CL09 - elif and more conditionals practice

Reminders

Quiz 00:

- *Regrade requests will be open till Wednesday, Feb 5 at 11:59pm*.
  - Please submit a regrade request if you believe your quiz was not graded correctly according to the rubric
  - Please do not ask questions about content in regrade requests. Instead, come see us in office hours/tutoring!

Quiz 01 (on Friday, Feb 14):

- Reminder to schedule your quiz with ARS (if you have accommodations) or me (if you have an excused absence).
- To prepare:
  - Practice quiz will be posted to the website today
  - Come see us in Office Hours and Tutoring!
  - Review Session will be announced soon!

Today's Tutoring session (Feb 3) will be in Fred Brooks (FB) 007.

Warmup: What is the printed output?

```
1   def pack(degrees_fahrenheit: float) -> str:
2       if degrees_fahrenheit <= 32.0:
3           return "Warm Jacket"
4       else:
5           if degrees_fahrenheit == 0.0:
6               return "REALLY Warm Jacket"
7           else:
8               if degrees_fahrenheit > 60.0:
9                   return "Long Sleeve Shirt"
10              else:
11                  if degrees_fahrenheit > 75.0:
12                      return "Short Sleeve Shirt"
13                  else:
14                      return "Tank Top"
15
16
17  print(pack(degrees_fahrenheit=0.0))
18  print(pack(degrees_fahrenheit=95.0))
19  print(pack(degrees_fahrenheit=55.0))
```

Is any of this code ***unreachable***? Why?

Illogical conditional statements can lead to *unreachable code*

```
1   def pack(degrees_fahrenheit: float) -> str:
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```

Your job: Rewrite the nested if-else statements to be more logical and easier to reason through

```
def pack(df: float) -> str:
    """Packing advice."""
    if df <= 50.0:
        return "Warm Jacket"
    else:
        if df <= 0.0:
            return "Stay Inside"
        else:
            if df >= 75.0:
                return "Short Sleeves"
            else:
                return "Long Sleeves"
```

`elif` ("else if") statement lets us check multiple conditions sequentially, without nested if-else statements

These two statements are *semantically* equivalent:

```python
def pack(degrees: float) -> str:
    """Packing advice."""
    if degrees <= 0.0:
        return "Stay Inside"
    else:
        if degrees <= 50.0:
            return "Warm Jacket"
        else:
            if degrees < 75.0:
                return "Long Sleeves"
            else:
                return "Short Sleeves"
```

```python
def pack(degrees: float) -> str:
    """Packing advice."""
    if degrees <= 0.0:
        return "Stay Inside"
    elif degrees <= 50.0:
        return "Warm Jacket"
    elif degrees < 75.0:
        return "Long Sleeves"
    else:
        return "Short Sleeves"
```

```python
def celebrate(winner: str) -> None:
    print(f"Yay, {winner}!")


def get_votes(beyonce: int, kendrick: int, other: int) -> str:
    """Find RoTY winner."""
    if other > beyonce and other > kendrick:
        return "Someone else!"
    elif kendrick > beyonce:
        return "Kendrick"
    else:
        return "Beyonce"
    return "Charli"


celebrate(get_votes(beyonce=6000, kendrick=3000, other=4000))
```

```python
"""Mysterious 'rev' from source (src) to destination (dest)!"""


def rev(src: str, i: int, dest: str) -> str:
    """You happen upon a magical lil function..."""
    if i >= len(src):
        return dest
    else:
        return rev(src=src, i=i + 1, dest=src[i] + dest)


print(rev(src="lwo", i=0, dest=""))
```