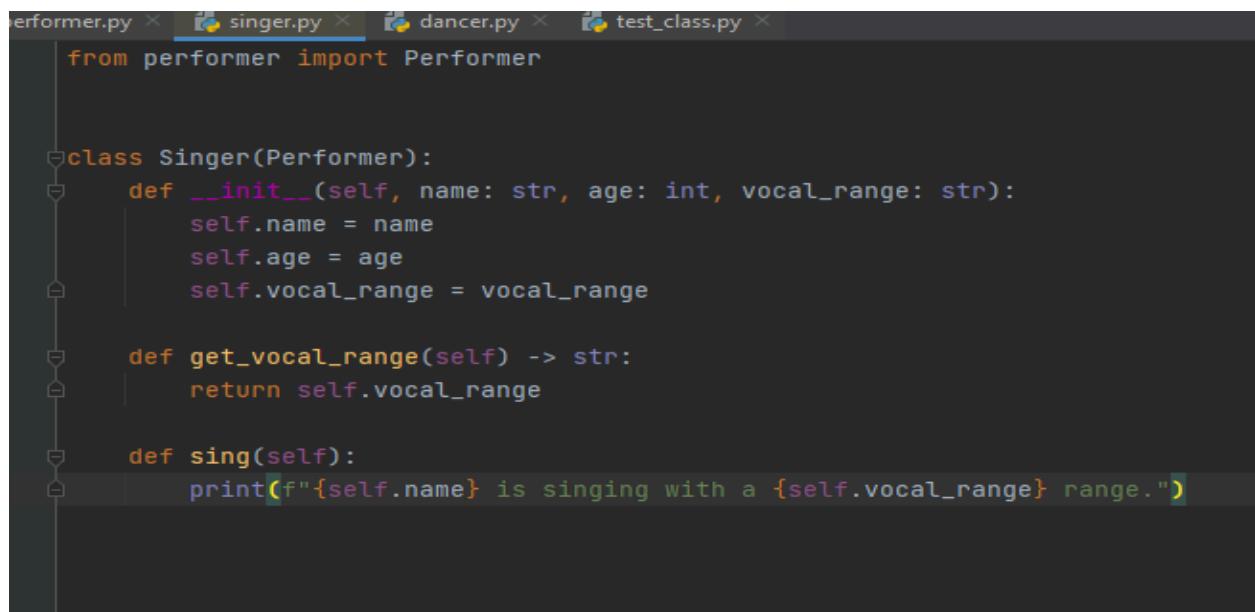
Problem School Performance

performer.py(base class)



```
1  class Performer:
2      def __init__(self, name: str, age: int):
3          self.name = name
4          self.age = age
5
6      def get_name(self) -> str:
7          return self.name
8
9      def get_age(self) -> int:
10         return self.age
```

singer.py(sub class)



```
1  from performer import Performer
2
3  class Singer(Performer):
4      def __init__(self, name: str, age: int, vocal_range: str):
5          self.name = name
6          self.age = age
7          self.vocal_range = vocal_range
8
9      def get_vocal_range(self) -> str:
10         return self.vocal_range
11
12     def sing(self):
13         print(f"{self.name} is singing with a {self.vocal_range} range.")
```

dancer.py(sub class)

```
performer.py  singer.py  dancer.py  test_class.py
from performer import Performer

class Dancer(Performer):
    def __init__(self, name: str, age: int, dance_style: str):
        self.name = name
        self.age = age
        self.dance_style = dance_style

    def get_dance_style(self) -> str:
        return self.dance_style

    def dance(self):
        print(f"{self.name} is performing {self.dance_style} dance.")
```

test\_class.py – following the required test cases

```
performer.py  singer.py  dancer.py  test_class.py
from performer import Performer
from singer import Singer
from dancer import Dancer

def main():
    p = Performer(name="John", age=25)
    print(p.get_name(), p.get_age())

    d = Dancer(name="Emily", age=28, dance_style="Ballet")
    print(d.get_name(), d.get_age(), d.get_dance_style())

    d.dance()

    s = Singer(name="Linda", age=35, vocal_range="Soprano")
    print(s.get_name(), s.get_age(), s.get_vocal_range())

    s.sing()

if __name__ == "__main__":
    main()
```

### CASE TEST 1

```
performer.py × singer.py × dancer.py × test_class.py ×
1   from performer import Performer
2   from singer import Singer
3   from dancer import Dancer
4
5   def main():
6       p = Performer(name: "John", age: 25)
7       print(p.get_name(), p.get_age())
```

### CASE TEST 2

```
8
9   d = Dancer(name: "Emily", age: 28, dance_style: "Ballet")
10  print(d.get_name(), d.get_age(), d.get_dance_style())
11
```

### CASE TEST 3

```
11  |
12  |     d.dance()
13  |
```

### CASE TEST 4 - IT JUST CHECK

### CASE TEST 5

```
13
14  s = Singer(name: "Linda", age: 35, vocal_range: "Soprano")
15  print(s.get_name(), s.get_age(), s.get_vocal_range())
16
```

### CASE TEST 6

```
16
17  |     s.sing()
18  |
```

## Sample Output

```
C:\Users\COMLAB\PycharmProjects\pythonProject3\venv\Scripts\python.exe
John 25
Emily 28 Ballet
Emily is performing Ballet dance.
Linda 35 Soprano
Linda is singing with a Soprano range.
```

```
Process finished with exit code 0
```