



Software Engineer - Python Focus, Anyfin Assessment

We ask you to build a Python service that can host credit policies. An example of an input to your service will be a POST request containing the following variables:

```
Request = {  
    customer_income: 1000,  
    customer_debt: 500,  
    payment_remarks_12m: 0,  
    payment_remarks: 1,  
    customer_age: 20  
}
```

A description of the policy you need to implement is the following:

- Income checks:
 - If *customer_income* is less than 500 EUR per month then the policy should respond with a **REJECT** message where the stated reject reason is **LOW_INCOME**
- Debt checks:
 - If *customer_debt* is higher than 50% of *customer_income* then the policy should respond with a **REJECT** message where the stated reject reason is **HIGH_DEBT_FOR_INCOME**
- Payment remarks checks:
 - If *payment_remarks_12m* is > 0 then the policy should respond with a **REJECT** message where the stated reason is **PAYMENT_REMARKS_12M**
 - If *payment_remarks* > 1 then the policy should respond with a reject message where the response reason is **PAYMENT_REMARKS**
- Age checks:
 - If *customer_age* < 18 then the policy should respond with a **REJECT** message where the response reason is **UNDERAGE**

In the case that all checks are passed then the policy should return an **ACCEPT**.

Please keep in mind that the described credit policy is fairly simple. Nonetheless, we would appreciate it if your design and implementation can accommodate more complicated credit policies. You will have **1 week** to complete this assignment. Upon submission, we require the following:

1. A report describing your approach when building the service. Please also keep it concise and a maximum of 2 pages. Aspects that should be covered in the report are:
 - a. Simple design overview of the service
 - b. Information on how to set up and run your service
 - c. Any additional considerations you took especially concerning testing aspects.
2. The full source code of your service. You could also include a docker file that will allow us to build and run a docker image.
3. Examples of requests you sent to the service and the responses.

Code of Conduct

At Anyfin, we give the people we hire a high level of autonomy in how they want to work and value personal integrity highly. This autonomy only works if we can trust our colleagues to be honest about the work they are responsible for and the results they achieve. We trust that you do not collaborate with other people as part of this assignment, nor that you make use of readymade machine learning models without being able to properly argue for why they are applicable. The same goes for your choice of features and understanding of what type of information they provide.

By accepting this take-home assignment, you are actively choosing to abide by this code of conduct.

Finally good luck, and if you have any questions feel free to [contact us](#).