



# Backend Developer

**Dear Abylai:**

Our assignment is an important and effective test of your thinking, curiosity and creativity.

We try to hire the brightest talents that we possibly can, so please do show us your best

If you have any questions you can contact @tlgtaa or/and @quqanai via Telegram.

Good luck ☺

**Please send your assignment by Aug 11, 2023 23:59**

# Intro

Our product is **Prosperi.Academy** - a platform for financial and investment education that helps people worldwide to start investing smartly.

Our product is available in 5 languages – English, Spanish, Portuguese, German, Turkish.

One of the targets of our team is to increase engagement metrics in our web-app (Retention, Course Completion Rate).

In order to accomplish our targets, course quizzes were introduced as a possible improvement...

# Task 1 – Part 1

You are required to develop a service responsible for storing and retrieving quiz information related to the recently proposed quiz feature.

Quiz feature is supposed to be **localized** (see languages in a previous slide).

Overall, there will be 2 types of questions you will need to implement (*Eigma* reference):

1. Single Choice;
2. Fill the Gap;

**Tables structure and endpoints** required for correct integration with client-side are **for you to decide**.

# Task 1 – Part 1 (Optional Bonus)

Implement 2 extra types of questions:

1. Multi-choice;
2. Matching;

See [Figma](#) for a reference.

# Task 1 – Part 2

You must handle the answer **correctness tracking** logic.

This information is used as a reference to users to see how are they progressing in comparison to others.

Implementation details are for you to decide.

## Task 2

User may obtain virtual currency for completing certain actions on our platform.

In case of your assignment, the user may only obtain extra currency (balance) after completing a quiz.

Implement storage of users' balance in a **separate service**.

You may assume that there is an existing Users service.

Your implementation will require storage of User.id (UUID/BigInt) and user's balance.

# Task 3

Implement balance addition after quiz completion.

The award will only be obtained **after completing the whole quiz**.

For each correct question answered user will obtain **100 balance units**.

If the question was answered correctly in **previous quiz attempts**, balance units **must not** be granted.

# Task Clarification

User.id is **sent by client** via ***x-zmrn-user-id*** header.

There is a library for FastAPI that handles this header.

You can check it out [here](#) (in case you are using FastAPI)

Assume that authorization is handled correctly and it is safe to append the header mentioned above.

# Technical requirements:

- Use **Any Framework** for the tasks where applicable;
- You may use **any storage type** to complete the tasks (PostgreSQL, Redis, MongoDB etc.);
- Your code must be covered by **tests**;
- **Dockerize** your task implementations;
- Provide **fixtures/data migrations** with test quiz data;
- Create a **readme** file with launch instructions and endpoint descriptions;
- Create a **private GitHub repository**. After tasks completion you will be asked to invite reviewers by their usernames; ([kuanysh-beisembayev](#), [talgat-abdraimov](#))

# One more thing...

## Timeline

Please send your assignment by Aug 11, 2023 23:59.

If you need more time, feel free to contact us. Quality and results are more important for us than speed (but speed is also cool!)

## Ask questions

Feel free to contact us if you need any additional info or have any questions. Our goal is to help you demonstrate your 100% in this case study.

## The purpose of the assignment

Evaluate the logic of your thoughts, the ability to find a way out of an incomprehensible and new situation, the approach to work and the level of skills :)

**Good luck, ZIMRAN team 😊**