Programming

New Austrian Coding School

week 1 - reflection

You are allowed to use internet resources but you're not allowed to see other participants' code.
The evaluation has a duration of 1 hour and a total of 2 points.

Exercise 1 (1 point)

Derek is having dinner with his friends and wants to treat them to celebrate that he got a job as developer. However, he's not sure whether he's got enough money to do it. In order to figure it out he needs to cover the following points:

- Ask himself how much money he has in his wallet.
- Ask himself how many friends are having dinner with him.
- Ask all his friends one by one how much money they have to pay.
- Decide whether he's got enough money to invite them or not and say it.

Develop the following code:

a. Define a method to ask Derek how much money he has.
b. Define a method that asks all his friends and calculates the total money that they have to pay.
c. Write the code that Derek uses to say if he can invite his friends or not.

Hints:

➢ *Try to separate every sub-problem in methods so they become easier to solve.*
➢ *Assume nobody needs cents that night.*
➢ *No need to validate for negative numbers or any other hocus-pocus.*

Exercise 2 (1 point)

Derek just realized that he also has to have his own bill into consideration to know whether he can invite everybody.

- If he already said he cannot invite his friends, he will not even bother on doing anything else.
- In case he said he could invite his friends, he will quickly update his calculation considering the money he also has to pay.
- If he can still invite his friends, then he says nothing else to hide the fact that he forgot to include his bill into consideration.
- If he cannot invite his friends after including his bill, he will explain that he made a mistake calculating and that he's sorry but he cannot invite them today.

Extend the previous exercise with the following code:

a. Define a method to ask Derek how much he has to pay for what he ordered at the restaurant.
b. Update the previous code so that the new behavior is ensured.

Hints:

➢ *Try to separate every sub-problem in methods so they become easier to solve.*