Explanation of the Code

Function Definition: The countdown\_bottles function takes an integer input and counts down from that number to 1, printing the appropriate lyrics.

def countdown\_bottles(num\_bottles):

# Loop from the number of bottles down to 1

for i in range(num\_bottles, 0, -1):

if i == 1:

print(f"{i} bottle of beer on the wall, {i} bottle of beer.")

print("Take one down, pass it around, 0 bottles of beer on the wall.")

else:

print(f"{i} bottles of beer on the wall, {i} bottles of beer.")

print(f"Take one down, pass it around, {i-1} bottles of beer on the wall.")

# Final output when there are no bottles left

print("0 bottles of beer on the wall.")

Input Handling: The main function continuously prompts the user for a positive integer until valid input is received.

def main():

while True:

try:

# Ask the user for the number of bottles

user\_input = int(input("How many bottles of beer are on the wall? "))

if user\_input <= 0:

print("Please enter a positive integer.")

continue

# Call the countdown function

countdown\_bottles(user\_input)

break # Exit the loop after successful countdown

Error Handling: The program includes error handling to manage non-integer inputs gracefully.

except ValueError:

print("Invalid input. Please enter a positive integer.")

Final Output: After the countdown, the program reminds the user to buy more beer and exits with code 0.

# Remind the user to buy more beer

print("Don't forget to buy more beer!")

exit(0) # Terminate the program with exit code 0

Call of the function

# Run the main function

if \_\_name\_\_ == "\_\_main\_\_":

main()

A screenshot of a computer

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