Lec2   if length too long,   length   str 1   leng- ≤ 280   str 3:
                    give a warny   ⟶   str₂   if str ≤ 280:   MSg[:250
                                                                                        ↑
                                                                           push first 280

CSC148 - Object-Oriented Design Considerations

Recall our Tweet class:

```python
class Tweet:
    """A tweet, like in Twitter.

    === Attributes ===
    content: the contents of the tweet.
    userid: the id of the user who wrote the tweet.
    created_at: the date the tweet was written.
    likes: the number of likes this tweet has received.
    """
    # Attribute types
    content: str
    userid: str
    created_at: date
    likes: int

    def __init__(self, who: str, when: date, what: str) -> None:  ● update docstring
        """Initialize a new Tweet.
        """
        self.userid = who
        self.content = what
        self.created_at = when
        self.likes = 0   Representation invariant.

    def like(self, n: int) -> None:  保留 n≥in ,
        """Record the fact that this tweet received <n> likes.

        These likes are in addition to the ones <self> already has.
        """
        self.likes += n

    def edit(self, new_content: str) -> None:
        """Replace the contents of this tweet with the new message.
        """
        self.content = new_content
```

Ex: controlling tweet length.
Think through what the 3 strategies you look like for this representation invariant. Which do you prefer? Is it the same preference you had for keeping likes ≥ 0?

Strategy 2 · no precondition on n
ignore bad numbers · if $n > 0$:
    self.likes += n

Strategy 1
· Precondition: $n \geq 0$
  on the parameter

Strategy 3
· no precondition
· self.likes += $abs(n)$
· update docstring

→ according to Twitter.

1. Write code that creates a tweet called **misbehaved** that is in some way nonsensical. There are at least two ways to do this.

   a) misbehaved = Tweet('G', date(2022, 1, 21), 'meow' * 1000)

   or

   b) mis2 = Tweet('G', date(2022, 1, 21), 'meow')
      mis2.like(-96)

2. Describe a property (something that should be true) that your **misbehaved** instance has violated.

   representation invariant
   a) len(content) <= 280.
   b) likes >= 0.

   a) prevent a length too long
   b) prevent negative likes
   诶4 apply.

   You may be able to think of others

3. Modify the Tweet class above to prevent your methods from violating this property.

   See notes above for our 3 options.