Class Exercise:

Redirection v1

You are tasked with creating a simple program that simulates a cashier in a grocery store. The program should take input from the user for the prices and quantities of various items, calculate the total cost, and then display the result. Additionally, the program should redirect the output to a file for record-keeping purposes.

Your task is to create a Python class called Cashier that implements this program. The class should have the following functionalities:

1. A method called take\_input() that prompts the user to enter the price and quantity of each item. The method should store this information in appropriate data structures.
2. A method called calculate\_total() that calculates the total cost of all the items based on their prices and quantities.
3. A method called display\_result() that displays the total cost to the user.
4. A method called redirect\_output() that redirects the output to a file named "receipt.txt" instead of displaying it to the console. The file should be created if it doesn't exist, and if it does exist, it should be overwritten.

import sys

class Cashier:

    def \_\_init\_\_(self):

        self.items = []

    def take\_input(self):

# Your code here

    def calculate\_total(self):

# Your code here

    def display\_result(self):

# Your code here

    def redirect\_output(self):

# Your code here

# Usage example:

cashier = Cashier()

cashier.take\_input()

cashier.display\_result()

cashier.redirect\_output()

Expected output:

You can open the "receipt.txt" file using Python and print its contents to see the output. Here's an example of how you can do that:

with open("receipt.txt", "r") as file:

contents = file.read()

print(contents)