The challenge:

Algorithm, AND Coding Exercise.

Write a program that accepts a price file of baby products(format below) as CSV file, and a list of products that someone wants to buy, and outputs the shop they should go to, and the total price it will cost them. It is okay to purchase extra products, as long as the total cost is minimized.

price file format
shop ID, price, product 1 label (single product)
shop ID, price, product 1 label, product 2 label, ... (combo packs with multiple products)

Shop IDs are integers, all products are lower case letters and underscores, and the price is a decimal number.

Here are some samples:

Sample Data set:

Data File data.csv

1, 4.00, teddy_bear
1, 8.00, baby_powder
2, 5.00, teddy_bear
2, 6.50, baby_powder
3, 4.00, pampers_diapers
3, 8.00, johnson_wipes
4, 5.00, johnson_wipes
4, 2.50, cotton_buds
5, 4.00, bath_towel
5, 8.00, scissor
6, 5.00, scissor
6, 6.00, bath_towel, cotton_balls, powder_puff

Example 1:

Program Input

> program data.csv teddy_bear baby_powder

Expected Output

=> 2, 11.5

Example 2:

Program Input

> program data.csv pampers_diapers baby_soap

Expected Output

=> none

Example 3:

Program Input

> program data.csv scissor bath_towel

Expected Output
=> 6, 11.0