What you need to build is the fee calculator and tests for it.

Wolt Coding Assignment - Delivery Fee Calculator

The goal of the assignment is to showcase your coding skills and the ability to develop features. We **DON'T** expect you to build production quality code. This is a highly important part of the hiring process so it's crucial to put effort into this without making it too bloated. Reviewers will put weight on three main aspects: code quality, maintainability, and testing. Based on the results of the assignment review, we will make the decision on proceeding to the technical interview.

Your task is to write a delivery fee calculator. This code is needed when a customer is ready with their shopping cart and we'd like to show them how much the delivery will cost. The delivery price depends on the cart value, the amount of the items in the cart, the time of the order, and the delivery distance.

Specification

Rules for calculating a delivery fee

- If the cart value is less than 10€, a small order surcharge is added to the delivery price. The surcharge is the difference between the cart value and 10€. For example if the cart value is 8.90€, the surcharge will be 1.10€.

- A delivery fee for the first 1000 meters (=1km) is 2€. If the delivery distance is longer than that, 1€ is added for every additional 500 meters that the courier needs to travel before reaching the destination. Even if the distance would be shorter than 500 meters, the minimum fee is always 1€.
    - Example 1: If the delivery distance is 1499 meters, the delivery fee is: 2€ base fee + 1€ for the additional 500 m => 3€
    - Example 2: If the delivery distance is 1500 meters, the delivery fee is: 2€ base fee + 1€ for the additional 500 m => 3€
    - Example 3: If the delivery distance is 1501 meters, the delivery fee is: 2€ base fee + 1€ for the first 500 m + 1€ for the second 500 m => 4€
- If the amount of items is five or more, an additional 50 cent surcharge is added for each items above five
    - Example 1: If the amount of items is 4, no extra surcharge
    - Example 2: If the amount of items is 5, 50 cents surcharge is added
    - Example 3: If the amount of items is 10, 3€ surcharge (6 x 50 cents) is added
- The delivery fee can **never** be more than 15€, including possible surcharges.
- The delivery is free (0€) when the cart value is equal or more than 100€.
- During the Friday rush (3 - 7 PM UTC), the delivery fee will be multiplied by 1.1x. However the fee still cannot be more than the max (15€).

Expectations

When reviewing your code, we will focus on the part that fulfills the requirements explained above. We would love to see a well-tested and readable solution. Anything on top of the fee calculator code is completely optional, although you might get some extra points from it. 😉

Pro tip: When you think you are ready with the assignment, take at least a few hours break, and then go through the code one more time before returning it.

Submitting the assignment

Bundle everything into a Zip archive and download it to Google Drive, Dropbox or similar and share the link with us. Remember that it is easier for us to review your task if we can test & run it. The deadline for the submission is Sunday 24th.

A good check before sending your task is to unzip the Zip archive into a new folder and check that building and running the project works, using the steps you define in readme.md. Forgotten dependencies and instructions can sometimes happen even to the best of us.

Backend specifics

Your task

Your task is to build an HTTP API that could be used for calculating the delivery fee.

Specification

Implement an HTTP API (single endpoint) which calculates the delivery fee based on the information in the request payload (JSON) and includes the calculated delivery fee in the response payload (JSON).

Request

Example: *{"cart_value": 790, "delivery_distance": 2235, "amount_of_items": 4, "time": "2021-10-12T13:00:00Z"}*

Field details

Field	Type	Description	Example value
cart_value	Integer	Value of the shopping cart **in cents**.	**790** 790 cents = 7.90€
delivery_distance	Integer	The distance between the store and customer's location **in meters.**	**2235** 2235 meters = 2.235 km
amount_of_items	Integer	The **amount of items** in the customer's shopping cart.	**4** The customer has 4 items in the cart.
time	String	Order time in ISO format.	**2021-10-12T13:00:00Z**

Response

Example: *{"delivery_fee" 710}*

Field details

Field	Type	Description	Example value
delivery_fee	Integer	Calculated delivery fee **in cents**.	**710** 710 cents = 7.10€

Expectations

Technology

Please implement your solution in either **Python, Kotlin, Scala, or Java**. Feel free to use libraries/frameworks.

Note that your technology choice here defines the scope of the possible technical interview and your focus area if starting to work at Wolt 😊