



Test for QA

First, thank you for agreeing to take this little test that helps us determine your profile within the broad role of QA. 😊

If you are so kind, and taking into account that it is not an exam, we would be grateful if you could tell us how long it took you to take the test and if you have consulted any kind of resource to carry it out. And it would be perfect if you told us, if you had consulted them, what have you consulted. For example: “I wanted to confirm that I understood what you were asking me for”, “I didn’t remember the keyword”, “I wanted inspiration”, “I have a colleague I asked him/her to take a look”, ...

Thanks for your time.

What we would like you to do as the first exercise is **to determine the test cases/scenarios/tests** that you consider necessary for the following story/specification/use case. It is enough to list them, without fully developing them.

In the last iteration/sprint we completed a story where when a request with a list of data is performed, a calculation is performed (with the complete set of the data, not date by date), and result returned.

The list of data has the form [{<date>, <value>}].

```
{
  "persons": [
    {
      "person": {
        "id": "1111111",
      },
      "data": [
        {
          "date": "2019-07-7T04:55:05.000Z",
          "value": 17
        },
        {
          "date": "2019-07-8T10:12:00.000Z",
          "value": 15
        },
        {
          "date": "2019-07-9T06:19:40.000Z",
          "value": 30
        }
      ]
    }
  ]
}
```

To make it more readable, and abstract it from the date and condition it today, we represent it as follows:

Today minus <i>num of days</i>	date (today = 2019-07-25)	value
D-18	2019-07-07	17
D-17	2019-07-08	15
D-16	2019-07-09	30
D-13	2019-07-12	15
D-12	2019-07-13	16
D-11	2019-07-14	14
D-10	2019-07-15	18
D-9	2019-07-16	15
D-8	2019-07-17	15
D-7	2019-07-18	17
D-3	2019-07-22	18
D-2		
D-1		

This story/specification/use case was completed, that is, it has its tests defined, implemented and passed successfully.

In this new sprint/interaction/period we need to implement a change to the existing story.

Now, for each date two values can be received, representing two different variables (type A, type B). The new algorithm must select which data **set** will be used to perform the calculations.

The conditions are as follows:

- All the data employed for the calculation must be of a single type.
- Data of one type, the other or both types can be received for each date. `[[<date>, <dataTypeA>, <dataTypeB>]]`.
- If all values are of a single type, that will be the type that must be selected.
- The type will be selected based on the data provided for the most recent date.
- Only valid values will be considered for the type selection.
- A value is valid if it is greater than zero.
- If you have the values of the two valid types, type A will be taken as the default value.

Below are some examples to clarify the operation. The values used in the calculation are marked with colour, the selected values are determined by the chosen type.

Example 1: Since there is only one type, that type is selected.

Ejemplo 1a

Today-num of days	date	Value Type A
D-18	2019-04-24	17
D-17	2019-04-25	15
D-16	2019-04-26	16
D-15	2019-04-27	15
D-12	2019-04-30	16
D-11	2019-05-01	14
D-9	2019-05-03	15
D-8	2019-05-04	15
D-7	2019-05-05	17
D-4		
D-3		
D-2		
D-1		

Ejemplo 1b

Today-num of days	date	Value Type B
D-18	2019-04-24	17
D-17	2019-04-25	15
D-16	2019-04-26	16
D-15	2019-04-27	15
D-11	2019-05-01	14
D-10	2019-05-02	18
D-9	2019-05-03	15
D-8	2019-05-04	15
D-7	2019-05-05	17
D-4		
D-3		
D-2		
D-1		

Example 2: Since there are both types, the default type is selected.

Today-num of days	date	Value Type A	Value Type B
D-18	2019-04-24	17	17
D-17	2019-04-25	15	15
D-16	2019-04-26	16	16
D-15	2019-04-27	15	15
D-14	2019-04-28	18	18
D-13	2019-04-29	15	15
D-12	2019-04-30	16	16
D-11	2019-05-01	14	14
D-10	2019-05-02	18	18
D-9	2019-05-03	15	15
D-8	2019-05-04	15	15
D-7	2019-05-05	17	17
D-6			
D-5			
D-4			
D-3			
D-2			
D-1			

Example 3: There are both types, but one of the values is invalid, in the more recent date.

Today-num of days	date	Value Type A	Value Type B
D-18	2019-04-24	17	17
D-17	2019-04-25	15	15
D-16	2019-04-26	16	16
D-15	2019-04-27	15	15
D-14	2019-04-28	18	18
D-13	2019-04-29	15	15
D-12	2019-04-30	16	16
D-11	2019-05-01	14	14
D-10	2019-05-02	18	18
D-9	2019-05-03	15	15
D-8	2019-05-04	15	15
D-7	2019-05-05	-1	17
D-4			
D-3			
D-2			
D-1			

Today-num of days	date	Value Type A	Value Type B
D-18	2019-04-24	17	17
D-17	2019-04-25	15	15
D-16	2019-04-26	16	16
D-15	2019-04-27	15	15
D-14	2019-04-28	18	18
D-13	2019-04-29	15	15
D-12	2019-04-30	16	16
D-11	2019-05-01	14	14
D-10	2019-05-02	18	18
D-9	2019-05-03	15	15
D-8	2019-05-04	15	15
D-7	2019-05-05	-1	
D-6			
D-5			
D-2			
D-1			

Other examples

Today-num of days	date	Value Type A	Value Type B
D-18	2019-04-24		17
D-17	2019-04-25		15
D-16	2019-04-26		16
D-14	2019-04-28		18
D-13	2019-04-29		15
D-12	2019-04-30		16
D-11	2019-05-01		14
D-9	2019-05-03		15
D-8	2019-05-04		15
D-7	2019-05-05	40	17

Today-num of days	date	Value Type A	Value Type B
D-18	2019-04-24		17
D-17	2019-04-25		17
D-15	2019-04-27	17	
D-14	2019-04-28		10
D-12	2019-04-30		17
D-11	2019-05-01		17
D-10	2019-05-02	17	
D-9	2019-05-03	17	
D-8	2019-05-04		30
D-7	2019-05-05	40	

As a **second exercise**, could you **specify**, not implement, **one of the test cases**, if possible, in **Gherkin**.

Finally, a **third exercise**, this time **implementation**, whose objective is that the execution of the four scenarios found in the .feature files is satisfactory, that is, to have the four tests to Pass.

Taking into account that three of them already work and serve as an example.

The steps to perform this exercise are:

1. Send us your **GitHub** credentials so we can invite you to the repository.
2. Make a **fork** of the repository we have invited you to (that is read-only).
3. Do the exercise and **commit** to your fork.
4. **Let us know** when you are done.

We would also be grateful if, as in the other exercises, you tell us how did it go: how long it took, if you had any difficulties, doubts that might have arisen, proposals for changes in the scenario that might have occurred to you, if you felt at ease, ...

If when you finish the first two exercises you want to send them to us before getting on to the third, no problem, since they are in very different contexts.

For any questions, we are at your disposal.

We hope to see you soon.

Regards.

The QA team.

- Time spent _____
- ☐ I used lifeline:
 - ¿Which? _____