Python Programming
Classes Homework 2

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Teaching, Training and Coaching since more than a decade!

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Problem #1: Time Class - Code Review

```python
class Time:
    def __init__(self, hours, minutes, seconds):
        self.hours, self.minutes, self.seconds = hours, minutes, seconds

    def get_total_minutes(self):
        return self.hours * 60 + self.minutes

    def get_total_seconds(self):
        return self.hours * 60 * 60 + self.minutes * 60 + self.seconds

    def __str__(self):
        return f'{self.hours}:{self.minutes}:{self.seconds}'


if __name__ == '__main__':
    time = Time(2, 23, 14)
    print(time)
```

- Read carefully and understand the above code

Problem #1: Time Class - Code Review

- As a team leader, you are requested to review the previous code
- Figure out all possible concerns in the previous code. E.g.
  - Code Readability?
  - Printing?
  - Can the user create a valid Timers and get unexpected answer?

Problem #2: Time Class - Change Request

- All the time we do **code changes**.
  - The best code is one that will be changed the minimum or flexible for changes
- Moving to a mobile environment, where memory is limited, we want to move to only a single integer only (total_seconds) instead of 3 variables
- However, There are a lot of code base that depends on our code
  - We need to provide combitable changes
    - Old construction should be working: e.g. Time(5, 12, 37)
    - Old attributes should (virtually) be accessible
  - Consider also my solution guidelines for the last Question

"Acquire knowledge and impart it to the people."

"Seek knowledge from the Cradle to the Grave."