PRO TIP: COMPREHENSIONS

Comprehensions can generate sequences from other sequences

Syntax:
```
new_list = [expression for member in other_iterable (if condition)]
```

EXAMPLE | *Creating a list of Euro prices from USD prices*

Before, you needed a for loop to create the new list → *Now, you can use comprehensions to do this with a single line of code*

```
usd_list = [5.99, 19.99, 24.99, 0, 74.99, 99.99]
exchange_rate = 0.88
euro_list = []

for price in usd_list:
    euro_list.append(round(price * exchange_rate, 2))

euro_list
```

```
[5.27, 17.59, 21.99, 0.0, 65.99, 87.99]
```

```
exchange_rate = 0.88
usd_list = [5.99, 9.99, 19.99, 24.99, 99.99]

euro_list = [round(price * exchange_rate, 2) for price in usd_list]
euro_list
```

```
[5.27, 8.79, 17.59, 21.99, 87.99]
```

```
euro_list = [round(price * exchange_rate, 2) for price in usd_list if price < 10]
euro_list
```

```
[5.27, 0.0]
```

You can even leverage conditional logic to create very powerful expressions!