

EXERCISE 3

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Batch: CSE-O2

1.

```
class Vehicle_094:
    def __init__(self, max_speed, mileage):
        self.max_speed = max_speed
        self.mileage = mileage

modelX = Vehicle_094(240, 18)
print(modelX.max_speed, modelX.mileage)
```

```
class Vehicle_094:
    def __init__(self, max_speed, mileage):
        self.max_speed = max_speed
        self.mileage = mileage

modelX = Vehicle_094(240, 18)
print(modelX.max_speed, modelX.mileage)
```

Console 1/A

```
In [5]: runfile('/Users/rahulgoel/untitled4.py', wdir='/Users/rahulgoel')
Vehicle Name: School Volvo Speed: 180 Mileage: 12

In [6]: runfile('/Users/rahulgoel/untitled2.py', wdir='/Users/rahulgoel')
Traceback (most recent call last):
  File "/Users/rahulgoel/untitled2.py", line 6, in <module>
    modelX = Vehicle094(240, 18)
TypeError: Vehicle094() takes no arguments

In [7]: runfile('/Users/rahulgoel/untitled2.py', wdir='/Users/rahulgoel')
240 18

In [8]: runfile('/Users/rahulgoel/untitled6.py', wdir='/Users/rahulgoel')
Total Bus fare is: 5500.0

In [9]: runfile('/Users/rahulgoel/untitled2.py', wdir='/Users/rahulgoel')
240 18

In [10]: runfile('/Users/rahulgoel/untitled4.py', wdir='/Users/rahulgoel')
Vehicle Name: School Volvo Speed: 180 Mileage: 12

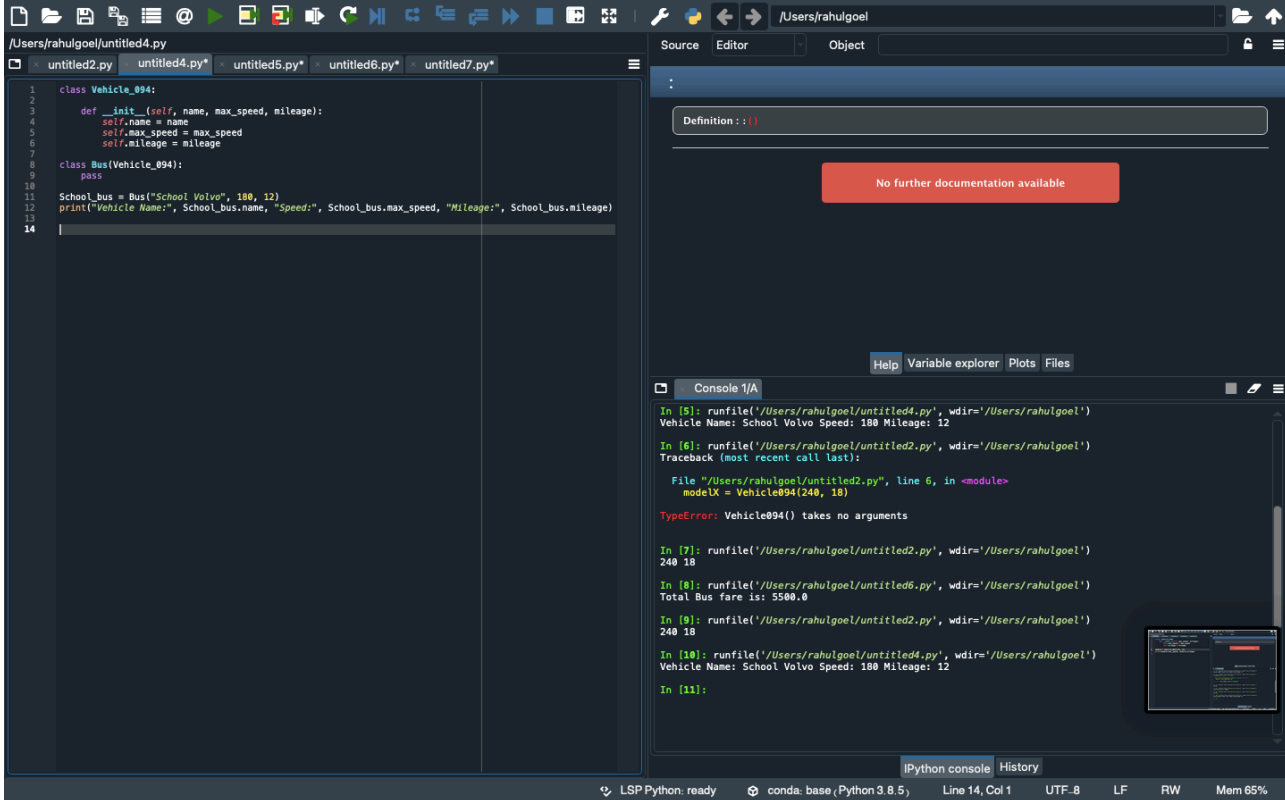
In [11]:
```

2.

```
class Vehicle_094:

    def __init__(self, name, max_speed, mileage):
        self.name = name
        self.max_speed = max_speed
        self.mileage = mileage

class Bus(Vehicle_094):
```



pass

```

School_bus = Bus("School Volvo", 180, 12)
print("Vehicle Name:", School_bus.name, "Speed:", School_bus.max_speed, "Mileage:",
School_bus.mileage)

```

3.

```

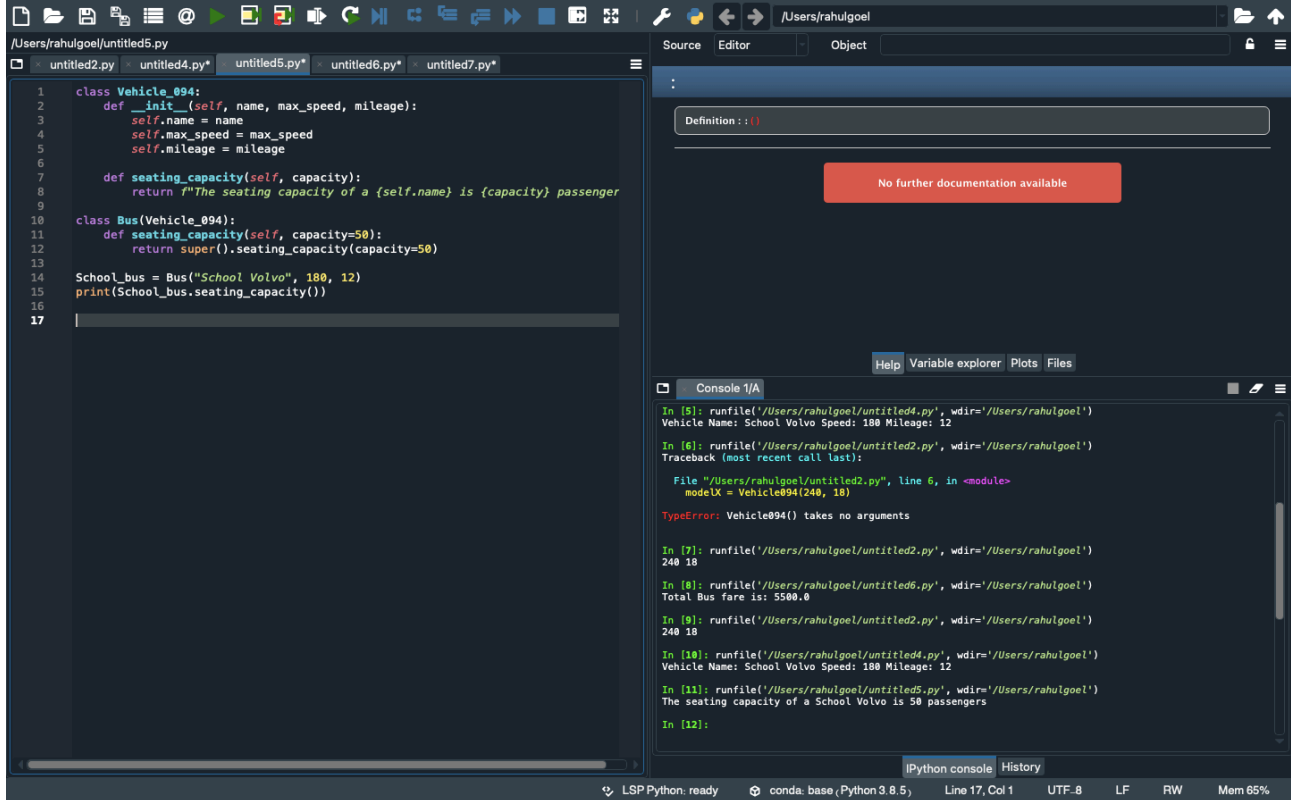
class Vehicle_094:
    def __init__(self, name, max_speed, mileage):
        self.name = name
        self.max_speed = max_speed
        self.mileage = mileage

    def seating_capacity(self, capacity):
        return f"The seating capacity of a {self.name} is {capacity} passengers"

class Bus(Vehicle_094):
    def seating_capacity(self, capacity=50):
        return super().seating_capacity(capacity=50)

School_bus = Bus("School Volvo", 180, 12)
print(School_bus.seating_capacity())

```



4.

```

class Vehicle_094:
    def __init__(self, name, mileage, capacity):
        self.name = name
        self.mileage = mileage
        self.capacity = capacity

```

```

def fare(self):
    return self.capacity * 100

```

```

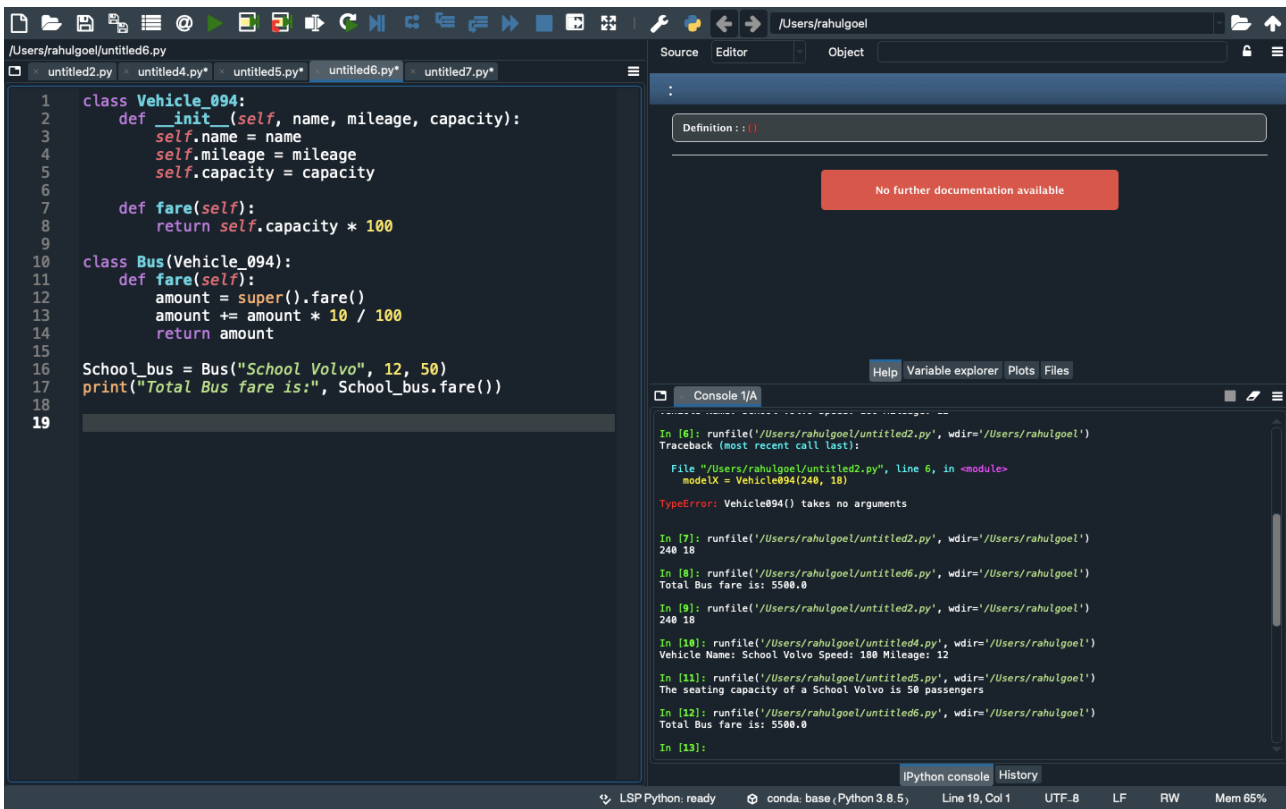
class Bus(Vehicle_094):
    def fare(self):
        amount = super().fare()
        amount += amount * 10 / 100
        return amount

```

```

School_bus = Bus("School Volvo", 12, 50)
print("Total Bus fare is:", School_bus.fare())

```



5.

```
class Vehicle_094:
    def __init__(self, name, mileage, capacity):
        self.name = name
        self.mileage = mileage
        self.capacity = capacity
```

```
class Bus(Vehicle_094):
    pass
```

```
School_bus = Bus("School Volvo", 12, 50)
```

```
print(type(School_bus))
```

File Explorer | Run and Debug | /Users/rahulgoel

untitled2.py | untitled4.py* | untitled5.py* | untitled6.py* | untitled7.py*

```
1 class Vehicle_094:
2     def __init__(self, name, mileage, capacity):
3         self.name = name
4         self.mileage = mileage
5         self.capacity = capacity
6
7 class Bus(Vehicle_094):
8     pass
9
10 School_bus = Bus("School Volvo", 12, 50)
11
12
13 print(type(School_bus))
14
```

Source | Editor | Object

Definition: :()

No further documentation available

Help | Variable explorer | Plots | Files

Console 1/A

```
TypeError: Vehicle094() takes no arguments

In [7]: runfile('/Users/rahulgoel/untitled2.py', wdir='/Users/rahulgoel')
240 18

In [8]: runfile('/Users/rahulgoel/untitled6.py', wdir='/Users/rahulgoel')
Total Bus fare is: 5580.0

In [9]: runfile('/Users/rahulgoel/untitled2.py', wdir='/Users/rahulgoel')
240 18

In [10]: runfile('/Users/rahulgoel/untitled4.py', wdir='/Users/rahulgoel')
Vehicle Name: School Volvo Speed: 180 Mileage: 12

In [11]: runfile('/Users/rahulgoel/untitled5.py', wdir='/Users/rahulgoel')
The seating capacity of a School Volvo is 50 passengers

In [12]: runfile('/Users/rahulgoel/untitled6.py', wdir='/Users/rahulgoel')
Total Bus fare is: 5580.0

In [13]: runfile('/Users/rahulgoel/untitled7.py', wdir='/Users/rahulgoel')
<class '__main__.Bus'>

In [14]: runfile('/Users/rahulgoel/untitled7.py', wdir='/Users/rahulgoel')
<class '__main__.Bus'>

In [15]:
```

Python console | History

LSP Python: ready | conda: base (Python 3.8.5) | Line 14, Col 1 | UTF-8 | LF | RW | Mem 66%