

Hello, everyone. This is the project statement, like a practice or project that you have to do.

This is the previous version of microservices that we did. As you remember, we had a database that includes exchange rates for different currencies and a microservice that connects to that database and retrieves some rates for different currencies. And then at the end, we created a microservice in order to call the exchange microservice and retrieve the rates and then do some calculations, like creating, calculating the total amount of a specific quote quantity, and then displaying it to the output on a browser or somewhere. This is what we did.

And as well as that, we had a **URL** that is used using a specific port in order to answer this question, what is the exchange rate of one currency in another? So we had two currencies from and to, and this microservice **retrieves this value from a database**. And this is the response that was retrieved after calling this URL or request. As you see here, we have the from and to and the value that is retrieved, and the port, the environment.

Now, as well as that, we had another request for **calculating the total amount based on this quantity** that is identified here at the end of this URL. And the response is the same as we had here. But in addition to that, we had a total calculated amount that is the result of the calculations, 65 times ten, and it shows the result here in the environment at whatever it is.

Okay, now let's do it in another scenario. We have a system like a sub or a subsystem that has two microservices and a database. We have a database that **holds all the prices of all fruits in different months**. I give you an Excel sheet like this, and it includes all the data that you need in order to import it into your database and use it. Let me show you a snapshot of this Excel file.

This is the Excel that you will be provided with. As you see in the first column, you have a list of fruits, some fruits, around 92 fruits. And in the first row, you have a list of months: January, February, March until December. And here, in the body of this Excel sheet, you have some dollars. For example, a banana in March was \$5.42 for one pound or one kilo of banana in March, or, I don't know, in cherry in August, it was 5.7 cents, \$5.07. So you have everything you need to import this **Excel sheet into your database** and then use it in order to find the total price for each fruit. For example, if I ask you what is, for example, here, let's see if I have a banana, ten pounds or ten kilos of banana in March, it should be 78.1 cents.

Okay, so this is a very small and simple calculation that you need to do. So, again, we will have two microservices, **a microservice that retrieves the fees or prices per month per fruit which are saved in our database**, and **another microservice that calls this microservice in order to do calculations and display the results**.

So, for example, if you have a question, what is the price of a given fruit in a given month? So we will have fruit month price and then fruit banana month July. So these bananas and July are **two values** that should be changed because I can ask for any fruit in any month and also the result will be something like this, for example, fruit banana month July. This is an example FMP like fruit month price is 8.83 that is retrieved from the database, and the environment is 8000, which is the port number.

And then another microservice, fruit total price. The previous one was the fruit month price, this one is the **fruit total price**. So again, fruit banana month July and quantity ten. So the total value will be something like the FMP is 8.83, quantity is ten from the database, from the URL, and the total price is ten times 8.83, which is 88.3, and the port number, which is the JSON object that is retrieved after calling this request.

So this is the requirement that you need to do at the end. If you remember, we had a **standard for our port that was for currency exchange**. You can have a standard for fruit price as well for this scenario as well, in order to make it more organized and more understandable. For example, all the fruit FMPs in this series of ports and the other one in this series. So we can have a standard for this scenario.