

# CAP 776: PROGRAMMING IN PYTHON

## CONTINUOUS ASSESSMENTS (C.A)-2

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**Q.1. Construct a class name 'Timed' with data members (hours, mins, secs). Create some new classes name 'hourConvertor', 'minConvertor' and 'secConvertor' which is derived from class 'Time'. Data members for these new classes are: total\_hours, total\_mins and total\_secs. And secs for any integer value (in days).**

### CODE: -

```
class Time:
    def __init__(self, days=0):
        self.days = days

class HourConvertor(Time):
    def __init__(self, days=0):
        super().__init__(days)
        self.total_hours = self.days * 24

class MinConvertor(Time):
    def __init__(self, days=0):
        super().__init__(days)
        self.total_mins = self.days * 24 * 60

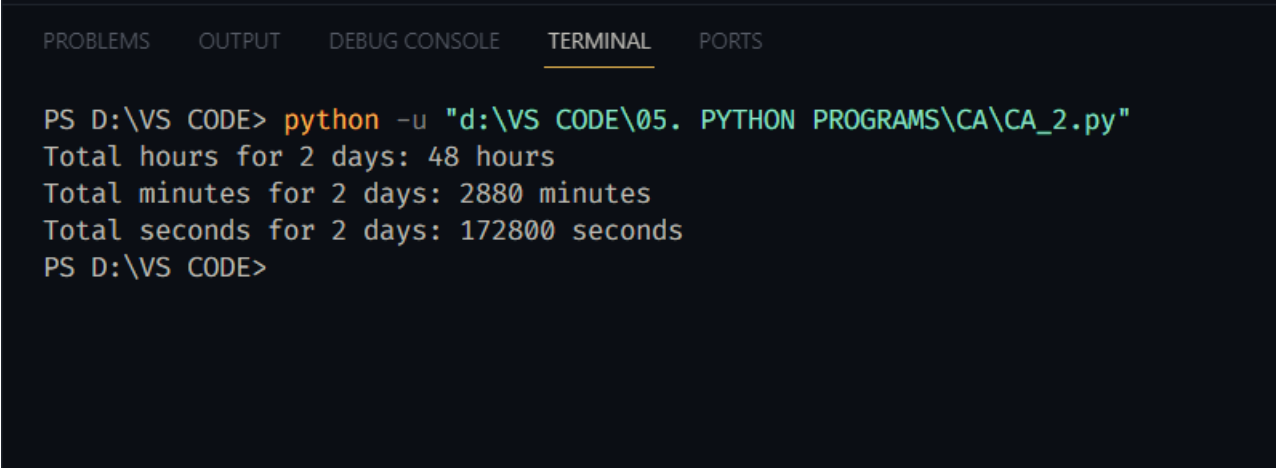
class SecConvertor(Time):
    def __init__(self, days=0):
        super().__init__(days)
        self.total_secs = self.days * 24 * 60 * 60

# Example usage:
days = 2 # Replace with the number of days you want to convert
hour_converter = HourConvertor(days)
```

```
min_converter = MinConvertor(days)
sec_converter = SecConvertor(days)
```

```
print(f"Total hours for {days} days: {hour_converter.total_hours} hours")
print(f"Total minutes for {days} days: {min_converter.total_mins} minutes")
print(f"Total seconds for {days} days: {sec_converter.total_secs} seconds")
```

### OUTPUT: -



The screenshot shows a VS Code terminal window with the 'TERMINAL' tab selected. The terminal displays the output of a Python script executed from the command prompt. The output shows the total hours, minutes, and seconds for 2 days.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS D:\VS CODE> python -u "d:\VS CODE\05. PYTHON PROGRAMS\CA\CA_2.py"
Total hours for 2 days: 48 hours
Total minutes for 2 days: 2880 minutes
Total seconds for 2 days: 172800 seconds
PS D:\VS CODE>
```