Coding Dojo - Sushi

Description

You are a continual guest in a sushi restaurant. The sushi in this restaurant is served on small plates, which are transported next to the guests on a conveyor belt. A guest can just take a plate from the belt.

The plates have different colors. Each color stands for a different price:

Grey	=	4.95 Fr.
Green	=	3.95 Fr.
Yellow	=	2.95 Fr.
Red	=	1.95 Fr.
Blue	=	0.95 Fr.

User Story 1

To keep an eye on the costs, you want to develop a small app which calculates the total price depending on the chosen plates. **A user interface is NOT necessary. Parsing inputs is also NOT necessary. Use static inputs.**

Calculate the price of the chosen plates.

Example:

5 x Blue	=	4.75 Fr.
5 x Grey	=	24.75 Fr.
1 x Grey, 1 x Green, 1 x Yellow, 1 x Red, 1 x Blue =		14.75 Fr.

User Story 2

As you can see, this can become very expensive. Fortunately there is a lunch menu. The menu is 8.50 Fr.

It includes a soup and four plates. A soup is 2.50 Fr.

The lunch menu is only from Monday to Friday between (including) 11:00 a.m. and (excluding) 5:00 p.m. For the calculation the time of payment is used.

Calculate the end price.

Example:

1 Soup, 2 x Grey, 2 x Green, 2 x Blue	=	10.40 Fr.
1 Soup, 2 x Grey, 3 x Green, 2 x Red	=	16.35 Fr.
1 Soup, 2 x Grey, 3 x Green, 2 x Red	=	28.15 Fr.

User Story 3

As not everybody wants a soup, there is the possibility to order a lunch menu without a soup:
- A menu can also consist 5 plates
- At least one of the plates must be red or blue
- This menu is also only available from Monday to Friday from 11 a.m. to 5 p.m.

Calculate the optimized price.

User Story 4

You could attach your co-workers to sushi. The next time you are in the sushi restaurant you decide to share lunch menus to optimize the total price. Now you must capture the plates of multiple persons.

- The app should be able to work with orders/plates from multiple persons, without requiring the user to add the plates before manually.
- Mix the plates of the participating guests to get the available menus.
- Calculate the optimized price by merging the orders to menus.

Example 1:

Paid Wednesday, 13:45:

- Person A: 1 x Soup, 2 x Gray, 2 x Green, 2 x Red, 1 x Blue   = 13,35 Fr.
- Person B: 2 x Gray, 2 x Green, 2 x Yellow, 2 x Red   = 15,35 Fr.
- Person C: 2 x Soup, 2 x Gray, 2 x Green, 3 x Yellow, 2 x Red   = 18,95 Fr.

Optimized price: 36,85 Fr.
Saved: 10,80 Fr.

Example 2:

Paid Wednesday, 13:45:

- Person A: 1 x Soup, 2 x Gray, 2 x Green, 1 x Red, 2 x Blue   = 12,35 Fr.
- Person B: 2 x Gray, 2 x Green, 2 x Red, 2 x Blue   = 12,35 Fr.
- Person C: 2 x Soup, 2 x Green, 3 x Yellow, 2 x Red, 2 x Blue   = 17,95 Fr.

Optimized price: 42,65 Fr.
Saved: 0,00 Fr.