11.1P - Clock in Another Language

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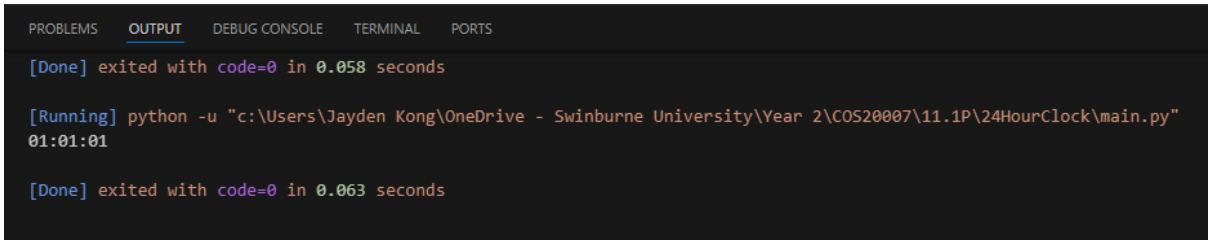
Program was done in python

Screenshot of output (01:01:01):



Counter class:

```python
class Counter:
    def __init__(self, name):
        self._name = name
        self._count = 0

    @property
    def name(self):
        return self._name

    @name.setter
    def name(self, value):
        self._name = value

    @property
    def ticks(self):
        return self._count

    def increment(self):
        self._count += 1

    def reset(self):
        self._count = 0
```

Clock class:

```
from counter import Counter

class Clock:
    def __init__(self):
        self._seconds = Counter("seconds")
        self._minutes = Counter("minutes")
        self._hours = Counter("hours")

    @property
    def time(self):
        return "{:02d}:{:02d}:{:02d}".format(self._hours.ticks,
        self._minutes.ticks, self._seconds.ticks)

    def tick(self):
        self._seconds.increment()
        if self._seconds.ticks == 60:
            self._minutes.increment()
            self._seconds.reset()
            if self._minutes.ticks == 60:
                self._hours.increment()
                self._minutes.reset()
                if self._hours.ticks == 24:
                    self._hours.reset()

    def reset(self):
        self._seconds.reset()
        self._minutes.reset()
        self._hours.reset()
```

Main:

```
from clock import Clock

my_clock = Clock()
for i in range(3661):
    my_clock.tick()
print(my_clock.time)      # Prints 01:01:01
```