

BONUS: Modified Repeat Backwards in Python

Here's a variation on the "Repeat Backwards" program we just rewrote in Python. Read it through and make a prediction about how it will behave. Then, type it out and run it to see if your prediction was correct.

```
item_count = {}
items = []

while True:
    user_input = input("What should I add to the list? ")
    if user_input == "":
        break
    item_count[user_input] = item_count.get(user_input, 0) + 1
    if user_input not in items:
        items.append(user_input)

print("Here's your list in reverse:")
for item in reversed(items):
    print(f"{item_count[item]} x {item}")
```

Questions:

1. Describe how this program is different from the previous "Repeat Backwards" program.

2. Describe how you think the program keeps track of how many times each item was entered.

3. Does the program still need the `items` list? Why or why not?